Public Sale of
Plum Island, New York

Environmental Impact Statement

June 25, 2013 **Final**

In cooperation with:

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EXECUTIVE SUMMARY

INTRODUCTION

The U.S. General Services Administration (GSA) and the Department of Homeland Security (DHS) are acting together as Joint Lead Agencies to perform the environmental impact analyses presented in the Environmental Impact Statement (EIS). Additionally, as documented in a Memorandum of Agreement dated February 17, 2011, the U.S. Environmental Protection Agency and U.S. Fish and Wildlife Service are "cooperating agencies" (as that term is defined in 40 Code of Federal Regulations 1501.6) with the Joint Lead Agencies for the preparation of the EIS.

The EIS complies with the requirements of the National Environmental Policy Act of 1969 as amended (NEPA) for the federal government's decision of selling the Plum Island Animal Disease Center (PIADC) located on Plum Island, New York. The EIS presents a review of the potential for effects on the human and the natural environments related to the decision to sell the same. The Executive Summary provides a concise overview of the subject matter contained in the EIS and notes corresponding sections of the EIS where more detailed information on any given topic can be found.

PROPERTY DESCRIPTION

The following parcels of land support the PIADC's mission and constitute the property that will be sold: an island, known as "Plum Island," situated in Long Island Sound, New York, containing approximately 840 acres of land, and a support facility known as the "Orient Point Facility" containing approximately 9.5 acres of land with a nearby small parcel of land containing a substation, both of which are situated in Orient Point, New York. The above-described parcels of land are collectively referred to as the "Property" in this Executive Summary and are shown on Figure ES-1.

Plum Island and the Orient Point Facility are located within the jurisdictional boundaries of the Town of Southold (Town) in Suffolk County, New York. Plum Island is situated approximately 1.5 miles off the northeast tip of Orient Point, Long Island, New York. The Property is improved with roughly 50 buildings containing a total of approximately 559,579 square feet. Plum Island contains 47 of the 50 buildings, including a 55,000-square-foot administrative building, a 190,500-square-foot laboratory, and various support buildings. The Orient Point Facility is improved with a 2,890-square-foot administrative building, a supply warehouse, and a 780-square-foot guard post. The Property is also improved with approximately 8 miles of road infrastructure, harbor facilities, and an approximately 200-space parking lot at the Orient Point Facility.

BACKGROUND

Portions of Plum Island have been in federal ownership since 1826 and have been used for varying purposes since that time. At one point, Plum Island served to support an active military facility known as "Fort Terry," and later was used for military research purposes. In 1954, the U.S. Department of Agriculture (USDA) established PIADC. In 2003, the Property was transferred to DHS, which currently oversees the safety and security of the Property while

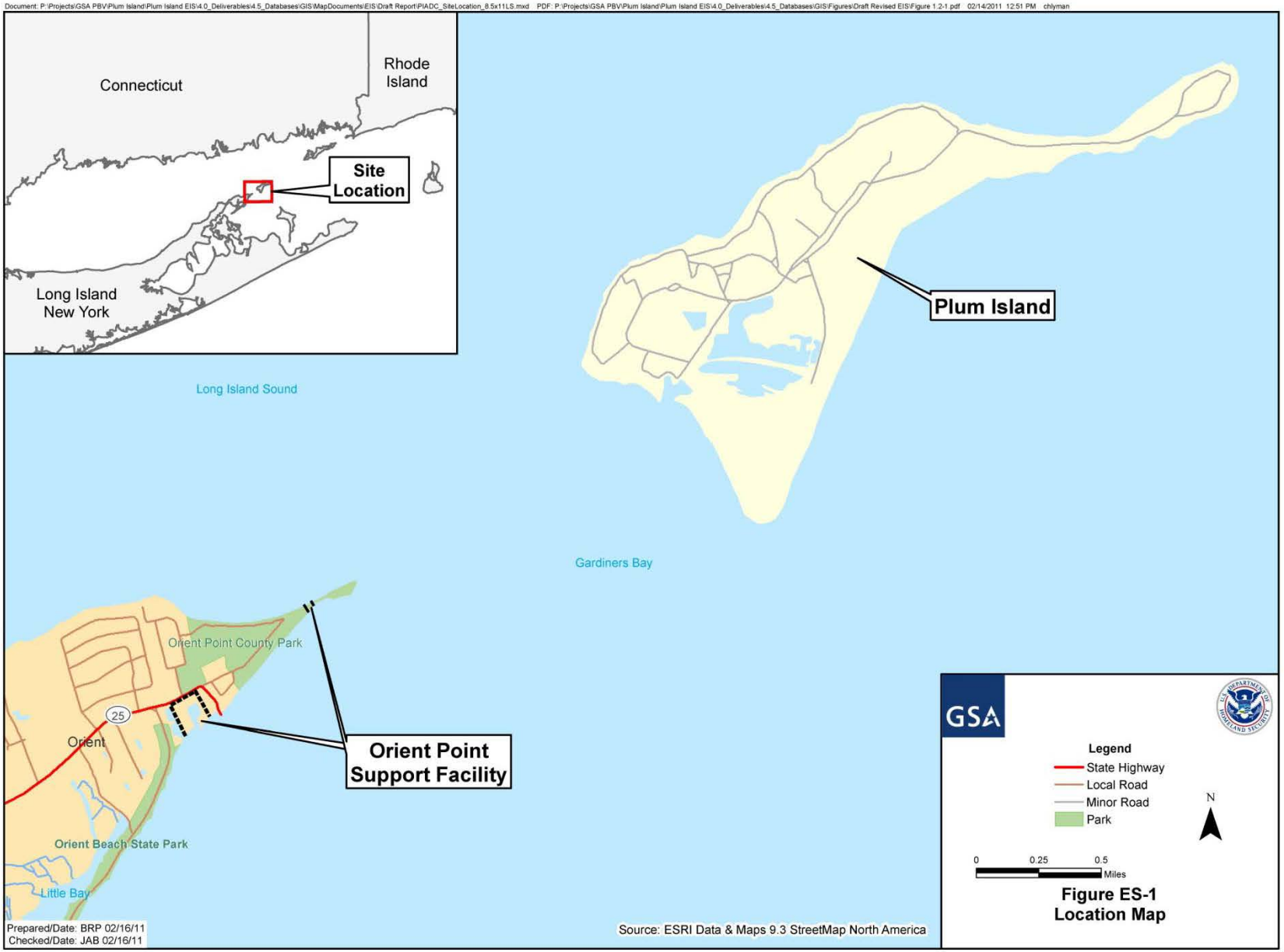

Figure ES-1: Plum Island Location Map

USDA continues to use PIADC for its research purposes. Though partially renovated in the mid-1990s, PIADC is nearing the end of its lifecycle and becoming increasingly more costly to maintain. In addition, PIADC operates as a biosafety level 3 facility, which no longer meets agency needs. Pursuant to Homeland Security Presidential Directive 9, "Defense of United States Agriculture and Food," dated January 30, 2004, DHS proposed to augment the United States' existing foreign animal disease research capabilities through construction and operation of a National Bio and Agro-Defense Facility (NBAF) that would meet the requirements of a biosafety level 4 facility.

PURPOSE AND NEED FOR THE SALE OF THE PROPERTY

In September 2008, the U.S. Congress passed legislation requiring the sale of the Property if DHS made the decision to locate NBAF to a site other than Plum Island, New York. Section 540 of the Consolidated Security, Disaster Assistance and Continuing Appropriations Act of 2009; Public Law 110-329 (Act) mandates:

> "should the Secretary of Homeland Security determine that the National Bio and Agro-defense facility be located at a site other than Plum Island, New York, the Secretary shall liquidate the Plum Island asset by directing the Administrator of General Services to sell through public sale all real and related personal property and transportation assets which support Plum Island operations, subject to such terms and conditions as necessary to protect government interests and meet program requirements."

In January of 2009, DHS determined that the research and laboratory work performed on Plum Island would be moved to a new site in Manhattan, Kansas. That decision by DHS resulted in the need to sell the Property. It is the anticipated sale of the Property that creates the need for the EIS.

At current projections, and subject to the availability of funds, construction of NBAF in Manhattan, Kansas, is estimated to be completed in 2019; at that time, the mission at PIADC will begin transitioning to the new facility, with the goal of completion by 2021. Between the January 2009 date of DHS's decision until the time of PIADC mission cessation, an interim period for DHS operations will occur (Interim Period). During the Interim Period, DHS will continue to budget for costs associated with maintaining and sustaining critical mission operations on Plum Island while also fulfilling its regulatory compliance requirements to support PIADC operations.

OVERVIEW OF THE ENVIRONMENTAL IMPACT STATEMENT

The EIS has been prepared in accordance with NEPA. An EIS was selected for this project because the required process of preparing the draft and final EIS provides for the highest level of analysis of the effects associated with the sale of the Property and the greatest opportunity for input by interested parties. It evaluates the potential short- and long-term impacts to communities, public health, and the natural environment resulting from the sale of the Property, and also identifies measures to mitigate those impacts where appropriate.

PROJECT ALTERNATIVES

The EIS considers a No Action Alternative and an Action Alternative, which are briefly described below.

No Action Alternative

The No Action Alternative described in the EIS is based on the premise that the Property would not be sold after PIADC is relocated, and accordingly, the Property would remain in federal ownership. Although GSA is directed by the Act to sell the Property at public sale, NEPA requires consideration and analysis of a No Action Alternative, as described in Section 1502.14(d) of the implementing regulations of the Council on Environmental Quality.

After the PIADC mission is transitioned to Manhattan, Kansas, the Property would be placed in a "mothball" status with reduced funding for maintenance purposes. In the short term, because of the "mothball" status of the Property and insufficient funds for maintenance, the buildings, infrastructure, and transportation assets that supported the PIADC mission would cease to function at present levels and instead would function in a minimum capacity. Any future decisions would be driven by the financial and operational needs of the federal government.

Action Alternative

The Action Alternative is the sale of the Property by public sale, which is the outcome directed by the Act. The EIS examines the Action Alternative through an analysis of three practicable reuse options. The EIS also examines potential ways to mitigate any adverse impacts that might result from these possible reuse options. In developing the possible reuse options under the Action Alternative, the Joint Lead Agencies sought input from federal, state, county, and local governments, including a number of meetings with the Town of Southold Planning Board. In an effort to better understand potential development areas of the Property in light of its physical and environmental characteristics, and likely regulatory restrictions, the Joint Lead Agencies developed the map attached as Figure ES-2. This map highlights the portions of the Property with minimal known restrictions for building development along with the estimated acreage for each such portion.

The three reuse options considered are adaptive reuse, development (with a range of residential density scenarios), and conservation/preservation. These options, developed for comparison purposes only, are further described below:

> *Reuse Option 1*: Under the adaptive reuse option, the existing buildings, infrastructure, and transportation assets would be adapted for other purposes and continue to function at current or similar levels.
>
> *Reuse Option 2*: The development option describes residential development with a range of housing density scenarios from minimum (one housing unit on the island) to comparable (one housing unit per 5 acres, comparable to densities of Fishers Island and Orient Hamlet), to maximum (largest number of housing units that can be supported by Plum Island freshwater aquifer capacity). This reuse option is a combination of the low-density and high-density zoning reuse options

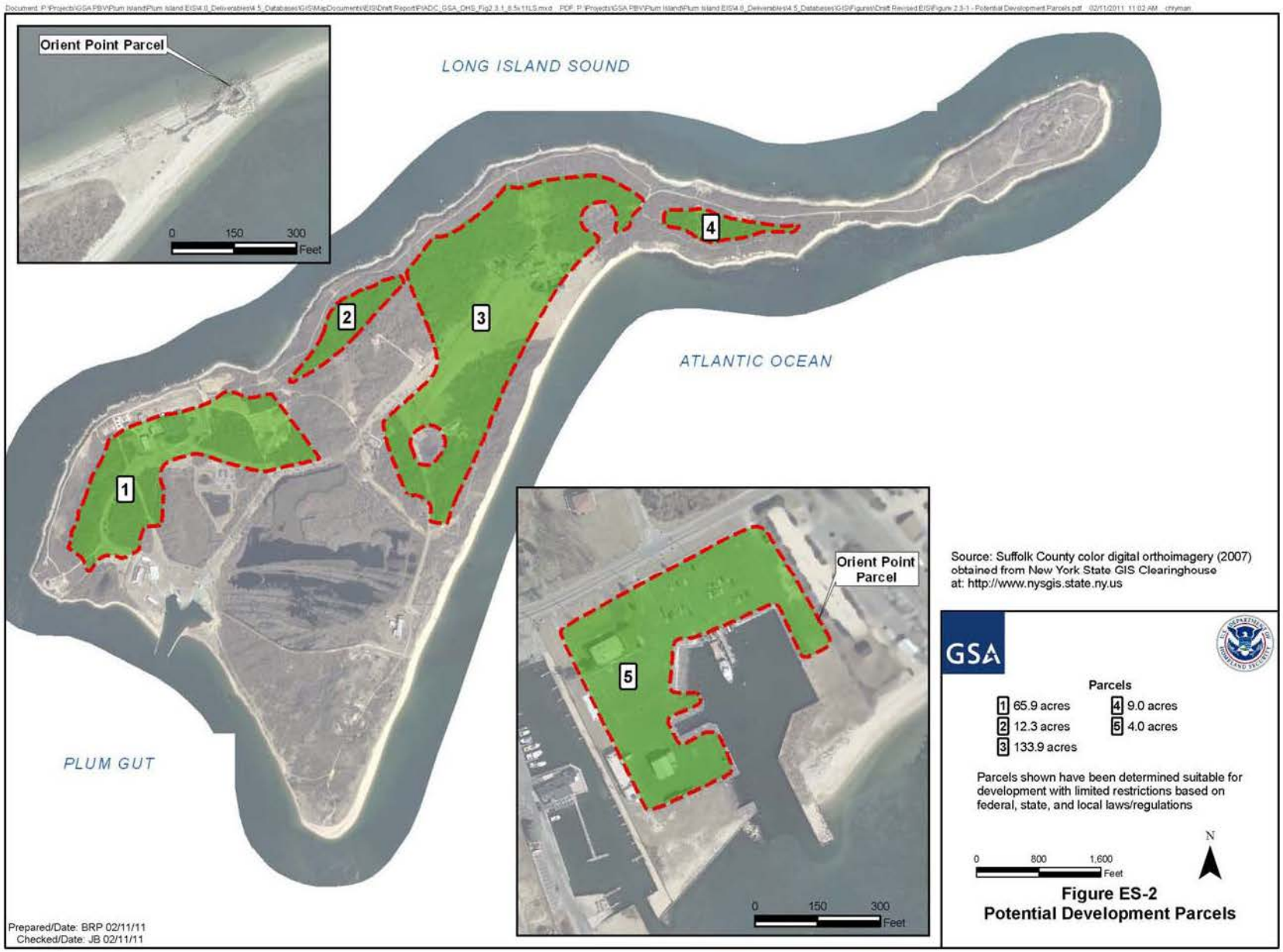

Figure ES-2: Plum Island Potential Development Parcels

formerly studied by the draft EIS. This option was modified in response to comments received from the Town and the cooperating agencies during the draft EIS public comment period (July to October 2012).

Reuse Option 3: The primary result of the conservation/preservation option would be the protection, management, and enhancement of the natural and cultural resources on the Property should the Property be purchased for conservation or preservation purposes. An evaluation of this reuse option was included in response to comments received during the EIS public scoping period (March – June 2010).

While the eventual reuse of the Property is unknown, the future reuse of the Property, once it leaves federal ownership, will be subject to local zoning, to the permitting requirements of state regulatory authorities, and to review pursuant to the New York State Environmental Quality Review Act. The Joint Lead Agencies will comply with required federal laws that may ultimately necessitate restricting the Property in some manner (*e.g.*, limits and conditions on the future use of formerly contaminated property), but the Joint Lead Agencies cannot restrict the Property beyond the requirements of such laws. Any additional restrictions that may be placed on the Property would occur only after the Property has left federal ownership.

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This section provides a brief description of the affected environment associated with twelve resource categories, followed by an evaluation of the extent of potential direct and indirect impacts on each resource. Further detail into the analysis for the conclusions presented in this Executive Summary, including definitions of the impact thresholds, can be found in the EIS. Table ES-1 at the end of this section provides a comparison of the proposed impacts associated with each alternative.

Land Use and Visual Resources

Plum Island and the Orient Point Facility presently support the PIADC mission. The Orient Point Facility contains three mission support buildings, a harbor docking facility, and a parking lot. The smaller parcel contains a small transfer station, which supplies electricity and telecommunications to Plum Island via underwater cables.

The overall visual quality of the Orient Point Facility is urban/industrial. Plum Island contains buildings and infrastructure to support the PIADC mission (*i.e.*, a large laboratory building and support buildings, industrial facilities, warehouse buildings, and roads) as well as other structures constructed for the support of prior uses on Plum Island (*i.e.*, buildings and structures associated with the former Fort Terry and the Plum Island Light Station), which are not presently utilized or are underutilized. Plum Island also contains undeveloped areas (*i.e.*, upland forests, freshwater wetlands, and beach/dune systems). Consequently, the developed portion of Plum Island appears industrial, while the overall visual quality of Plum Island is rural.

Under the No Action Alternative, the presently utilized buildings and structures would be vacated, but the visual quality of the Property would remain unchanged. Under Reuse Option 1, the visual quality of the Property would likely be negligibly impacted as land use may remain

generally consistent with the existing condition, with some slight changes from infrastructure changes or building renovations. Changes to land use and the visual quality of Plum Island and Orient Point could be impacted to a moderate extent in Reuse Option 2, with comparable or maximum density scenarios. Impacts under Reuse Option 2, however, could be mitigated through architecture and landscaping compatible with the existing character of Plum Island or, in the case of the Orient Point Facility, with the nearby village character. The visual quality of Plum Island would remain rural under Reuse Option 3.

Infrastructure and Utilities

Plum Island contains infrastructure and utilities to support the PIADC mission, including potable water well fields and a water distribution system, a sewage treatment plant, a power distribution system with both above-ground and underground lines, fuel storage tanks, an emergency power plant, and electrical substations.

In the short term, implementation of the No Action Alternative could slightly reduce the existing infrastructure capacity on the Property due to reduction in services under a mothball status. Under Reuse Option 1, however, existing infrastructure and utilities could be reused with limited changes. Improvements and upgrades to infrastructure and utilities would be required to support residential development under the comparable and maximum scenarios of Reuse Option 2. In particular, modifications to the existing water distribution, wastewater collection, and electricity distribution systems could, depending on development density, be required to accommodate seasonal use demands. Under Reuse Option 3, there is the potential for the removal and/or decommissioning in place of some existing infrastructure on Plum Island and Orient Point.

Air Quality

The Long Island area climate, including Plum Island and the Orient Point Facility, is classified as "temperate-humid-continental" and characterized by four defined seasons. With respect to air quality, the EIS evaluates existing air emission sources and existing air quality at the Property. Suffolk County is designated as a nonattainment area for ozone and $PM_{2.5}$ (air pollutant particulate matter with a diameter of 2.5 micrometers or less). Vehicles used to support PIADC constitute mobile air emission sources at Plum Island. Additional mobile sources include the government transport ferries and other marine traffic in the surrounding waters. Combustion sources on Plum Island permitted by the New York State Department of Environmental Conservation (NYSDEC) consist of three incinerators, three generators, and three steam boilers. Mobile and stationary air emission sources currently operating at the Orient Point Facility consist of light-duty trucks and automobiles and building space heating and comfort cooling. There are no industrial operations that require air quality permitting by NYSDEC at the Orient Point Facility.

Air quality under the No Action Alternative and Reuse Option 3 could be beneficially impacted due to a reduction in air emission sources. Impacts under Reuse Option 2 may also be beneficial in the case of the minimum density residential development scenario. Impacts to air quality under Reuse Option 1 could be negligible in light of the adaptive reuse under this option. Even with the maximum density scenario under Reuse Option 2, there would be no more than a minor impact to air quality on Plum Island and a no more than minor impact to the Orient Point

Facility. Any air quality impacts that may arise from construction and demolition under Reuse Option 2 could be mitigated through the use of best management practices (BMPs).

Noise

PIADC is the primary source of man-made noise at Plum Island. Noise sources on Plum Island include light vehicle traffic, maintenance machinery, generators, a wastewater treatment facility, fuel oil transfer pumps, and the heating/cooling system. Additional noise sources located adjacent to or near Plum Island include navigational beacons, maritime waterway traffic, an occasional helicopter, and the daily ferry traffic to and from Plum Island. A baseline noise-level survey has not been conducted; however, it is expected that the undeveloped portions of Plum Island would have noise levels to be rural in nature, while the developed portions would have noise levels to be comparable to a normal suburban level. At the Orient Point Facility, the ferry serving Plum Island's transportation needs is one of several marine-related facilities located along the Orient Point coastline. Noise sources at the Orient Point Property include light vehicle traffic, maintenance machinery, generators, the heating/cooling system, and ferry boat traffic.

Noise sources associated with the Property may be reduced under the No Action Alternative and Reuse Option 3. Under Reuse Option 1, noise levels could remain generally the same as the present level. Although noise levels under Reuse Option 2 could be expected to be higher during seasonal peak occupancy with greater than minimum residential density, impacts to noise levels at any considered residential density scenario would be expected to be minor. Any impacts to noise in connection with construction and/or demolition under Reuse Option 2 could be mitigated through the use of BMPs.

Geology and Soils

The topography of Plum Island is hilly, with low beach ridges <10 feet in altitude in the south-southeast to hills in the north and eastern end of the island ranging from 40 to 85 feet in altitude, with a maximum elevation of 101 feet at the water tower. Approximately 54 acres of freshwater wetland are situated in the western end of the island. The geology of Plum Island and Orient Point Facility consists of unconsolidated glacial sediments that were deposited during the Wisconsin stage of the late Pleistocene Laurentide ice sheet. These sediments are generally course-grained terminal moraine deposits on the north side and the east end, outwash fans of stratified sand and gravel in the south-central, and beach dune deposits in the southwestern parts of Plum Island. The glacial deposits are underlain by unconsolidated Cretaceous-age coastal plain sediments.

Surface soil types distributed on Plum Island are predominantly sands and sandy loams with occasional boulder and cobble zones. Dune sands are present in the southern/southwesternmost corner of Plum Island. The glacial sediments overlie Precambrian-age crystalline bedrock over 600 feet below the surface.

The same geologic processes and glacial sediment deposition that resulted in the formation of Plum Island were also responsible for the creation of Long Island's North Fork, including the PIADC Orient Point Facility. Overlying the glacial deposits at the Orient Point Facility are anthropogenic soils characterized as unconsolidated dredge spoils.

Impacts to geologic resources or soils would not be expected under the No Action Alternative, Reuse Option 1, and Reuse Option 3, and any changes to geologic resources or soils under Reuse Option 2 would be expected to be negligible. Any impacts related to erosion and sedimentation from activities on the Property, however, could be mitigated by the use of BMPs. In the case of the maximum density development scenario under Reuse Option 2, mitigation measures could be enhanced with the use of additional controls related to such items as stormwater management and water conservation.

Water Resources

The EIS examines the following water resources: surface water, stormwater, groundwater, flood zones, and the coastal zone.

Surface Water

Plum Island is surrounded by Long Island Sound, Gardiners Bay, and Block Island Sound, and the Orient Point Facility abuts Gardiners Bay. Waste water from PIADC is treated through the facility's waste water treatment plant on Plum Island and discharged under permit to the Plum Island Harbor. Neither Plum Island nor the Orient Point Facility contains rivers or streams that discharge to Long Island Sound.

Stormwater

Stormwater from paved areas of the Plum Island Harbor and the main compound is collected in stormwater drains that discharge to either the Plum Island Harbor or Long Island Sound, respectively. Storm drains at the former Fort Terry complex discharge via storm drains to Gardiners Bay.

The Orient Point parking area contains two "trench-drain" systems that collect water that passes through two oil/water separators before discharge to the Orient Point Facility harbor.

Groundwater

Groundwater on Plum Island occurs within the sand and gravel of the Upper Pleistocene Glacial Deposits. The shallow sole-source aquifer extends from land surface at the wetlands to an approximate depth of 100 feet in the center of the island. The freshwater aquifer underlying Plum Island is separated from the aquifer underlying Long Island by Plum Gut. As such, the unconfined aquifer is recharged solely by infiltration of precipitation, which averages approximately 45 inches per year. The shallow aquifer underlying the Orient Point Facility is part of the larger aquifer that underlies Long Island.

Flood Zones

Plum Island is divided into three flood zone categories: Zone AE (*i.e.*, 100-year flood zone), Zone X (*i.e.*, 500-year flood zone), and Zone VE (*i.e.*, coastal flood zone with velocity hazard). The Orient Point Facility is divided into two flood zone categories: Zone AE and Zone VE. The larger of the two Orient Point Facility parcels is predominantly designated as "Zone AE," with a

small strip of land designated as "Zone VE" along the shorefront. The entire smaller parcel of the Orient Point Facility is designated as "Zone VE."

Coastal Zone

Both Plum Island and the Orient Point Facility are located in New York's Long Island Region Coastal Area. Plum Island also impacts the Connecticut Coastal Zone. Consequently, as the conveyance of the Property nears and the GSA is able to reasonably anticipate how the Property will be used, a Federal Consistency Determination will be filed with the New York State Division of Coastal Resources and Connecticut's Office of Long Island Sound Programs. The Federal Consistency Determination will analyze how the conveyance will be consistent with the enforceable policies of the New York State Coastal Management Program and the Connecticut Coastal Management Act.

Under the No Action Alternative, there would be no adverse impact to water resources. An adaptive reuse under Reuse Option 1 would also be expected not to impact water resources. In light of increased activity associated with the development at higher than minimum residential density scenario, Reuse Option 2 could create minor to moderate impacts to water resources (minor for the comparable density scenario and moderate for the maximum density scenario). Impacts to the coastal zone will be evaluated during the Federal Consistency Determination analysis. Impacts to other water resources could be mitigated through the use of BMPs and the establishment of controls (*e.g.*, stormwater management systems).

Biological Resources

Under this section, the EIS analyzes the natural environment on the Property, including existing wetlands resources, plant species, and wildlife species (Figure ES-3). Plum Island and the Orient Point Facility are located in the Coastal Lowland Ecozone of the Atlantic Coastal Plain physiographic province (Ecozone). Characteristic natural communities of the Ecozone include marine intertidal gravel/sand beach and marine rocky intertidal, maritime beach, beach dune, maritime shrubland, maritime forest, coastal plain pond, coastal hardwood forests, and freshwater wetlands. Additionally, a number of federally protected species are known to exist on or in the vicinity of the Property, including piping plover (*Charadrius melodus*), roseate tern (*Sterna dougallii dougallii*), shortnose sturgeon (*Acipenser brevirostrum*), five species of sea turtles, sandplain gerardia (*Agalinis acuta*), seabeach amaranth (*Amaranthus pumilus*), and small whorled pogonia (*Isotria medeoloides*).

The EIS was able to develop baseline information regarding these resources from a number of sources, including academic and independent research as well as federal agency consultation. Analyzed against both the No Action Alternative and the Action Alternative (the sale of the Property under three potential reuse options), the EIS determined that there would be negligible impacts to existing biological resources under the No Action Alternative, as well as under Reuse Options 1 and 3. Under Reuse Option 2, however, the EIS recommends that areas of conservation and/or restoration be established on the Property where necessary after transfer of title has occurred. All reuse options avoid development in or near wetland areas. As previously noted, the reuse options discussed in the EIS are a selection of potential reuse options and are speculative. Notices will be placed in future conveyance documents indicating that it is

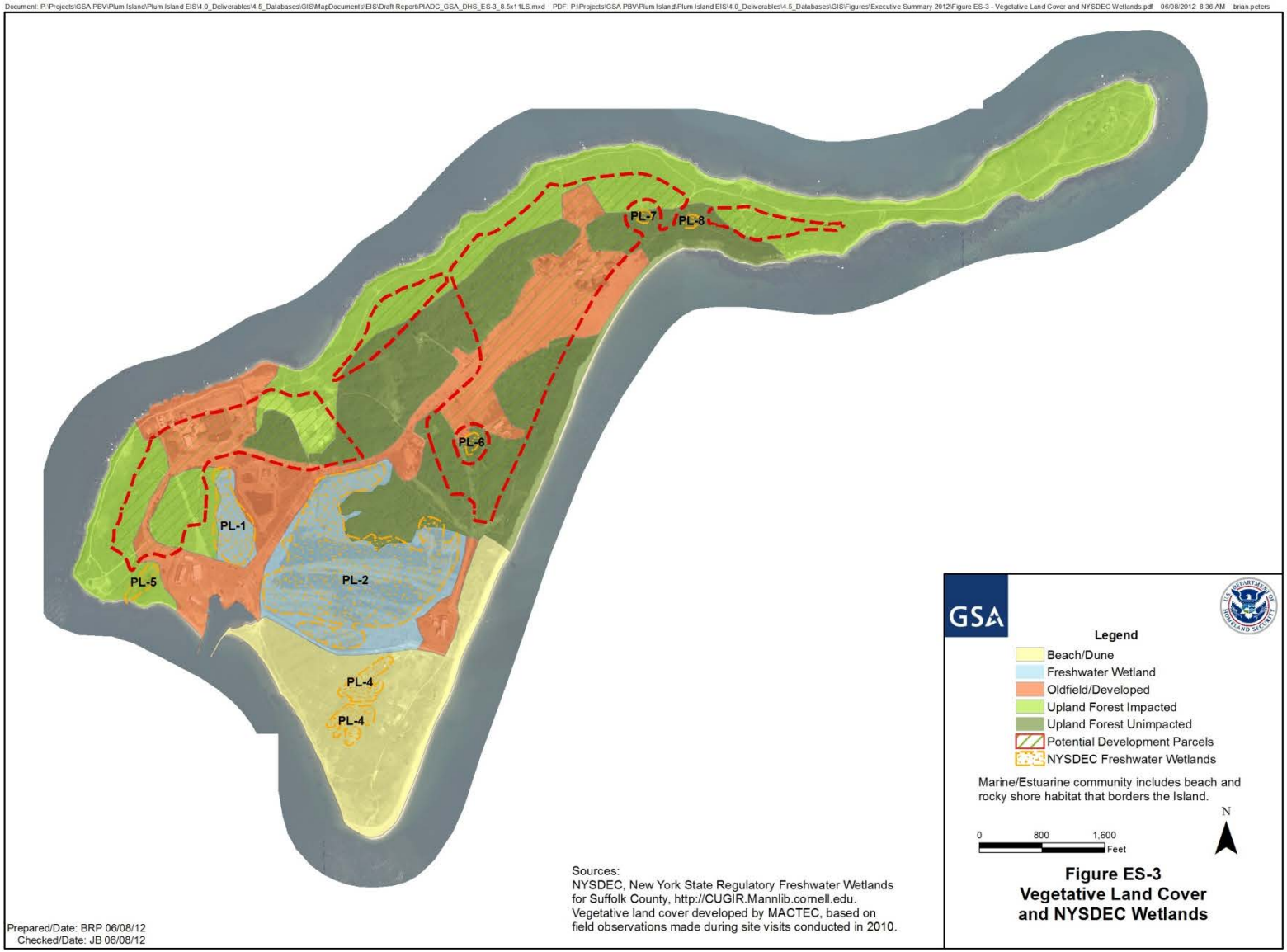

Figure ES-3: Plum Island Vegetative Land Cover and NYSDEC Wetlands

incumbent upon the grantee to satisfy the requirements of relevant federal, state, and local laws and regulations regarding the protection of natural resources.

A sample threatened and endangered species notice substantially similar to one that will be included in future conveyance documents is included as Appendix F in this EIS. A similar notice regarding marine mammals is included as Appendix G in this EIS. Because the sale of the Property will not occur for a number of years, the Joint Lead Agencies may have to supplement the EIS when the timing of sale becomes clearer. At the time of any such supplemental EIS, the Joint Lead Agencies will be able to re-examine what further work should be done to bring it up to date to ensure that the federal government meets its responsibilities, including the government's responsibility to properly identify to potential buyers the presence of protected flora and fauna, migratory birds, and marine mammals, and their habitat. In addition, the New York State Environmental Quality Review, as prescribed by New York Codes, Rules, and Regulations, governs the protection of natural resources.

Cultural Resources

The *National Historic Preservation Act* of 1966 (NHPA) requires federal agencies to record, evaluate, preserve, and plan for management of significant resources that are included in, or eligible for, the National Register of Historic Places (NRHP). The NHRP is a list of districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, and culture. Section 106 of the NHPA requires federal agencies to identify and assess the effects that their actions have on significant resources, and to consult with the State Historic Preservation Officer (SHPO), Indian tribes, and members of the public and consider their views and concerns about historic preservation issues when making final project decisions.

To identify known archaeological and historically significant resources, database searches were conducted on the Internet; at the Suffolk County Historical Society, the Town of Southampton, and the New York Historical Society; and among historical records and maps located at Plum Island. In addition, an Archaeological Resources Predictive Model (Predictive Model) report associated with PIADC was prepared by GSA in 2010 as a part of the EIS process. The Predictive Model identified areas where there may be a greater likelihood of encountering archaeological resources based on historic data review and historic and current features such as wetlands and floodplains.

Through consultation with the New York SHPO, many resources located on Plum Island have been identified as potentially eligible for listing on the NRHP. In addition, the Plum Island Lighthouse has been listed on the NRHP since February 2011. DHS, as the current property manager, is evaluating other resources for NRHP eligibility, such as those associated with Fort Terry, and will prepare appropriate nominations. Those resources include the Plum Island Lighthouse, which was nominated and listed in February 2011. The Joint Lead Agencies also sought input from a number of Tribal Historic Preservation Officers as required by Section 106 of the NHPA. A comment received from a representative of the Shinnecock Tribe can be viewed in Appendix C.

The analysis conducted for the EIS determined that the impacts to existing significant resources would be negligible under the No Action Alternative. DHS, however, must still protect and

preserve significant archaeological, historical, and cultural resources pursuant to Section 110 of the NHPA. Under all reuse options analyzed under the Action Alternative, the EIS recommends that mitigation may be necessary in accordance with Section 106 by including covenants in the deed to protect archaeological and historic resources.

Socioeconomics and Environmental Justice

In regard to the potential for general effects on socioeconomic conditions in Suffolk County, New York, and Middlesex and New London Counties, Connecticut, (study area) the analysis considered a number of parameters, including:

- Population trends
- Household income
- Age
- Education
- Economic conditions

Each of these parameters was then evaluated to determine the impact that the No Action and Action Alternatives would have on each and how those impacts could affect social programs and community services, including:

- Recreation
- Public schooling
- Law enforcement
- Fire protection
- Medical facilities

In all of the reuse options under the Action Alternative, the EIS determined that socioeconomic impacts may be most noticeable during seasonal peak occupancy, likely during the spring and summer months, because of the likely increase in visitors to the study area. In order to mitigate against any impact on socioeconomic conditions, communities within the study area would need to levy taxes, develop fees, or find other funding to account for additional costs that may affect a number of community services and social programs.

Analysis of the alternatives to confirm that they fulfill the objective of environmental justice required that none of the potential effects from the No Action Alternative or any of the three reuse options had potential to cause a disproportionately high and adverse human health or environmental impact on minority populations or low income populations. Required by Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,” the environmental justice analysis involved identifying whether minority or low income populations were present in the study area and the extent to which they may experience disproportionate high and adverse human health or environmental impacts from any of the alternatives.

The first part of the analysis was to determine whether the minority or low income characteristics of the population of the study area met the federal guidelines for determining whether a minority

or low income population may be of concern. Regarding minority population, it was found that the minority portion of the overall study area population did not exceed the guideline of 50 percent and was not meaningfully greater than the minority population percentage in the general population. Additionally, analysis at the Census block group level determined that the closest block group that qualified as a minority population was more than 10 miles distance from Plum Island, not subject to disproportionate high and adverse impact. Regarding low income population, it was found that the portion of the overall study area population living below the poverty level did not exceed the guideline of 20 percent in the study area. Analysis at the Census block group level determined that the closest block group that qualified as a low income population was more than 13 miles distance from Plum Island, not subject to disproportionate high and adverse impact. Therefore, there is no reason to suspect that minority or low income populations would be disproportionately impacted simply because of the nature of the population in the study area. Furthermore, the analysis found that there were no characteristics of the minority or low income populations in the study area that would cause them to receive a disproportionately high and adverse human health or environmental impact from any of the three alternatives, regardless of their relative proportion of the population in the study area.

Traffic and Transportation

Currently, restricted access ferry service to Plum Island is available for employees, contractors, and visitors to PIADC from Orient Point, New York, and Old Saybrook, Connecticut. For analysis of traffic and transportation, the EIS reviewed and verified current regional traffic and transportation data and identified the roadway infrastructure network to include local roads, highways, and marine traffic. These baseline figures were used to determine the current level of service (LOS) to the Property, which was then used to determine the potential impacts from the Action Alternative.

Under the No Action Alternative and Reuse Options 1 and 3, there would likely be no degradation of LOS for any of the roadway infrastructure within the Orient Point area, nor a typical two-lane roadway on Plum Island itself. Since the likely effects of the Action Alternative on the existing traffic patterns are considered insignificant, no mitigation measures are anticipated or required. Of the three options, Reuse Option 2 could see the highest increase in traffic for residential density scenarios above minimum; however, even under these scenarios, traffic conditions could continue to function within an acceptable LOS, and impacts would be minor to moderate, depending on ultimate residential density (minor for comparable density scenario and moderate for maximum density scenario). Traffic patterns under these options may be different from existing traffic patterns, based upon seasonal and weekend use of residences on the Property, and minor adjustments in lanes, intersections, signage, and traffic signals may be needed.

Existing Hazardous, Toxic, or Radiological Waste Contamination

This section of the EIS explores the nature of existing hazardous, toxic, or radiological waste contamination present on the Property. In collaboration with NYSDEC, efforts have been made by USDA and DHS to characterize the environmental condition of the Property, culminating with an Environmental Gap Analysis to collect and catalogue these characterization efforts to date. These efforts were conducted to ensure compliance with the Resource Conservation and

Recovery Act (RCRA); the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); and the New York State regulated underground storage tank (UST) program.

All 87 sites identified at PIADC identified as having been used to manage RCRA wastes have been closed with the concurrence from NYSDEC. Forty-nine CERCLA sites have been identified. Twenty-five of the 49 CERCLA sites have been determined to require No Further Action by NYSDEC. For the remaining sites, DHS is continuing its ongoing voluntary program of site investigation and remediation with NYSDEC oversight. Additionally, there are four USTs currently in use on Plum Island and two USTs at Orient Point. All six USTs were installed in 1994 and 1995 and are in compliance with current regulations. Under the Action Alternative, the federal government has an obligation under CERCLA to protect human health and the environmental by certifying the environmental condition of the Property prior to transfer of title.

Waste Management

This section of the EIS describes the existing waste management infrastructure and the construction and operation impacts on waste management. Information on the affected environment and waste management impacts that would vary by alternative was primarily derived from site visits and other information gathered by the EIS preparation team, along with publicly available information from municipal, state, and federal regulatory and environmental websites and databases. Waste is handled and disposed of in accordance with federal, state, and local regulations.

Under the No Action Alternative, animal and other laboratory waste would no longer be generated upon the closure of PIADC; therefore, no impacts can be identified. Additionally, under Reuse Option 3, it is envisioned that a conservation reuse would have a beneficial impact, meaning that little to no waste would be generated from the Property; therefore, no mitigation is recommended. Concerning Reuse Options 1 and 2, although no impacts are expected, minor mitigation measures may need to be put in place by a new owner to lessen waste generation impacts, including recycling programs, water conservation, and wastewater reuse.

SUMMARY

This Executive Summary briefly describes the potential effects on the human and natural environment related to the sale of the Property. Table ES-1 highlights the relationship between each resource category and the corresponding impacts under the No Action Alternative and each reuse option under the Action Alternative. Where an impact for a study area with respect to Reuse Option 2 is indicated as -2 to -3, the determination is that the impact is minor for the comparable density scenario and moderate for the maximum density scenario.

Table ES-1: Comparison of Environmental Impacts from Alternatives

Option	No Action Alternative		Reuse Option 1 Adaptive Reuse		Reuse Option 2 Development		Reuse Option 3 Conservation or Preservation		Comments
Study Area	**PI**	**OP**	**PI**	**OP**	**PI**	**OP**	**PI**	**OP**	
Land Use and Visual Resources	0	0	-1	-1	-3	-3	+1	0	Visual resources could be impaired by increased development of Plum Island
Infrastructure and Utilities	-2	-1	-1	-1	-2	-2	-3	-3	Increased development would require upgrades to utility and infrastructure connections to Plum Island
Air Quality	+1	+1	-1	-1	0	-2	+1	+1	Development would likely reduce emissions from Plum Island and increase emissions from transportation to Plum Island at Orient Point
Noise	+1	+1	-1	-1	-2	-2	+1	+1	Development would likely result in noise levels typical of a suburban environment
Geology and Soils	0	0	0	0	-1	-1	0	0	Development would likely impact recognized geologic resources such as surficial groundwater
Water Resources	0	0	0	0	-2 to -3	-1	+1	+1	Development could increase impacts to water resources
Biological Resources	+1	0	0	0	-2 to -3	0	+1	+1	Development would likely increase impacts by habitat loss, habitat fragmentation, and increased human activities
Cultural Resources	0	0	0	0	-2	0	0	0	Development could impact areas of high probability for potential prehistoric resources
Socioeconomics and Environmental Justice	-2	-1	0	0	+1	+1	-2	-2	Development would likely increase state and local tax revenue and affect employment and income through business and residential development
Traffic and Transportation	0	0	0	0	-2 to -3	-2 to -3	0	0	Development would likely increase transportation needs, but would remain within acceptable limits (LOS)
Existing Hazards, Toxic, or Radiological Waste Contamination	0	0	0	0	0	0	0	0	Development would not adversely impact or significantly improve existing contamination
Waste Management	0	0	0	0	0	0	+1	+1	Waste generated by increased development could be handled by existing structures and procedures

Legend:
PI - Plum Island 0 - No Impact +1 - Beneficial Impact
OP - Orient Point -1 - Negligible Impact -2 – Minor Impact
-3 – Moderate Impact

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ACRONYMS

AADT	Annual Average Daily Traffic
AAQS	Ambient Air Quality Standards
ACS	American Community Survey
Act	Section 540 of the Consolidated Security, Disaster Assistance and Continuing Appropriations Act of 2009; Public Law (Pub. L.) 110-329
AHA	U.S. Animal Health Association
AIR	American Indian Reservation
AIRFA	American Indian Religious Freedom Act
AMEC	AMEC Environment & Infrastructure, Inc.
APHIS	Animal and Plant Health Inspection Service
AOPC	Area of Potential Concern
AQCRs	Air Quality Control Regions
ARS	Agricultural Research Service
AST	Aboveground Storage Tank
BACT	Best Available Control Technology
BEA	Bureau of Economic Analysis
BGEPA	Bald and Golden Eagle Protection Act
BHP	Boiler Horsepower
bls	Below Land Surface
BLS	Bureau of Labor Statistics
BMPs	Best Management Practices
BNL	Brookhaven National Laboratory
BOD	Biochemical Oxygen Demand
BSL	Biosafety Level
CAA	Clean Air Act
CAGR	Compound Annual Growth Rate
CCMA	Connecticut Coastal Management Act
CDEP	Connecticut Department of Environmental Protection
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERFA	Community Environmental Response Facilitation Act
CFR	Code of Federal Regulations
CO	Carbon Monoxide
CR	County Route
CSDACAA	Consolidated Security, Disaster Assistance and Continuing Appropriations Act
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
dB	Decibel
dBa	A-weighted Decibel
DFIRM	Digital Flood Insurance Rate Map
DHS	Department of Homeland Security
DO	Dissolved Oxygen

EIS	Environmental Impact Statement
ELIH	Eastern Long Island Hospital
EO	Executive Order
EPCRA	Emergency Planning and Community Right-to-Know Act
ERC	Emission Reduction Credits
ESA	Endangered Species Act
°F	Degrees Fahrenheit
FAD	Foreign Animal Disease
FEMA	Federal Emergency Management Administration
FHWA	Federal Highway Authority
FIRM	Flood Insurance Rate Maps
FMD	Foot-and-Mouth Disease (Hoof-and-Mouth Disease)
FPPA	Farmland Protection and Policy Act
FPS	Federal Protective Service
FR	Federal Register
FSSI	Field Support Services, Inc.
FWA	Fish and Wildlife Act
FWCA	Fish and Wildlife Coordination Act
FY	Fiscal Year
GAP	Gap Analysis Program
gpd	Gallons per Day
gpy	Gallons per Year
GSA	General Services Administration
HAP	Hazardous Air Pollutant
HERC	Healthcare Environmental Resource Center
HPO	Historic Preservation Office
HPRCC	High Plains Regional Climate Center
HRS	Hazard Ranking System
HSPD	Homeland Security Presidential Directive
IBA	Important Bird Areas
IBC	International Building Code
IMPLAN	Impact Analysis for Planning Modeling System
kV	Kilovolt
kW	Kilowatt
kWh	Kilowatt-hour
LAER	Lowest Achievable Emission Rate
lb/day	Pounds per Day
lb/hr	Pounds per Hour
LBP	Lead-Based Paint
Ldn	Day Night Averages
LIPA	Long Island Power Authority

LISRCMP	Long Island Sound Regional Coastal Management Program
LISS	Long Island Sound Study
LISSI	Long Island Sound Stewardship Initiative
LOS	Level of Service
LWRP	Local Waterfront Revitalization Program (Town of Southold, New York)
MACT	Maximum Available Control Technology
MBTA	Migratory Bird Treaty Act
MFCMA	Magnuson Fishery Conservation and Management Act
mg/m^3	Milligrams per Cubic Meter
MIG, Inc.	Minnesota IMPLAN Group, Inc.
MII	Marine II
MMPA	Marine Mammal Protection Act
MOA	Memorandum of Agreement
MPA	Marine Protected Area
MSA	Metropolitan Statistical Area
mW	Megawatt
$\mu g/m^3$	micrograms per cubic meter
N/A	Not Applicable
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NAICS	North American Industry Classification System
NAS	National Academy of Sciences
NASS	National Agricultural Statistics Service
NABCC	National Agricultural Biosecurity Center Consortium
NBAF	National Bio and Agro-Defense Facility
NCDC	National Climate Data Center
NDP	National Bio and Agro-Defense Facility Design Partnership
NEPA	National Environmental Policy Act
NFAS	North Fork Audubon Society
NHPA	National Historic Preservation Act
NIH	National Institutes of Health
NISC	National Invasive Species Council
NLCD	National Land Cover Database
NMFS	National Marine Fisheries Service
NO	Nitric Oxide
NO_2	Nitrogen Dioxide
NOAA	National Oceanographic and Atmospheric Administration
NOI	Notice of Intent
NO_X	Nitrogen Oxides
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSWMA	National Solid Waste Management Association
NWI	National Wetlands Inventory

NYCRR	New York Codes, Rules, and Regulations
NYECL	New York Environmental Conservation Law
NYSDEC	New York Department of Environmental Conservation
NYNHP	New York Natural Heritage Program
NYS	New York State
NYSDCR	New York State Division of Coastal Resources
NYSDOT	New York State Department of Transportation
O&M	Operation and Maintenance
O_3	Ozone
OEW	Ordnance and Explosive Waste
OSPD	Old Saybrook Town Police Department
Pb	Lead
PCBs	Polychlorinated Biphenyls
PCS	Permit Compliance System
PIADC	Plum Island Animal Disease Center
PM	Particulate Matter
$PM_{2.5}$	Particulate Matter (less than 2.5 microns in diameter)
PM_{10}	Particulate Matter (less than 10 microns in diameter)
POTW	Publically Owned Treatment Works
PPA	Pollution Prevention Act
ppm	Parts per Million
Property	Plum Island, the Orient Point parcels, related personal property, and transportation assets associated with Plum Island
Pub. L.	Public Law
RACT	Reasonable Available Control Technology
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Condition
RMW	Regulated Medical Waste
ROD	Record of Decision
SCDHS	Suffolk County Department of Health Services
SCDP	Suffolk County Department of Parks
SCG	Suffolk County Government
SCPD	Suffolk County Police Department
SCWA	Suffolk County Water Authority
SDWA	Safe Drinking Water Act
SEQR	State Environmental Quality Review (New York)
SERCC	Southeast Regional Climate Center
SFD	Southold Fire Department
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
SPCC	Spill, Prevention, Countermeasure and Control Plan
SPDES	State Pollutant Discharge Elimination System (New York)

SR	State Route
SUV	Sport Utility Vehicle
SWPPP	Stormwater Pollution Prevention Plan
TADDACS	Targeted Advanced Development and Disease Assessment Core Services
TMDL	Total Maximum Daily Load
tpy	Tons per Year
TRA	Threat Risk Assessment
TRI	Toxic Release Inventory
TSCA	Toxic Substances Control Act
TSS	Total Suspended Solids
USACE	U.S. Army Corps of Engineers
USC	U.S. Code
USCEN	U.S. Census
USDA	U.S. Department of Agriculture
USDOT	U.S. Department of Transportation
USEISA	U.S. Energy Independence and Security Act
USEPA	U.S. Environmental Protection Agency
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geologic Survey
UST	Underground Storage Tank
UXO	Unexploded Ordinance
VOC	Volatile Organic Compounds
VSV	Vesicular Stomatitis Virus
WMA	Waste Management Area
WTSI	World Technical Services, Inc.
WWTP	Waste Water Treatment Plant

1 PURPOSE OF AND NEED FOR THE PROPOSED ACTION

This Environmental Impact Statement (EIS) presents a detailed study that analyzes the impacts of the Proposed Action on the natural and human environment. The EIS analysis is contained in Chapters 1 through 3, which are described below. Chapters 4 through 6 provide a list of agencies consulted, a list of preparers, and references used to prepare the EIS. Appendices A through H contain additional supporting information related to the NEPA process or used during EIS preparation.

Chapter 1: Purpose and Need for the Proposed Action

This chapter provides information regarding the purpose of and need for the Proposed Action; describes the sale of Plum Island, the Orient Point parcels, related personal property, and transportation assets associated with the Plum Island Animal Disease Center (PIADC), collectively referred to as "the Property"; and provides historical background on the Property. Also included are descriptions of the General Services Administration's (GSA) and Department of Homeland Security's (DHS) responsibilities and the National Environmental Policy Act (NEPA) of 1969 process and public involvement.

Chapter 2: Description for the Proposed Action and Action Alternatives

Chapter 2 describes the Proposed Action, which is to sell the Property as directed by Congress. It also describes the No Action Alternative, which is based on the premise that the Property would not be sold and would be retained in the federal inventory. This chapter concludes with a description of the process used to identify the Preferred Alternative, which would be selected from the two considered alternatives: the Action Alternative (sale of the Property) and the No Action Alternative (retain in federal ownership).

Chapter 3: Affected Environment and Consequences

Chapter 3 provides a description of the baseline conditions (the affected environment) associated with each resource category that would be potentially impacted, followed by the direct and indirect effects (the consequences) on each resource for each alternative. Each major resource section provides an analysis for each resource category. The methodology used to conduct the analysis is described, followed by a resource evaluation for each alternative. This chapter forms the scientific and analytical basis for comparison of the alternatives. The discussion includes the identification of cumulative impacts, unavoidable adverse impacts, irreversible or irretrievable resource commitments, and the relationship between short-term use and long-term productivity that may occur should the Proposed Action be implemented. Discussion of potential impacts on the human environment presented in the EIS focuses on those with potential for significance, while impacts that would not have a potential for significant impact will only be discussed briefly.

1.1. INTRODUCTION

The GSA and the DHS (Joint Lead Agencies) are acting together to perform the environmental impact analyses presented in this EIS. This EIS presents a review of the potential for effects on

the human and the natural environments related to the legislation requiring the sale of an 840-acre island in the State of New York, known as Plum Island; an associated 9.5-acre support facility (two parcels) located nearby at Orient Point, New York; and other real property associated with PIADC. A list of all real and related personal property and transportation assets will be made available during the sale process. A site location map is provided as Figure 1.2-1.

Under NEPA, the purpose of the EIS is to present an analysis of the effects associated with the anticipated sale of the Property. An EIS was selected to allow for the highest level of analysis and the greatest opportunity for input by interested parties. This EIS contains an evaluation of the potential for short and long term impacts to communities, public health, and the natural environment for the sale and to offer procedures for impact mitigation, where appropriate.

1.2. BACKGROUND

Plum Island, consisting of approximately 840 acres, is within the jurisdictional boundaries of the Town of Southold (Town) in Suffolk County, New York, and is located approximately 1.5 miles off the northeast tip of Orient Point, Long Island, New York. Plum Island has been in federal ownership since 1901 and was used at various times for defense of the surrounding harbor, an active military facility (Fort Terry), and for military research.[1,2,3] In 1954, the U.S. Army Plum Island Facility was officially turned over to the U.S. Department of Agriculture (USDA) in response to outbreaks of foot-and-mouth disease (FMD).[4]

On July 1, 1954, the USDA established the PIADC research facility for FMD." PIADC includes buildings, industrial facilities and equipment, roadways, utilities, a water treatment plant, and specialized facilities. Additional assets on the Property include natural undeveloped land, the Plum Island Light Station constructed in 1869, and buildings and structures associated with the former Fort Terry. DHS also maintains a 9.5-acre facility to support PIADC at Orient Point, New York, which includes buildings, utilities, and ferry docking facilities (Figure 1.2-2).

USDA activities at PIADC are carried out by scientists and veterinarians in the Department's Agricultural Research Service (ARS) and Animal and Plant Health Inspection Service (APHIS).[5] PIADC operates as a biosafety level-3 (BSL-3) facility, which conducts research involving large agricultural animals and foreign and emerging pathogens that may cause serious consequences in livestock, but are not harmful to humans because protective measures are available.[6] Some of

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[1] Cella, A. 2004. An overview of Plum Island: History, research and effects on Long Island. *Long Island Historical Journal* 16, nos. 1 and 2 (Fall 2003/Spring 2004): 176-181. http://dspace.sunyconnect.suny.edu/bitstream/1951/43871/1/LIHJ2004.pdf.

[2] U.S. Agricultural Research Service (ARS). 1956. *The Plum Island Animal Disease Laboratory.* Miscellaneous Publication No. 730. Washington, D.C.: Animal Disease and Parasite Research Branch. http://digital.library.unt.edu/ark:/67531/metadc1577/m1/1/.

[3] U.S. Animal Health Association (AHA). 2003. *U.S. Animal Health Association Newsletter* 30 (4). http://www.usaha.org/news/newsletter/USAHA-Newsletter-Oct2003.pdf.

[4] Cella, An overview of Plum Island.

[5] U.S. Department of Agriculture (USDA). 2010. http://www.ars.usda.gov/main/site_main.htm?modecode=19-40-00-00 (accessed July 20, 2010).

[6] Department of Homeland Security (DHS). 2010. http://www.dhs.gov/files/labs/editorial_0902.shtm (accessed July 20, 2010).

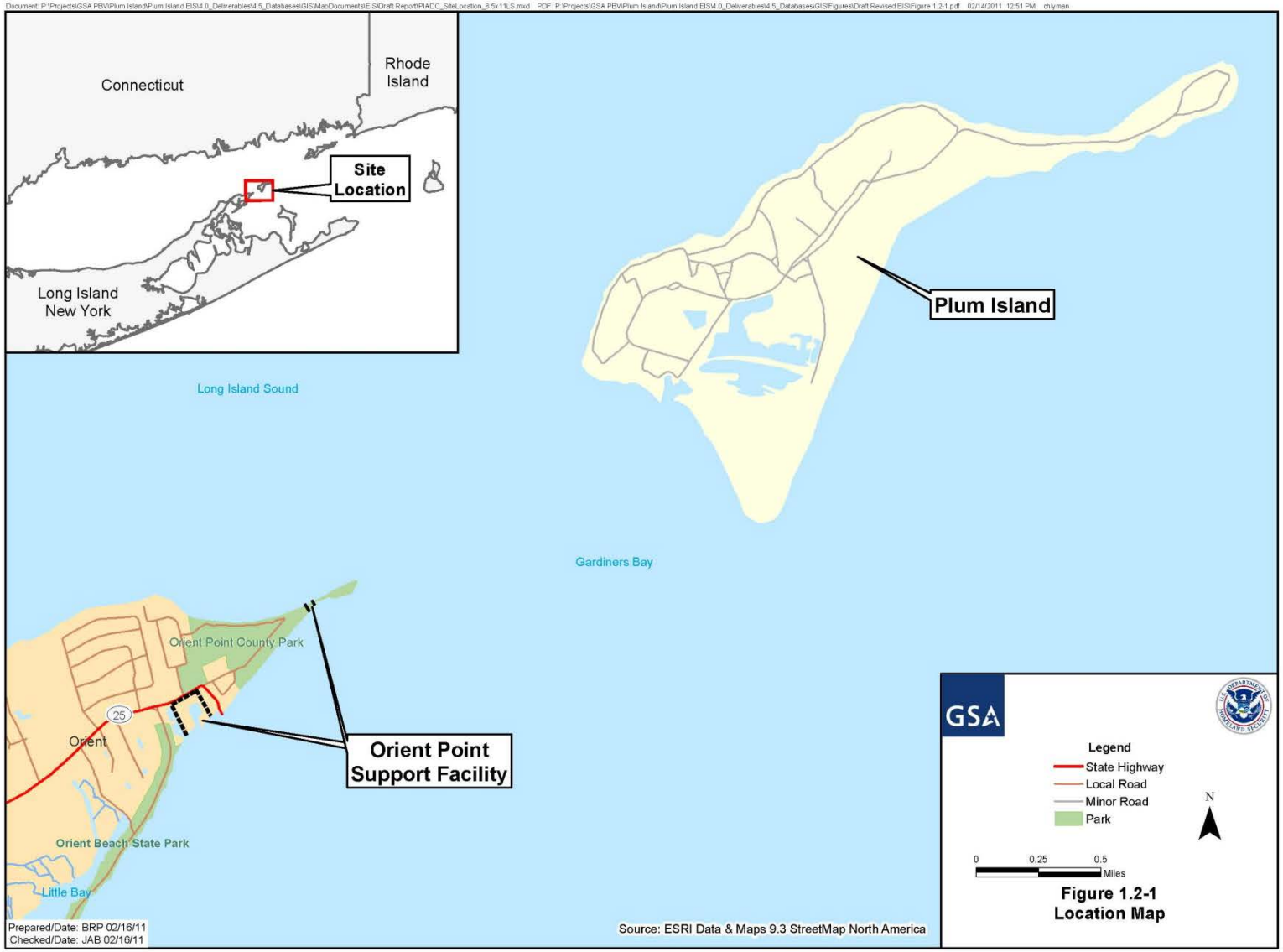

Figure 1.2-1: Plum Island Location Map

Figure 1.2-2: Plum Island Aerial Photography

the principal diseases currently studied at PIADC are FMD, classical swine fever, and vesicular stomatitis virus.[7] In addition, PIADC research includes more than 40 foreign animal diseases (FADs), such as hog cholera and African swine fever.[8] One of the missions of PIADC is to develop technologies to help mitigate the risks of catastrophic economic losses caused by FAD agents accidentally or deliberately introduced into the United States.

In 2003, the Property was transferred to DHS, which currently operates the Targeted Advanced Development and Disease Assessment Core Services (TADDACS) research units, and oversees the safety and security of Plum Island. The USDA continues to operate ARS and APHIS at Plum Island. The DHS, in cooperation with the USDA, operates the PIADC.

> "DHS is charged with the responsibility and has the national stewardship mandate for detecting, preventing, protecting against, and responding to terrorist attacks within the United States. These responsibilities, as applied to the defense of animal agriculture, are shared with the USDA and require a coordinated strategy to adequately protect the Nation against threats to animal agriculture. Consultations between DHS and USDA on a coordinated agricultural research strategy, as called for in the Homeland Security Act of 2002 (Pub. L. 107-296) and Homeland Security Presidential Directive 9 (HSPD-9), "Defense of United States Agriculture and Food," dated January 30, 2004, revealed a capability gap that must be filled by an integrated research, development, test, and evaluation infrastructure for combating agricultural and public health threats. Accordingly, to bridge the capability gap and to comply with HSPD-9, DHS proposed to build the [National Bio and Agro-Defense Facility (NBAF)] … an integrated research, development, test, and evaluation facility."[9]

Additionally, the U.S. Fish and Wildlife Service (USFWS) has coordinated with DHS to monitor and protect threatened and endangered species on Plum Island, including the piping plover and roseate tern. USFWS has also participated in Audubon New York's Important Bird Area program on the North Fork of Long Island, which includes Plum Island.

1.3. PURPOSE AND NEED FOR ACTION

Section 540 of the Consolidated Security, Disaster Assistance and Continuing Appropriations Act of 2009; Public Law (Pub. L.) 110-329 (Act) mandates:

> "should the Secretary of Homeland Security determine that the National Bio and Agro-defense facility be located at a site other than Plum Island, New York, the Secretary shall liquidate the Plum Island asset by directing the Administrator of

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[7] Cella, An overview Plum Island.

[8] Dugan, I.J. 2002. Bioterrorism fears revive waning interest in agricultural disease lab on Plum Island. *New York Times*, January 8, 2002.

[9] Department of Homeland Security (DHS). 2009. NBAF ROD. *Federal Register* 74, no. 11 (January 16, 2009). http://edocket.access.gpo.gov/2009/E9-914.htm.

> General Services to sell through public sale all real and related personal property and transportation assets which support Plum Island operations, subject to such terms and conditions as necessary to protect government interests and meet program requirements [Proposed Action]."

Though partially renovated in the mid-1990s, PIADC, built in the 1950s, is nearing the end of its lifecycle and becoming increasingly costly to maintain.[10] In addition, though PIADC is a BSL-3 facility, it does not contain the necessary BSL facilities to meet the NBAF research requirements of a BSL-4 facility. A BSL-4 facility must contain appropriate security measures for handling exotic pathogens that pose a high risk of life-threatening disease in animals and humans through the aerosol route and for which there is no known vaccine or therapy.[11]

After a review of the capacity and availability of other BSL-3 and BSL-4 facilities in the U.S. and other countries, DHS determined that a new NBAF would be needed. In December 2008, DHS published a final EIS with an evaluation of six alternative NBAF sites, plus an option of not developing the NBAF (NBAF EIS).[12] In a Record of Decision (ROD) dated January 16, 2009, DHS determined that the research and laboratory work performed on Plum Island would be moved to a location in Kansas.

At current projections, and subject to the availability of funds, construction of NBAF in Manhattan, Kansas, is estimated to be completed in 2019; at that time, the mission at PIADC will begin transitioning to the new facility, with the goal of completion by 2021. Between the January 2009 date of DHS's decision until the time of PIADC mission cessation, an interim period for DHS operations will occur (Interim Period). During the Interim Period, DHS will continue to budget for costs associated with maintaining and sustaining critical mission operations on Plum Island while also fulfilling its regulatory compliance requirements to support PIADC operations.

This determination to move PIADC from Plum Island commenced the mandated sale process and the need for this EIS.

1.4. NATIONAL ENVIRONMENTAL POLICY ACT

This EIS was prepared to comply with NEPA regulations applicable to federal actions. The EIS also follows the guidelines established under the President's Council on Environmental Quality (CEQ) Regulations (40 Code of Federal Regulations [CFR] 1500-1508). CEQ has the responsibility to ensure that federal agencies meet their obligations under NEPA. The purpose of the EIS is to present an assessment of the environmental consequences of the Proposed Action and alternatives. As documented in the Memorandum of Agreement (MOA) dated February 17, 2011, the U.S. Environmental Protection Agency (USEPA) and USFWS are "cooperating agencies" (as that term is defined in 40 CFR 1501.6) with the Joint Lead Agencies for the preparation of the EIS. USEPA and USFWS are referred to as the Cooperating Agencies in this EIS.

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[10] Department of Homeland Security (DHS), http://www.dhs.gov/files/labs/editorial_0902.shtm.

[11] U.S. Animal Health Association (AHA), U.S. Animal Health Association newsletter.

[12] U.S. Department of Homeland Security (DHS). 2008. National Bio and Ago-Defense Facility final environmental impact statement. http://www.dhs.gov/files/labs/gc_1187734676776.shtm#1.

1.5. PUBLIC INVOLVEMENT

The purpose of the scoping process is to provide information on the Proposed Action and solicit input from interested parties. Scoping also assisted the Joint Lead Agencies in developing the EIS by identifying important issues and alternatives related to the sale. During the scoping period, individuals, organizations, and agencies were given 45 days to submit oral or written comments regarding the sale.

The Joint Lead Agencies initiated public scoping, in compliance with NEPA, with publication of the Notice of Intent (NOI) in the Federal Register (FR) on March 18, 2010. Public notices were published in two New York newspapers. Public notices were published in the May 6 and May 13, 2010, issues of the *Suffolk Times* (*Times Review*) and the May 9 and May 16, 2010, issues of *Newsday*. Public notices were also published in two Connecticut newspapers. Public notices were published in the May 6 and May 13, 2010, issues of the *Harbor News* (*Shore Publishing*) and the May 9 and May 16, 2010, issues of the *Shoreline Times* (*New Haven Register*). These public notices were complemented by posting announcements on GSA's Real Property Utilization & Disposal homepage (www.propertydisposal.gsa.gov), the Joint Lead Agencies' project website (www.plumislandny.com), and the Town's website (www.southoldtown.northfork.net). In addition to these websites, a public announcement was displayed on the Town's cable access Channel 28 a week prior to the scoping meetings. Approximately 154 invitations were mailed and 156 invitations emailed to specific agencies and individuals to attend the scoping meetings. The list of addressees invited to participate in the scoping meetings is included in Appendix A.

In addition to NOI publication, the Joint Lead Agencies sent letters to government agencies, including the State Historic Preservation Office (SHPO), USEPA, USFWS, the National Oceanic and Atmospheric Administration (NOAA), state officials from New York and Connecticut, federal and state-recognized Native American tribes, county and town officials, and other federal, state, and local agencies.

Public scoping meetings were held on May 19, 2010, at the Old Saybrook Middle School Auditorium in Old Saybrook, Connecticut, and on May 20, 2010, at the Greenport Public School Gymnasium in Greenport, New York. Thirty people attended the scoping meeting held in Old Saybrook, Connecticut, and 56 people attended the meeting held in Greenport, New York.

Both scoping meetings began with an opportunity for the public to view relevant materials, obtain fact sheets and forms, and to interact informally with representatives of the Joint Lead Agencies. This was followed by a presentation concerning the purpose and need for the sale, the NEPA process, and a description of the Proposed Action. Attendees were also provided with handouts on frequently asked questions, general information, and illustrations of the Property. The presentation was followed by an opportunity for public questions and comments on the sale. A court reporter was present at both meetings. The *Draft Environmental Impact Statement Scoping Report* provided documentation of the scoping meetings, comments from agencies and the public, and responses from the Joint Lead Agencies.[13] In addition to the formal New York

[13] General Services Administration (GSA). 2010. Draft environmental impact statement scoping report, public sale of Plum Island, Plum Island, New York. Boston. www.plumislandny.com.

and Connecticut scoping meetings, the Joint Lead Agencies arranged for informational meetings and tours of Plum Island and the PIADC facility for several interested organizations in 2010. These groups included:

- Connecticut Citizens Advisory Board
- Pine Barrens Research Forum
- Connecticut Fund for the Environment
- U.S. Lighthouse Association
- Old Saybrook Rotary Club and several other New York Rotary groups
- Harbor One Club
- Women's Club of Old Saybrook
- Association of University Women
- Town of Southold Planning Board
- New York SHPO
- Nassau County Economic Development Corporation

As a result of the scoping process, the Joint Lead Agencies added a new reuse option to those considered as a part of the sale alternative. This reuse option was for the Property to be used for conservation/preservation of natural resources.

A Notice of Availability of the draft EIS was published in the FR on July 20, 2012. Written and oral comments were accepted until October 26, 2012. Two public meetings were conducted to present the draft EIS and solicit public comments, one on October 17, 2012, in Old Saybrook, Connecticut, and the second on October 18, 2012, in Greenport, New York. Comments were also accepted by mail, fax, and email. The final EIS addresses comments received in response to the draft EIS.

GSA made diligent efforts to solicit public input from all potentially impacted parties and to keep the community fully informed through community outreach during three years of the NEPA process. Various methods were used to inform the public of the EIS process, including local newspaper public notices, FR notices, mailings, emails, telephone calls, public meetings, open houses, local radio and cable television advertisements, outreach activities, and public website postings.

1.6. REGULATORY FRAMEWORK

This EIS has been prepared in compliance with all federal, state, and local laws, regulations and policies applicable to the proposed and alternative actions. Significant federal, state, and local regulations and Executive Orders (EOs) applicable to the sale are listed below.

Federal:

- Consolidated Security, Disaster Assistance and Continuing Appropriations Act (CSDACAA) (Pub. L. 110-329, September 30, 2009)
- National Environmental Policy Act (42 U.S. Code [USC] § 4321, *et seq.*)

- Council on Environmental Quality NEPA Implementing Regulations (40 CFR 1500-1508)
- Community Environmental Response Facilitation Act (CERFA) (Pub. L. 102-426, October 19, 1992)
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 USC § 9601)
- Superfund Implementation (EO 12580 and EO 13016)
- Toxic Substances Control Act (15 USC § 2601-2692)
- Emergency Planning and Community Right-to-Know Act (EPCRA) (42 USC § 11004-11049)
- Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements (EO 12856)
- Resource Conservation and Recovery Act (42 USC § 6901, *et seq.*)
- Pollution Prevention Act (42 USC § 13101, *et seq.*)
- Federal Compliance with Pollution Control Standards (EO 12088)
- Clean Air Act (CAA) (42 USC § 7401, *et seq.*)
- Clean Water Act (CWA) (33 USC § 1251, *et seq.*)
- Floodplains (EO 11988)
- Wetlands (EO 11990)
- Coastal Zone Management Act (CZMA) (16 USC § 1431 *et seq.*)
- Coastal Barrier Resources Act (Pub. L. 97-348, October 18, 1982)
- Estuary Protection Act (16 USC § 1221 *et seq.*)
- Endangered Species Act (ESA) (15 USC § 1531, *et seq.*)
- Fish and Wildlife Coordination Act (16 USC § 661 *et seq.*)
- Bald and Golden Eagle Protection Act (BGEPA) (16 USC § 668-668c)
- Migratory Bird Treaty Act (16 USC § 703 *et seq.*)
- Responsibilities of Federal Agencies to Protect Migratory Birds (EO 13186)
- Magnuson-Stevens Fishery Conservation and Management Act (16 USC § 1801 *et seq.*)
- Recreational Fisheries (EO 12962)
- Marine Protected Areas (EO 13158)
- Marine Mammal Protection Act (16 USC § 1361 *et seq.*)
- Invasive Species (EO 13112)

- Facilitation of Cooperative Conservation (EO 13352)
- Protection and Enhancement of Environmental Quality (EO 11514)
- Greening the Government through Efficient Energy Management (EO 13123)
- Greening the Government Through Leadership in Environmental Management (EO 13148)
- Greening the Government through Waste Prevention, Recycling, and Federal Acquisition (EO 13101)
- Strengthening Federal Environmental, Energy, and Transportation Management (EO 13423)
- Environmental Justice (EO 12898 and EO 13045)
- National Historic Preservation Act (16 USC § 470, *et seq.*)
- American Indian Religious Freedom Act (AIRFA) (Pub. L. 95-341, August 11, 1978)
- Consultation and Coordination with Indian Tribal Governments (EO 13175)
- Native American Graves Protection and Repatriation Act (Pub. L. 101-601, November 16, 1990)

State

- State Environmental Quality Review (SEQR) (New York Environmental Conservation Law [N.Y. ECL] § 8-0101, *et seq.* and 6 New York Codes, Rules, and Regulations [NYCRR] 617)
- Marine Fisheries (N.Y. ECL § 13-0301, *et seq.*)
- State Pollutant Discharge Elimination System (N.Y. ECL § 17-0801, *et seq.*)
- Underground Storage Tanks (USTs) (6 NYCRR 613-614)
- Wetlands (6 NYCRR 660-665)

Local

- Environmental Quality Review (Town of Southold Code § 130)
- Floodplains (Town of Southold Code § 111 and 148)
- Waterfront Consistency Review (Town of Southold Code § 268)
- Underground Storage Tanks (Suffolk County Sanitary Code Articles 12 and 17)
- Wetlands (Town of Southold Code § 275)
- Zoning (Town of Southold Code § 280)

Other documentation

- Long Island Sound Stewardship Initiative – Plum Island is a Long Island Sound Stewardship Site, being within the Plum, Little, and Great Gull Islands Stewardship Area. It is one of 33 Inaugural Stewardship Areas around Long Island Sound recognized by the Long Island Sound National Estuary Program Policy Committee for its significant ecological and recreational value.

These authorities are addressed in various sections throughout this EIS when relevant to particular environmental resources and conditions. Additional details regarding each of the laws, regulations, and policies of the regulatory framework and their applicability to this EIS are provided in Appendix B.

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2 DESCRIPTION OF THE NO ACTION AND ACTION ALTERNATIVES

2.1. INTRODUCTION

Congress, in Section 540 of the Act, unambiguously requires that Plum Island and all its related personal property and transportation assets be sold through a "public sale" (see 40 USC § 545[a] for the requirements for such a disposition). Procedures and guidelines for the sale will be based on GSA real property utilization and disposal practice. Although there is no option provided by Congress for any action other than a disposal by public sale, the NEPA analysis for this action, includes an analysis of a No Action Alternative as required under 40 CFR 1502.14(d). Even without the explicit congressional direction in this case, the prohibition (found at CFR 102-75.10 and 40 USC § 524) against funding properties that no longer have a mission-related need would require the disposal of this Property. The sole Action Alternative (the sale of the Property by public sale ordered by Congress), which is the outcome directed by the Act, is examined in this EIS by an analysis of four practicable reuse options, and potential ways to mitigate any adverse impacts that might result from these possible reuse scenarios.

While the eventual reuse of the Property is unknown at this time, once the Property leaves federal ownership, any reuse proposal would be subject to the review and approval of state regulatory authorities, most notably under the New York SEQR program. Unlike NEPA, New York SEQR requires selection of the alternative that is the most protective, and requires instituting mitigation measures. Finally, the Joint Lead Agencies will comply with required federal laws that may ultimately necessitate restricting the Property in some other manner (*e.g.*, if there is a solid or hazardous waste cleanup remedy instituted that federal or state law requires restrictions being placed on the use of the Property), but the Joint Lead Agencies cannot restrict the Property beyond the requirements of such laws. Any additional restrictions that may be placed on the Property would occur only after the Property has left federal ownership, and would be the result of effects of state or local laws.

A notice will be placed in future conveyance documents indicating that it is incumbent upon the grantee to satisfy the requirements of relevant federal, state, and local laws and regulations regarding the protection of natural resources. A sample endangered species notice substantially similar to one that will be included in future conveyance documents is included as Appendix F in this EIS. A similar notice regarding marine mammals is included as Appendix G in this EIS. Because the sale of the Property will not occur for a number of years, the Joint Lead Agencies may have to supplement the EIS when the timing of sale becomes clearer. At the time of any such supplemental EIS, the Joint Lead Agencies will be able to re-examine what further work should be done to bring it up to date to ensure that the federal government meets its responsibilities, including the government's responsibility to properly identify to potential buyers the presence of protected flora and fauna, migratory birds, and marine mammals, and their habitat. In addition, GSA and DHS believe that the New York SEQR, as prescribed by NYCRR, will be effective in protecting natural resources.

This EIS considers a *No Action Alternative* and an *Action Alternative* that contains three potential reuse options. The No Action Alternative is based on the premise that the Property would not be sold after PIADC relocation and would remain under DHS ownership. The Action Alternative is the sale of the Property. To supplement the NEPA analysis, the Action Alternative includes a

reasonable range of potential reuse options. The three potential reuse options are for the purposes of analysis only and are not meant to represent or imply that a certain use and/or development plan would be approved. GSA has no ability to determine whether and to what extent local laws and regulations, including, without limitation, those of the Code of the Town of Southold, would allow for and ultimately provide for the approval of any specific development plan.

The Joint Lead Agencies have worked with the Cooperating Agencies, state agencies, and the Town to identify potential reuse options under a public sale alternative. These potential reuse options were developed to provide a mechanism under which potential environmental impacts from future use of the Property can be evaluated and compared.

Because the Joint Lead Agencies have no authority to regulate future land uses under the Action Alternative, a precise statement of the specific land use-related environmental and socioeconomic effects that could result from reuse would be largely speculative. When the Property leaves federal ownership, proposed uses would be subject to other applicable federal, local, and state environmental protection requirements and land use regulations.

After the sale, future reuse of the Property would be subject to review and approval under the New York SEQR program, as prescribed by 6 NYCRR 617 and Environmental Conservation Law, Sections 3-0301(1)(b), 3-0301(2)(m), and 8-0113. Future development of Plum Island would require SEQR coordination and compliance, because any development would require a discretionary permitting decision by local and state agencies. Issuance of a construction permit by the local planning commission, or issuance of a water withdrawal permit from the State, would trigger the SEQR process. Agencies cannot issue permits or approvals, authorize financial support, or provide financial support without completion of SEQR.

Once SEQR is triggered, a sequential review process is initiated. Any actions that are likely to have an adverse impact to the environment would undergo a review process, including preparation of an EAF to determine whether an EIS is required, as well as coordination with other agencies. Similar to the federal NEPA process, the SEQR process includes agency coordination, scoping, and a public review and comment period. . The SEQR process would address specific impacts and appropriate mitigation for proposed land reuse and projects that are unknown at the time of the preparation of this federal EIS. The SEQR statutes indicate that an approved federal EIS cannot be substituted for a SEQR EIS, so additional studies related to project-specific impacts would be required in the future.

SEQR requires that an environmental review must be conducted when a state or local agency in New York makes a discretionary decision regarding approval of a project. Most projects or activities proposed by a state agency or unit of local government (including zoning changes, adoption of comprehensive plans, or changes in local laws or codes) and discretionary approvals (including site plan approvals, construction permits, or variances) from a New York State (NYS) agency or unit of local government require an environmental impact assessment as prescribed by SEQR.

SEQR is designed to promote efforts to prevent or eliminate damage to the environment; enhance human and community resources; and enrich the understanding of ecological systems and natural, human, and community resources important to the people of the state. Elements that

must be considered under SEQR include, but are not limited to, natural resources (land, air, water, flora, and fauna), noise, cultural resources (archaeology and history), aesthetics, population patterns, community character, and human health.

The Town is considering zoning for the Property that would take effect once the Property leaves federal ownership. Although the zoning regulations may not be complete until after the EIS process is completed, the Planning Director has advised that the Town plans to consider a new zoning district that would balance the following criteria:

- Jobs for Town residents;
- Orient Hamlet quality of life; and
- Preservation of natural and historic resources.

The Town's stated intent is to create a zoning district that would allow research facilities in the current footprint of the existing laboratory and associated infrastructure, including renewable energy research and production and the high-quality jobs those include, while balancing the amount of traffic and other adverse impacts to Orient Hamlet, the main access point to Plum Island. The district would also identify and protect historic and natural resources, including the Plum Island Light Station, Fort Terry, wetlands, and other wildlife habitat.[14] The Town may not determine the zoning requirements prior to the completion of the EIS; however, the Town may have zoning established prior to the sale of the Property.

2.2. NO ACTION ALTERNATIVE – RETAIN IN FEDERAL OWNERSHIP

The No Action Alternative is based on the premise that the Property would not be sold after PIADC is relocated and accordingly, the Property would remain in federal ownership. Although GSA is directed by the Act to sell the Property at public sale, NEPA requires consideration and analysis of a No Action Alternative, as described in Section 1502.14(d) of the implementing regulations of the CEQ.

After the PIADC mission is transitioned to Manhattan, Kansas, the Property would be placed in a "mothball" status with reduced funding for maintenance. In the short term, because of insufficient funds for maintenance, the buildings, infrastructure, and transportation assets that supported the PIADC mission would cease to function at present levels and instead would function in a minimum capacity operating only those systems that would be required at certain times (*i.e.*, electrical, potable water, etc.). Any future reuse decisions would be driven by the financial and operational needs of the federal government.

2.3. FEDERAL GOVERNMENT ACTION ALTERNATIVE – SALE OF THE PROPERTY

The Action Alternative will analyze the impacts of the sale of the Property by GSA through public sale. In conjunction with the Action Alternative and for the purpose of considering and analyzing potential impacts that could result from the Property's reuse after its sale, reuse

[14] Town of Southold. 2010. Undated letter from H. Lanza, Planning Director, Town of Southold, New York, to J. Kelly, General Services Administration (received on August 13, 2010).

options have been identified and evaluated. The draft EIS considered four reuse options: adaptive reuse, low-density zoning, high-density zoning, and conservation/preservation. The Joint Lead Agencies received comments concerning the low-density zoning and the high-density zoning reuse options during the draft EIS comment period (July to October 2012), including comments from the Town and the cooperating agencies. With this new information, the Joint Lead Agencies revisited and modified the four reuse options initially considered so that the EIS could more appropriately analyze potential impacts that could result from the Property's reuse after its sale. The final version of the EIS now considers three reuse options: adaptive reuse, development (with a range of residential density scenarios) and conservation/preservation (Sections 2.3.1 through 2.3.3). Following the sale, the Property would be under the jurisdiction of the Town of Southold with regard to zoning and land development regulations, and subject to SEQR. The reuse options discussed in the EIS are a selection of potential reuse options, are speculative, and are discussed to compare one reuse option to another. The actual reuse will not be known until after the Property is sold and leaves federal ownership.

Although the current zoning proposal before the Town Board of the Town of Southold (a local law in relation to Marine II [MII] district and Plum Island zoning) does not envision residential development, Plum Island's infrastructure and utilities can support residential use; therefore, the analysis in the EIS contemplates a range of development densities. Residential development was chosen given the predominant residential nature of the neighboring islands and coastal communities. Additionally, a strong market demand exists for coastal residential properties, both seasonal and year-round. To establish a reasonable range of development options, zoning densities of neighboring locations and the utility capacities of Plum Island were considered. Based on surrounding uses and the proposed zoning considered, the Joint Lead Agencies did not consider commercial or industrial use to be reasonably foreseeable. Studies noted that the capacity of Plum Island's aquifer, which is estimated to have a range of 150,000 to 200,000 gallons per day (gpd), will be the determining factor in establishing the maximum density. Placing this in the context of the development option, the lowest end of the recommended water budget (150,000 gpd) was used to calculate the maximum density level scenario studied in the final EIS.

The development option with a range of density scenarios (Section 2.3.2) is based on information provided by the Town regarding comparable density and the capacity of the island's aquifer. Figure 2.3-1, created solely for purposes of this EIS, illustrates potential development parcels on the Property (Potential Development Parcels) used for analysis with respect to the development option. For the purposes of this EIS, certain developed portions of Plum Island near the coastline, including the existing marina area, were not included in the Potential Development Parcels because zoning and environmental laws may restrict additional development. The assumption is made that all future uses/development would be connected to the existing water and sewer system, and that the zoning guidance of the Town of Southold Code would apply. Development under the Action Alternative would be subject to applicable federal, state, and local requirements, including those being considered by the Town as a part of a new zoning district.

Once the Property is sold, applicable zoning requirements would need to be met by the future owner. Currently, there are no deed restrictions or conservation easements associated with the Property, but deed restrictions and conservation easements could be incorporated after the sale. Potential deed restrictions may include additional setbacks from wetlands or shoreline areas used

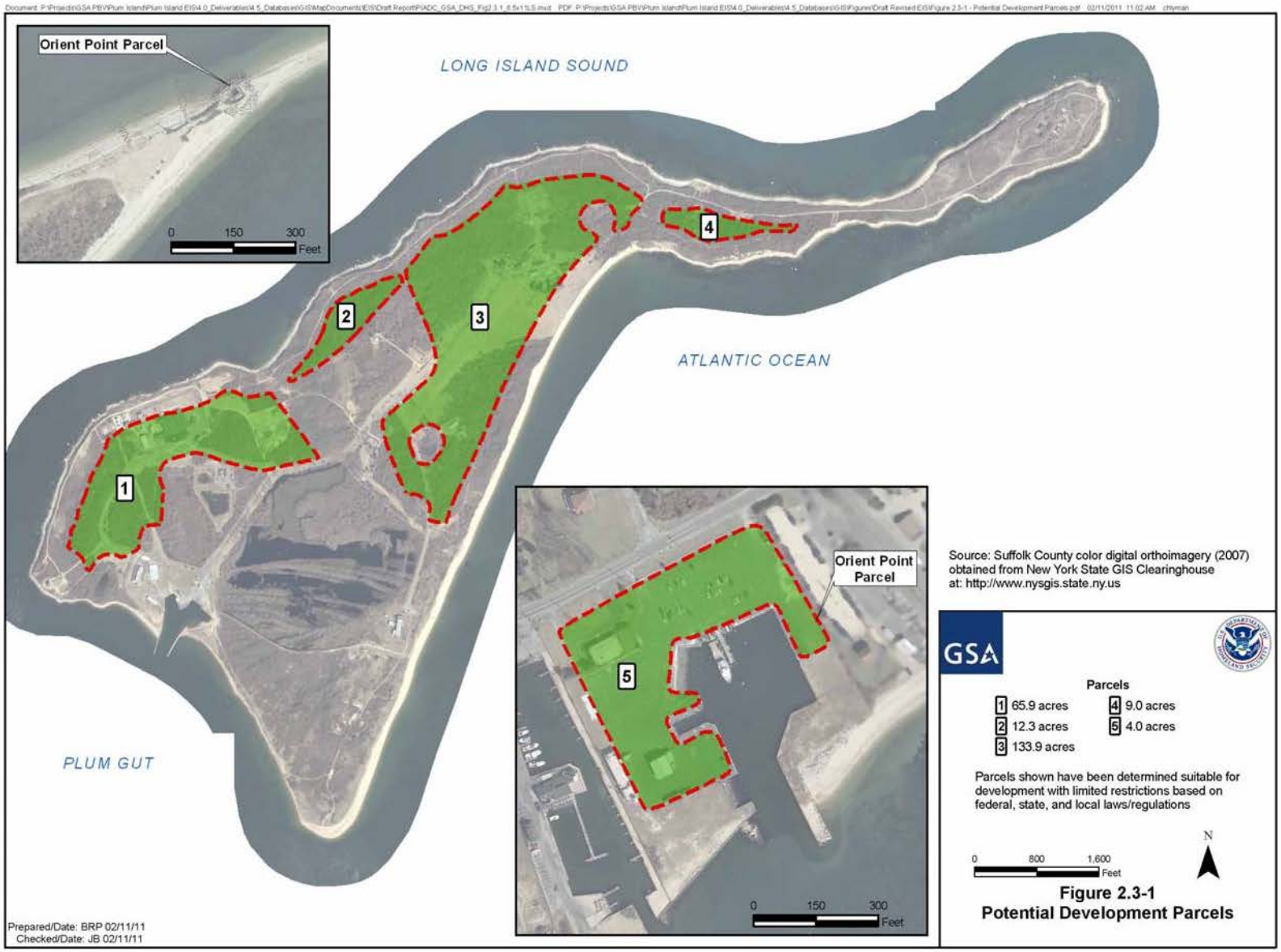

Figure 2.3-1: Plum Island Potential Development Parcels

by protected species, subdivision restrictions, height restrictions on structures, and other related limitations on development. Any necessary restrictions would be based on sound science to protect wildlife and their habitats, water quality, or similar ecological attributes of the Property. Conservation easements that could restrict certain activities (*e.g.*, recreational use or commercial activities that may disturb listed species) may also be considered.

A general suitability analysis was conducted to aid in assessing alternatives for the potential reuse of Plum Island. Physical, environmental, and regulatory attributes were inventoried and overlaid to determine land that was most suitable for a wide range of development, including but not limited to, industrial, commercial, or residential uses. The physical, environmental, and regulatory attributes that were assessed included:

- Freshwater and tidal wetland buffers and adjacent areas (federal, state, and local)
- Coastal Barrier Resource System areas
- Federal Emergency Management Agency (FEMA) Digital Flood Insurance Rate Map (DFIRM) layers
- New York State Department of Environmental Conservation (NYSDEC) Freshwater Wetlands and National Wetlands Inventory (NWI)
- Utilities
- Slopes
- Known potential historic and cultural sites and environmental sites
- Elevation model and contours

In preparing a general suitability analysis to determine the Potential Development Parcels on Plum Island, each of the above attributes or combination of attributes was overlaid to create a single composite map (Figure 2.3-1). The resultant map illustrates lands with minimal known restrictions for building development, along with approximate estimates of associated acreage. In general, the southern third of Plum Island has a wide variety of physical, environmental and regulatory constraints to development. These constraints include a large concentration of freshwater wetlands as well as shoreline and jurisdictional buffers up to 300 feet wide. Buffers were created around USFWS NWI wetlands and NYSDEC wetlands, FEMA-designated floodplain areas, New York coastal zone non-disturbance buffers and tidal areas, known prehistoric and historic sites, and CERCLA environmental sites. The southern third of Plum Island is also within a flood hazard area designated by FEMA for potential inundation. The narrow northern neck of Plum Island has limited potential for development due to regulatory setbacks.

Water and sewer utility systems are located on the central portion of Plum Island. Plum Island water service is supplied from freshwater wells, and the recharge areas or wellhead protection zones occupy a large portion of land in the north-central area of Plum Island. The central portion of Plum Island also houses a functioning wastewater treatment plant (WWTP), which impacts reuse in this area.

The general suitability analysis indicates that approximately 221 acres of land on Plum Island are suitable for development. The developable land identified by this analysis is located in the center of Plum Island, including the land associated with the former Fort Terry. The balance of the suitable land is located around the existing PIADC building complex, stretching southeast toward the Plum Island Light Station.

2.3.1. Reuse Option 1 – Adaptive Reuse of Existing Infrastructure

Adaptive reuse is the process of adapting existing structures and associated real property for purposes other than those originally intended. When the original purpose of a structure changes or is no longer required, future owners have the opportunity to change the primary function of the structure while retaining some of the existing architectural details. Adaptive reuse can preserve the overall character of Property or setting, while accommodating a new use. This process is viewed by many as an alternative "sustainable" view for development. Rather than demolishing old inefficient structures and building new ones with new materials, adaptive reuse is an environmentally conscious way to redevelop property.

Under the adaptive reuse option, existing facilities at Plum Island could be utilized for scientific, commercial or industrial purposes outside of federal ownership. Existing buildings, infrastructure, utilities, and other development on Plum Island could be utilized and/or refurbished by the new owner, while undeveloped open space would likely remain relatively unchanged. The PIADC facilities could be adapted with modifications to accommodate a new function with minimal or no expansion. The buildings at the former Fort Terry could also be renovated. The ferry service and the associated Orient Point facilities could be used to support Plum Island and its operations. Examples of potential reuse options for Plum Island include a private sector laboratory, an academic research facility, or a business complex with a commercial component.

During the adaptive reuse planning process, select areas outside of the proposed adaptive reuse area could be identified and set aside for conservation or preservation purposes.

As previously noted, this reuse option was developed for analysis purposes only. Any future reuse or other development on Plum Island after sale out of federal ownership would be subject to environmental review under the New York SEQR program and by other federal, state, and local agencies with jurisdiction over the reuse and redevelopment. These reviews would most likely be completed before any development is allowed. The action of the Joint Lead Agencies is to sell the Property, and the Joint Lead Agencies have no control of potential reuse of the Property once sold.

2.3.2. Reuse Option 2 – Development (Range of Residential Density Scenarios)

The Development option, with a range of residential density scenarios, is based upon information and input provided by the Town of Southold. In a letter from the Town of Southold to GSA dated October 25, 2012, the Town described the residential density of three areas within the Town's planning jurisdiction: Robbins Island, Fishers Island, and Orient Hamlet. It is stated that Robbins Island, preserved by a conservation easement, has development limited to a single home, and that the density of residential development in Orient Hamlet and on Fishers Island

equates to approximately one housing unit per 5 acres. Additionally, the Town's letter discusses the limited capacity of the Plum Island sole source aquifer to support residential development, stating that the recommended water budget of the aquifer is 150,000 to 200,000 gpd, and that the Suffolk County Department of Health Services (SCDHS) assigns 300 gpd of water usage to single family residential units.[15]

Drawing from the information provided by the Town, a range of residential density has been determined for the Development option, for purpose of analysis. The minimum density level scenario is one housing unit on the island, consistent with that of Robbins Island. The comparable density level scenario is one housing unit per 5 acres, consistent with the reported approximate density of Fishers Island and Orient Hamlet. The total number of housing units resulting from the comparable density scenario of one unit per 5 acres is 168. The maximum density level scenario is based on a calculation of the capacity of the island's aquifer to support residential use, using the lower end of the recommended water budget (150,000 gpd) and the assignment of 300 gpd of water usage per housing unit. The resulting maximum total of 500 housing units for this scenario is equal to one housing unit per 1.68 acres, based on ratio of units to total island area, or one housing unit per 0.44 acre, based on a ratio of units to developable area.

It is expected that most of the housing units resulting from a development option with greater than minimum residential density would be seasonal homes, resulting in seasonal variability of demand on infrastructure and impacts on Island resources. The greatest peak occupancy would likely be during summer months and on weekends, with occupancy during mid-week and off-season months being significantly less. Development under this option would be subject to applicable federal, state, and local requirements. It is assumed that all residential development would be located within the identified 221 acres of unrestricted land (Figure 2.3-1) and that the balance of Plum Island, approximately 619 acres, could be set aside for conservation or preservation purposes.

The Orient Point facility is currently zoned MII, and a portion of Plum Island could be zoned MII to allow for operation of ferry service from Orient Point to Plum Island (Town of Southold Code § 280-54, *et seq.*). For the comparable and maximum density scenarios, it is assumed that the Orient Point Ferry Terminal would remain in use in this option without change to its current land use; however, for the minimum density scenario, it is assumed that the Ferry Terminal would not remain in use.

As noted in Reuse Option 1, the reuse options were developed for analysis purposes only. This action is to sell the Property, and the Joint Lead Agencies have no control of potential reuse of Plum Island. Any future reuse would be subject to environmental review under the New York SEQR program.

[15] Town of Southold. 2012. Letter from H. Lanza, Town Planning Director, Town of Southold, New York, to P. Youngberg, U.S. General Services Administration (received on October 25, 2012).

2.3.3. Reuse Option 3 – Conservation/Preservation

This option was developed in response to agency and public suggestions received during the EIS public scoping period (March through June 2010), stating that Plum Island would be well-suited for natural resource and cultural resource conservation/preservation. Under this option, existing facilities on Plum Island may be removed or converted to for education or interpretation. Existing transportation services may be terminated or retrofitted to provide access to Plum Island for maintenance, security, habitat management, or recreational and educational activities. Plum Island would likely be owned and maintained by a public or private conservation entity that would provide management to protect, maintain, and enhance significant natural and cultural resources. Educational or recreational facilities and opportunities could be developed while ensuring protection of existing and future natural resource values. Public access may be limited seasonally or geographically.

As noted in the description of Reuse Option 1, the reuse options were developed for analysis purposes only. This action is to sell the Property, and the Joint Lead Agencies have no control of potential reuse of Plum Island. Any future reuse would be subject to environmental review under the New York SEQR program.

2.4. SUMMARY OF ENVIRONMENTAL IMPACTS

This section describes the evaluation process and presents a comparison of the effects of the reuse options on the various resources in a tabular format. The comparison also includes other site-specific information that may be of interest to decision makers and the general public.

2.4.1. Summary of Environmental Impacts by Resource

Table 2.4-1 presents a comparison of potential environmental impacts. A more detailed analysis of environmental impacts is provided in Chapter 3. Environmental effects categories were applied to each resource for each reuse option under the Action Alternative and the No Action Alternative to provide a subjective comparison.

2.4.2. Mitigation Measures

Where potential impacts to a resource may be expected under the three reuse options described for the Action Alternative, descriptions of mitigation measures that could be implemented to reduce potential impacts have been included. A summary of the mitigation measures is presented in Table 2.4-2. Mitigation measures associated with future reuse of the Property are not within the direct control of the Joint Lead Agencies. Implementation of mitigation measures under the Action Alternative would be the responsibility of the future owner(s). Mitigation measures may be identified as part of project-specific land use or environmental reviews required for compliance with applicable local, state, and federal regulations. It is likely that mitigation measures would be included as a part of development plans; the proposed mitigation measures described here are included to illustrate what could reasonably be done during implementation under the proposed Action Alternative options to minimize adverse affects associated with reuse of the Property. Additionally, permits required from applicable local, state, or federal agencies related to the future reuse of the Property may incorporate some of the measures described in this EIS. As a result, this EIS can be viewed as a reference document to aid in assessing the order of

magnitude of effects that the future reuse of the Property might have, as well as the strategies for mitigating the adverse effects associated with the Property's reuse.

As previously noted, the reuse options were developed for analysis purposes only. Any future reuse or other development on Plum Island after sale out of federal ownership could be subject to environmental review process under NEPA, the New York SEQR program, and other federal, state, and local agencies. The action of the Joint Lead Agencies is to sell the Property, and the Joint Lead Agencies have no control of potential reuse of Plum Island.

Table 2.4-1: Comparison of Environmental Impacts and Mitigation for Alternatives

Study Area	No Action Alternative	Reuse Option 1 Adaptive Reuse	Reuse Option 2 Development	Reuse Option 3 Conservation or Preservation	Comments
Land Use and Visual Resources	The No Action Alternative would likely have no impacts to Plum Island or Orient Point. No mitigation would be recommended.	Reuse Option 1 would likely have negligible impacts to Plum Island and Orient Point. No mitigation would be recommended.	Reuse Option 2 would likely have moderate impacts to Plum Island and Orient Point. For mitigation, architecture and landscaping of the development would be designed to blend into the existing visual unity of the area.	Reuse Option 3 would likely have beneficial impacts to Plum Island and no impacts to Orient Point. No mitigation would be recommended.	Visual resources could be impaired by increased development of the Island.
Infrastructure and Utilities	The No Action Alternative would likely have minor impacts to Plum Island and negligible impacts to Orient Point. No mitigation would be recommended.	Reuse Option 1 would likely have negligible impacts to Plum Island and Orient Point. Minor changes would likely be expected when adapting the existing buildings; however, the existing distribution lines would likely not be affected. No other mitigation would be recommended.	Reuse Option 2 would likely have minor impacts to Plum Island and Orient Point. Modifications to the existing water distribution, wastewater collection, and electricity distribution systems could be required as mitigation to accommodate seasonal peak demands.	Reuse Option 3 would likely have moderate impacts to Plum Island and Orient Point. No mitigation would be recommended.	Increased development would likely require upgrades to utility and infrastructure connections to Plum Island.

Study Area	No Action Alternative	Reuse Option 1 Adaptive Reuse	Reuse Option 2 Development	Reuse Option 3 Conservation or Preservation	Comments
Air Quality	The No Action Alternative would likely have beneficial impacts to Plum Island and Orient Point. Dust and particulate matter from decommissioning and demolition would likely be mitigated through Best Management Practices (BMPs).	Reuse Option 1 would likely have negligible impacts to Plum Island and Orient Point. Mitigation for this alternative would be the same as the No Action Alternative, with BMPs applicable to impact reduction for building modification.	Reuse Option 2 would likely have negligible to minor impacts to Plum Island and Orient Point. Mitigation would be the same as the No Action Alternative, with air quality BMPs applicable to demolition and new construction. Vehicle emissions would be highest during seasonal peak occupancy.	Reuse Option 3 would likely have beneficial impacts to Plum Island and Orient Point. Mitigation would be the same as the No Action Alternative.	Development would likely reduce emissions from Plum Island and increase emissions from transportation during peak seasons to Plum Island and at Orient Point.
Noise	The No Action Alternative would likely have beneficial impacts to Plum Island and Orient Point. Noise from decommissioning and demolition would be mitigated through BMPs and the time of day that activities are conducted.	Reuse Option 1 would likely have negligible impacts to Plum Island and Orient Point. Mitigation for this alternative would be the same as the No Action Alternative, with BMPs applicable to noise reduction for building modification.	Reuse Option 2 would likely have minor impacts to Plum Island and Orient Point. Mitigation would likely be the same as the No Action Alternative, with noise BMPs applicable to demolition and new construction. Noise impacts would likely be most noticeable during seasonal peak occupancy.	Reuse Option 3 would likely have beneficial impacts to Plum Island and Orient Point. Mitigation would be the same as the No Action Alternative.	Development would likely result in noise levels typical of a suburban environment.

Study Area	No Action Alternative	Reuse Option 1 Adaptive Reuse	Reuse Option 2 Development	Reuse Option 3 Conservation or Preservation	Comments
Geology and Soils	The No Action Alternative would likely have no impacts to Plum Island or Orient Point. Erosion and sedimentation from activities would be mitigated through BMPs.	Reuse Option 1 would likely have no impacts to Plum Island or Orient Point. Mitigation for this alternative would be the same as the No Action Alternative.	Reuse Option 2 would likely have negligible impacts to Plum Island and Orient Point. Mitigation would be the same as the No Action Alternative, with additional application for new construction on Plum Island. Low Impact Development Controls, such as water conservation, permeable pavements, and stormwater management, would likely be established.	Reuse Option 3 would likely have no impacts to Plum Island or Orient Point. Mitigation would be the same as the No Action Alternative.	Development would likely impact recognized geologic resources such as surficial groundwater.
Water Resources	The No Action Alternative would likely have no impacts to Plum Island or Orient Point. No mitigation would be recommended.	Reuse Option 1 would likely have no impacts to Plum Island or Orient Point. No mitigation would be recommended.	Reuse Option 2 would likely have minor to moderate impacts to Plum Island and Orient Point (minor for comparable density scenario and moderate for maximum density scenario). Stormwater from development would be mitigated through BMPs and local, state, and federal requirements to accommodate seasonal peak demands. Controls would likely be established for a hydrologically sustainable aquifer.	Reuse Option 3 would likely have beneficial impacts to Plum Island and Orient Point. No mitigation would be recommended.	Development could increase impacts to water resources.

Study Area	No Action Alternative	Reuse Option 1 Adaptive Reuse	Reuse Option 2 Development	Reuse Option 3 Conservation or Preservation	Comments
Biological Resources	The No Action Alternative would likely have beneficial impacts to Plum Island, including protection of approximately 221 acres of forested and old field habitats that might be impacted by private development in the Action Alternative, and no impacts to Orient Point. No mitigation would be recommended.	Reuse Option 1 would likely have no impacts to Plum Island or Orient Point. No mitigation would be recommended.	Reuse Option 2 would likely have minor to moderate impacts to Plum Island and Orient Point. Areas of conservation and/or restoration on Plum Island would likely be established to serve as mitigation measures, or credits would likely be purchased from a habitat bank. Though wetlands are avoided in the reuse options, any impacts would likely be subject to compensatory mitigation. The potential for human disturbance would likely be highest during seasonal peak occupancy.	Reuse Option 3 would likely have beneficial impacts to Plum Island and Orient Point. No mitigation would be recommended.	Development would likely increase impacts by habitat loss, habitat fragmentation, and increased human activities.
Cultural Resources	The No Action Alternative would likely have no impacts to Plum Island or Orient Point. No mitigation would be recommended.	Reuse Option 1 would likely have no impacts to Plum Island or Orient Point. BMPs would include covenants to protect eligible archaeological and historic cultural resources that will be included in the deed transferring title out of federal ownership.	Reuse Option 2 would likely have minor impacts to Plum Island and no impacts to Orient Point. Mitigation would be the same as Reuse Option 1.	Reuse Option 3 would likely have no impacts to Plum Island or Orient Point. Mitigation would be the same as Reuse Option 1.	Deed covenants would minimize any adverse effects on eligible cultural resources.

Study Area	No Action Alternative	Reuse Option 1 Adaptive Reuse	Reuse Option 2 Development	Reuse Option 3 Conservation or Preservation	Comments
Socioeconomics and Environmental Justice	The No Action Alternative would likely have minor impacts to Plum Island and negligible impacts to Orient Point. No mitigation would be recommended.	Reuse Option 1 would likely have no impacts to Plum Island or Orient Point. Local governments could levy taxes and develop fees to mitigate additional costs for life safety services and, if applicable, public schools.	Reuse Option 2 would likely have negligible to positive impacts to Plum Island and Orient Point. Mitigation would likely be the same as Reuse Option 1. Socioeconomic impacts would likely be most noticeable during seasonal peak occupancy.	Reuse Option 3 would likely have minor impacts to Plum Island and Orient Point. Mitigation would be the same as Reuse Option 1.	Development would likely increase state and local tax revenue and affect employment and income through business and residential development.
Traffic and Transportation	The No Action Alternative would likely have no impacts to Plum Island or Orient Point. No mitigation would be recommended.	Reuse Option 1 would likely have no impacts to Plum Island or Orient Point. No mitigation would be recommended.	Reuse Option 2 would likely have minor to moderate impacts to Plum Island and Orient Point (minor for the comparable density scenario and moderate for the maximum density scenario). Establishment of new lanes or roads, and intersection improvements with traffic signals and controls, would likely mitigate increased traffic on Plum Island and at Orient Point to maintain acceptable level of service (LOS) and accommodate seasonal peak demands.	Reuse Option 3 would likely have no impacts to Plum Island and Orient Point. No mitigation would be recommended.	Development would likely increase transportation needs, but would likely remain within acceptable limits (LOS).

Study Area	No Action Alternative	Reuse Option 1 Adaptive Reuse	Reuse Option 2 Development	Reuse Option 3 Conservation or Preservation	Comments
Existing Hazards, Toxic, or Radiological Waste Contamination	The No Action Alternative would likely have no impacts to Plum Island or Orient Point. DHS would complete remaining CERCLA program closure and cleanup operations in compliance with applicable federal, state, and local regulatory standards subject to the availability of funds.	Reuse Option 1 would likely have no impacts to Plum Island or Orient Point. A CERCLA covenant would be included in the deed transferring title out of federal ownership warranting all actions taken to protect human health and the environment have been taken.	Reuse Option 2 would likely have no impacts to Plum Island or Orient Point. Mitigation would be the same as Reuse Option 1.	Reuse Option 3 would likely have no impacts to Plum Island and Orient Point. Mitigation would be the same as Reuse Option 1.	The federal government would retain ultimate responsibility to confirm that cleanup meets the standards of protecting human health and the environment.
Waste Management	The No Action Alternative would likely have no impacts to Plum Island or Orient Point. No mitigation would be recommended.	Reuse Option 1 would likely have no impacts to Plum Island or Orient Point. BMPs to reduce waste generation could include solid waste recycling, water conservation, and waste water reuse.	Reuse Option 2 would likely have no impacts to Plum Island or Orient Point. Mitigation would be the same as Reuse Option 1, to accommodate seasonal peak demands.	Reuse Option 3 would likely have beneficial impacts to Plum Island and Orient Point. No mitigation would be recommended.	Waste generated by increased development could be handled by existing structures and procedures.

Mitigation measures for the Action Alternative include:

Table 2.4-2: Comparison of Mitigation for Alternatives

Study Area	No Action Alternative	Reuse Option 1 Adaptive Reuse	Reuse Option 2 Development	Reuse Option 3 Conservation/Preservation
Land Use and Visual Resources	No mitigation recommended	No mitigation recommended	Design architecture and landscaping of residential development to blend into the existing Visual Unity of Plum Island and Orient Point	No mitigation recommended
Infrastructure and Utilities	No mitigation recommended	Minor addition connections would be expected when adapting the existing buildings, however the existing distribution lines would not be affected	Modifications to the existing water distribution, wastewater collection, and electricity distribution systems would be required to accommodate development and seasonal peak demands	No mitigation recommended
Air Quality	Dust and particulate matter from decommissioning and demolition would be mitigated through BMPs	Same as the No Action Alternative, with BMPs applicable to impact reduction for building modification	Same as the No Action Alternative, with air quality BMPs applicable to demolition and new construction. Vehicle emissions highest during seasonal peak occupancy.	Same as the No Action Alternative
Noise	Noise from decommissioning and demolition would be mitigated through BMPs and the time of day that activities are conducted	Same as the No Action Alternative, with BMPs applicable to noise reduction for building modification	Same as the No Action Alternative, with noise BMPs applicable to demolition and new construction. Noise impacts most noticeable during seasonal peak occupancy.	Same as the No Action Alternative

Study Area	No Action Alternative	Reuse Option 1 Adaptive Reuse	Reuse Option 2 Development	Reuse Option 3 Conservation/Preservation
Geology and Soils	Erosion and sedimentation from activities would be mitigated through BMPs	Same as the No Action Alternative	Same as the No Action Alternative, with additional application for new construction on Plum Island, and establishment of Low Impact Development Controls, such as water conservation, permeable pavements, and stormwater management	Same as the No Action Alternative
Water Resources	No mitigation recommended	No mitigation recommended	Stormwater from development would be mitigated through BMPs; controls for a hydrologically sustainable aquifer; and local, state, and federal requirements to accommodate seasonal peak demands	No mitigation recommended
Biological Resources	No mitigation recommended	No mitigation recommended	Establish areas of conservation and/or restoration on Plum Island, or purchase credits from a habitat bank. Though wetlands are avoided in the reuse options, any impacts would be subject to compensatory mitigation. Potential for human disturbance highest during seasonal peak occupancy.	No mitigation recommended

Study Area	No Action Alternative	Reuse Option 1 Adaptive Reuse	Reuse Option 2 Development	Reuse Option 3 Conservation/Preservation
Cultural Resources	No mitigation recommended	Develop covenants to protect identified archaeological and historic cultural resources that would be included in the deed transferring title out of federal ownership	Same as Reuse Option 1	Same as Reuse Option 1
Socioeconomics and Environmental Justice	No mitigation recommended	Levy taxes and develop fees to mitigate additional costs for life safety services and, if applicable, public schools	Same as Reuse Option 1. Socioeconomic impacts most noticeable during seasonal peak occupancy.	Same as Reuse Option 1
Traffic and Transportation	No mitigation recommended	No mitigation recommended	Establish new lanes or roads, intersection improvements, and traffic signals and controls to mitigate for increased traffic on Plum Island and at Orient Point to maintain acceptable LOS to accommodate seasonal peak demands	No mitigation recommended
Existing Hazards, Toxic, or Radiological Waste Contamination	DHS is currently completing remaining CERCLA program closure and clean-up operations in compliance with federal, state, and local regulatory standards. Actions could include hazardous waste testing and remediation prior to sale and, as necessary, during facility decommissioning.	Same as the No Action Alternative	Same as the No Action Alternative	Same as the No Action Alternative

Study Area	No Action Alternative	Reuse Option 1 Adaptive Reuse	Reuse Option 2 Development	Reuse Option 3 Conservation/Preservation
Waste Management	No mitigation recommended	Mitigation measures to lessen waste generation impacts could include solid waste recycling, water conservation, and wastewater reuse.	Same as Reuse Option 1, to accommodate seasonal peak demands	No mitigation recommended

2.5. PREFERRED ALTERNATIVE

Under NEPA, agencies must identify a Preferred Alternative for consideration and public review in the EIS (40 CFR 1502.14). The Preferred Alternative is the alternative that the agency believes would best meet the purpose and need of the proposed project, giving consideration to environmental, economic, security, technical, and other factors. The Preferred Alternative considered in this EIS is the Action Alternative, which is the sale of the Property out of federal ownership.

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3 AFFECTED ENVIRONMENT AND CONSEQUENCES

3.1. INTRODUCTION

This EIS evaluates the potential environmental consequences that could result from implementation of the reuse options under the Action Alternative and the No Action Alternative. In preparing this EIS, the Joint Lead Agencies analyzed and considered public scoping comments received during the 60-day public scoping period (Section 1.5).

This chapter provides a description of the existing conditions (the affected environment) associated with each resource category, followed by the potential direct and indirect effects (the consequences) on each resource. Each major resource section (Sections 3.2 to 3.13) provides an analysis for each resource category. The methodology used to conduct the analysis is described, followed by a resource evaluation for each alternative.

A "sliding-scale" approach was the basis for the level of analysis of potential environmental effects in this EIS. This approach implements the CEQ's regulations for applying NEPA and its instruction that federal agencies preparing an EIS "focus on significant environmental issues and alternatives" (40 CFR 1502.1), and that impacts be discussed "in proportion to their significance" (40 CFR 1502.2[b]). Certain aspects of the two alternatives considered have a greater potential for creating environmental effects than others. Therefore, they are discussed in greater detail than those aspects that have little potential for effect. In implementing this approach for the No Action Alternative and the Action Alternative, the Joint Lead Agencies adhered to CEQ's guidelines for determining significance as presented in 40 CFR 1508.27.

CEQ regulations (40 CFR 1508.8) distinguish between direct and indirect effects. Direct effects are caused by the action and occur at the same time and place as the action. Indirect effects (also referred to as "secondary impacts") are reasonably foreseeable effects caused by the action that occur later in time or at some distance from the direct impacts. The cumulative impact analysis included potential impacts resulting from other activities not related to the sale that, in combination with the sale, could impact areas of concern. Cumulative impacts are those that result from the incremental impact of a proposed action when added to other past, present, and reasonably foreseeable future actions. No indirect or cumulative impacts are expected to result from the sale of the Property itself. However, future reuse of Plum Island could result in indirect or cumulative impacts at some point after the sale. When identified, potential cumulative or indirect impacts associated with a specific reuse option are noted in the consequences sections. Any future reuse or other development on Plum Island after sale out of federal ownership would be subject to environmental review under the New York SEQR program, which includes consideration of indirect and cumulative impacts. Additionally, because the sale of the Property is not anticipated to occur for at least eight years, any indirect and cumulative impacts are purely speculative at this time.

No significant development projects were identified in the vicinity of Plum Island or Orient Point that would be implemented within the timeframe of the sale. Potential residential, commercial, or industrial developments in the future could include new residential subdivisions, new major retail shopping areas, new businesses or industries, new marinas, harbor dredging projects, or significant land transfers. In the fall of 2012, the federal government sold Little Gull Island, an

approximately 1-acre island and lighthouse located approximately 3 miles northeast of Plum Island. Indirect or cumulative impacts related to this sale of Little Gull Island associated with Plum Island are not anticipated.

3.2. LAND USE AND VISUAL RESOURCES

3.2.1. Methodology

Several sources were consulted to determine the most likely potential land reuse options, based on physical characteristics of the Property. These include the National Land Cover Database (NLCD), local land use maps, technical reports, aerial photography, and site visits. Local zoning ordinances and regulations were also reviewed. Potential changes in land use were identified for each site alternative. Effects were identified based on changes in land use acreages and determinations of compatibility among land uses reasonably anticipated to occur.

The methodology used to assess visual resources and impacts generally conforms to a visual management system developed by the U.S. Forest Service (USFS).[16] "Visual Quality" is described as the visual patterns created by the combination of rural or natural character landscapes and industrial and man-made features. There are three criteria for evaluating Visual Quality: vividness, integrity, and unity. "Vividness" can be defined as the visual power or memorability of landscape components as they combine in distinctive visual patterns. "Integrity" is the visual collection of the natural and man-made landscape and its freedom from encroaching elements. "Visual Unity" can be described as the degree of visual coherence and compositional harmony of the landscape considered as a whole. Levels of visual impact were documented as low, moderate, or high. Low levels impact one of the three visual criteria, moderate levels impact two of the criteria, and high levels impact all three criteria.

The terms of potential impacts are described as follows:

Negligible: Nearby populations or visitors would not be impacted, or changes in land use and/or visual resources would be below or at the level of detection. Any impacts would be short-term. Nearby populations or visitors would not likely be aware of the impacts associated with the alternative.

Minor: Adverse and beneficial changes in land use and/or visual resources would be detectable, although the changes would be slight. Nearby populations or visitors would be aware of the impacts associated with the alternative, but the impacts would be slight.

Moderate: Adverse and beneficial changes in land use and/or visual resources would be readily apparent. Nearby populations or visitors would be aware of the impacts associated with the alternative and would likely be able to express opinions regarding the changes.

[16] Bacon, Warren R. 1979. The Visual Management System of the Forest Service, USDA. In: Elsner, Gary H., and Richard C. Smardon, Technical Coordinators. 1979. Proceedings of Our National Landscape: A Conference on Applied Techniques for Analysis and Management of the Visual Resource (Incline Village, Nev., April 23-25, 1979). Gen. Tech. Rep. PSW-GTR-35. Berkeley, CA. Pacific Southwest Forest and Range Exp. Stn.

Major: Adverse and beneficial changes in land use and/or visual resources would be readily apparent and have important consequences. Nearby populations or visitors would be aware of the impacts associated with the alternative and would likely express strong opinions regarding the changes.

3.2.2. Affected Environment

Plum Island

Plum Island, approximately 840 acres, is located 12 miles southwest of New London, Connecticut, and 1.5 miles off the northeast tip of Long Island, New York (*i.e.*, Orient Point). Plum Gut separates Plum Island and Orient Point. Plum Island has its own potable well water, water treatment plant, wastewater treatment facility, emergency power generators, fuel storage areas, and electrical substation. A Long Island Power Authority underwater electric cable supplies electrical power to Plum Island. These facilities support PIADC, the only functioning facility on Plum Island. PIADC occupies a small campus in the southwest corner of Plum Island. The campus includes a large laboratory building and a few outbuildings on approximately 20 acres overlooking Long Island Sound, as well as a ferry terminal and warehouse buildings on approximately 15 acres overlooking Plum Gut. Additional non-functioning remnant land uses include an assortment of buildings associated with the cantonment area of old Fort Terry and scattered vacant buildings/batteries associated with former military operations. The former Fort Terry cantonment area and parade ground occupy approximately 30 acres near the north-central section of Plum Island and overlooking the Atlantic Ocean.

Developed and/or maintained areas comprise approximately 170 acres on Plum Island. This includes the PIADC facility, other structures on Plum Island, infrastructure and associated easements, roads, parking lots, lawns, and other maintained areas. Undeveloped areas included within the potential reuse options on Plum Island include approximately 437 acres of upland forests (approximately 241 acres that have been subject to significant historical disturbance and approximately 196 acres that have remained relatively undisturbed). Undeveloped areas that would not be subject to development under the reuse options include approximately 96 acres of freshwater wetlands and approximately 101 acres of beach/dune systems. Section 3.8 provides additional information regarding specific land cover types on Plum Island. On Orient Point, the entire ferry facility is developed.

Overall, Visual Quality of the Plum Island landscape is classified as rural (large, isolated, open areas with a low population density) in character. The topography is slightly hilly, generally sloping to the south-southwest. The landscape integrity and Visual Unity are high; because the site is isolated, the landscape is free from encroaching elements, and the development on Plum Island is minimized. The Vividness of Plum Island is developed as a notable visual feature of Long Island Sound, along with the Plum Island Light Station, which was listed on the National Register of Historic Places on February 11, 2011. The Plum Island Light Station sits on a prominent point overlooking the passage between Plum Gut and Long Island Sound.

There are few sensitive viewers (persons who would be notably affected by changes to aesthetics or viewsheds) to Plum Island or PIADC. The only on-site viewers are the employees of PIADC and occasional visitors. The structures that constitute PIADC are mainly visible by marine

travelers, including ferry passengers and recreational boaters. Motorists, pedestrians, and residents at Orient Point, at least 1.5 miles away, also have views of Plum Island, but at this distance, PIADC is indistinct. Any structure higher than a two-story building would increasingly affect the viewshed proportional to its increasing height.

Orient Point

The Orient Point property is a 9.5-acre support facility that comprises two parcels: one small parcel located on the tip of Orient Point, and one larger parcel located on the southern shore of Orient Point, north of Orient Beach State Park (Figure 1.1-1). The smaller parcel contains a small building that is a transfer station for the Long Island Power Authority (LIPA), which supplies electrical power to Plum Island from Orient Point through two underwater electric cables. The larger parcel supports the government ferry facilities that provide access to Plum Island, and consists of three support buildings, a small harbor docking facility, and a parking lot. Approximately 75 percent of the land cover for the Orient Point support facility is impervious (paved asphalt), while the remaining land cover is evenly split between landscaped areas and natural scrub-covered beach areas.

The Visual Quality of the Orient Point support facility is classified as urban/industrial in character. The small parcel is surrounded by Orient Point County Park. Vividness and Visual Unity are low, as the ferry facility is bordered by Main Road to the north, another ferry service facility to the east, Gardiners Bay to the south, and a marina to the west. The visual integrity of Orient Point is low because of the urban/industrial land use, but the visual impact of development is high because of its visible location adjacent to Main Road and prominent location on the waterfront.

3.2.3. Consequences

3.2.3.1 No Action Alternative – Retain in Federal Ownership

Plum Island

Under this alternative, the Property would remain in federal ownership, and existing building facilities would remain vacant without changes to land use. Any future reuse decisions would be driven by the financial and operational needs of the federal government and may be subject to further study in compliance with applicable laws. The rural quality of Plum Island would remain, and the integrity of the existing landscape would be maintained. The alternative would effectively protect approximately 221 acres of forested and old field habitats that might otherwise be impacted by private development described in the Action Alternative. Visual resources such as Plum Island itself and the historic Plum Island Light Station would remain without impact. The Visual Quality would be unchanged.

Orient Point

Under this alternative, Orient Point remains in use as a ferry terminal but with greatly reduced operations. The existing Visual Quality of Orient Point would remain low, without impacts to land use and visual resources.

3.2.3.2 Action Alternative – Sale of the Property

3.2.3.2.1 Reuse Option 1 – Adaptive Reuse of Existing Infrastructure

Plum Island

In Reuse Option 1, the existing buildings and facilities would be reused to support a new research facility. Land use would remain generally consistent with the existing condition, with some slight changes from infrastructure additions or building renovation. Overall land use acreages would not change. The rural quality of Plum Island's existing visual resources would remain un-impacted. The integrity of the existing landscape would not change. The landscape of Plum Island and the historic Plum Island Light Station would maintain their notable qualities and would be free from encroachment. Visual Quality would remain unchanged. Sensitive viewers would include the new research employees, occasional visitors and marine travelers. Impacts to land use and visual resources would be negligible.

Orient Point

Under Reuse Option 1, Orient Point remains in use as a ferry terminal. Land use would remain generally consistent with the existing condition, with some slight changes from infrastructure additions or building renovation. Overall land use acreages would not change. The existing Visual Quality of Orient Point would remain low. Impacts to land use and visual resources would be negligible.

3.2.3.2.2 Reuse Option 2 – Development (Range of Residential Density Scenarios)

Plum Island

In Reuse Option 2, Plum Island could be redeveloped to support residential development. The range of residential density that has been determined for purposes of analysis includes three scenarios. The minimum density level scenario is one housing unit on the island, consistent with that of Robbins Island. The comparable density level scenario is one housing unit per 5 acres, consistent with the reported approximate density of Fishers Island and Orient Hamlet. The total number of housing units resulting from the comparable density scenario of one unit per 5 acres is 168. The maximum density level scenario is based on a calculation of the capacity of the island's aquifer to support residential use, resulting in a maximum total of 500 housing units, equal to one housing unit per 1.68 acres, based on ratio of units to total island area. In any of these scenarios, it is assumed that all residential development would occur on the approximately 221 acres of unrestricted land. The balance of Plum Island, approximately 619 acres, would be set aside for conservation purposes (Chapter 2).

Land use change within the 221 acres would vary depending on the development density scenario. For the minimum density level scenario, only a small portion of the unrestricted land area would be impacted. For the comparable and maximum scenarios, the result could be the development of some or all of the 221 acres for residential use. The development of these areas would result in minor to moderate adverse changes to land use on Plum Island.

For comparable or maximum development density scenarios, the rural quality of the visual resources would be moderately impacted. It is anticipated that man-made features would blend into the existing landscape or be buffered from view by the remaining undeveloped and preserved Plum Island acreage. It is expected that improvements to Plum Island's existing infrastructure would be required to accommodate residential development. However, it is expected that the Vividness of the landscape would be impacted as existing undeveloped land area is converted to residential development. Due to the small size of Plum Island, any new development would likely be visible from locations on Plum Island as well as from the water. Residential development would have a minor impact on the integrity of the existing landscape as the majority of the development would be expected to occur in the center of Plum Island. It is expected that residences would be easily seen from the undeveloped portions of Plum Island; therefore, development represents a visual encroachment. The Visual Unity of Plum Island would also be moderately impacted as the proposed development under this option would interrupt the visual harmony of the landscape and potentially disrupt currently unimpeded views across Plum Island.

On-site development at comparable or maximum density scenarios would also have a moderate impact on Visual Quality. Residential development would be easily visible to viewers at multiple locations on Plum Island and would disrupt natural scenic views across Plum Island. There are few off-Island viewers other than marine travelers and boaters. However, there would also be a minor impact to these viewers as residential development would punctuate the Plum Island horizon and would be visible from the water.

Orient Point

Under the comparable and maximum density scenarios of Reuse Option 2, it is assumed that Orient Point would remain in use as a ferry terminal. Land use would remain generally consistent with the existing condition, with some changes from infrastructure additions or building renovation. Overall land use acreage would not change. The existing Visual Quality of Orient Point would remain low. Impacts to land use and visual resources would be negligible.

3.2.3.2.3 Reuse Option 3 – Conservation/Preservation

Plum Island

Under Reuse Option 3, existing facilities could be removed or modified to offer educational or interpretive opportunities and regularly scheduled transportation services terminated by the new Property owner. Plum Island would be maintained as a natural environment with protection and enhancement to the natural and cultural resources. Approximately 40 to 50 acres of land currently developed for commercial/research use could be converted to natural forests or scrub-shrub areas.

Under this option, the Visual Quality would change from rural to unique and distinctive. The natural landscape would be allowed to dominate Plum Island and the rocky coastline, tree cover, dunes and historic Plum Island Light Station would be the only features visible from the water. The Visual Quality would be low as the only viewers would be nearby boaters with limited exposure to Plum Island. There would be a beneficial impact to land use and visual resources.

Orient Point

Under Reuse Option 3, ferry services would remain but with significantly reduced operations. Land use would remain generally consistent with the existing condition, with some slight changes from infrastructure additions or building renovation. Overall land use acreages would not be affected. The Visual Quality of Orient Point would remain low. There would be no impacts to land use and visual resources.

3.3. INFRASTRUCTURE/UTILITIES

3.3.1. Methodology

To describe the existing and future infrastructure and utilities related to each alternative, information was obtained on the existing infrastructure at the Property. This information was evaluated to assess how the existing infrastructure would be able to support the proposed alternatives and what additional upgrades might be required by a future owner.

The terms of potential impacts are described as follows:

Negligible: Operations, long-term management, and sustainability of infrastructure/utilities would not be impacted, or the impact would be at or below the lower levels of detection.

Minor: Adverse and beneficial impacts would be detectable but would be of a magnitude that would not have an appreciable effect on operations, long-term management, or sustainability of infrastructure/utilities.

Moderate: Adverse and beneficial impacts would be readily apparent and would result in a substantial change to operations, long-term management, or sustainability of infrastructure/utilities in a manner noticeable to the public.

Major: Adverse and beneficial impacts would be readily apparent and would result in a substantial change to operations, long-term management, or sustainability of infrastructure/utilities in a manner noticeable to the public, and would be markedly different from existing operations.

3.3.2. Affected Environment

Plum Island contains a number of infrastructure features and utilities to serve PIADC, including Plum Island's two potable water well fields, a sewage treatment plant, an emergency power plant, and electrical substations. The day-to-day operation and maintenance (O&M) of PIADC is currently administered and performed by a private contractor, World Technical Services, Inc. (WTSI). WTSI is responsible for the operations of various self-contained utilities at PIADC.[17]

[17] C. Wenderoth, Research Facility Operations Manager, DHS, personal communication with Charles H. Lyman, MACTEC Engineering and Consulting, Inc. (MACTEC), August 13, 2010.

Plum Island

Potable Water Supply

Potable water is supplied to Plum Island from 2 potable water well fields consisting of 14 functioning wells in a sole source aquifer. Ten wells are in the shallow well field, with an average well depth of 30 feet. These wells are located near the existing facility well pump house, where potable water treatment is conducted. Four potable water wells are in the deep well field, with an average depth of approximately 60 feet. These wells are located at the base of the Harbor Hill End Moraine. The wells are situated northwest of the former pump house facility used by the military during its occupation of Plum Island. Safe yield for the aquifer is estimated to range from 150,000 to 200,000 gpd.[18] The existing water tower has a usable volume of 200,000 gallons.[19]

The potable water system is permitted by NYSDEC and currently operates in compliance with permit requirements. The PIADC potable water system is operated by operators licensed and inspected annually by the NYSDEC/SCDHS. Backflow prevention inspections/reports are provided to SCDHS annually, and a water tower cathodic protection inspection is also conducted annually.[20] Excess potable water not immediately available for use or distribution is stored in a 200,000-gallon water tower.

An assessment of the PIADC aquifer, designated "sole source" per Section 1424(e) of the Safe Drinking Water Act (SDWA) of 1974 and regulated by USEPA, was conducted in 2000 to provide updated information regarding the condition and quality of Plum Island's potable water resources. The study recommended a "water budget"—the maximum amount of groundwater that may be sustainably withdrawn without adversely impacting water quality or availability—that ranges from 55 million to 75 million gallons per year (gpy), or approximately 150,000 to 200,000 gpd. The 2006 annual water report submitted to NYSDEC indicated annual water production of 17,412,000 gpy, or average production of 47,704 gpd. In addition, the designation of the Plum Island aquifer also requires USEPA to review all proposed projects within the designated area that receive federal financial assistance.

There are a total of 39 hydrants on Plum Island, of which 11 fire hydrants and one lawn hydrant are inactive. The inactive fire hydrants are located on the east end of Plum Island and near Building 257, and the inactive lawn hydrant is located in the harbor area.

Electricity

LIPA, serving a territory of approximately 1,377 square miles with total power availability of 5,357 megawatts (mW), is the electrical utility responsible for providing power to PIADC.[21] LIPA supplies electrical power to Plum Island from Orient Point. A single 13.2-kilovolt (kV)

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[18] U.S. Department of Homeland Security (DHS), National Bio and Agro-Defense Facility final environmental impact statement.
[19] Ibid.
[20] K. Klotzer, unpublished summary of PIADC air, wastewater, and potable water permits prepared August 30, 2007.
[21] Long Island Power Authority (LIPA). 2004. Energy plan 2004-2013 technical report.

aerial line serves two underwater electric cables to Plum Island from the transfer station at Orient Point. The historical peak demand on the electrical service is 2.3 mW. The current distribution isolation switches are positioned to operate the bulk of the existing facilities on one underwater service cable. The two underwater electric cables to Plum Island can each supply the 2.3-mW load at a voltage drop of the estimated 2.5-mile conductor length, but only one electrical line is used at any given time.[22]

Annual electrical usage at PIADC, measured in kilowatt-hours (kWh) and based on records from 2009, indicates 11,148,000 kWh for the year. The peak demand at PIADC for Fiscal Year (FY) 2009 was 2445.6 kWh.[23]

Power distribution on Plum Island includes both aboveground power lines and buried power lines. There are two below-ground power lines running from the switch on Plum Island to Building 100/101, one of which is active and the other inactive. The power lines that serve the dock area and Building 100/101 are below ground, while the active aboveground lines run out to the eastern end of Plum Island from a pole located near the intersection of the main road and the road to Building 100/101. The aboveground power line ends at the old Fort Terry buildings, which are currently being used as the Motor Pool (Building 38) and Plum Island Fire Station (Building 13).

Fuel Storage Tanks

No. 2 diesel is the primary fuel source for the PIADC facility. Fuel oil is stored in underground storage tanks (USTs) and aboveground storage tanks (ASTs). The maximum storage capacities of the USTs and ASTs are 10,500 and 642,467 gallons, respectively. Fuel oil is used in the boilers for facility heating and the generators for facility backup power, and the incinerators for animal carcass disposal. The PIADC facility's annual fuel oil usage is reported to range from 634,880 gpy (FY 2006 fuel acquisition report) to approximately 900,000 gpy.[24]

Sanitary Sewage

All wastewater from PIADC is subject to treatment prior to discharge in accordance with the operating and wastewater discharge permit requirements of the State of New York. Wastewater sources at PIADC are organized under the two general source categories of Research Waste and Non-research Waste and are described with regard to source and treatment below.

Research wastes include wastewaters generated by laboratory sinks and drains, restroom facilities, and animal handling/holding areas within the BSL-3 areas of Building 101. The liquid research wastes (sewage) are conveyed from Building 101 via underground piping and enter Building 102 for pretreatment through grinding units for size classification, then into a series of holding tanks for mixing and heating at various temperatures and residence times under continuous flow or batch conditions. This portion of the research waste pretreatment system is

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[22] National Bio and Agro-Defense Facility Design Partnership (NDP). 2008. Site characterization study.

[23] C. Wenderoth, Research Facility Operations Manager, DHS, personal communication with Charles H. Lyman, MACTEC, August 13, 2010.

[24] Telephone call from L. Bedsole, Dial Cordy, to K. Klotzer, Environmental Specialist, PIADC, February 29, 2008.

collectively referred to as the "heat exchanger treatment system." From the heat exchanger treatment system, the fluids are sent to one of two "retention tube rooms," which houses 3,500 linear feet of piping. The pretreated effluents pass through this lengthy system to dissipate heat before being combined with non-research waste for secondary and tertiary treatment in the central WWTP.

Non-research waste includes all pretreated sewage from the research facility (discussed above), as well as sink, drain, and sewage wastes from the non-research support facilities on Plum Island. The largest contributor of wastes from non-research facilities is Building 100, which contains most of the employees and administrative/support functions of the PIADC facility. All combined, non-research waste is treated in the central WWTP located several hundred feet southeast of the main PIADC laboratory. The existing WWTP was built in 1995, with a major upgrade completed in 2004.[25] The WWTP is a state-permitted tertiary treatment facility that has a maximum permitted capacity of 60,000 gpd. According to the *PIADC Research Needs and Corrective Action Project Prioritization Study* dated January 27, 2006, the PIADC WWTP is currently capable of treating up to 80,000 gpd.[26] The facility has, therefore, requested a discharge permit modification, increasing the permitted capacity to 80,000 gpd.[27] The WWTP currently operates in compliance with permit requirements of New York's State Pollutant Discharge Elimination System (SPDES).

Steam and Chilled Water

The existing boiler plant at PIADC came on line in 2005 and has three equally sized low-sulfur, fuel-oil-powered boilers to provide steam for heating and decontamination procedures. The boilers have a total installed capacity of 1,500 boiler horsepower (BHP) (51,750 pounds per hour [lb/hr]). The facility routinely operates one boiler 8,760 hours per year, and the remaining two units each operate approximately 4,380 hours per year. The average rated emissions for these boilers are as follows: particulates, 0.23 lb/hr; carbon monoxide, 0.57 lb/hr; sulfur oxide, 8.10 lb/hr; and volatile organics, 0.06 lb/hr. Permit-required stack testing was conducted in February and April 2011, and emissions were in compliance with permit requirements. The existing chilled water plant has a total installed capacity of 1,700 tons.

Orient Point

Potable Water Supply

Potable water is supplied to the Orient Point support facility from a private well located in the northeast corner of the Property. The well supplies potable water to the office building (Building 1) and warehouse (Building 3) located on the Property.[28]

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[25] National Bio and Agro-Defense Facility Design Partnership (NDP), Site characterization study.
[26] Ibid.
[27] Telephone call from L. Bedsole, Dial Cordy, to K. Klotzer, Environmental Specialist, PIADC, February 29, 2008.
[28] C. Wenderoth, Research Facility Operations Manager, DHS, personal communication with Charles H. Lyman, MACTEC, April 14, 2010.

Electricity

Electricity is supplied to the Orient Point support facility by LIPA. Overhead power lines provide connection to the LIPA grid. Annual electrical usage at the Orient Point support facility, measured in kWh and based on records from FY 2009, indicated 108,029 kWh for the year.[29]

Fuel Storage Tanks

No. 2 heating oil is the only fuel used at the Orient Point support facility. The oil is used in the boilers for facility heating. Heating oil is stored on-site in two 1,000-gallon, fiberglass, double-walled USTs, and one 500-gallon AST with steel secondary containment. The 500-gallon AST is located inside Building 2. In addition to heating oil storage, the ferries are fueled at the docking facilities on the Property.

Sanitary Sewage

The sanitary waste generated at the Orient Point support facility, Administration Building (Building 1), is piped to a septic tank located approximately 45 feet east of the building, which connects to a leaching pit located south of the septic tank. The sanitary wastes generated in the receiving warehouse (Building 3) discharge to a cesspool located approximately 100 feet east of Building 3. The cesspool and septic tank on the Property are periodically pumped out by a licensed local contractor.[30]

3.3.3. Consequences

To evaluate impacts to the Property resulting from activities associated with the four potential reuse options, effects on infrastructure resulting from implementation of the options are defined and assessed. Impacts to infrastructure from each of the four potential reuse options would vary depending upon the option implemented. In this section, impacts to infrastructure are defined and evaluated.

3.3.3.1 No Action Alternative – Retain in Federal Ownership

Implementation of this alternative could slightly reduce the existing infrastructure capacity on Plum Island. All of the existing buildings on Plum Island currently in use would likely be decommissioned. The existing infrastructure including potable water supply, water treatment, and water distribution, power transmission, communication lines, and sanitary sewer lines and the wastewater treatment plant would remain in place in a “mothballed” status. The water use, waste water generated, electricity, and fuel use would be greatly reduced. The need for steam and chilled water would likely be eliminated based on decommissioning of the existing laboratory. Based on the reduction of capacity and the “mothballed” status, changes to infrastructure on Plum Island would be minor.

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[29] C. Wenderoth, Research Facility Operations Manager, DHS, personal communication with Charles H. Lyman, MACTEC, August 13, 2010.

[30] Ibid.

The Orient Point support facility would likely provide the same functions with reduced use, resulting in minimal changes to the existing infrastructure. Existing structures would be decommissioned as described for Plum Island. The No Action Alternative would result in negligible changes to infrastructure capacity at Orient Point.

3.3.3.2 Action Alternative – Sale of the Property

3.3.3.2.1 Reuse Option 1 – Adaptive Reuse of Existing Infrastructure

Implementation of Reuse Option 1 would have negligible impacts to the existing infrastructure on Plum Island. The future owner/developer would be required to utilize the existing infrastructure and buildings on Plum Island with limited changes.

The current water use on Plum Island is approximately 50,000 gpd. The existing potable water system on Plum Island is permitted by NYSDEC and currently operates in compliance with permit requirements. To continue to operate the system, a new permit would need to be issued to the new owner, or the existing permit would need to be transferred with property ownership, and compliance with permit requirements maintained. The waste water treatment plant is permitted by the State as a tertiary treatment facility with a maximum permitted capacity of 80,000 gpd. As with the potable water permit, the wastewater treatment permit would also be transferred with property ownership. Waste water volumes associated with adaptive reuse of Plum Island would be required to be maintained below the maximum permitted capacity to continue operation under this permit and utilize the existing WWTP, or new upgrades and a new permit would be required.

Reuse Option 1 would have negligible impacts to the existing electrical and communications infrastructure. Minor changes would be expected when adapting the existing buildings for reuse; however, the existing underwater electrical cables, switches, and buried distribution lines would not be affected. The existing fuel storage and piping on Plum Island would likely remain unchanged as would the existing boiler plant and chilled water plant.

Adaptive reuse of the property would have negligible impacts to the existing infrastructure at the Orient Point support facility. The ferry operations at this facility currently supporting Plum Island would be maintained if Reuse Option 1 – Adaptive Reuse of Existing Infrastructure is implemented. Similar to Plum Island, the existing structures and infrastructure would be utilized with minimal changes.

3.3.3.2.2 Reuse Option 2 – Development (Range of Residential Density Scenarios)

Implementation of Reuse Option 2 would result in minor to moderate changes to the existing infrastructure (minor for the comparable density scenario and moderate for the maximum density scenario). Residential development on Plum Island would utilize the existing potable water supply and distribution system, wastewater treatment facility, and power supply. In the comparable and maximum density scenarios, development would be limited by the existing potable water capacity and waste water treatment capacity. For both comparable and maximum density scenarios, additional connections to the existing water and wastewater lines would be required, as well as additional connections to the electrical distribution system. To continue to operate the potable water system, a new permit would need to be issued to the new owner, or the existing permit would need to be transferred with property ownership, and compliance with

permit requirements maintained. In this option, the existing buildings, fuel line and bulk oil storage tanks would be removed.

At density scenarios above minimum, modifications to the existing water distribution, wastewater collection, and electricity distribution systems would be required to accommodate residential development on Plum Island, especially during seasonal peak occupancy. Changes to the existing infrastructure would include expansion of these systems as needed to support residential development. To continue to operate the potable water system, a new permit would need to be issued to the new owner, or the existing permit would need to be transferred with property ownership, and compliance with permit requirements maintained. Additional water distribution lines to connect to the existing potable water and wastewater lines would be required should Reuse Option 2 be implemented. The electrical transmission lines and switches currently supplying power to Plum Island would remain unchanged; however, additional power lines would be required to distribute electrical power to individual residences. Existing electricity, water, and wastewater resources would be expected to support low-density development (see Sections 3.7 and 3.13, respectively). Minor improvements and upgrades to Island infrastructure and utilities would be expected.

Implementation of Reuse Option 2 would result in negligible impacts to the existing infrastructure at the Orient Point support facility. For comparable and maximum density scenarios, the ferry service would be maintained in some capacity to support residential development on Plum Island. The existing structures and infrastructure would be utilized with minimal changes.

3.3.3.2.3 Reuse Option 3 – Conservation/Preservation

Implementation of Reuse Option 3 could result in the removal and or decommissioning in place of some existing infrastructure on Plum Island. Aboveground utilities (*i.e.*, electrical lines) would be removed and below ground utilities (*i.e.*, water distribution lines, wastewater lines, electrical and communication lines) would be abandoned in place. All of the existing fuel storage tanks would be removed, as would any buried or above ground distribution lines, according to NYSDEC standards and criteria, and with USEPA oversight as needed. The existing water supply wells and monitoring wells could also be abandoned per state regulations if no longer needed, to remove conduits for future groundwater contamination. If a potable water system would be maintained, a new permit would need to be issued to the new owner, or the existing permit would need to be transferred with property ownership, and compliance with permit requirements maintained. If no longer needed, the wastewater treatment plant could be demolished and the polishing pond enhanced to provide additional wetland functions and values. Removing infrastructure and utilities would result in a moderate adverse impact.

Some of the infrastructure and buildings could be removed from the Orient Point support facility. As with Plum Island, fuel storage tanks, associated piping, and wells would be abandoned per state regulations, and with USEPA oversight, as needed. The large paved area at the facility would be removed as a part of demolition activities at the facility. This area could be restored to natural conditions through planting tree, shrub and grass species common to the area. In addition, some of the bulkheads and pilings in the harbor area could be removed and restored to more

natural conditions. Removing infrastructure and utilities would result in a moderate adverse impact.

3.4. AIR QUALITY

Under the federal CAA, all sources of air pollution must be evaluated for the nature and magnitude of their air emissions to ensure the health and safety of humans and the environment.

3.4.1. Methodology

To describe existing and future air quality impacts related to each alternative, information was obtained on climate, existing air quality, and existing air emissions from Plum Island. This information was evaluated to assess how each of the alternatives would affect air quality in the vicinity of Plum Island. Air quality impacts were classified as either direct or indirect. Direct air quality impacts result from emissions generated by stationary sources at a potential development site, such as emissions from fuel burned at a site for industrial applications or domestic heating systems. Indirect air quality impacts result from emissions from off-site stationary sources and mobile sources generated by the potential development site, such as supplier or end user industries. Information on specific air quality standards and regulations is included in Appendix B. Because the Action Alternative is the sale of the property, the physical sale would have no impact on air quality. After a sale occurs, subsequent development may impact air quality, but development options are speculative at this time. The following analysis assumes that future activities under a reuse option would be subject to and compliant with appropriate requirements for air quality control, such as air quality permits.

In 2010, CEQ provided a draft guidance memorandum for federal agencies to consider whether analysis of greenhouse gas emissions from proposed actions may provide meaningful information to decision makers and the public as a part of the NEPA process. Specifically, if a proposed action would be reasonably anticipated to cause direct emissions of 25,000 metric tons or more of carbon dioxide-equivalent greenhouse gas emissions on an annual basis, or if long-term greenhouse gas emissions could be significant, agencies should consider the potential for impacts. Because none of the current potential reuse options are expected to produce significant quantities of greenhouse gas emissions, no additional consideration of greenhouse gas emissions is included in this EIS.

The terms of potential impacts are described as follows:

Negligible: Air quality would not be impacted, or the impacts on air quality would be below or at the lower levels of detection. Any impact on air quality would be slight and would return to normal shortly after project implementation activities.

Minor: Adverse impacts on air quality would be measurable, although the changes would be small and short-term, and the impacts would be localized, temporary, and limited to sensitive resources. For adverse impacts, no air quality mitigation measures would be necessary.

Moderate: Adverse impacts on air quality would be measurable and would have noticeable benefits or consequences, although the impact would be relatively local. For adverse impacts, all air quality standards would still be met. There would be short-term exposure to sensitive

resources. Air quality mitigation measures would be necessary, and the measures would likely be successful.

Major: Changes in air quality would be measurable, would have substantial consequences, and would be noticed regionally. For adverse impacts, there would be possible violations of state and federal air quality standards, and/or prolonged exposure to sensitive receptors. Air quality mitigation measures would be necessary, and the success of the measures could not be guaranteed.

3.4.2. Affected Environment

Plum Island

Climate and Severe Weather

The Long Island area climate, including Plum Island, is classified as "temperate-humid-continental" and characterized by four defined seasons. The Atlantic Ocean brings afternoon sea breezes that temper the heat in the warmer months and that routinely limit the frequency and severity of thunderstorms. Long Island has warm, humid summers and cold winters. Wintertime temperatures at Plum Island are warmer than those in inland areas, and mainland snowstorms may fall as island rain. However, in winter months more intense storms called "nor'easters" can produce blizzard conditions with snowfalls of 1 to 2 feet and near-hurricane-force winds.[31] The mean temperature for Suffolk County ranges from 32.4° Fahrenheit (°F) in winter to 71.9°F in summer. The highest temperature recorded at Brookhaven National Laboratory (BNL) since 1949 has been 100.5°F, and the lowest temperature recorded was -23.0°F.[32] Average rainfall for Suffolk County is approximately 42 inches per year, and snowfall averages approximately 27 inches per year (www.longisland.com). Regional wind patterns are dominated by westerly winds, primarily northwest in the winter and southwest in the summer.[33] Plum Island is also subject to hurricanes that manage to reach the north Atlantic Ocean. In addition to the 2012 "Superstorm" Sandy, notable hurricanes affected the Plum Island area in 1938, 1944, 1954, 1955, and 1960.[34] Climate changes will continue to affect temperatures, precipitation, storm intensities, sea level rise, and storm surges.

Air Quality

Suffolk County is designated as a nonattainment area for ozone and $PM_{2.5}$. The nonattainment status is based on air quality monitoring conducted at monitoring stations located on Long Island and other densely populated areas of the county to the west (*e.g.*, New York City). Plum Island's relatively remote location coupled with Plum Island's proposed lack of industry or dense traffic patterns under the proposed alternatives would not cause Plum Island to have a measurable

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[31] Brookhaven National Laboratory (BNL). 2008. Weather and climate data for Suffolk County, New York. www.bnl.gov/weather.

[32] Ibid.

[33] Ibid.

[34] National Oceanic and Atmospheric Administration (NOAA). 2011. Hurricane History. Washington, DC. http://www.nhc.noaa.gov/HAW2/english/history.shtml.

impact on the nonattainment status of the county. Suffolk County is in compliance with the NAAQS for the other pollutants.

Mobile and stationary air emission sources currently operating on Plum Island may influence local air quality. Mobile air pollution sources include cars, trucks, boats, and other vehicles. Stationary air pollution sources are non-moving facilities such as power generation facilities or industrial facilities. A NYSDEC Air Permit (ID 1-4738-00028/00030, expires October 20, 2013) is required for all PIADC facility air emission sources, which currently include generators, boilers, and three incinerators. Mobile air emission sources at Plum Island are vehicles used to support the current PIADC. These mobile sources include automobiles, light trucks, and a small number of diesel-powered vehicles. Additional mobile sources include the government transport ferries and other marine traffic transiting the surrounding waters. PIADC has NYSDEC permitted combustion sources at the facility that consist of three incinerators, three generators, and three steam boilers. These units have a permitted potential to emit approximately 21 tons per year of oxides of nitrogen (NO_X) and 41 tons per year of sulfur dioxide (SO_2). Air pollutants also include particulate matter (PM), carbon monoxide (CO), volatile organic compounds (VOCs), and certain hazardous air pollutants (HAPs).

Generators

PIADC currently has three 1,820 kW generators that can be used as emergency backup power. Permit-required stack testing was conducted in February and April 2011, and emissions were in compliance with permit requirements.

Boilers

PIADC currently uses three low-sulfur, fuel-oil-powered boilers to provide steam for heating and decontamination procedures. The facility routinely operates one boiler 8,760 hours per year, and the remaining two units each operate approximately 4,380 hours per year.[35] The average rated emissions for these boilers are particulates, 0.23 lb/hr; carbon monoxide, 0.57 lb/hr; sulfur oxide, 8.10 lb/hr; and volatile organics, 0.06 lb/hr.

Incinerators

PIADC currently operates three 19.1 MMBtu/hr incinerators, fueled by No. 2 fuel oil. Current operational data (January 2010 through August 2011) indicate that the incineration process occurs on average 78 days per year, with an average burn time of 12 hours per day (approximately 950 hours per year). The average weight of incinerated carcasses and feed and bedding waste is approximately 205,000 pounds per year. Permit-required stack testing was conducted in February and April 2011, and emissions were in compliance with permit requirements.

[35] K. Klotzer, Environmental Specialist, PIADC, April 1, 2008.

Orient Point

Climate and Severe Weather

The climate and severe weather of Orient Point are the same as those of Plum Island, New York, as they are separated by only 1.5 miles. Climate and weather for the area are discussed in the Plum Island section.

Air Quality

Mobile and stationary air emission sources currently operating at Orient Point consist of light-duty trucks and automobiles and building space heating and comfort cooling. There are no industrial operations that require air quality permitting by NYSDEC. There are no backup power generators at the Orient Point facility, although a potential backup generator has been proposed for the warehouse/garage.

3.4.3. Consequences

Any impact to air quality around the PIADC and that of the surrounding area would be dependent on decisions made by a future landowner. The potential impacts to local and regional air quality resulting from the No Action and Action Alternatives are presented in the following sections.

3.4.3.1 No Action Alternative – Retain in Federal Ownership

Implementation of the No Action Alternative would result in the Property remaining in federal ownership with the facilities on the Property being decommissioned, existing transportation services terminated, and access to Plum Island limited to required maintenance and/or security activities only. Discontinuation of current activities and operations at the PIADC would likely result in an improvement in local and regional air quality. The No Action Alternative would have a positive impact on the non-attainment status of Suffolk County.

Plum Island

Stationary Sources

Deactivation of the PIADC mission would likely result in the decommissioning and discontinued use of the existing NYSDEC permitted combustion sources at the facility. Air emissions from the existing wastewater treatment plant would also be eliminated.

Mobile Sources

Mobile sources associated with the operations at the Property would no longer be used under this alternative. Security and maintenance operations may utilize fewer gasoline-powered light vehicles or diesel-powered trucks.

The two government-owned ferries, one originating from Orient Point, New York and one from Old Saybrook, Connecticut are used to transport more than 300 employees, contractors,

automobiles and large trucks carrying construction materials and other goods to Plum Island, would no longer be required. These ferries are scheduled to make up to 10,400 trips annually between Plum Island and the two mainland ferry terminals. With decommissioning of the PIADC, nearly all facility associated ferry services would be discontinued. However, with continued maintenance and security activities at the Property, vehicle ferry service would still need to be maintained but at a much reduced schedule.

Orient Point

Stationary Sources

Orient Point does not have any NYSDEC permitted air quality sources. The administration building, warehouse/garage, truck terminal, and guard booth are not a significant source of air pollutants. Deactivation of the PIADC mission on Plum Island would vacate these structures and reduce air emissions at Orient Point.

Mobile Sources

Air emissions resulting from automobiles and trucks traveling to and from Plum Island would be reduced with the decommissioning of the PIADC. Air emissions emanating from security and essential maintenance activities would still persist. Impact to local and regional air quality due to these mobile sources would be minimal as more than 300 current employees from PIADC would now be commuting to a new place of employment.

Orient Point serves as one of the two ferry terminals servicing Plum Island. Deactivation of the PIADC mission on Plum Island would most likely result in the discontinuation of up to 3,200 ferry trips per year to and from Old Saybrook, Connecticut and significantly reduce the over 7,200 scheduled ferry trips per year to and from Orient Point, New York.

3.4.3.2 Action Alternative – Sale of the Property

3.4.3.2.1 Reuse Option 1 – Adaptive Reuse of Existing Infrastructure

Implementation of Reuse Option 1 could result in the existing facilities at Plum Island being utilized for scientific, commercial, or industrial purposes. Existing buildings, infrastructure, utilities and other development on Plum Island would be utilized and/or refurbished while undeveloped open space would remain relatively unchanged. These activities would result in short term combustion and fugitive dust emissions from construction equipment and activities. This option would not be anticipated to have an impact to the non-attainment status of Suffolk County as equipment and services emitting air pollutants would not significantly increase or decrease. Impacts would be negligible. However, the federal action would require a General Conformity Applicability analysis under Section 176(c)(4) under the CAA.

Plum Island

Stationary Sources

Reuse Option 1 would likely include the continued use and operation of the existing air pollutant generating equipment at PIADC. It is assumed this would include the continued use of the existing NYSDEC permitted sources consisting of three 19.1 MMBtu/hr incinerators, three 1,820 kW emergency backup power generators, and three steam boilers. Each of these stationary sources would have to be re-permitted with the NYSDEC by the entity acquiring the specific piece of equipment before acquisition of the unit(s). Air emissions from the existing wastewater treatment plant would be expected to remain unchanged. This option should not result in an increase or decrease in air emissions and therefore should have a negligible impact on local or regional air quality.

Mobile Sources

The type and extent of mobile equipment used under Reuse Option 1 may be different than that used presently at the Property. Air emissions resulting from mobile sources should increase in both the short term and long as a result of initial construction and renovation activities and due to the additional use of personal, corporate and commercial automobiles and trucks that would now be allowed on Plum Island.

The existing government ferry services between Plum Island and Orient Point, New York and Old Saybrook, Connecticut would be replaced by a commercial ferry service. The ferries would transport employees, contractors, automobiles and large trucks to and from Plum Island. The current ferry schedule runs from approximately 6:00 a.m. to midnight on weekdays with a reduced weekend and holiday schedule. It is assumed that the approximate current 10,400 trips annually between Plum Island and the two mainland terminals would remain unchanged.

Orient Point

Stationary Sources

The administration building, warehouse/garage, truck terminal, and guard booth at Orient Point would be reused for similar purposes and remain an insignificant source of air pollutants. Adaptive reuse of the Orient Point structures would not have an impact on local or regional air quality.

Mobile Sources

Air emissions resulting from automobiles and trucks traveling to and from Plum Island would not change under Reuse Option 1 – Adaptive Reuse of Existing Infrastructure. Impact on regional air quality due to employee traffic would be negligible as the number of employees and truck traffic would be similar following completion of the structural renovations to the PIADC facility.

Orient Point would continue to serve as one of the two ferry terminals servicing Plum Island. Adaptive reuse of the PIADC on Plum Island should not affect the approximately 3,200 ferry

trips per year to and from Old Saybrook, Connecticut or the 7,200 scheduled ferry trips per year from Orient Point, New York.

3.4.3.2.2 Reuse Option 2 – Development (Range of Residential Density Scenarios)

Under Reuse Option 2, the existing PIADC structures and facilities could be demolished and replaced by residential housing. More than 300 PIADC employees would be replaced by people living on the island in residential units. Most of these units would be expected to be seasonal homes. The redevelopment of Plum Island under this option may have a beneficial impact to local or regional air quality with reduced air emissions.

Plum Island

Stationary Sources

Under Reuse Option 2, existing PIADC buildings and structures would be demolished and the currently permitted fuel burning boilers, incinerators, and emergency generators would likely cease operation and be removed from service. Under this option, up to 500 residential units would utilize oil fired domestic heating which would represent the main source of air pollutants from stationary sources. However, as most of these units would be expected to be seasonal homes, a limited amount of heating oil would be combusted annually. Residential heating units are exempt from permitting by NYSDEC and would be expected to burn less fuel oil than the currently permitted equipment. Air emissions from the existing wastewater treatment plant would likely remain unchanged.

Reuse Option 2 – Development should result in a relatively negligible change to air pollutant emissions from Plum Island stationary sources and a negligible impact on local and regional air quality.

Mobile Sources

The type and extent of mobile equipment used under Reuse Option 2 may be different than that used presently at the Property. Air emissions resulting from mobile sources would increase in the short term resulting from demolition and construction activities. Long-term air emissions are anticipated to remain the same or increase slightly, as the limited residential and commercial vehicles would ultimately replace the existing employee shuttle service.

The existing 3,200 trips made by the government ferry service between Plum Island and Old Saybrook, Connecticut would be assumed to be discontinued. A commercial ferry would transport residential and commercial automobiles and trucks to and from Plum Island. It is anticipated that the approximate current 7,200 trips annually between Plum Island and the Orient Point terminal would either remain unchanged or increase by a small amount, depending on ultimate development density, and that the trip schedule would likely be modified based on seasonal peak occupancy.

Reuse Option 2 should result in an overall negligible change in air pollutant emissions from Plum Island stationary sources and a negligible to minor increase in mobile source air pollutant

emissions. The combined impact to the local and regional air quality should be negligible to minor.

Orient Point

Stationary Sources

The administration building, warehouse/garage, truck terminal, and guard booth at Orient Point would be zoned to match the current facility land use. Reuse Option 2 would have no effect on the current air pollutant emissions from Orient Point and no effect on local and regional air quality.

Mobile Sources

Local air quality attributed to automobiles and trucks traveling to and from Plum Island may initially increase due to demolition and construction activities on Plum Island but should normalize in the long term. It is assumed that the Old Saybrook ferry services will discontinue operation, resulting in positive impact on air quality, and that Orient Point would continue to serve as the ferry terminal for the only service to Plum Island. Reuse Option 2 for Plum Island would potentially lead to an increase in the approximately 7,200 scheduled ferry trips per year from Orient Point to Plum Island, while it is assumed that the approximately 3,200 ferry trips per year from Old Saybrook, Connecticut, would be eliminated. Thus, Reuse Option 2 is assumed to result in a short-term increase in automobile, truck, and ferry services to the extent of having a minor impact through increased air pollutant emissions from Orient Point mobile sources, and an overall negligible to minor impact to the local and regional air quality.

3.4.3.2.3 Reuse Option 3 – Conservation/Preservation

Implementation of Reuse Option 3 would not adversely impact and could potentially improve air quality on Plum Island.

Plum Island

Stationary Sources

Decommissioning of the PIADC facility would result in discontinued use of existing NYSDEC permitted sources. Air emissions from the existing wastewater treatment plant could also be eliminated if the plant were decommissioned.

Mobile Sources

Mobile sources associated with the operations at the Property would be significantly reduced once the facility is decommissioned. This would include discontinuing the use of 32 gasoline-powered light vehicles, 3 diesel-powered buses, 3 diesel-powered fire/rescue vehicles, 11 pieces of diesel-powered heavy equipment, and 3 propane-fueled forklifts. Some mobile sources would be expected to be introduced under Reuse Option 4 but would not be expected to exceed current source emissions.

The two government-owned ferries running from Orient Point, New York and Old Saybrook, Connecticut would likely be terminated. With the implementation of conservation and preservation measures on Plum Island and the reduction in regularly scheduled ferry service, the air emissions associated with these ferry services would be significantly reduced.

An improvement in air quality would be expected at Plum Island under Reuse Option 3 – Conservation/Preservation.

Orient Point

Stationary Sources

Deactivation of the PIADC mission on Plum Island would vacate existing structures but not improve the air quality at Orient Point.

Mobile Sources

Local and regional air quality would improve under Reuse Option 3 due to the elimination of air emissions from employee vehicles, agricultural trucks, and regularly scheduled ferry services associated with PIADC. Decommissioning of the PIADC facility would discontinue scheduled ferry trips from Orient Point, New York.

3.5. NOISE

3.5.1. Methodology

To describe the existing and future acoustic environments of each alternative, data were obtained from available noise studies, records, and information pertaining to noise producing sources, and supplemented by observations from site visits. These data were evaluated to assess potential audible effects from construction and operation of the proposed alternatives. Baseline noise levels and construction noise levels were determined by comparing proposed activities to standard noise levels obtained during literature review. Operational noise levels were determined relative to those currently experienced at PIADC.

The terms of potential impacts are described as follows:

Negligible: There would be no introduction of artificial noise from the alternative, or effects to soundscapes would be at or below the lower levels of detection.

Minor: Introduction of artificial noise would occur at localized sites. The effect would be readily detectable, but would not adversely affect nearby populations.

Moderate: A widespread introduction of noise would be readily detectable and would adversely affect nearby populations.

Major: A long-term, widespread introduction of noise would occur that would adversely affect nearby populations and may be overly disruptive to noise-sensitive populations.

3.5.2. Affected Environment

Plum Island

PIADC is the primary source of man-made noises at Plum Island. Noise sources at the current research facility include light vehicle traffic, maintenance machinery, generators, wastewater treatment, fuel oil transfer pumps, and the heating/cooling system. Additional noise sources located adjacent to or near Plum Island include navigational beacons, maritime waterway traffic, and the daily ferry traffic to and from Plum Island. Plum Island has a helipad that is used approximately six times per year for brief periods, and helicopter noise would be noticeable during these times. A baseline noise-level survey has not been conducted; however, it is expected that the undeveloped portions of Plum Island would have noise levels typical of a rural environment, while the developed portions would have noise levels comparable to a typical suburban environment. There are no specific noise standards that would apply to the area; however, USEPA has identified the following levels as typical for various types of communities (Table 3.5-1).[36] The values presented in the table are expressed as day night averages (Ldn) in A-weighted decibels (dBa), which express the sound's relative loudness in air as perceived by the human ear.

Table 3.5-1: USEPA Standard Levels for Various Community Types

Community	Day Night Average (Ldn – dBa)
Rural	35 to 50
Quiet Suburb	50
Normal Suburb	55
Urban Residential	60
Noisy Urban	65
Very Noisy Urban	70

For comparison purposes to the levels shown, Table 3.5-2 provides some typical values for common noise sources.

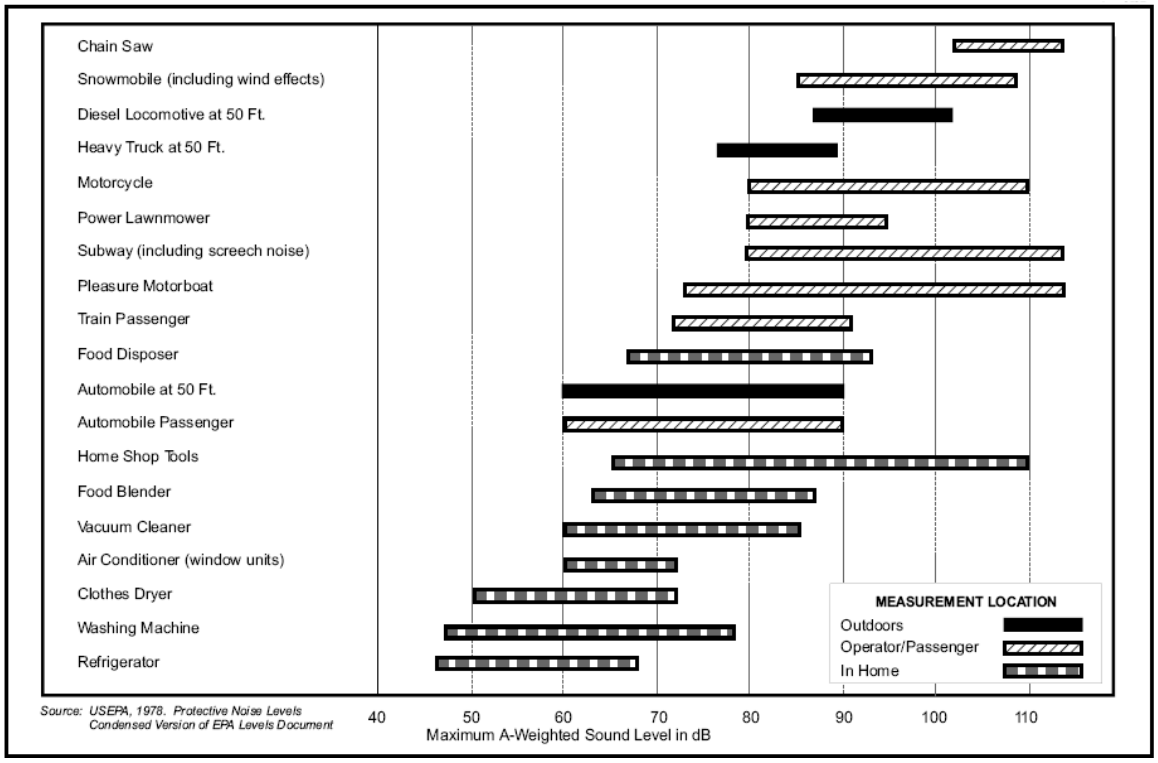
Plum Island currently has no high-decibel noise sources with the exception of noise associated with the ferry docking facility, and there are no noise-sensitive receptors within close proximity of PIADC. The impacts of any potential changes in noise at Plum Island would, however, rest on the specific activities that would occur on Plum Island after the sale. Specific noise sources, such as the use of private helicopters, would be evaluated during the SEQR process and would require appropriate analysis and approval from local, state, and federal agencies.

Orient Point

At Orient Point, the Plum Island ferry facility is one of several marine-related facilities located along the Orient Point coastline. Noise sources at the ferry facility include light vehicle traffic,

[36] U.S. Environmental Protection Agency (USEPA). 1974. Information on levels of environmental noise requisite to protect public health and welfare with an adequate margin of safety. Report 550/9-74-004, Washington, D.C.

Table 3.5-2: Common Decibel Readings for Common Noise Sources



maintenance machinery, generators, the heating/cooling system, and ferry boat traffic. Additional noise sources located adjacent to or near the facility include traffic along Highway 25, the Cross Sound Ferry Service Terminal to the east, a private marina facility to the west, navigational beacons, maritime waterway traffic, and other daily ferry traffic. Sensitive receptors in the project vicinity would include several residences on the north side of Highway 25. Also, the Orient Point parcel is located near Orient Beach State Park, with the park entrance located several hundred feet west of the Orient Point parcel.

3.5.3. Consequences

3.5.3.1 No Action Alternative – Retain in Federal Ownership

Under the No Action Alternative, the PIADC mission would be deactivated. Therefore, the noise sources associated with the operation (light vehicle traffic, infrequent helipad use, maintenance machinery, generators, wastewater treatment, fuel oil transfer pumps, and the heating/cooling system) and their impact would be eliminated. This alternative would therefore reduce noise and have a beneficial impact at Plum Island and Orient Point.

3.5.3.2 Action Alternative – Sale of the Property

3.5.3.2.1 Reuse Option 1 – Adaptive Reuse of Existing Infrastructure

Under Reuse Option 1, existing facilities at Plum Island could be utilized for scientific, commercial or industrial purposes. Existing buildings, infrastructure, utilities, and other

development on Plum Island would be utilized and/or refurbished by the new owner, while undeveloped open space would remain relatively unchanged. The PIADC facilities could be adapted with modifications to accommodate a new function with minimal or no expansion. By utilizing an adaptive reuse technique, it is expected that the impact to noise would be generally neutral in nature as significant modifications that would involve new noise sources would require significant modifications to infrastructure. Of course, the final impact would be contingent upon the type of noise sources involved in the adaptive reuse. If determined necessary, mitigation measures (abatement, ordinance, or other) could be utilize to reduce the potential impact from the noise; however, impacts would likely be negligible.

3.5.3.2.2 Reuse Option 2 – Development (Range of Residential Density Scenarios)

Under Reuse Option 2, portions of Plum Island would be developed for residential use, with density scenarios ranging from one unit on the island to a maximum of 500 residential units, including the required support infrastructure (roads, utility easements, and other services). The minimum density development scenario would result in noise levels in the rural range of less than 50 decibels (db) on a day-night average, while development at the comparable or maximum density levels would result in noise associated with a typical suburban environment around 50 dB (see Table 3.5-1). This would be primarily due to vehicle traffic, which based on the number of residences would not be a high volume, even during seasonal peak occupancy. Impacts would be minor.

3.5.3.2.3 Reuse Option 3 – Conservation/Preservation

Under Reuse Option 3, existing facilities on Plum Island may be removed; existing transportation services terminated or reduced; and access to Plum Island limited to interpretive/educational use, required maintenance, and/or security activities. Some active or passive public visitation or recreation facilities could be created using existing infrastructure, and general public access would be limited. Under this option, noise would be generally limited to the natural background conditions, and impacts would be positive.

3.6. GEOLOGY AND SOILS

3.6.1. Methodology

Geology and soils data were obtained from multiple sources, including Open-file Reports from the USGS, the USGS Hydrogeologic Atlas, USGS National Seismic Hazard Maps, site-specific Phase I Environmental Site Assessments, and preliminary geotechnical reports. Soils and seismic information were obtained from the Natural Resources Conservation Service (NRCS) and USGS, respectively.

The terms of potential impacts are described as follows:

Negligible: Geology and soils would not be impacted, or the impacts would be below or at the lower levels of detection. Any impact on geology/soil characteristics rates would be slight and would return to normal shortly after project implementation activities.

Minor: Adverse and beneficial impacts on geology or soils would be detectable, but likely short-term. Impacts on geology/soil characteristics would be small. If mitigation were needed to offset adverse impacts, it would be relatively simple to implement and would likely be successful.

Moderate: Adverse and beneficial impacts on geology/soil characteristics would be readily apparent and long-term, and result in a change to the geology/soil character over a relatively wide area.

Major: Adverse and beneficial impacts on geology/soil characteristics would be readily apparent and long-term and would substantially change the character over a large area. Mitigation measures to offset adverse impacts would be needed and extensive.

3.6.2. Affected Environment

The surficial geology of the Plum Island and Orient Point project area is the result of the Late Wisconsinan Laurentide Ice Sheet that covered approximately 5 million square miles, including all of New England, New York, Long Island (including Orient Point), and Plum Island.[37] The geology of Orient Point is equivalent to and contiguous with that of Plum Island, representing the southwestern extension of the same end moraine glacial deposits (Figure 3.6-1). The glacial deposits that cap the project area are dominated by coarse sand and gravel that extend to several hundred feet below land surface (bls), although layers and lenses of clay may be locally present.

As the continental glacier melted and retreated northward, large pro-glacial lakes were created behind the Roanoke-Charlestown End Moraine. Present-day Long Island Sound was the location of former Lake Connecticut, a large pro-glacial lake. Bathymetry gradually deepens offshore to more than 100 meters in a depression in the straights between Plum Island and Orient Point in a feature referred to as "Plum Gut." Sand waves are present on a shoal north of Plum Island and in several smaller areas around the basin. Submerged recessional moraines have been identified by Uchupi *et al.*[38] on the north side of Plum Island in Long Island Sound.

Unconsolidated Cretaceous sedimentary units underlie the glacial deposits on Plum Island and Orient Point and rest on south-dipping Precambrian crystalline metamorphic rocks.

Plum Island

Topographic data indicate that Plum Island is slightly hilly, with surface topography falling toward the south-southwest. The geology of Plum Island consists of late Pleistocene unconsolidated glacial sediments that were laid down during previous continental glaciations.

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[37] U.S. Geological Survey (USGS). 2010. Surficial geology of the sea floor in Long Island Sound offshore of Plum Island, New York. USGS Open-File Report 2010-1005. K.Y. McMullen, L.J. Poppe, W.W. Danforth, D.S. Blackwood, J.D. Schaer, A.J. Ostapenko, K.A. Glomb, and E.F. Doran. Woods Hole, MA: USGS, Coastal and Marine Geology Program. Norfolk, VA: National Oceanic and Atmospheric Administration (NOAA), Office of Coast Survey. Norfolk, VA: NOAA, Marine Operations Center–Atlantic. Hartford, CT: Connecticut Department of Environmental Protection.

[38] Uchupi, E., N. Driscoll, R.D. Ballard, and S.T. Bolmer. 2001. Drainage of late Wisconsin glacial lakes and the morphology and late Quaternary stratigraphy of the New Jersey – southern New England continental shelf and slope. *Marine Geology*, vol. 172.

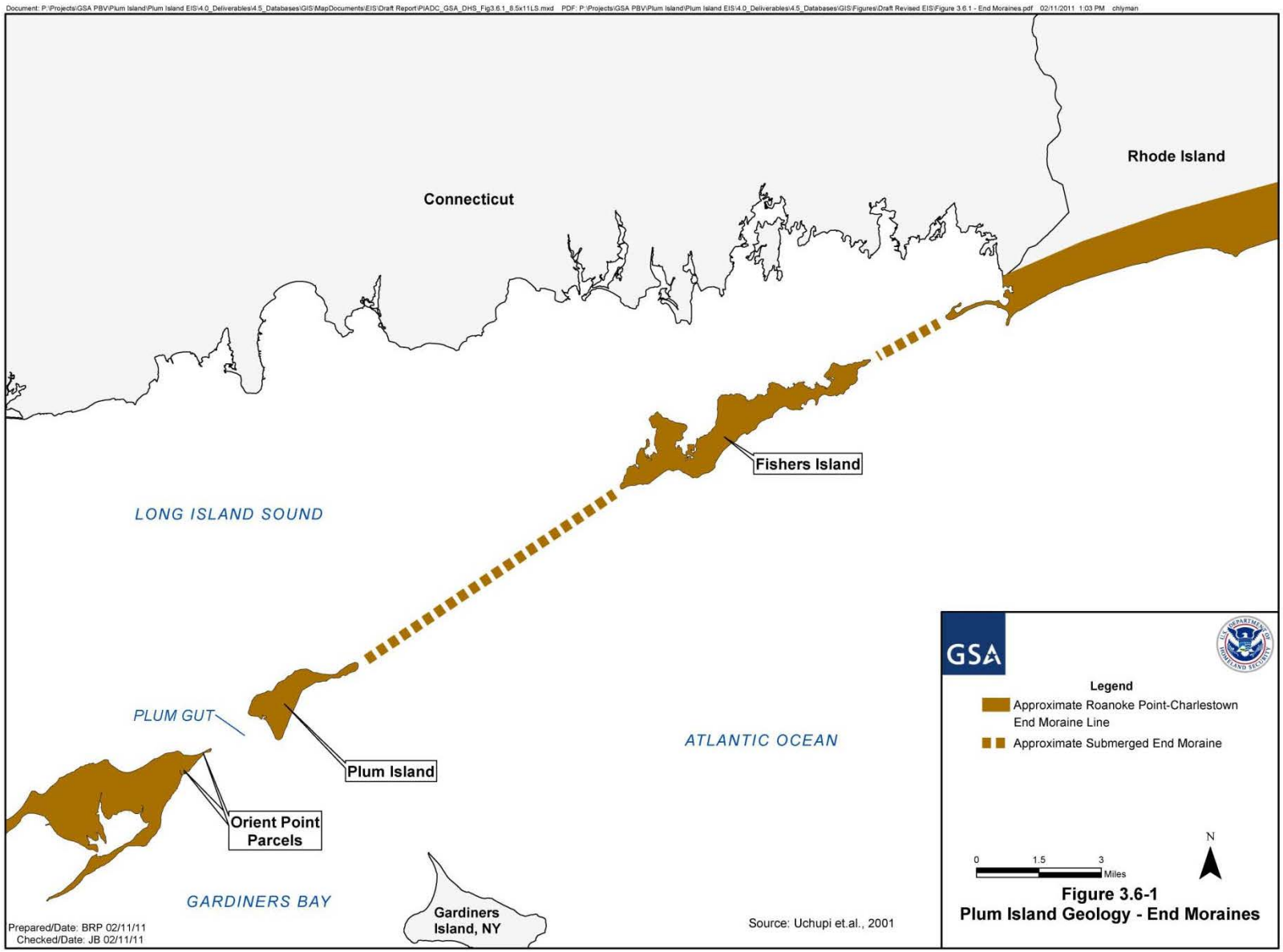

Figure 3.6-1: Plum Island Geology – End Moraines

Dominating the geology and resulting land relief of Plum Island are coarse-grain end moraine deposits that were left behind by a retreating glacier approximately 18,000 years ago. This end moraine line is referred to as the "Roanoke Point-Charlestown End Moraine Line" (Figure 3.6-1).[39]

The sedimentary units of Plum Island that underlie the unconsolidated glacial deposits are unconsolidated Cretaceous-age coastal plain sediments. From youngest to oldest, these sediments constitute the Monmouth Group, Magothy Formation, and Raritan Formation. These sediment groups comprise, from youngest to oldest, Monmouth greensand, which is a clayey, glauconitic unit similar in hydraulic character to the Raritan confining unit, and fine clayey sands, medium to coarse sand, and gravel.[40]

Surface soil types distributed on Plum Island are predominantly sands and sandy loams with occasional boulder and cobble zones (Figure 3.6-2). Dune sands are present in the southern/southwesternmost corner of Plum Island. A geomorphic feature representing beach dune strands and back lagoonal facies mucks is present in the south-central portion of Plum Island. This geomorphic feature is easily identifiable on aerial photography as an area of east-west-trending striations and elongate depressional interstitial muck-filled wetlands, and is typical of prograding beach strand-back dune-back-beach lagoon depositional environments.

Farmland classification identifies soils as prime farmland, farmland of statewide or local importance, or unique farmland. These soils may be best suited to food, feed, fiber, forage, or other crop production. The potential reuse options should not require review under the Farmland Protection and Policy Act (FPPA) for potential impacts to farmland soils, because the Property would be transferred out of federal ownership, and future non-federal actions would not generally be regulated under the FPPA. Approximately 29 percent of the soils on Plum Island are categorized as prime farmland soils, and approximately 17 percent are categorized as farmland soils of statewide importance.

Orient Point

The historical geology of Orient Point is equivalent and contiguous with that of Plum Island. Essentially, the same geologic processes and glacial sediment deposition that resulted in the formation of Plum Island were also responsible for the creation of the subsurface strata underlying Orient Point and the eastern end of Long Island. Soils within the project area of Orient Point are characterized as unconsolidated dredge spoils. Soil types are referred by NRCS as "Fd – fill land, dredge material." None of the soils within the Orient Point parcels are categorized as prime farmland soils or statewide important farmland soils.

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[39] Ibid.

[40] U.S. Geological Survey (USGS). 1995. Ground water atlas of the United States, Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, Vermont. HA 730-M. P.G. Olcott.

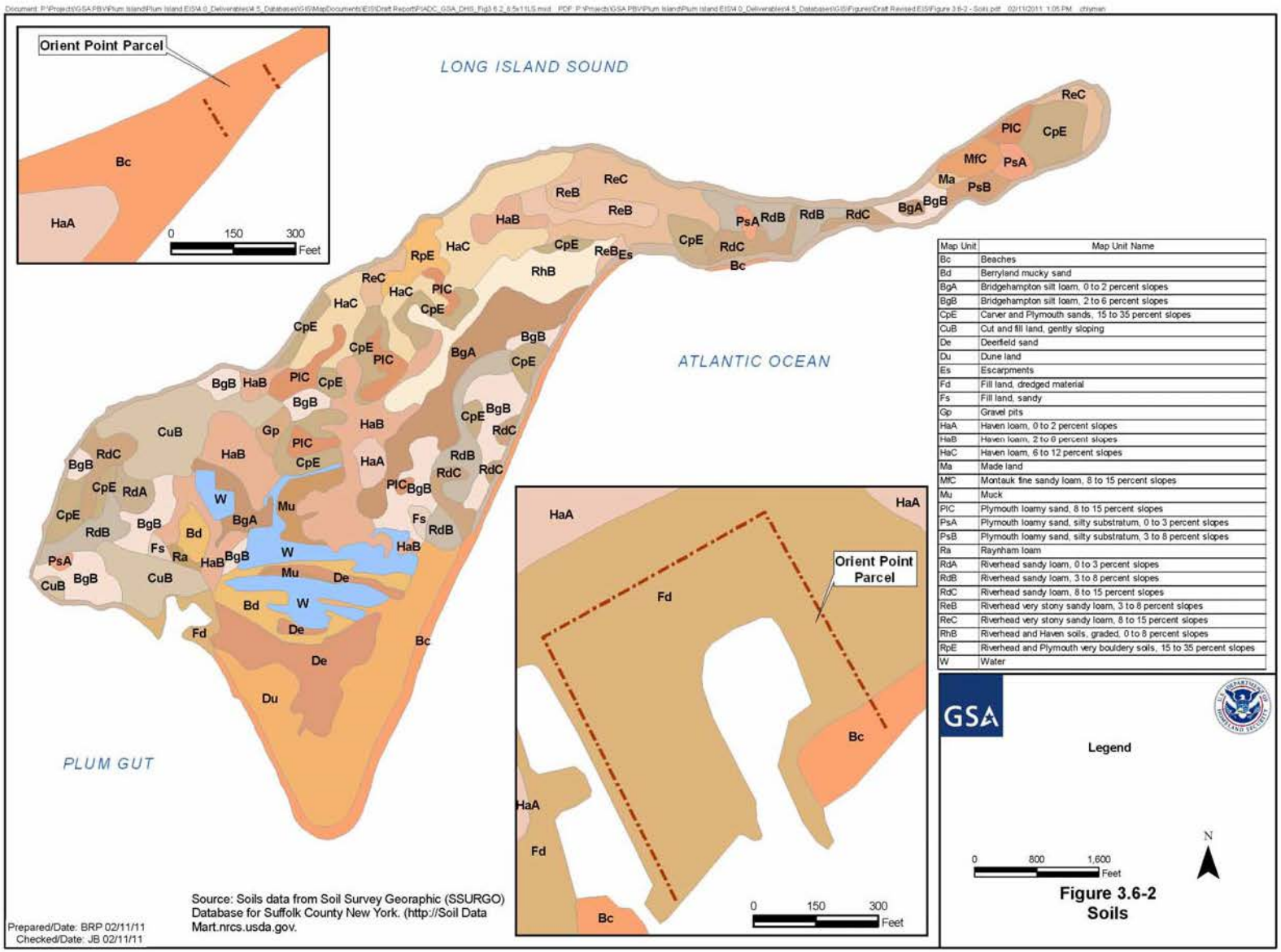

Figure 3.6-2: Plum Island Soils

Seismic Hazard

The relative seismic hazard was evaluated based on historical seismicity and USGS seismic hazard map coverage.[41] The USGS National Seismic Hazard Mapping Project maps depict predicted peak (ground) acceleration from earthquakes in units of percent "g" (force of acceleration relative to that of the Earth's gravity) for a given probability of exceedance. For this analysis, the Property is considered to be within an area with a 2 percent probability of exceedance in 50 years (*i.e.*, an annual chance of occurrence of approximately 1 in 2,500). The USGS estimated return time for 4.75-, 5.0-, and 6.5-magnitude earthquakes at a fixed distance of 31 miles exceeds 1,500 years for the Plum Island, New York, area.[42]

Site geologic stability was evaluated based on seismic soil classes defined in the 2008 International Building Code (IBC). There are five seismic soil classes. Class A, which is a "hard rock" profile, is the "best" in terms of limiting ground motions on a structure. Class E soils are susceptible to liquefaction, where saturated "soft soil" ground can sometimes take on the characteristics of a fluid, resulting in the loss of strength, sudden settlement, or lateral movement. The western end of Long Island, including the Orient Point Parcel and Plum Island are comprised of unconsolidated and unlithified gravel and sand of glacial origin resting on crystalline rock that is several hundred feet below the surface. The Property is considered to have a seismic soil classification of D (soft to medium clays, sand, and gravel).

3.6.3. Consequences

To evaluate impacts to the Property resulting from activities associated with the proposed reuse options, effects on geology and soils resulting from implementation of the alternatives are defined and assessed. The impact to geology and soils would be dependent on which potential reuse option is ultimately developed. The magnitude would vary depending upon the anticipated activities for a particular Action/No Action Alternative.

3.6.3.1 No Action Alternative – Retain in Federal Ownership

Implementation of the No Action Alternative would not adversely impact or improve geological resources. Changes to geological resources associated with decommissioning of the PIADC may be beneficial.

Plum Island

No noticeable changes to geologic resources or soils would occur from implementing the No Action Alternative.

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[41] U.S. Geological Survey (USGS). 2008. Earthquake hazards program. Washington, DC. http://earthquake.usgs.gov/hazards/products/conterminous/2008/maps/.

[42] U.S. Department of Homeland Security (DHS), National Bio and Agro-Defense Facility final environmental impact statement.

Orient Point

No noticeable changes to geologic resources or soils in either a short-term or long-term sense for the facility at Orient Point would be expected by implementing the No Action Alternative for Plum Island.

3.6.3.2 Action Alternative – Sale of the Property

3.6.3.2.1 Reuse Option 1 – Adaptive Reuse of Existing Infrastructure

Implementation of Reuse Option 1 would not adversely impact or improve geological resources. Modifications to accommodate a new facility function would require no or minimal expansion to the existing structures on Plum Island and the Orient Point support facility. Existing buildings would remain in their current location and encompass their current extent; additional development would not be allowed to occur under this option. Existing buildings would be reused with interior renovations. Any modifications to existing buildings and or infrastructure and future activities conducted on Plum Island would be subject to federal, state, and local regulations.

Plum Island

No short-term or long-term changes to geological resources would be expected from implementing Reuse Option 1. The current level and extent of development and activities on Plum Island would not significantly change.

Construction activities and maintenance associated with Reuse Option 1 would not affect geological resources or soils on Plum Island and any accidental or incidental impacts would be negligible in a regional context.

Orient Point

The use for the ferry facility at Orient Point would essentially be unchanged. It is expected that the docking facilities would be reused for civilian and commercial use. Therefore, impacts to geological resources and soils would be unchanged.

3.6.3.2.2 Reuse Option 2 – Development (Range of Residential Density Scenarios)

Plum Island

No short-term or long-term changes to geological resources or soils would be expected from implementing Reuse Option 2. Potential residential development areas are shown in Figure 2.3-1. The conversion of currently forested lands to residential areas could increase the potential for soil erosion. The shrink-swell capacity of the soils would not be expected to require any special foundation construction techniques. These adverse impacts are expected to be negligible.

Orient Point

Implementation of Reuse Option 2 on Plum Island would not adversely impact or improve geological resources or soils at Orient Point.

3.6.3.2.3 Reuse Option 3 – Conservation/Preservation

Implementation of Reuse Option 3 would not adversely impact geological resources or soils. Conservation or preservation of Plum Island would eliminate or greatly reduce impacts from human activities.

Plum Island

No impacts to geologic resources or soils on Plum Island would be expected from Reuse Option 3.

Orient Point

No impacts to geologic resources or soils at Orient Point would be expected from Reuse Option 3.

3.7. WATER RESOURCES

To evaluate impacts to the Property resulting from activities associated with the potential reuse options, effects on water resources resulting from implementation of the alternatives are defined and assessed. Impacts to water resources from alternative implementation would vary depending upon the intensity and duration of anticipated activities included in the potential reuse options. In this section, intensity and duration of alternative activities and associated impacts to water resources are defined and evaluated.

3.7.1. Methodology

Water resources at Plum Island were evaluated using existing data from local, state, and federal sources. Supplementary studies (*e.g.*, NBAF EIS and Phase I Environmental Site Assessments) were assessed to enhance the understanding of the influences on water resources provided by existing data. Sources of data and the methodologies used to assess each of the water resources associated with the Property are described below.

Surface waters associated with the Property were researched to determine whether they meet state-designated uses and standards. Pollutant-specific total maximum daily loads (TMDLs) of the surrounding surface waters were identified along with surface water discharges generated on Plum Island. Surface waters on Plum Island are comprised of wetland areas, and are discussed in Section 3.8.

Local zoning regulations impose restrictions on development, including requiring that new construction be built above base flood elevations. Floodplain databases from FEMA were consulted to determine potential flood zone locations, types, and potential effects on Plum

Island.[43] Local zoning regulations, specifically Chapter 111 ("Coastal Erosion Hazard Area") and Chapter 148 ("Flood Damage Prevention") of the Town, regulate development in flood zones delineated on FEMA FIRMs.

Also, the New York State Coastal Atlas was consulted. In addition to delineating the State's Coastal Area Boundary, the New York State Coastal Atlas identifies Significant Coastal Fish and Wildlife Habitats.

The state coastal policies for Long Island Sound are set forth in the "Long Island Sound Regional Coastal Management Program" and the Town has a Local Waterfront Revitalization Programs (LWRP) to address its specific local issues and concerns within the coastal zone. The Town's LWRP is codified in Chapter 268 of the Town Code.

The LWRP is incorporated into the NYS Coastal Management Program, which is established under the authority of the National Oceanographic and Atmospheric Administration (NOAA) office of Ocean and Coastal Resources Management.

In an effort to complement the established authorities and policies set forth above, water resource impacts were evaluated based on anticipated changes (or lack of change) in impervious surface, runoff characteristics, waste water treatment plant (WWTP) discharge, and landscape alterations of the two Action Alternatives and associated potential reuse options.

The terms of potential impacts are described as follows:

Negligible: Impacts would not be detectable. For adverse impacts, water quality parameters would be well below all water quality standards for the designated use of the water. Both quality and quantity of flows would be within historical conditions. No measurable or perceptible changes in wetland size, integrity, or continuity would occur.

Minor: Adverse and beneficial impacts would be measurable, but water quality parameters would be well within all water quality standards for the designated use. Both quality and quantity of flows would be within the range of historical conditions.

Moderate: Adverse and beneficial impacts on water quality would be readily apparent, but water quality parameters would be within all water quality standards for the designated use. Water quality or flows would be outside historical baseline on a limited time and space basis. For adverse impacts, mitigation would be necessary to offset adverse impacts.

Major: Adverse and beneficial impacts on water quality would be readily measurable. For adverse impacts, some quality parameters would periodically be approached, equaled, or exceeded. Flows would be outside the range of historical conditions, and could include flow cessation or flooding. Extensive mitigation measures would be necessary.

[43] Federal Emergency Management Agency (FEMA). 2009. Flood insurance rate maps (various panels), Suffolk County, New York. www.msc.fema.gov.

3.7.2. Affected Environment

Plum Island

Surface Water

Plum Island is surrounded by Long Island Sound, the receiving waters for treated stormwater and wastewater effluents from PIADC and the remaining areas of Plum Island. Plum Island contains no streams or rivers that discharge to Long Island Sound. Covering approximately 1,300 square miles, Long Island Sound is an estuary of the Atlantic Ocean that is supplied by nine drainage basins, encompassing 16,000 square miles in size, and includes most of the land area of Connecticut and portions of New York (including New York City), Massachusetts, Vermont, New Hampshire, and the Canadian province of Quebec.

Stormwater

Stormwater collection, conveyance, and management are limited on Plum Island. The need for stormwater controls on Plum Island are minimal because of the low, flat, coastal topography; the minimal cover of impervious surface; and the high permeability of soils, which consist of glacial deposits dominated by sand and gravel. There is less than 15 acres of impervious surface on Plum Island, including buildings and roads. Potential runoff from Plum Island is estimated to be 15 percent of annual precipitation,[44] or the equivalent of approximately 420,000 gpd. This total volume is approximately 10 times greater than the daily discharge of the WWTP; however, concentrations of the various constituents, including biochemical oxygen demand (BOD), total suspended solids (TSS), and nitrogen, are generally less in surface runoff compared to WWTP discharge. The NBAF EIS documented early permits with the State of New York held by PIADC, recording as many as 20 individual outfalls discharging stormwater into Long Island Sound. No outfalls to internal areas of Plum Island were identified in the NBAF EIS. In early 2007, it was determined that most of these discharge points were no longer functional. NYSDEC granted a revised version of the PIADC SPDES permit (Permit No. NY0008117) for the seven operational stormwater discharge points. Seven additional stormwater conveyance systems, located in the East End, were also addressed in the 2007 review. These systems (Outfall Nos. 016 to 022) were likely installed by the U.S. Army, and are now considered inoperable, because they are now filled with soil and gravel from the deteriorating roadbed. The outfalls of these historical systems have not been located, but presumably empty into Long Island Sound.

Groundwater

The sand and gravel capping Plum Island are saturated with a freshwater lens rising from 100 feet bls to near the surface.[45,46] Subsurface soil borings conducted as a part of an Environmental Site Assessment in 2007 indicated groundwater levels ranging from 13.8 feet bls

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[44] Entech. 2002. CERCLA program report for Plum Island Animal Disease Center, Volume I: Introductory materials and waste management area (WMA) findings. Suffolk County, NY.

[45] Crandell, H.C. 1962. Geology and groundwater resources of Plum Island, Suffolk County, New York. U.S. Geological Survey Water-Supply Paper 1539-X. 35 pp.

[46] Terracon. 2007. Phase I environmental site assessment – proposed National Bio- and Agro-Defense Facility, Plum Island, Greenport Village, Town of Southold, Suffolk County, New York. Prepared for Perkins & Will. Atlanta.

to 18.5 feet bls. Plum Island's soils are generally described as topsoil and fill consisting of brown sand and silt from 0 to 3.5 feet bls, subsoil consisting of medium to fine sand from 2 feet bls to 5 feet bls, and glacial outwash consisting of coarse to fine sand from 5 feet bls to 25 feet bls.[47]

The Plum Island aquifer is located in Segment 12 of the USGS *Ground Water Atlas of the United States*. However, Plum Gut separates the Plum Island freshwater aquifer from the rest of the Long Island surficial aquifer system. As such, the separation causes the recharge area from Plum Island aquifer to be limited to the surface of Plum Island.

Plum Island and Eastern Long Island average 45 inches of precipitation per year, and this precipitation is the primary recharge source for the Plum Island freshwater aquifer. The aquifer is recharged by precipitation that infiltrates through the permeable soils of Plum Island. Potential recharge water loss due to runoff is estimated as 15 percent of the annual precipitation.[48] As a surficial aquifer system, the groundwater of Plum Island is found in an unconfined aquifer that extends approximately 100 feet bls. This groundwater resource occurs in the sand and gravel of the Upper Pleistocene glacial deposits at a depth of 0 feet (surface expression in wetland areas) to 100 feet bls. A 2007 groundwater study[49] estimated a sustainable safe groundwater usage yield at 150,000 to 200,000 gpd.

The surficial aquifer of Orient Point is connected to a larger surficial aquifer system that underlies Long Island. The major water yielding units of Eastern Long Island are the Cretaceous Magothy Formation and the Lloyd Sand Member of the Raritan Formation.[50] Also, like Plum Island, shallow groundwater resources occur in the sands and gravels of the Upper Pleistocene glacial deposits laid down by outwash during glacial retreating events. There are 65 to 120 trillion gallons of water stored in the underground aquifers, according to the Suffolk County Water Authority (SCWA). The majority of the 60 billion gallons of water per year served to customers in Suffolk County comes from the upper aquifer, the Magothy Aquifer.[51] The recharge area for the aquifer consists of the entire Long Island area, and according to SCWA, the annual precipitation in Suffolk County alone is more than 400 billion gallons. The percentage loss of potential recharge water due to runoff is unknown.

Floodplains

Based on 2009 FEMA data, Plum Island is divided into three FEMA flood zone categories: Zone AE (*i.e.*, 100-year flood zone), Zone X (*i.e.*, 500-year flood zone), and Zone VE (*i.e.*, coastal flood zone with velocity hazard). A map of special flood hazard areas is included as Figure 3.7-1. The southeastern portion of Plum Island contains a large area that is designated as Zone AE. Smaller areas in the north and northeast portions of Plum Island are also designated as Zone AE. Plum Island's flood areas also include a narrow perimeter that is designated as Zone VE along

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47 Ibid.

48 Entech, CERCLA program report.

49 BMT Entech, Inc. 2007. After action report: Investigation and remedial actions at Area of Potential Concern (AOPC) 5 and 8. Prepared for the U.S. Department of Homeland Security under Contract No. 53-3K06-4-0300.

50 U.S. Geological Survey (USGS), Ground water atlas of the United States.

51 Suffolk County Water Authority (SCWA). 2010. Suffolk County 2010 annual drinking water quality report. http://www.scwa.com/SCWA_AWQR.pdf.

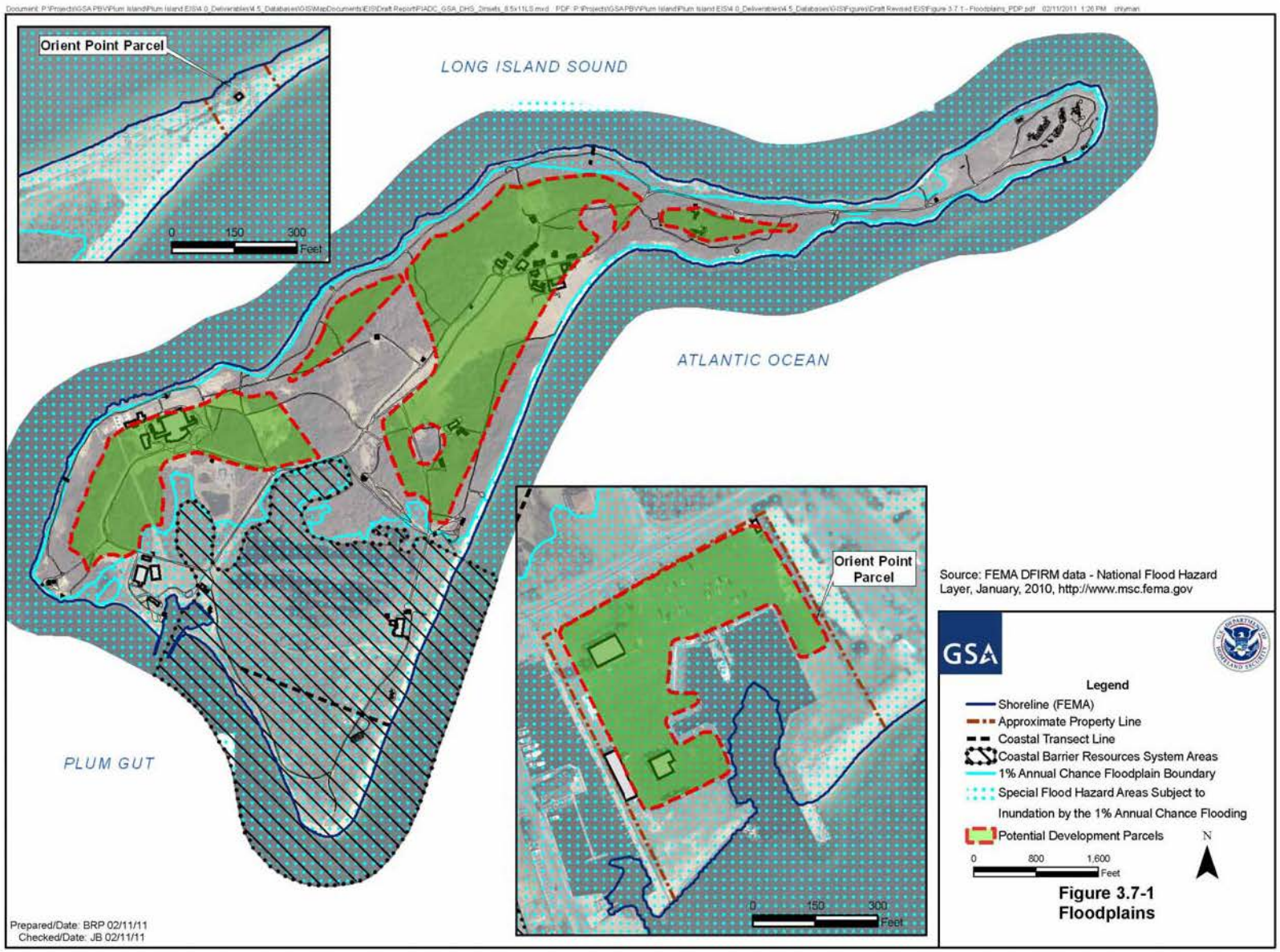

Figure 3.7-1: Plum Island Floodplains

the beachfront and the base of the bluffs. As mention previously, local zoning regulations of the Town regulate development within Special Flood Hazard Areas (*i.e.*, Zone AE and Zone VE), and would require a permit from the Town. The remaining areas of Plum Island, including the PIADC facility, are designated as Zone X, and are considered to have minimal hazard potential within the 100-year floodplain. Any structures within Zone X could be flooded by a severe and concentrated rainfall event coupled with inadequate stormwater conveyance and management.

Coastal Zones

Plum Island and Orient Point are located in the Long Island Region Coastal Area.[52] New York's Long Island Sound coast encompasses 304 miles of shoreline in Westchester, Bronx, Queens, Nassau, and Suffolk Counties. The Long Island Sound coastal area extends from the Connecticut border, near the Rhode Island border, to Orient Point and across the waters to include Fishers Island, New York. A map of the coastal zone surrounding Plum Island and Orient Point is included as Figure 3.7-2. The waters surrounding Plum Island are influenced by Plum Island's geologic past as a formed spine and sandy plane created by moraine deposits. A map (nautical chart) of Plum Island is included as Figure 3.7-3. Sandy plane remnants can be found to the south and southeast of the tip of Long Island. One shallow shelf 20 feet deep extends southeast approximately 3,000 feet off of the eastern portion of Plum Island before dropping to 30 to 50 feet in depth. The waters to the south and east of Orient Point, similar to the waters southeast of Plum Island, deepen more gradually, compared to the other area waters. The remaining waters around Plum Island, particularly those along Plum Gut, drop more sharply, to depths upward of 70 feet within 300 feet of the shore. Plum Gut, the mile-wide body of water that separates Plum Island from Orient Point, is a narrow, deep slough that reaches depths of nearly 200 feet on the eastern side of Plum Gut. Plum Gut sharply shallows from northeast to southwest because of the rocky outcrops that constitute the various shoals that are collectively known as "Oyster Ponds Reef." Deep pockets are present at both ends of Plum Gut, reaching depths of 330 feet off the northwest and 130 feet off the southeast end of Plum Gut. A similar feature, The Race, is located northeast of Plum Island, and is larger than Plum Gut. The section of The Race northeast of Plum Island is known as the "Sluice Way." Unlike Plum Gut, the Sluice Way reaches depths of only 50 feet, as shoals extend off the northeast tip of Plum Island between Plum Island and Great Gull Island, forming the Bedford Reef and rocky shoals, including Old Silas Rock and Middle Shoal Rock.

Average tide ranges for the Plum Island and Orient Point areas are approximately 2.6 feet, with spring tide ranges extending to more than 3.1 feet. During the change of tides, the waters rushing in and out of Long Island Sound, to and from the Atlantic Ocean, can produce strong currents in Plum Gut. Because of the Venturi effect caused by the narrow waterway, currents often run as high as 4 to 5 knots. The shoals in Plum Gut, aside from being a danger to ships, can produce waves as high as 6 feet as tidal waters pass over shallow areas such as Middle Ground and Midway Shoal. As the major ocean surface currents in the region are deflected from the Long Island region by landmasses to the north and south, the predominant currents in the area are tidally driven. Waters to the north and south of Orient Point and Plum Island largely run

[52] That portion of New York State coastal waters and adjacent shorelands as defined in Article 42 of the Executive Law which is located within the boundaries of the Town of Southold, as shown on the coastal area map on file in the office of the Secretary of State and as delineated in the Town of Southold Local Waterfront Revitalization Program (LWRP). In Southold this area is inclusive of the entire Town. (Town of Southold Code, Chapter 268-3).

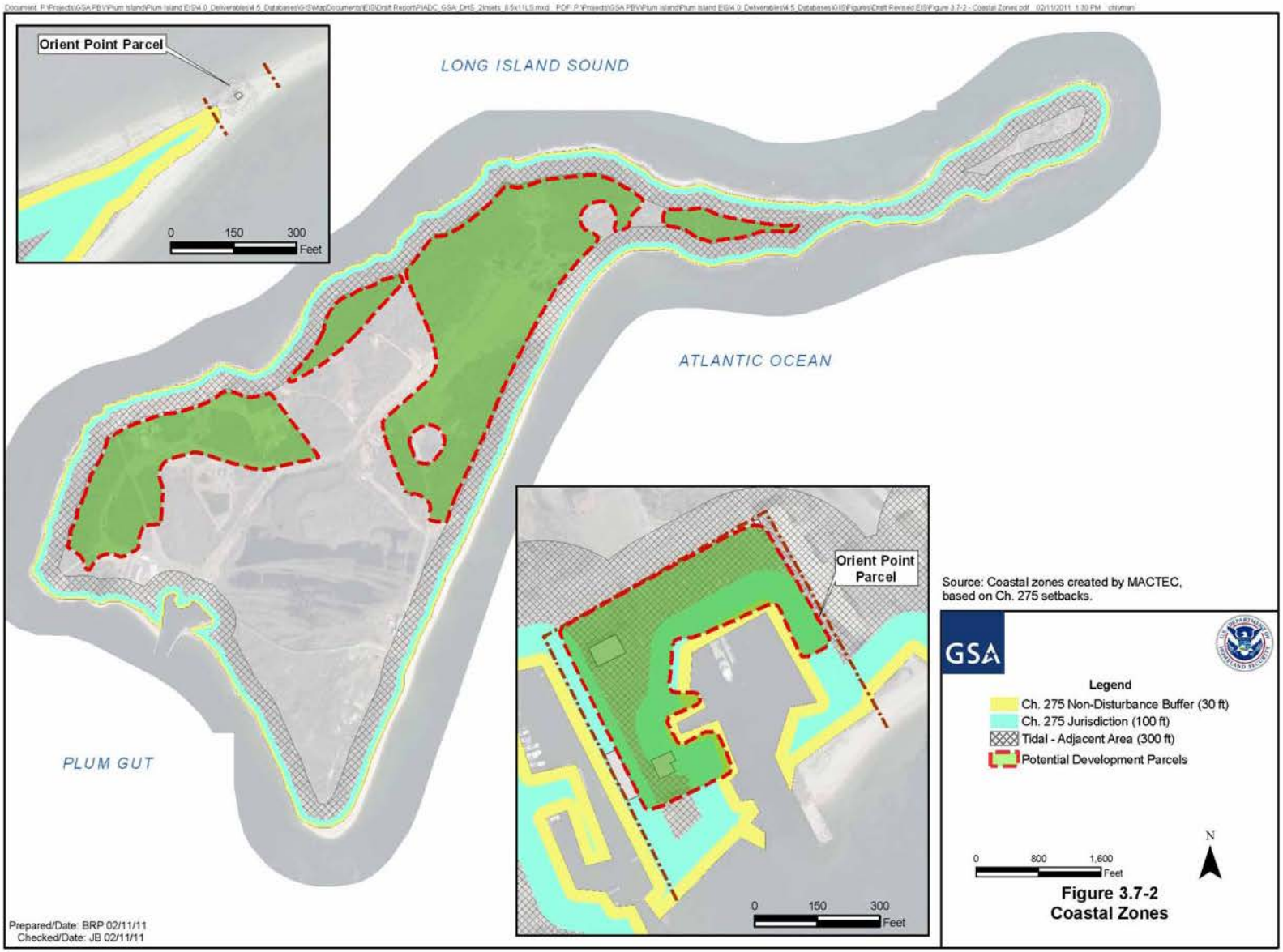

Figure 3.7-2: Plum Island Coastal Zones

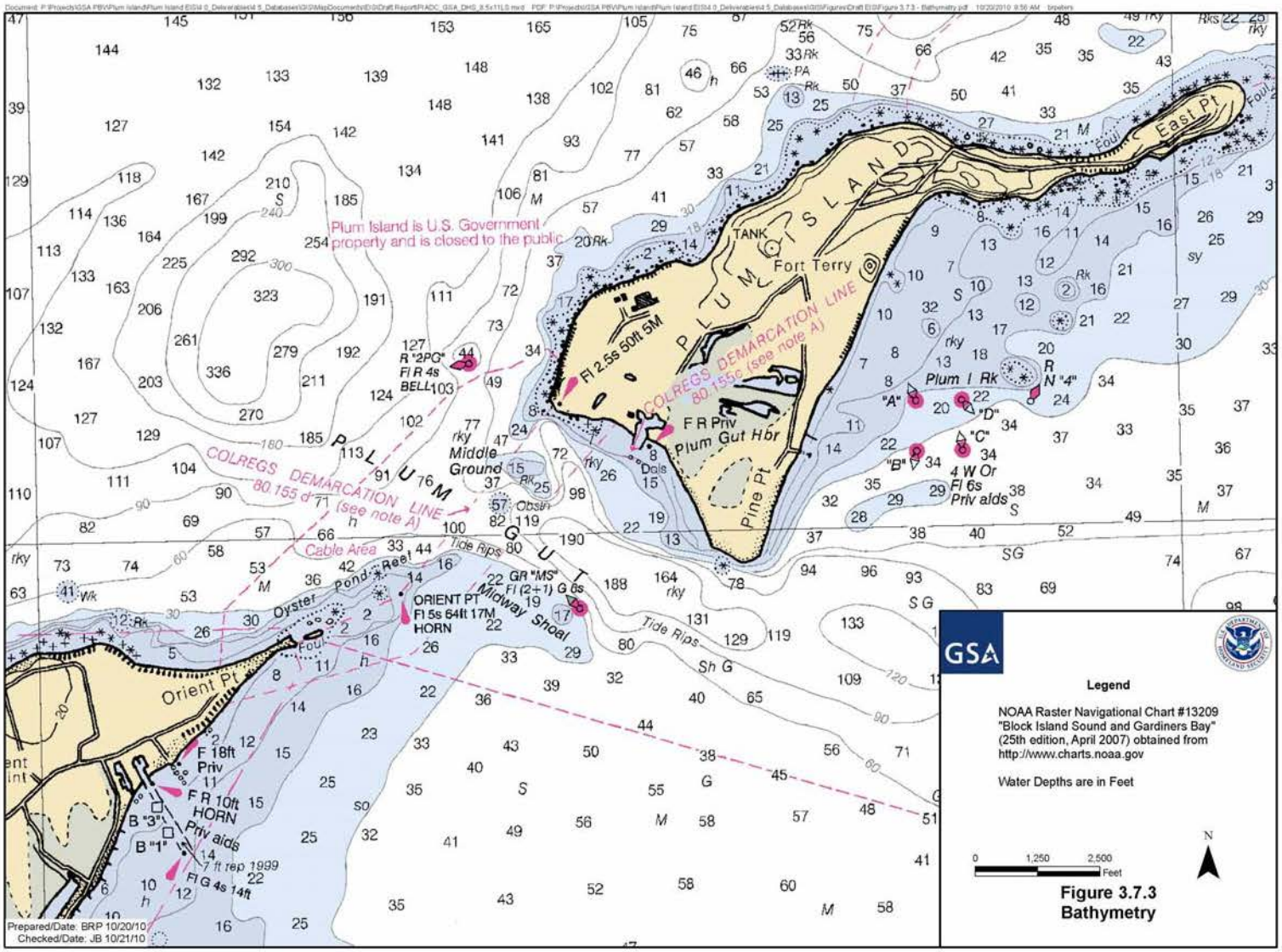

Figure 3.7-3: Plum Island Bathymetry

northeast and southwest along the coasts of the land masses during ebb and flood, respectively. These currents have maximum flow rates of 2 to 3 knots along the north coast, and 1 to 2 knots along the south coast. The waters in Plum Gut largely run southeast and northwest between Orient Point and Plum Island during ebb and flood, respectively. As mentioned previously, these currents are stronger than the currents that run along the coast, and can have maximum flow rates that exceed 5 knots through Plum Gut during peak ebb or flow.

Orient Point

Surface Water

Orient Point is the easternmost point on the North Fork of Long Island, and is bordered by Long Island Sound on three sides. Neither of the two Orient Point parcels have streams or rivers that discharge to the Sound. Based on USFWS National Wetlands Inventory (NWI) maps, the larger parcel has a limited area designated as tidal wetland along the shore, while the entire area of the smaller parcel is designated as a marine intertidal wetland on the NWI map. No freshwater surface waters are located on the Orient Point parcels. The surface waters are not currently used as a water source.

Stormwater

The larger parcel on Orient Point that encompasses the ferry support facility and docks has two small stormwater control systems. One system services the parking area north of the boat basin and the area to the south of Building 1. The second system services the area to the west of the boat basin and the area surrounding Buildings 2 and 3. The stormwater conveyance systems consist of trench drains located in the areas surfaced with concrete and asphalt, which are connected with underground piping. Site sheet flow travels across the open areas of the developed potions of the site to the two drainage systems. The flow of each system is directed to an oil/water separator before being discharged to the boat basin in Long Island Sound. The small parcel, located at the tip of Orient Point, does not have a stormwater control system. Similar to Plum Island, the low coastal topography and the high permeability of soils reduce the need for a stormwater conveyance system.

Groundwater

Unlike the Plum Island aquifer, the surficial aquifer of Orient Point is connected to the Northern Atlantic Coastal Plain aquifer system, which underlies all of Long Island in Segment 12 of the USGS *Ground Water Atlas of the United States*. The major water yielding units are the Magothy Formation and the Lloyd Sand Member of the Raritan Formation.[53] Like Plum Island, these groundwater resources occur in the sand and gravel of the Upper Pleistocene glacial deposits. The recharge area for the aquifer consists of the entire Long Island area; however, the recharge area for the on-site well is undefined. The percentage loss of recharge water due to runoff and streams in the county is unknown.

[53] U.S. Geological Survey (USGS), Ground water atlas of the United States.

Floodplains

Based on 2009 FEMA data, Orient Point is divided into two FEMA flood zone categories: Zone AE (*i.e.*, 100-year flood zone) and Zone VE (*i.e.*, coastal flood zone with velocity hazard). The larger of the two Orient Point parcels is predominantly designated as Zone AE, with a small strip of land designated as Zone VE along the shorefront. The entire smaller parcel at Orient Point is designated as Zone VE. As mentioned previously, local zoning regulations of the Town regulate development within Special Flood Hazard Areas (*i.e.*, Zone AE and Zone VE), and would require a permit from the Town.

Coastal Zones

Coastal zones for the local region, including Orient Point, are addressed under the Plum Island coastal zones subsection within this section.

3.7.3. Consequences

The respective federal action under the No Action Alternative and the Action Alternative will be analyzed for its reasonably foreseeable effect on the water use and natural resources of the Property pursuant to the Federal Consistency provisions of the CZMA (16 USC § 1456). Under the Action Alternative, the conveyance will be analyzed for consistency, to the maximum extent practicable, with the enforceable policies of the LWRP and the Long Island Sound Regional Coastal Management Program (LISRCMP). In addition, the impacts of the conveyance that affect the Connecticut coastal zone will be consistent, to the maximum extent practicable, with the policies of the Connecticut Coastal Management Act (CCMA).

3.7.3.1 No Action Alternative – Retain in Federal Ownership

Implementation of the No Action Alternative would have no impacts on water resources. The Property would be decommissioned, and access to Plum Island would be limited to required maintenance and/or security activities. Minor improvements would potentially be seen in Long Island Sound due to the reduced discharge of WWTP effluent, concurrent with the reduced human activity on Plum Island.

Plum Island

Surface Water

The decommissioning of Plum Island facilities would reduce the volume of waste water discharged to Long Island Sound. Based on available data, the WWTP discharges 1.4 pounds per day (lb/day) of BOD and 2.2 lb/day of TSS at a flow rate of approximately 46,000 gpd. Assuming that current activities are halted and human access is limited to only the required maintenance and/or security activities, WWTP operation would likely be reduced by at least 50 percent, thus reducing the daily loads of BOD and TSS to less than 0.7 and 1.1 pounds, respectively. The reduction of WWTP discharge would likely represent minor improvements in Long Island Sound surface water quality, which would assist in the implementation of the TMDLs applied to the Sound. Impacts to freshwater habitats on Plum Island are currently avoided to best extent practicable, and no future development within these environments is

proposed under the No Action Alternative. Reduced ferry services to and from Plum Island may provide benefits to the waters of Long Island Sound as a result of reduced boat traffic through localized decreases in turbidity and other pollutants associated with boat traffic. However, these benefits would likely be negligible due to the relative scale of existing water resources and boat traffic in Long Island Sound compared with the surface water resources currently affected by the ferry services supporting PIADC.

Stormwater

The decommissioning of Plum Island facilities would potentially reduce the amount of impervious cover on Plum Island, which would continue to lessen over time as the remaining impervious cover deteriorates. Reduced impervious surface would reduce the amount of stormwater discharging to Long Island Sound. Stormwater often carries with it a significant amount of organic matter, which when discharged represents a source of BOD and nitrogen to the receiving water. Because Long Island Sound is impaired for dissolved oxygen (DO), a reduction in stormwater runoff would represent a minor improvement in DO and nitrogen concentrations within the Sound. Stormwater runoff generated annually is equivalent to approximately 420,000 gpd. A reduction of impervious surface, however minimal, would allow for a reduction in the total volume of runoff generated and would increase the potential for physical and biological attenuation of constituents within the runoff, including BOD and nitrogen.

Groundwater

The decommissioning of Plum Island facilities would reduce the amount of water withdrawn from the Plum Island Aquifer. However, improvements to groundwater resources would be negligible as the current usage of groundwater remains within the sustainable yield of 150,000 to 200,000 gpd for the aquifer.

Floodplains

The decommissioning of Plum Island could have an improvement on floodplains. The removal of structures currently existing within the floodplains, should that occur, would allow areas to return to their natural state that are currently developed. However, these benefits would likely be negligible due to the relative scale of the existing developed areas compared with the undeveloped floodplain resources on Plum Island.

Coastal Zones

The No Action Alternative, including the decommissioning of Plum Island, would require a consistency determination or possibly a negative determination under the Federal Consistency provisions of the CZMA (a negative determination is a determination by a federal agency that a proposed activity will not have any coastal effects).

Orient Point

Surface Water

Surface water resources could potentially benefit from implementation of the No Action Alternative based on a reduction in boat traffic from reduced ferry service to Plum Island. However, these benefits would likely be negligible based on the presence of a private marina and public ferry service adjacent to the Orient Point support facility. In addition, treated waste water is not currently discharged to Long Island Sound at the Orient Point facilities. The decommissioning of the support facilities at Orient Point would not significantly improve surface water resources at the Orient Point support facilities.

Stormwater

The decommissioning of Orient Point facilities would reduce the amount of impervious cover at the Orient Point, which would lessen over time as the remaining cover deteriorates. Stormwater runoff improvement would be negligible, as the current stormwater system appropriately collects and conveys water to an oil/water separator before it is discharged to Long Island Sound.

Groundwater

The decommissioning of the support facilities at Orient Point would reduce groundwater usage for potable water, but would not significantly improve the groundwater resources of the Northern Atlantic Coastal Plain Aquifer System compared with the 60 billion gallons of water per year served to customers in Suffolk County.

Floodplains

Implementation of the No Action Alternative would not adversely impact or significantly improve floodplain resources. The floodplains of Orient Point would remain unchanged from their current condition, and would not significantly change with the decommissioning of the support facilities.

Coastal Zones

The No Action Alternative, including the decommissioning of Plum Island, would likely require a negative determination under the Federal Consistency provisions of the CZMA.

3.7.3.2 Action Alternative – Sale of the Property

3.7.3.2.1 Reuse Option 1 – Adaptive Reuse of Existing Infrastructure

Implementation of Reuse Option 1 would have a negligible impact on water resources. Modifications to accommodate a new function would likely require no or minimal expansion or change to the existing structures. In addition, activities would be subject to applicable federal, state, and local regulations regarding water resource protection.

Plum Island

Surface Water

Reuse Option 1 would not adversely impact surface water resources; WWTP discharges to Long Island Sound would not significantly differ from the current levels produced by the operation of the PIADC facilities. Discharges from the existing waste water treatment plant would continue to be regulated under the NYSDEC SPDES program, and the current operating permit. Impacts to freshwater habitats on Plum Island are currently avoided to best extent practicable, and no future development within these environments is proposed under this option. The ferry services to and from Plum Island would be maintained to provide access to Plum Island, with no significant changes in boat traffic volume. No significant short-term or long-term changes to surface water resources would be expected from implementation of this option.

Stormwater

Reuse Option 1 would not adversely impact stormwater runoff. The amount of impervious cover, and current stormwater volume, would not be significantly changed with the redevelopment and reuse of existing structures, as they would remain in their current location and encompass their current extent.

Groundwater

Under Reuse Option 1, groundwater resources would not be adversely impacted, as usage would not significantly change from current withdrawals, which are within the sustainable yield for the Plum Island Aquifer of 150,000 to 200,000 gpd.

Floodplains

Reuse Option 1 would not adversely impact the floodplains of Plum Island. Reuse would be limited to the current facilities locations, would not include development that could adversely impact floodplains, and would be subject to applicable federal, state, and local regulations regarding floodplain protection.

Coastal Zones

Conveyance for adaptive reuse of Plum Island will be analyzed for its reasonably foreseeable effect on the water use and natural resources of the Property pursuant to the Federal Consistency provisions of the CZMA. This action will be analyzed for consistency, to the maximum extent practicable, with the enforceable policies of the LWRP and the LISRCMP. In addition, the impacts of the conveyance that affect the Connecticut coastal zone will be analyzed for consistency, to the maximum extent practicable, with the policies of the CCMA.

Orient Point

Surface Water

No significant short-term or long-term changes to surface water resources would be expected from implementation of Reuse Option 1 – Adaptive Reuse of Existing Infrastructure. No change in the current level and extent of development and activities at the Orient Point support facilities would be expected.

Stormwater

No significant short-term or long-term changes to stormwater resources would be expected from implementation of this option. Stormwater runoff would not be adversely impacted, as the nature of the facilities at Orient Point would not change in capacity or extent.

Groundwater

No significant short-term or long-term changes to groundwater resources would be expected from implementation of Reuse Option 1. Withdrawals would not significantly change with the reuse of the support facilities at Orient Point, as their current function or extent would remain.

Floodplains

No significant short-term or long-term changes to floodplains would be expected from implementation of Reuse Option 1. The facilities at Orient Point would not change from their current function or extent.

Coastal Zones

3.7.3.2.2 Reuse Option 2 – Development (Range of Residential Density Scenarios)

Conveyance for adaptive reuse of Orient Point will be analyzed for its reasonably foreseeable effect on the water use and natural resources of Orient Point pursuant to the Federal Consistency provisions of the CZMA. This action will be analyzed for consistency, to the maximum extent practicable, with the enforceable policies of the LWRP and the LISRCMP.

The redevelopment of Plum Island under Reuse Option 2 would have minor to moderate impacts to water resources as compared with the No Action Alternative, especially during seasonal peak occupancy (minor impacts for the comparable density scenario and moderate impacts for the maximum density scenario). Residential development in areas shown in Figure 2.3-1 would impact water resources; however, impacts to water resources and receiving waters could be avoided and or mitigated through development restrictions imposed by existing local, state, and federal regulations.

Plum Island

Surface Water

The redevelopment of Plum Island under the Reuse Option 2 could increase the amount of waste water discharged to Long Island Sound. Overall impacts would be minor to moderate, as residential development in the range of 1 (minimum scenario) to 500 (maximum scenario) would be supported by the existing waste water treatment plant and discharges would be regulated under the existing NYSDEC SPDES program permit. If average daily discharge were to increase relative to existing conditions, there would be minor adverse impacts to Long Island Sound, as WWTP effluent, although regulated, still represents a source of BOD, nutrients, and pathogens. If residential development were to cause the current WWTP to operate near its 80,000-gpd capacity, and treatment performance were to remain similar to current performance, daily loading of BOD and TSS would increase to approximately 2.8 and 4.4 pounds, respectively. Nitrogen loading would also increase, contributing to the impairment of Long Island Sound. Although this is would be a significant increase relative to existing discharge, it does not represent a significant increase in the total daily loading to Long Island Sound. A new or modified permit would be required to operate the WWTP at capacities exceeding its currently permitted capacity.

The Potential Development Parcels avoid development in freshwater resource areas including ponds and wetlands and their regulatory buffers, and development would not be expected to directly impact these water resources. The Potential Development Parcels do overlap existing upland forest. Because upland forests provide a degree of natural filtration and storage capacity, development of upland forest areas could increase water flow to downstream receiving waters, including wetlands and ponds located on Plum Island. Because the assimilation capacity of these downstream surface waters is not known, impacts cannot be directly assessed, although potential for surface water degradation could be minor. Long Island Sound would not be significantly impacted because Reuse Option 2 would not significantly change activities, such as ferry traffic, that could potentially affect surface water resources.

Stormwater

The redevelopment of Plum Island under Reuse Option 2 would, depending on development density scenario, either decrease or increase the amount of impervious cover and runoff. Currently, there is less than 15 acres of impervious surface on Plum Island. In the comparable density scenario, with development of 168 units on the 221 acres deemed suitable for development (Figure 2.3-1), the total amount of impervious surface would increase to approximately 47 acres.[54] This would result in the total impervious surface cover of Plum Island increasing from 1.5 percent to over 4 percent. In the maximum density scenario, with development of 500 units, the total amount of impervious surface would increase to approximately 139 acres. Increased loading to Long Island Sound would be the result of an increase in runoff generated and a decrease in the ability of the remaining pervious surface to

[54] U.S. Department of Agriculture (USDA). 1986. Urban hydrology for small watersheds, second edition. Technical Release 55. Natural Resources Conservation Service, Conservation Engineering Division.

attenuate, physically and biologically, the various constituents within the runoff, including BOD and nitrogen.

Stormwater could be impacted short-term during construction and development, but would be avoided and or mitigated through temporary runoff/erosion controls and BMPs imposed by existing local, state, and federal regulations. During construction, erosion and sedimentation control measures such as silt fences, filter berms, and temporary seeding and mulching could be implemented to effectively prevent accelerated erosion and sedimentation. The long-term impacts would be moderate, as residential development brings with it an increased probability of contaminant runoff through the use of fertilizers, pesticides, herbicides and landscape alterations. Also, development of existing upland forests would represent a decrease in rain and runoff assimilation capacity, thus increasing the magnitude of stormwater impact relative to the No Action Alternative. Increased contaminant loadings to downstream water bodies would be addressed through the development of permanent stormwater controls on Plum Island that would be subject to federal, state, and local stormwater regulations. Site planning could be employed to:

- preserve natural features by protecting undisturbed areas and reducing clearing and grading;
- reduce impervious cover by the minimization of roadways, driveways, and building footprint;
- reduce stormwater runoff through the use of rain gardens and vegetated open swales; and
- mitigate contaminant release by implementing measures to enhance water quality, such as sand filters and bioretention facilities.

If implemented properly, stormwater controls would help decrease the contaminant loadings to Long Island Sound.

Groundwater

Under Reuse Option 2, water usage would remain within the 150,000 to 200,000 gpd sustainable yield of the Plum Island Aquifer, as the lower end of the sustainable yield range is the basis for determining the maximum density scenario. Assuming the U.S Census Bureau statistic of 2.59 persons per dwelling unit is applicable, with 500 dwelling units, there would be a maximum of 1,295 persons potentially living on Plum Island during the peak vacation season, which would be significantly greater than the current population of 300. Considering the factor of 100 gpd of drinking water use per person, this would result in pumping of 129,500 gpd. Impacts to groundwater resources would be minor to moderate.

Floodplains

Reuse Option 2 would not adversely impact the floodplains of Plum Island. The Potential Development Parcels avoid development in floodplains, and are limited to the lands with minimal known restrictions (Figure 2.3-1).

Coastal Zones

Conveyance for adaptive reuse of Plum Island will be analyzed for its reasonably foreseeable effect on the water use and natural resources of the Property pursuant to the Federal Consistency provisions of the CZMA. This action will be analyzed for consistency, to the maximum extent practicable, with the enforceable policies of the LWRP and the LISRCMP. In addition, the impacts of the conveyance that affect the Connecticut coastal zone will be analyzed for consistency, to the maximum extent practicable, with the policies of the CCMA.

Orient Point

Surface Water

No significant short-term or long-term changes to surface water resources would be expected from implementation of Reuse Option 2. The rezoning of the Plum Island support facilities at Orient Point would not adversely impact surface water resources because the facilities would not change from their current function or extent.

Stormwater

No significant short-term or long-term changes to stormwater resources would be expected from implementation of Reuse Option 2. Stormwater runoff would not be adversely impacted, as the nature of the facilities at Orient Point would not change in capacity or extent.

Groundwater

No significant short-term or long-term changes to groundwater resources would be expected from implementation of Reuse Option 2. Withdrawals would not significantly change with the reuse of the support facilities at Orient Point, as their current function or extent would remain.

Floodplains

No significant short-term or long-term changes to floodplains would be expected from implementation of Reuse Option 2. The facilities at Orient Point would not change from their current function or extent.

Coastal Zones

No significant short-term or long-term changes to the coastal zone would be expected from implementation of Reuse Option 2; however, the conveyance out of federal ownership will be analyzed for its reasonably foreseeable effect on the water use and natural resources of Orient Point pursuant to the Federal Consistency provisions of the CZMA. This action will be analyzed for consistency, to the maximum extent practicable, with the enforceable policies of the LWRP and the LISRCMP.

3.7.3.2.3 Reuse Option 3 – Conservation/Preservation

Implementation of Reuse Option 3 would not adversely impact and could potentially improve upon water resources on Plum Island. Conserving Plum Island, through conversion to a wildlife conservation or preservation area for example, could reduce and or eliminate impacts to water resources from human activities.

Plum Island

Surface Water

Benefits of a minor nature to freshwater and marine surfaces waters may be associated with Reuse Option 3. Reduction of ferry services and resulting reduction in boat traffic could provide benefits to marine resources through localized decreases in turbidity and other pollutants associated with boat traffic. Improvements would be minimal based on the relative scale of existing marine resources and boat traffic in Long Island Sound compared with the surface water resources currently affected by the ferry services supporting PIADC. This option would also reduce or eliminate waste water discharges to Long Island Sound. This would represent a minor improvement to water quality within the Sound because current WWTP discharge contributes 1.4 lb/day and 2.2 lb/day of BOD and TSS, respectively, along with an unknown quantity of nitrogen. Existing wetlands and inland surface waters would also benefit from reduced stormwater runoff and reduced habitat fragmentation. Establishing natural connections between wetlands and their associated uplands eliminates direct stormwater and pollutant loadings generated from impervious surfaces and allows wetlands and ponds to develop a more natural hydrologic and nutrient cycle, providing increased habitat to wildlife and improvements in quality of runoff and groundwater recharge.

Stormwater

Reuse Option 3 could reduce the amount of impervious cover on Plum Island, which would continue to lessen over time as the remaining cover deteriorates. Stormwater runoff improvement would be minor, as current stormwater generation represents minor loadings of organic matter to Long Island Sound, which causes further impairment of DO and nitrogen concentrations. Decreasing the amount of impervious surface and increasing the amount of natural habitat, including upland, wetland and open water, will both reduce the amount of runoff generated and improve the quality of any remaining runoff generated through natural physical and biological filtration mechanisms.

Groundwater

Reuse Option 3 would reduce the amount of water withdrawn from the Plum Island aquifer. However, improvements to groundwater resources would be negligible, as the current usage of groundwater remains within the 150,000 to 200,000 gpd sustainable yield of the Plum Island Aquifer.

Floodplains

Reuse Option 3 – Conservation/Preservation could have an improvement on floodplains. The removal of structures currently existing within the floodplains would allow areas to return to their natural state that are currently developed. However, these benefits would likely be marginal to negligible due to the relative scale of the existing developed areas compared with the undeveloped floodplain resources on Plum Island.

Coastal Zones

Reuse Option 3 would likely require a consistency determination or possibly a negative determination under the Federal Consistency provisions of the CZMA.

Orient Point

Surface Water

Freshwater resources do not exist on the Orient Point support facility; therefore no impacts would be expected under Reuse Option 3. Minor changes in marine surface waters may be associated with this option. As with Plum Island, the decommissioning or reduction of the ferry services and Plum Island terminal could increase the water quality; however, improvements would be likely be minimal based on the relative scale of resources, and the continuation of marina activities and public ferry services adjacent to the Orient Point parcel.

Stormwater

Reuse Option 3 would reduce the amount of impervious cover at the Orient Point through facility decommissioning, which would continue to lessen over time as remaining cover deteriorates. Stormwater runoff improvement would be negligible, as the current stormwater system appropriately collects and conveys water to an oil/water separator before being discharged to Long Island Sound.

Groundwater

The decommissioning of the support facilities at Orient Point would reduce groundwater usage for potable water, but would not significantly improve the groundwater resources of the Northern Atlantic Coastal Plain Aquifer System compared with the 60 billion gallons of water per year served to customers in Suffolk County.

Floodplains

Implementation of Reuse Option 3 would not adversely impact or significantly improve floodplain resources. The floodplains of Orient Point would remain unchanged from their current condition, and would not significantly change with the decommissioning of the support facilities.

Coastal Zones

Reuse Option 3 – Conservation/Preservation would likely require a consistency determination or possibly a negative determination under the Federal Consistency provisions of the CZMA.

3.8. BIOLOGICAL RESOURCES

3.8.1. Methodology

The ecological context of the Property was established by characterizing the natural vegetation of the region based on review of regional natural community guides and other pertinent literature from the New York National Heritage Program.[55] Site-specific plant community descriptions are based primarily on observations made during a two-day habitat survey of the Property conducted on September 13 and 14, 2010, and visits to the Property conducted in support of the Environmental Gap Analysis Report.[56] In addition, known occurrences of rare or significant natural communities near the Property were identified through review of state Natural Heritage Program data. Vegetation effects were assessed based on the type and quality of the affected communities and the extent of impacts.

Plant community composition and quality were used to predict wildlife use of on-site habitats. Additional resources that were used to evaluate wildlife resources included state Gap Analysis Program (GAP) documents and distribution maps,[57] state wildlife action plans, species lists from adjacent nature preserves, and other relevant literature resources. Effects on wildlife were then evaluated based on the quality and rarity of the affected habitat and the extent of impacts.

Federally listed species are protected under the ESA of 1973, as amended (16 U.S. Code [USC] 1531-1543), which requires federal agencies to ensure that any actions they authorize, fund, or carry out do not jeopardize the "continued existence" of listed species or result in the destruction or adverse modification of habitat designated as critical to their existence. Site-specific plant community descriptions were used to evaluate the potential for on-site occurrences of state and federally listed threatened and endangered species. Additional resources that were used to evaluate potential occurrences of threatened and endangered species included review of state Natural Heritage Program databases, review of USFWS and Natural Heritage Program county species lists, and direct correspondence with the USFWS and state Natural Heritage Programs.[58] Copies of the coordination letters and responses received are included in Appendix C. In addition, information on avian species using the site was obtained from the North Fork Audubon

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[55] New York Natural Heritage Program (NYNHP). 2007. Natural heritage report on rare species and ecological communities. Submitted to BMT Entech for potential upgrades at Plum Island Animal Disease Center.

[56] MACTEC Engineering and Consulting, Inc. (MACTEC). 2010. Environmental data gap analysis report, Plum Island Animal Disease Center. Prepared for General Services Administration.

[57] Smith, C.R., S.D. DeGloria, M.E. Richmond, S.K. Gregory, M. Laba, S.D. Smith, J.L. Braden, E.H. Fegraus, E.A. Hill, D.E. Ogurcak, and J.T. Weber. 2001. The New York gap analysis project final report. Ithaca, NY: Cornell University, New York Cooperative Fish and Wildlife Research Unit.

[58] New York Natural Heritage Program (NYNHP). 2010. Response letter providing results of NYNHP review of Natural Heritage Database, August 12, 2010.

Society. Effects were evaluated based on known occurrences of listed species and the presence of potential habitat at the sites.

Site visits by qualified professionals and analysis of NWI, county soil survey maps, and NYSDEC mapped and regulated wetlands were used to evaluate potential on-site occurrences of Section 404 jurisdictional wetlands. The wetlands mapped by the NYSDEC also include "wetland check zones," areas that have been delineated by the State that would require an on-site survey for wetlands and site-specific wetland delineation. In addition, a wetland delineation was conducted on a small portion of the Property in support of the NBAF-EIS,[59] and a site-specific vernal pool survey was undertaken as a part of this EIS, the results of which are presented below.[60]

The terms of potential impacts are described as follows:

Negligible: Individual plants may occasionally be impacted, but measurable or perceptible changes in vegetation community size, integrity, or continuity would not occur. Terrestrial and aquatic wildlife and their habitats would not be impacted, or the impacts would be at or below the level of detection and would not be measurable or of perceptible consequence to wildlife populations.

Minor: Adverse and beneficial impacts on vegetation and wildlife would be measurable or perceptible, but would be localized within a small area. For adverse impacts, the viability of the vegetation community and wildlife populations would not be impacted and the community, if left alone, would recover.

Moderate: For adverse and beneficial impacts, a change would occur to the native vegetation community or wildlife populations over a relatively large area that would be readily measurable in terms of abundance, distribution, quantity, or quality. Mitigation measures to offset/minimize adverse impacts would be necessary.

Major: Adverse and beneficial impacts on vegetation communities or wildlife populations would be readily apparent and would substantially change vegetative community types over a large area, inside and outside the development area. Extensive mitigation would be necessary to offset adverse impacts.

3.8.2. Affected Environment

Plum Island and Orient Point are located in the Coastal Lowland Ecozone of the Atlantic Coastal Plain physiographic province.[61] Characteristic natural communities of the Coastal Lowland

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59 Lang, B. 2007. Plum Island, Suffolk County, New York – freshwater and saltwater wetland delineation, p.22. Prepared for JGI Eastern, Inc., Rocky Hill, CT. B. Laing Associates.

60 MACTEC Engineering and Consulting, Inc. (MACTEC), Environmental data gap analysis report.

61 Edinger, G.J., D.J. Evans, S. Gebauer, T.G. Howard, D.M. Hunt, and A.M. Olivero, eds. 2002. Ecological communities of New York State, second edition, a revised and expanded edition of Carol Reschke's ecological communities of New York State (draft for review). Albany, NY: New York State Department of Environmental Conservation, New York Natural Heritage Program.

Ecozone include marine intertidal gravel/sand beach and marine rocky intertidal, maritime beach, maritime dune, maritime shrubland, maritime forest, coastal plain pond, coastal hardwood forests, and freshwater wetlands. Figure 3.8-1 shows the general vegetative land cover on Plum Island. Beach/dune systems comprise approximately 101 acres, upland forests that have been subject to significant historical disturbance comprise approximately 241 acres, upland forests that have remained relatively undisturbed comprise approximately 196 acres, freshwater wetlands comprise approximately 96 acres, and developed and/or maintained areas comprise approximately 170 acres.

Natural communities on Plum Island have been heavily impacted by human activities. These included livestock grazing, establishment of a coastal artillery fort (*i.e.*, Fort Terry 1879 - 1948), historical artillery batteries, and development of PIADC, including numerous structures, trenches, borrow pits, utility corridors, and other mowed or disturbed areas across Plum Island. Natural vegetation on Plum Island is influenced by maritime processes that include high winds, salt spray, overwash, and dune formation and shifting. Plum Island contains characteristic maritime communities that include beach, dune, and maritime shrub/forest. Additional communities include an extensive complex of freshwater herbaceous/shrub wetland communities on the southwestern portion of Plum Island, and coastal hardwood forests on elevated moraine deposits that are protected from ocean salt spray and overwash. The back side of Plum Island on Long Island Sound is actively eroding, resulting in vertical bluffs that are adjoined by unvegetated beaches consisting of sand and glacial till (gravel, cobble, and boulder). Consequently, Plum Island lacks tidal marshes and salt shrub communities that are characteristic of barrier Islands and other moraine Islands in Long Island Sound.

Marine/Estuarine Communities

Marine intertidal gravel/sand beach is a community washed by rough, high-energy waves, with sand or gravel substrates that are well-drained at low tide. These areas are subject to high fluctuations in salinity and moisture.[62] Plum Island includes approximately 2.3 miles of marine intertidal sand and gravel beach habitat. The remaining shore line of Plum Island is dominated by marine rocky intertidal habitat. The area landward of the beach and rocky shore habitats is actively eroding along most of Plum Island. The erosion occurring along the shore is a direct result of the local tides, currents, and storms and is not attributable nor a result of current or historic activities conducted on Plum Island. These habitats lack rooted vascular vegetation due to the dynamic nature of the environment. However, these communities provide critical habitat for marine and terrestrial invertebrates, which in turn provide a significant food source for migratory shorebirds and bats.

Beach/Dune Communities

Maritime beaches, maritime dunes, maritime bluffs, maritime shrublands, maritime heathlands, and maritime forests are often found in association with each other forming a complex of habitat

[62] Edinger et al., Ecological communities of New York State.

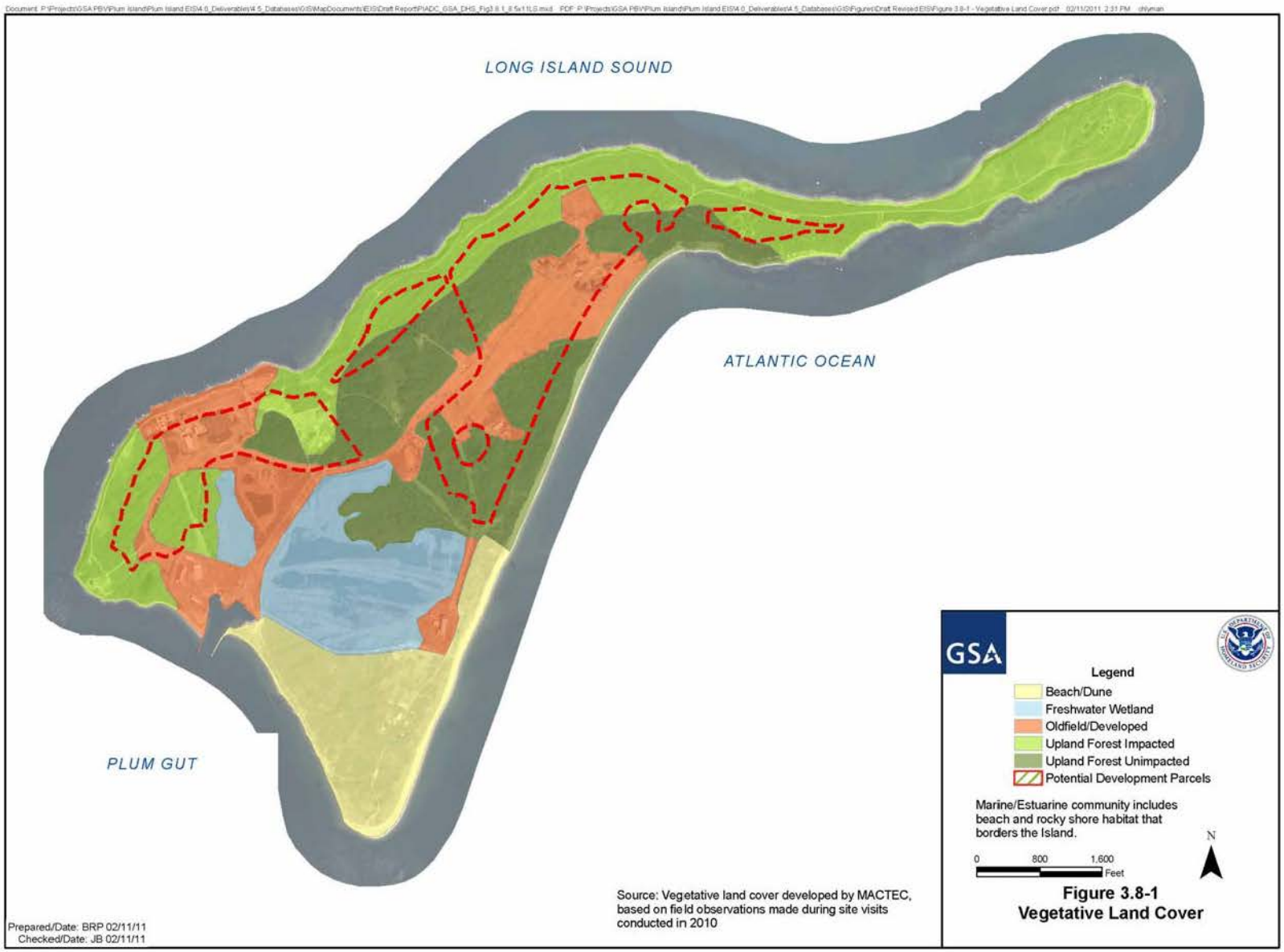

Figure 3.8-1: Plum Island Vegetative Land Cover

types in the Coastal Lowland Ecozone.[63] The beach/dune communities on Plum Island exist in the southwestern end of Plum Island. This area is recognized as maritime dune habitat by the State of New York and is currently ranked as S3 or significant habitat. The State considers this habitat type to have high ecological and conservation value. This area also includes known breeding grounds for several protected avian species, including the endangered piping plover (*Charadrius melodus*), threatened northern harrier (*Circus cyaneus*), and osprey (*Pandion haliaetus*), which is a species of special concern. In addition, one rare plant species is known to occur in this area, seabeach knotweed (*Polygonum glaucum*).[64]

The southwestern portion of Plum Island is a complex of communities and includes maritime beach, maritime dune, maritime shrub, and maritime forest communities. This habitat transitions into the freshwater wetland complex that exists in the south-central and southwestern portion of Plum Island. The seaward boundary of this community is marine intertidal sand and gravel beach, the landward boundary of this community is defined by a 4 wheel drive road, a former narrow gage railroad bed, which marks a transition to the central freshwater wetland complex.

The habitat in this area is dominated by a mix of grass and shrub vegetation, but also included pockets of forest dominated habitat. In addition, there are portions of this habitat that have been impacted by activities on Plum Island, including the area around Building 257. The herbaceous species observed in the area included beach grass (*Ammophila breviligulata*), primrose (*Oenothera* spp.), black grass (*Juncus gerardi*), panic grass (*Panicum* sp.), red top (*Agrostis alba*), aster (*Aster* sp.), slender-leaved goldenrod (*Solidago tenuifolia*), seaside goldenrod (*Solidago sempervirens)*, common mullein (*Verbascum thapsus*), and phragmites (*Phragmites communis*). The shrub species observed in the area included bayberry (*Myrica pensylvanica)*, highbush blueberry (*Vaccinium corymbosum*), green briar (*Smilax* spp.), poison ivy (*Toxicodendron radicans)*, raspberry (*Rubus* spp.), beach rose and multiflora rose (*Rosa multiflora*), ink berry (*Ilex glabra*), and Virginia creeper (*Parthenocissus quinquefolia*). The tree species observed in the area included eastern red cedar (*Juniperus virginiana)*, tupelo (*Nyssa sylvatica*), red maple, (*Acer rubrum*), black cherry (*Prunus serotina)*, and weeping willow (*Salix babylonica*).

Upland Forested and Old Field Communities

Areas that are protected from coastal processes contain a number of deciduous coastal forest communities that are dominated by various combinations of hardwood species.[65] The upland forest communities on Plum Island were categorized in the field into two distinct forest types, undisturbed and disturbed. Undisturbed upland forest included those areas that do not appear to have been significantly impacted by activities on Plum Island and or occur in areas that are relatively protected from the prevailing winds and storms. Disturbed upland forests include areas that were likely impacted by past activities on Plum Island and or occur in areas that are regularly exposed to prevailing winds and storms. Forested areas along the exposed northern shoreline were categorized as disturbed because these habitat types are exposed to natural

63 Ibid.
64 New York Natural Heritage Program (NYNHP), Response letter.
65 Edinger et al., Ecological communities of New York State.

disturbances that limit these areas from developing into late successional stage forests observed in other areas on Plum Island. The elements that differentiate the two forest types included tree height, dominant tree species, understory vegetation composition and density, as well as landscape position.

The undisturbed forest generally occurs in two areas on Plum Island, the south side of the terminal moraine that runs approximately east/west along the north side of Plum Island and the upland forest located to the west of the water treatment plant. The upland forest is characterized as a typical late successional stage forest with a well developed understory of shrubs and saplings. The trees in these areas ranged from approximately 20 to 80 feet high. The understory is moderately dense but does include some open areas. The understory is dominated by green briars and bittersweet (*Celastrus obiclatus*). The tree species observed in this upland forest community include red maple, Norway maple (*Acer platanoides*), red oak (*Quercus rubra*), hickory (*Carya ovate*), green ash (*Fraxinus pennsylvannica*), white oak (*Quercus alba*), and tupelo (*Nyssa sylvatica*). The understory included the following shrub species green briar, raspberry, poison ivy, bittersweet, highbush blueberry, arrowwood (*Viburnum dentatum)*, sweet pepper bush (*Clethra alnifolia*), and Virginia creeper. The herbaceous layer is sparsely vegetated, species observed included pipsissewa (*Chimaphila maculate*), false Solomon's seal (*Smilacina racemosa*), lily of the valley (*Convallaria majalis*) and cinnamon fern (*Osmunda cinnamomea*).

The majority of forested habitat that exists on Plum Island appears to be disturbed. Disturbed forests occur in areas that were formerly cleared and maintained and or occur on the north-facing slopes. These areas are discernable from undisturbed forest based on the tree species present, tree height, and the composition of the understory vegetation. The trees in this upland forest type were notably stunted and included a higher number of black cherry (*Prunus serotina*) trees and pine trees, including red pine (*Pinus resinosa*) and eastern red cedar. The tree species observed in these forested areas included the aforementioned species as well as Norway maple (*Acer platanoides*) and tree of heaven (*Alianthus altissima*). The shrub species that were observed in the understory of the impacted forests included poison ivy, bittersweet, multiflora rose, Virginia creeper, green briar, chinaberry (*Melia azedarach*) and raspberry. The herbaceous species observed included grape fern (*Botrychium dissectum*), pokeweed (*Phytolacca americana*), goldenrod, sedge (*Juncus* sp.), field horsetail (*Equisetum arvense*), tansy (*Tanacetum vulgare*), steeplebush (*Spirea tomentosa*), mullein (*Verbascum thapsus*), knapweed (*Centaurea nigra*), round headed bush clover (*Lespedisa capitata*) and jimsonweed (*Datura stramonium*).

The open areas within the Coastal Lowland Ecozone are dominated by successional old field community. These areas do not include the maintained lawn areas around buildings and roads. The old field community on Plum Island is limited to the parade grounds associated with Fort Terry and the managed lawn areas adjacent to roads and buildings. These areas remain open (*i.e.*, without significant tree or shrub growth) through periodic mowing. The grassed areas along roads are more intensely managed than the large field that includes the former parade grounds. The grassed areas are likely mowed weekly during the growing season while the parade ground field is likely mowed annually. These areas are dominated by forbs and grasses, including goldenrods, asters, milkweed (*Asclepias syriaca*), redtop (*Agrostis alba*), little bluestem (*Schizachyrium scoparium)*, and switch grass (*Panicum* sp.).

Freshwater Wetland Communities

The southern portion of Plum Island contains a large freshwater wetland complex. The wetland complex, as well as the other freshwater wetlands on Plum Island, has been mapped by USFWS, National Wetland Inventory (NWI),[66] and by the State of New York (NYSDEC),[67] as shown in Figures 3.8-2, and 3.8-3, respectively. The State of New York mapped approximately 92.2 acres of freshwater wetlands and the U.S. Fish and Wildlife Service has mapped approximately 80.5 acres of freshwater wetlands on Plum Island. There is some overlap between the NYSDEC and NWI mapped wetlands; however, based on site visits and reviews of aerial photographs, the NWI wetlands appear to be more accurate and representative of the freshwater wetlands on Plum Island. In addition, there are two wetland areas that have been mapped by the State (designated by the labels PL-7 and PL-8 on Figure 3.8-3) that do not appear to be wetland based on a review of the areas during site visits to Plum Island. The surface water features on Plum Island consist of various types of freshwater wetlands, including unconsolidated bottom, aquatic bed, tidal, vernal pool, emergent and forested wetland areas.

The freshwater wetland complex in the southern end of Plum Island includes open water, emergent marsh, and scrub-shrub dominated wetlands. Common hydrophytic herbaceous species observed in the wetlands include cattails (*Typha* spp.), sedges, and rushes. The dominant shrub species observed in the wetland included include button bush (*Cephalanthus occidentalis*), high bush blueberry, sweet pepper bush, and multiflora rose. The trees observed bordering the wetland complex include red maple and tupelo. Plum Island lacks tidal salt marsh communities that are characteristic of other islands in Long Sound.

A small 0.5-acre coastal plain pond exists in a kettle-hole depression in the western end of the Property southeast of the Plum Island Light Station. This feature has been mapped by both the State of New York and NWI; however, the NWI mapped wetland appears to more accurately delineate the actual wetland boundary based on review of aerial photographs and site reconnaissance. The pond is ringed with the hydrophyte water willow (*Decodon verticilatus*). There is an abrupt distinct boundary between the wetland/pond edge and bordering upland habitat, as defined by the sloping banks of the kettle depression.

Vernal Pool Communities

A site-specific vernal pool survey was undertaken in 2010, the results of which are presented in the Vernal Pool Survey Report,[68] and are summarized below. The vernal pool survey was conducted in spring 2010 to evaluate spring breeding amphibians that may occur on Plum Island. An initial site reconnaissance was conducted on March 16, followed by two additional site visits to revisit previously identified potential vernal pools. Based on a review of the habitat requirements for the winter breeding tiger salamander, it was determined that this species is unlikely to occur on Plum Island, because pine barren habitat where these salamanders are found

[66] U. S. Fish and Wildlife Service. 2010. National Wetland Inventory (NWI) Maps. http:// www.fws.gov/wetlands/data.

[67] New York State Department of Environmental Conservation (NYSDEC). 2010. New York State Regulatory Freshwater Wetlands for Suffolk County, http://CUGIR.Mannlib.cornell.edu.

[68] MACTEC Engineering and Consulting, Inc. (MACTEC). 2010. Vernal pool survey report: Plum Island Animal Disease Center.

Figure 3.8-2: NWI Wetlands on Plum Island

Figure 3.8-3: NYSDEC Wetlands on Plum Island

does not exist on Plum Island. In addition, during the spring vernal pool survey, no tiger salamander larvae were found. None of the topographically low areas observed on Plum Island supported vernal pool habitat. In addition, none of the mapped wetlands appear to be providing amphibian breeding habitat; however, these areas would be regulated as freshwater wetlands. No vernal pools were observed in the surveyed forested uplands.

Evidence of amphibian breeding activity (*i.e.*, spermataphores and frog or salamander egg masses) was not observed in any of the areas investigated. Several isolated wetland areas that contained ponded water at the time of the survey did contain facultative vernal pool invertebrates, including fingernail clams, freshwater snails, and invertebrates (*i.e.*, isopods, caddisflies, and mosquito larvae).

Orient Point Natural Communities

The approximately 9-acre parcel located at Orient Point is surrounded by development Cross Sound Ferry terminal is located to the east, Gardiner Bay to the south, a marina to the west and residential properties to the north. The Property is mostly developed and includes two warehouse facilities, an office building, and parking lot, and lacks undeveloped terrestrial habitat or freshwater resources.

Marine resources include maritime beach and maritime dune ecological communities that occur in the southern part of the parcel on either side of the harbor inlet. Seaward of the beach/dune communities is a small area (approximately 800 linear feet) of marine intertidal sand and gravel beach.

Rare and Significant Natural Communities

A request was sent to NYNHP to search their database for rare threatened and endangered species and significant natural habitats or natural communities that may occur on or near Plum Island and the Orient Point support facility. The responses to the inquiry were included in a letter from the NYNHP, dated August 12, 2010. The NYNHP indicated that the Property is located adjacent to a designated Significant Coastal Fish and Wildlife Habitat (Plum Gut). The letter also indicated that a portion of Plum Island is designated as Maritime Dune community, which is recognized by the State as a significant natural habitat. The only sensitive or state threatened plant species listed in the NYNHP letter was seabeach knotweed, which is known to occur in this habitat on Plum Island (Appendix C).[69]

A 2010 Natural Heritage Report on Rare Species and Ecological Communities by NYNHP was submitted to AMEC in a letter dated August 13, 2010, and included in Appendix C. The NYNHP describes the maritime dune community as a low dune field with scattered blowouts and patches of low shrubby vegetation. The letter further indicates that many non-native species are present along old roads within the dunes; however, the community is described as a fairly large occurrence that is in good condition. The report also noted that no wet interdunal swales were

[69] New York Natural Heritage Program (NYNHP), Response letter.

seen; however, surveys conducted by AMEC did identify areas within the dune community that did appear to be interdunal swales in the southeastern corner of Plum Island.[70]

In addition, a recent paper by Eric Lamont (New York Botanical Garden, Bronx, New York) and Richard Stalter (St. Johns University, Jamaica, New York), titled "*Historical and Extant Rare, Protected, and Noteworthy Plants of Plum Island, New York,*" and dated December 15, 2010, identified 40 species of rare, protected, and noteworthy vascular plants as historically and or currently existing on Plum Island. A survey for rare, exploitable, endangered, or threatened plant species was not conducted in support of the EIS.

Aquatic Resources

Freshwater aquatic habitats on Plum Island consist of permanently flooded areas within the complex of freshwater wetlands on the southernmost portion of Plum Island. These small ponds are shallow, groundwater-fed water bodies that occupy shallow depressions in the outwash plain of terminal moraine deposits. These freshwater aquatic habitats as well as the marine habitat surrounding Plum Island provide habitat for a large and diverse number of aquatic and semi-aquatic wildlife.

Fishes that are characteristic of permanently flooded coastal plain depressions include chain pickerel (*Esox niger*), banded sunfish (*Enneacanthus obesus*), and eastern mud minnow (*Umbra pygmaea*).[71] Small minnows have been observed in ponded water (*i.e.*, freshwater wetlands) on Plum Island; however, no formal fish surveys have been conducted in these freshwater habitats.

Turtle species that have been observed on Plum Island in freshwater habitats included the snapping turtle (*Chelydra serpentina*) and eastern painted turtle (*Chrysemys picta picta*). The results of the vernal pool survey and other site surveys suggest that limited amphibian species are present on Plum Island. No amphibians were observed during multiple site visits to Plum Island. Frogs and tadpoles were not observed during the numerous site visits conducted to Plum Island.[72] Other than the vernal pool survey, no other herpetological surveys have been conducted on Plum Island.

Plum Island is surrounded by the estuarine/marine waters of Long Island Sound, Plum Gut, Block Island Sound, and Gardiners Bay. Fish typical of the nearshore zone of the Atlantic Ocean include Atlantic menhaden (*Brevoorita tyrannus*), weakfish (*Cynoscion regalis*), striped bass (*Morone saxatilis*), winter flounder (*Pleuronectes americanus*), summer flounder (*Paralichthys dentatus*), bluefish (*Pomatomus saltatrix*), tautog (*Tautoga onitis*), Atlantic mackerel (*Scomber scombrus*), black sea bass (*Centropristis striata*), Atlantic croaker (*Micropogonias undulatus*), northern kingfish (*Menticirrhus saxatilis*), spot (*Leiostomas xanthurus*), American sandlance (*Ammodytes americanus*), and silversides (*Menidia menidia*). Surf clams (*Spisula solidissima*) are abundant in nearshore benthic habitats. Marine sea turtles that occur in the nearshore zone during migration include Atlantic (Kemp's) ridley (*Lepidochelys kempii*), leatherback

[70] Ibid.
[71] Edinger et al., Ecological communities of New York State.
[72] MACTEC Engineering and Consulting, Inc. (MACTEC), Vernal pool survey report.

(*Dermochelys coriacea*), green (*Chelonia mydas*), and loggerhead (*Caretta caretta*) sea turtles. All five sea turtles are federally listed under the ESA. The nearshore zone provides year-round habitat for harbor seals (*Phoca vitulina*), gray seals (*Halichoerus grypus*), and harp seals (*Pagophilus groenlandicus*). The southeast shore of Plum Island is perhaps the largest winter haul-out site for harbor seals in New York and one of the largest of such sites in southern New England.[73] Other frequently occurring marine mammals include the finback whale (*Balaenoptera physalus*), minke whale (*B. acutorostrata*), and humpback whale (*Megaptera novaeangliae*). Additional commonly occurring marine mammals include the common dolphin (*Delphinus delphis*), bottlenosed dolphin (*Tursiops truncatus*), white-sided dolphin (*Lagenorhynchus acutus*), striped dolphin (*Stenella coerulealba*), and pilot whale (*Globicephala melaena*).[74]

New York State Division of Coastal Resources (NYSDCR) has designated Plum Gut (the area of open water between Plum Island and Orient Point) as Significant Coastal Fish and Wildlife Habitat. Plum Gut is a deep channel covering an area of approximately 500 acres. Plum Gut provides important foraging habitat for significant concentrations of fishes that include striped bass, bluefish, tautog, summer flounder, and scup (*Stenotomus chrysops*). Consequently, Plum Gut is an important recreational and commercial fishing resource. Plum Gut is one of two major passage corridors for striped bass, which move into Long Island Sound during the spring and fall migrations to and from their spawning grounds. Plum Gut is also considered a major corridor for Atlantic salmon (*Salmo salar*) during the spring as they return to their spawning grounds in the Connecticut and Pawcatuck Rivers. Plum Gut also provides important habitat for marine mammals, particularly bottlenosed dolphin, harbor porpoise (*Phocoena phocoena*), and harbor seal. Sea turtles, especially juvenile Atlantic ridley and loggerhead sea turtles, also use Plum Gut.[75] In addition to coastal consistency review, projects that affect designated Significant Coastal Fish and Wildlife Habitats are subject to review under Policy 7 of the New York State Coastal Policies. Policy 7 prohibits activities that "destroy or significantly impair" the viability of significant habitats.

The area encompassing Orient Point, Plum Gut, and Plum Island is an important foraging and breeding area for wading birds, waterfowl and shorebirds, and has been designated as an Important Bird Area (IBA) by Audubon New York. The Orient Point-Plum Island IBA is an important waterfowl wintering area for Canada geese, American black ducks, mallards, canvasbacks, scaup, long-tailed ducks, scoters, buffleheads, common goldeneyes, and red-breasted mergansers.[76]

The Marine Mammal Protection Act (MMPA) of 1972 (as amended through 1997) prohibits, with certain exceptions, the "take" of marine mammals in U.S. waters and by U.S. citizens on the high seas and the importation of marine mammals and marine mammal products into the United States. The definition of "take" is "to harass, hunt, capture, or kill; or attempt to harass, hunt,

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[73] Schlesinger, M.D., A.L. Feldmann, and S.M. Young. 2012. Biodiversity and ecological potential of Plum Island, New York. New York Natural Heritage Program, Albany, New York.

[74] MACTEC Engineering and Consulting, Inc. (MACTEC), Vernal pool survey report.

[75] New York State Department of Environmental Conservation (NYSDEC), Endangered species fact sheets, 2010.

[76] North Fork Audubon Society (NFAS). 2007. Plum Island breeding bird survey. http://www.northforkaudubon.org/Gui/Content.aspx?Page=PIBreeding6-27-07&Section=IBAs.

capture or kill any marine mammal." In addition to the species mentioned above, marine mammals that may occur in deepwater estuarine or marine habitats in New York include the harp seal (*Phoca vitulina*), hooded seal (*Cystophora cristata*), Risso's dolphin (*Grampus griseus*), white-beaked dolphin (*Lagenorhynchus albirostris*), sperm whale (*Physeter catodon*), pygmy sperm whale (*Kogia breviceps*), sei whale (*Balaenoptera borealis*), and right whale (*Eubalaena glacialis*).[77] Large numbers of harbor seals are known to haul-out (leave the water) on the rocky southeastern shoreline of Plum Island. These haul-out sites are essential for seals, providing habitat for resting and sunning, as well as predator avoidance, thermal regulation, and mating. Factors influencing use of haul-outs include time of season, wind chill, wave height, tide, and disturbance.[78] Reduced use of haul-outs has been correlated to increased human disturbance.[79]

Terrestrial Wildlife

Orient Point, Plum Gut, and Plum Island are known to provide important bird habitat, and as many as 187 bird species have been identified on Plum Island.[80] Plum Island is located in the Atlantic Flyway, a major corridor for birds migrating up the East Coast. Based on the number and diversity of avifauna observed, the island obviously plays an important role in providing resting, breeding, feeding, and foraging habitat for migrating birds. The *Second Atlas of Breeding Birds in New York State* documents the distribution of breeding birds in the state.[81] The breeding species observed in the atlas survey blocks that include Plum Island and surrounding area (*i.e.*, Blocks 7256D and 7356C) are summarized and presented in Table 3.8-1. Additional data regarding breeding birds were collected for designation of the area as an IBA. These data include breeding data over multiple years for the following species: oyster catchers (*Haematopus palliates*), piping plovers (*Charadrius melodus*), common terns (*Sterna hirundo*), and least terns (*Sternula antillarum*). Results from the 1995 NYSDEC Long Island Colonial Waterbird and Piping Plover Survey[82] and breeding bird survey data from Audubon New York are also included in Table 3.8-1.

Audubon New York has conducted regular (*i.e.*, spring, summer, winter, and fall) avian surveys of Plum Island starting in spring 2006. The NYNHP report, "Biodiversity and Ecological Potential of Plum Island, New York," includes a comprehensive list of birds observed on Plum Island.[83] The report includes data from Audubon New York and other published and unpublished sources. The non-breeding species observed on the island are summarized in Table 3.8-2. In addition to these bird surveys, Audubon New York has been collecting information on osprey

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77 New York State Department of Environmental Conservation (NYSDEC). 2008. Endangered species fact sheets, New York. www.dec.ny.gov/23.html.

78 Schlesinger, M.D., A.L. Feldmann, and S.M. Young, Biodiversity and ecological potential of Plum Island, New York.

79 Terhune, J.M., and S.W. Brillant. 1995. *Harbour Seal Vigilance Decreases Over Time Since Haul Out.* Animal Behaviour, 1996, 51, pp. 757-763.

80 Schlesinger, M.D., A.L. Feldmann, and S.M. Young, Biodiversity and ecological potential of Plum Island, New York.

81 New York State Department of Environmental Conservation (NYSDEC). 2008. The second atlas of breeding birds in New York State. Edited by K.J. McGowan and K. Corwin. Cornell University Press.

82 New York State Department of Environmental Conservation (NYSDEC). 1995. Long Island colonial water bird and piping plover survey.

83 Schlesinger, M.D., A.L. Feldmann, and S.M. Young, Biodiversity and ecological potential of Plum Island, New York.

Table 3.8-1: List of Breeding Bird Species Observed on Plum Island

Common Name	Scientific Name	Behavior Code	Date	NY Legal Status	Level of Concern
American Black Duck	*Anas rubripes*	P2	6/7/2002	Game Species	Highest
American Crow	*Corvus brachyrhynchos*	D2	5/28/2004	Game Species	
American Goldfinch	*Spinus tristis*	P2	6/30/2004	Protected	
American Kestrel	*Falco sparverius*	NA	NA	Protected	
American Oystercatcher	*Haematopus palliatus*	NY	6/23/2005	Protected	Highest
American Goldfinch	*Carduelis tristis*	NA	NA	Protected	
American Redstart	*Setophaga ruticilla*	T2	6/23/2005	Protected	
American Robin	*Turdus migratorius*	NE	5/28/2004	Protected	
Baltimore Oriole	*Icterus galbula*	NA	NA	Protected	
Bank Swallow	*Riparia riparia*	P2	6/7/2002	Protected	
Barn Swallow	*Hirundo rustica*	P2, ON	6/7/2002, 5/28/2004	Protected	
Belted Kingfisher	*Ceryle alcyon*	NA	NA	Protected	
Black-billed Cuckoo	*Coccyzus erythropthalmus*	S2	5/28/2004	Protected	
Black-capped Chickadee	*Poecile atricapillus*	T2	6/23/2005	Protected	
Black-crowned Night-Heron	*Nycticorax nycticorax*	N2	5/28/2004	Protected	
Blue Jay	*Cyanocitta cristata*	T2	6/23/2005	Protected	
Blue-winged Warbler	*Vermivora pinus*	NA	NA	Protected	
Brown-headed Cowbird	*Molothrus ater*	P2	6/30/2003	Protected	
Brown Thrasher	*Toxostoma rufum*	NA	NA	Protected	
Canada Goose	*Branta canadensis*	NE	5/28/2004	Game Species	High
Carolina Wren	*Thryothorus ludovicianus*	T2	6/23/2005	Protected	
Cedar Waxwing	*Bombycilla cedrorum*	P2	6/30/2004	Protected	
Chimney Swift	*Chaetura pelagica*	X1	6/23/2005	Protected	High
Chipping Sparrow	*Spizella passerine*	NA	NA	Protected	
Cliff Swallow	*Petrochelidon pyrrhonota*	P2	6/30/2003	Protected	
Common Grackle	*Quiscalus quiscula*	P2	6/7/2002	Protected	
Common Eider	*Somateria mollisima*	NA	NA	Game Species	
Common Tern	*Sterna hirundo*	P2	6/7/2002	Threatened	Moderate
Common Yellowthroat	*Geothlypis trichas*	DD	6/23/2005	Protected	

Common Name	Scientific Name	Behavior Code	Date	NY Legal Status	Level of Concern
Double-crested Cormorant	*Phalacrocorax auritus*	X1	6/30/2003	Protected	
Downy Woodpecker	*Picoides pubescens*	NA	NA	Protected	
Eastern Bluebird	*Sialia sialis*	NA	NA	Protected	
Eastern Kingbird	*Tyrannus tyrannus*	P2	6/7/2002	Protected	
Eastern Phoebe	*Sayornis phoebe*	X1	6/23/2005	Protected	
Eastern Towhee	*Pipilo erythrophthalmus*	DD	6/23/2005	Protected	High
European Starling	*Sturnus vulgaris*	ON	6/30/2004	Unprotected	
Field Sparrow	*Spizella pusilla*	T2	6/1/2004	Protected	
Glossy Ibis	*Plegadis falcinellus*	NA	NA	Protected	
Gray Catbird	*Dumetella carolinensis*	FY	6/23/2005	Protected	Moderate
Great Black-backed Gull	*Larus marinus*	NE	5/28/2004	Protected	
Great Crested Flycatcher	*Myiarchus crinitus*	X1	6/1/2004	Protected	
Great Egret	*Ardea alba*	P2	6/30/2003	Protected	
Herring Gull	*Larus argentatus*	P2	5/28/2004	Protected	
House Finch	*Carpodacus mexicanus*	NA	NA	Protected	
House Sparrow	*Passer domesticus*	P2	6/7/2002	Unprotected	
House Wren	*Troglodytes aedon*	ON	6/30/2004	Protected	
Indigo Bunting	*Passerina cyanea*	X1	6/23/2005	Protected	
Killdeer	*Charadrius vociferus*	NE	5/28/2004	Protected	Moderate
Little Blue Heron	*Egretta caerulea*	NE	6//2001	Protected	Moderate
Mallard	*Anus platyrhynchos*	NA	NA	Game Species	
Mourning Dove	*Zenaida macroura*	NA	NA	Protected	
Northern Cardinal	*Cardinalis cardinalis*	P2	6/23/2005	Protected	
Northern Flicker	*Colaptes auratus*	X1	6/23/2005	Protected	High
Northern Harrier	*Circus cyaneus*	FY	6/23/2005	Threatened	
Northern Mockingbird	*Mimus polyglottos*	T2	6/23/2005	Protected	
Northern Rough-winged Swallow	*Stelgidopteryx serripennis*	P2	5/28/2004	Protected	
Orchard Oriole	*Icterus spurius*	T2	6/23/2005	Protected	
Osprey	*Pandion haliaetus*	NE	6/7/2002	Protected-Special Concern	
Piping Plover	*Charadrius melodus*	NE	6/7/2002	Endangered	Highest
Red-bellied Woodpecker	*Melanerpes carolinus*	NA	NA	Protected	

Common Name	Scientific Name	Behavior Code	Date	NY Legal Status	Level of Concern
Red-eyed Vireo	*Vireo olivaceus*	NA	NA	Protected	
Red-tailed Hawk	*Buteo jamaicensis*	ON	6/1/2004	Protected	
Red-winged Blackbird	*Agelaius phoeniceus*	FY	6/23/2005	Protected	
Roseate Tern	*Sterna dougallii*	X1	6/30/2003	Endangered	
Song Sparrow	*Melospiza melodia*	FY	6/23/2005	Protected	
Spotted Sandpiper	*Actitis macularius*	P2	6/7/2002, 5/28/2004	Protected	Moderate
Tree Swallow	*Tachycineta bicolor*	P2	6/30/2004	Protected	
Tufted Titmouse	*Baeolophus bicolor*	NA	NA	Protected	
Turkey Vulture	*Cathartes aura*	X1	5/28/2004	Protected	
White-breasted Nuthatch	*Sitta carolinensis*	NA	NA	Protected	
White-eyed Virieo	*Vireo griseus*	NA	NA	Protected	
Willow Flycatcher	*Empidonax traillii*	T2	6/30/2004	Protected	High
Wood Duck	*Aix sponsa*	P2	5/28/2004	Game Species	Moderate
Yellow Warbler	*Dendroica petechia*	D2	5/28/2004	Protected	

Notes:

Data downloaded on February 9, 2011 from the Breeding Bird Database provided by USFWS.
List includes Species Breeding in Atlas Block 7256D & 7356C. Also includes breeding birds listed in Appendix B: Birds of Plum Island, "Biodiversity and Ecological Potential of Plum Island, New York."[84]

Possible Breeding (PO)

X Species observed in possible nesting habitat, but no other indication of breeding noted; singing male(s) present (or breeding calls heard) in breeding season.

Probable Breeding (PR)

S Singing male present (or breeding calls heard).

P Pair observed in suitable habitat in breeding season.

T Bird (or pair) apparently holding territory. In addition to territorial singing, chasing of other individuals of same species often marks a territory.

D Courtship and display, agitated behavior or anxiety calls from adults suggesting probable presence nearby of a nest or young; well-developed brood-patch or cloacal protuberance on trapped adult. Includes copulation.

N Visiting probable nest site. Nest building by wrens and woodpeckers. Wrens may build many nests. Woodpeckers, although they usually drill only one nest cavity, also drill holes just for roosting.

B Nest building or excavation of a nest hole.

Confirmed Breeding (CO)

DD Distraction display or injury-feigning. Agitated behavior and/or anxiety calls are Probable-D.

[84] Schlesinger, M.D., A.L. Feldmann, and S.M. Young, Biodiversity and ecological potential of Plum Island, New York.

UN Used nest found. Caution: These must be carefully identified if they are to be counted as evidence. Some nests (*e.g.*, Baltimore oriole) are persistent and very characteristic. Most are difficult to identify correctly.

FE Female with egg in the oviduct (by bird bander).

FL Recently fledged young (including downy young of precocious species - waterfowl, shorebirds). This code should be used with caution for species such as blackbirds and swallows, which may move some distance soon after fledging. Recently fledged passerines are still dependent on their parents and are fed by them.

NA Not available.

ON Adult(s) entering or leaving nest site in circumstances indicating occupied nest. NOT generally used for open nesting birds. It should be used for hole nesters only when a bird enters a hole and remains inside, makes a change-over at a hole, or leaves a hole after having been inside for some time. If you simply see a bird fly into or out of a bush or tree, and do not find a nest, the correct code would be Probable-N.

FS Adult carrying fecal sac.

FY Adult(s) with food for young. Some birds (gulls, terns, and raptors) continue to feed their young long after they are fledged, and even after they have moved considerable distances. Also, some birds (*e.g.*, terns) may carry food over long distances to their young in a neighboring block. Be especially careful on the edge of a block. Care should be taken to avoid confusion with courtship feeding (Probable-D).

NE Identifiable nest and eggs, bird setting on nest or egg, identifiable eggshells found beneath nest, or identifiable dead nestling(s). If you find a cowbird egg in a nest, it is NE for Cowbird, and NE for the identified nest's owner.

NY Nest with young. If you find a young cowbird with other young, it is NY for cowbird and NY for identified nest owner.

Table 3.8-2: List of Non-Breeding Bird Species Observed on Plum Island

Common Name	Scientific Name
Red-throated Loon	*Gavia stellata*
Common Loon	*Gavia immer*
Horned Grebe	*Podiceps auritus*
Red-necked Grebe	*Podiceps grisegena*
Northern Gannet	*Morus bassanus*
Brown Pelican	*Pelecanus occidentalis*
Great Cormorant	*Phalacrocora carbo*
Least Bittern	*Ixobrychus exilis*
Great Blue Heron	*Ardea herodias*
Great Egret	*Ardea alba*
Snowy Egret	*Egretta thula*
Little Blue Heron	*Egretta caerulea*
Tricolored Heron	*Egretta tricolor*
Black-crowned Night-Heron	*Nycticorax nycticorax*
Mute Swan	*Cygnus olor*
Snow Goose	*Chen caerulescens*
Brant	*Branta bernicla*
Wood Duck	*Aix sponsa*
Green-winged Teal	*Anas crecca*

Common Name	Scientific Name
Northern Pintail	*Anas acuta*
Gadwall	*Anas strepera*
Eurasian Wigeon	*Anas penelope*
American Wigeon	*Anas americana*
Greater Scaup	*Aythya marila*
King Eider	*Somateria spectabilis*
Harlequin Duck	*Histrionicus histrionicus*
Long-tailed Duck	*Clangula hyemalis*
Black Scoter	*Melanitta nigra*
Surf Scoter	*Melanitta perspicillata*
White-winged Scoter	*Melanitta fusca*
Common Goldeneye	*Bucephala clangula*
Bufflehead	*Bucephala albeola*
Hooded Merganser	*Lophodytes cucullatus*
Red-breasted Merganser	*Mergus serrator*
Bald Eagle	*Haliaeetus leucocephalus*
Sharp-shinned Hawk	*Accipiter striatus*
Coopers Hawk	*Accipiter cooperii*
Northern Goshawk	*A. gentilis*
Red-shouldered Hawk	*Buteo. lineatus*
Broad-winged Hawk	*B. platypterus*
Rough-legged Hawk	*B. lagopus*
Merlin	*Falco columbarius*
Peregrine Falcon	*F. peregrinus*
Virginia Rail	*Rallus limicola*
Black-bellied Plover	*Pluvialis squatarola*
Semipalmated Plover	*Charadrius semipalmatus*
Greater Yellowlegs	*Tringa melanoleuca*
Lesser Yellowlegs	*T. flavipes*
Solitary Sandpiper	*T. solitaria*
Willet	*T. semipalmata*
Sanderling	*Calidris alba*
Western Sandpiper	*C. mauri*
Least Sandpiper	*C. minutilla*
Pectoral Sandpiper	*C. melanotos*
Purple Sandpiper	*C. maritima*
American Woodcock	*Scolopax minor*
Laughing Gull	*Larus atricilla*
Bonaparte's Gull	*L. philadelphia*
Ring-billed Gull	*L. delawarensis*
Herring Gull	*L. argentatus*
Roseate Tern	*Sterna dougallii dougallii*
Common Tern	*S. hirundo*

Common Name	Scientific Name
Forester's Tern	*S. forsteri*
Razorbill	*Alca torda*
Rock Pigeon	*Columba livia*
Black-billed Cuckoo	*Coccyzus erythropthalmus*
Yellow-billed Cuckoo	*C. americanus*
Barn Owl	*Tyto alba*
Northern Saw-whet Owl	*Aegolinus acadicus*
Yellow-bellied Sapsucker	*Sphyrapicus varius*
Ruby-throated Hummingbird	*Archilochus colubirs*
Hairy Woodpecker	*Picoides villosus*
Eastern Wood-Pewee	*Contopus virens*
Yellow-bellied Flycatcher	*Empidonax flaviventris*
Alder Flycatcher	*Empidonax alnorum*
Least Flycatcher	*E. minimus*
Ash-throated Flycatcher	*Myiarchus cinerascens*
Great Crested Flycatcher	*M. crinitus*
Purple Martin	*Progne subis*
Cliff Swallow	*Petrochelidon pyrrhonota*
Red-breasted Nuthatch	*Sitta canadensis*
Brown Creeper	*Certhia americana*
Winter Wren	*Troglodytes troglodytes*
Marsh Wren	*Cistothorus palustris*
Golden-crowned Kinglet	*Regulus satrapa*
Ruby-crowned Kinglet	*R. calendula*
Blue-gray Gnatcatcher	*Polioptila caerulea*
Veery	*Catharus fuscescens*
Hermit Thrush	*C. guttatus*
Wood Thrush	*Hylocichla mustelina*
Blue-headed Vireo	*Vireo solitarius*
Tennessee Warbler	*Vermivora peregrina*
Nashville Warbler	*V. ruficapilla*
Northern Parula	*Parula americana*
Chestnut-sided Warbler	*Dendroica pensylvanica*
Magnolia Warbler	*D. magnolia*
Cape May Warbler	*D. tigrina*
Black-throated Blue Warbler	*D. caerulescens*
Yellow-rumped Warbler	*D. coronate*
Black-throated Green Warbler	*D. virens*
Blackburnian Warbler	*D. fusca*
Pine Warbler	*D. pinus*
Prairie Warbler	*D. discolor*
Palm Warbler	*D. palmarum*
Blackpoll Warbler	*D. striata*

Common Name	Scientific Name
Black-and-White Warbler	*Mniotilta varia*
Wilson's Warbler	*Wilsonia pusilla*
Scarlet Tanager	*Piranga olivacea*
Rose-breasted Grosbeak	*Pheucticus ludovicianus*
American Tree Sparrow	*Spizella arborea*
Field Sparrow	*S. pusilla*
Vesper Sparrow	*Pooecetes gramineus*
Savannah Sparrow	*Passerculus sandwichensis*
Fox Sparrow	*P. iliaca*
Lincoln's Sparrow	*Melospiza lincolnii*
Swamp Sparrow	*M. georgiana*
White-throated Sparrow	*Zonotrichia albicollis*
White-crowned Sparrow	*Z. leucophrys*
Dark-eyed Junco	*Junco heymalis*
Snow Bunting	*Plectrophenax nivalis*
Bobolink	*Dolichonyx oryzivorus*
Eastern Meadowlark	*Sturnella magna*
Purple Finch	*Carpodacus purpureus*
Common Redpoll	*Carduelis flammea*
Pine Siskin	*C. pinus*

Source: Reproduced from NYNHP[85]

and piping plover breeding activity through nest monitoring programs since 2006. The results of the latest survey indicated that of the 19 nest platforms on Plum Island, 8 were active, 9 had no nest or activity, and 2 were damaged.[86]

Herons, egrets, and ibises are also known to nest near the freshwater wetlands on the southern portion of Plum Island. The NYNHP conducts great egret nesting surveys once every three years, and the past three surveys have documented an average of eight pairs on Plum Island.[87] Roseate terns (*Sterna dougallii dougallii*) and common terns (*S. hirundo*) from the nearby Gull Island colony frequently forage within Plum Gut, and these species use the rocky shoreline of southern Plum Island as resting habitat during feeding periods. Piping plovers (*Charadrius melodus*) have nested on Plum Island in the past, and Plum Island supports a large breeding population of Canada geese. Nest predation by raccoons (*Procyon lotor*) has been postulated as a factor in the observed decline in colonial nesting water birds (*i.e.*, egret, ibis, and blackcrown night heron) on the island.[88]

85 Ibid.

86 Audubon New York. 2010. North Fork Audubon Society Plum Island bird surveys and associated data. North Fork Audubon Society (NFAS). http://www.northforkaudubon.org.

87 New York Natural Heritage Program (NYNHP), Natural heritage report.

88 Schlesinger, M.D., A.L. Feldmann, and S.M. Young, Biodiversity and ecological potential of Plum Island, New York.

Mammals that are known to occur on Plum Island include raccoon; muskrat (*Ondratra zibethicus*); and small mammals, including white-footed mouse (*Percomyscus leucopus*) and meadow vole (*Microtus pennsylvanicus*).[89] White-tailed deer have been observed on the island; however, as a standard safety procedure, measures to control the white-tailed deer population are conducted annually, though none have been found on Plum Island since 2004.[90]

Bats are known to stopover on islands in the region during migrations along the East Coast; however, no formal bat survey has been conducted on Plum Island.[91] Bat species known to occur in New York that could potentially occur on Plum Island include the Northern bat (*Myotis septentirionalis*), little brown bat (*M. lucifugus*), Indiana bat (*M. sodalist*), Eastern pipistrella (*Perimyotis subflavus*), and big brown bat (*Eptesicus fuscus*). The old Fort Terry buildings and military batteries, as well as forests, fields, and wetlands, on Plum Island may provide shelter (*i.e.*, roosting habitat) and forage habitat for bats. Bat populations in the region are being negatively impacted by white-nose syndrome, a fungal disease that has devastated cave dwelling bats, and wind turbines, which affect migrating bats.[92]

Reptiles that are known to occur on Plum Island include the eastern box turtle (*Terrapene carolina carolina*), eastern painted turtles, and snapping turtles. Snakes that are common in the Coastal Lowlands Ecozone include the common garter snake (*Thamnophis sirtalis*), northern black racer (*Coluber constrictor constrictor*), northern water snake (*Nerodia sipedon sipedon*), and northern brown snake (*Storeria dekayi dekayi*). Potential habitats for all of these species are present on Plum Island; however, only garter snakes have been observed on Plum Island.[93]

Non-vernal pool dependant herpetofauna observed on Plum Island included an eastern box turtle, which was observed in an upland area between the large wetland complex in the south-central part of Plum Island and the main road on Plum Island. The turtle was observed in an area of scrub shrub vegetation. The shell of an eastern box turtle was also found in a wooded area west of the water treatment plant. A garter snake was observed by Mark Terry, Principal Planner with the Town, during his site walkover on April 29, 2010. The snake was observed on the east end of Plum Island, crossing the main road that bisects Plum Island. No formal herpetofauna surveys are known to have been conducted on Plum Island.

Threatened and Endangered Species

The USFWS reviews federal actions that may result in negative effects on federally listed terrestrial plants and animals and freshwater aquatic organisms. Under Section 7, federal agencies must consult with USFWS when any action the agency carries out, funds, or authorizes may affect a listed endangered or threatened species. This process usually begins as informal consultation in the early stages of project planning.

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[89] Ibid.
[90] Tom Dwyer, DHS, personal communication with Charles H. Lyman, MACTEC, April 13, 2010.
[91] Schlesinger, M.D., A.L. Feldmann, and S.M. Young, Biodiversity and ecological potential of Plum Island, New York.
[92] Ibid.
[93] Ibid.

USFWS jurisdiction over sea turtles is limited to nesting habitat. The National Marine Fisheries Service (NMFS) has jurisdiction over federally listed sea turtles in the water, as well as listed marine mammals, saltwater fishes, and other marine species. Marine mammals are also protected under the MMPA. Additional animal species that are listed by the State as endangered or threatened and plant species that are listed by the State as endangered, threatened, rare, or vulnerable to exploitation are afforded protection under the Environmental Conservation Law of New York (Sections 11-0535 and 9-1503) and 6 NYCRR Parts 182 and 193.3. Federally listed species that are likely to occur in Suffolk County include the piping plover, roseate tern, shortnose sturgeon (*Acipenser brevirostrum*), five species of sea turtles, and three species of plants. The NYSDEC compiles lists of state protected species by town. An incidental take permit would be required with future development plans and would include a species management plan/habitat conservation plan to address species of concern that occur on the island.

Federally Listed Species

Piping Plover (*Charadrius melodus*)

Piping plovers breed on dry sandy beaches, often near dunes in areas with little or no beach grass. Piping plovers begin to arrive at their breeding grounds in early March. Nests consist of shallow scrapes that are sometimes lined with pebbles and/or shells. They are usually placed well above the high-tide mark on open, generally grassless sand beaches or dredged spoil areas. An average clutch of four eggs is laid during May and June. Incubation takes 25–31 days, and the young leave the nest shortly after hatching and fledge in approximately 28–35 days. Piping plovers depart for their wintering areas by early September. The presence of a piping plover nest was confirmed on the northern portion of Plum Island in 2002.[94] In addition, data collected in support of the IBA designation showed that piping plover nests have been documented on Plum Island from 1993 to 2010, except in 1999 and 2008.[95] One pair of piping plovers bred on the island in 2011, fledging one chick.[96] Piping plovers are susceptible to human disturbance, which is a detriment to their breeding success, feeding success, and chick survival. Excessive disturbance may cause parents to desert their nests, causing exposure of the eggs to predators, heat, and human traffic.

Roseate Tern (*Sterna dougallii dougallii*)

A marine coastal species, the roseate tern breeds on salt marsh islands and beaches with sparse vegetation. Roseate terns arrive on the breeding grounds between late April and early May and begin nesting one month later. In New York, roseate terns are always found nesting with common terns. One of the largest colonies of roseate terns in the Northeast is located on nearby Great Gull Island. Adults forage in the nearshore waters surrounding Plum Island and bring fledglings to the shores of Plum Island to loaf and forage in Plum Gut.

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[94] New York State Department of Environmental Conservation (NYSDEC), Endangered species fact sheets, 2008.

[95] National Audubon Society. 2011. Site report for Orient Point and Plum Island Important Bird Area (IBA). http://iba.audubon.org/iba/profileReport.do?siteId=782.

[96] U.S. Fish and Wildlife Service (USFWS). March 16, 2012, correspondence.

The nest is a depression in sand, shell, or gravel and may be lined with bits of grass and other debris. Nests are usually located in dense grass clumps. Eggs are incubated for approximately 23 days, and the young fledge in 22-29 days. Roseate terns depart for their wintering areas in late summer. Based on behavioral observations, the roseate tern was identified as a possible breeder on Plum Island in 2003.[97] Roseate Terns are susceptible to human disturbance; their habit of nesting in protected sites under vegetation or other objects makes them vulnerable to vegetational changes in breeding areas. The increased presence of humans has contributed to higher predation rates.

Shortnose Sturgeon (*Acipenser brevirostrum*)

The shortnose sturgeon is anadramous, migrating from salt water to spawn in fresh water. Shortnose sturgeon spawn in the Hudson River from April to May. Adult sturgeon migrate upriver from their mid-Hudson River overwintering areas to freshwater spawning sites north of Coxsackie. In New York State, the shortnose sturgeon is only found in the lower portion of the Hudson River from the southern tip of Manhattan upriver to the federal dam at Troy.[98]

Atlantic Hawksbill Sea Turtle (*Eretmochelys imbricate*)

The Atlantic hawksbill rarely occurs in New York. Preferred habitat consists of warm, coastal shoal water less than 50 feet deep with abundant submerged vegetation. Coral reefs, lagoons, inlets, and bays are ideal habitats. Nesting occurs on isolated beaches in the Gulf of Mexico and the Caribbean Sea.[99]

Green Sea Turtle (*Chelonia mydas*)

In the Atlantic Ocean, green sea turtles are found from Massachusetts south to Florida. They inhabit shallow waters such as shoals and lagoons with submerged vegetation. Inlets, bays, and estuaries are preferred habitats. Nesting occurs in all subtropical to tropical oceans of the world between 35° north and south latitude, in waters that remain above 68°F during the coldest months.[100]

Atlantic (Kemp's) Ridley Sea Turtle (*Lepidochelys kempii*)

Juvenile Kemp's ridleys inhabit the Atlantic Coast from Florida to Canada, possibly following the warm Gulf Stream. Preferred habitats include sheltered areas along the coastline such as large estuaries, bays, and lagoons. Nesting grounds are restricted to a single stretch of beach near Rancho Nuevo, Tamaulipas, Mexico. Long Island waters have been identified as critical habitat

[97] New York State Department of Environmental Conservation (NYSDEC), Endangered species fact sheets.
[98] Ibid.
[99] Ibid.
[100] Ibid.

for immature Kemp's ridleys, providing important habitat for development during the early stages of life (2-5 years).[101]

Leatherback Sea Turtle (*Dermochelys coriacea*)

Leatherback sea turtles are the most pelagic of the sea turtles. In the North Atlantic Ocean, leatherback sea turtles are found regularly off the coast of New England and in Long Island, New York, waters. Nesting occurs on the islands of St. Croix, Vieques, and Culebra and on the mid-Atlantic coast of Florida. Recent isolated nestings have been recorded along the southeastern Atlantic coast from Georgia to North Carolina.[102]

Loggerhead Sea Turtle (*Caretta caretta*)

In the western Atlantic, loggerheads occur from Canada south to Argentina. Loggerheads inhabit warm waters on continental shelves and areas among islands. Estuaries, coastal streams, and salt marshes are preferred habitats. In the western Atlantic, loggerheads nest along the southeastern coast of the United States, with 90 percent of nests occurring in Florida.[103]

Sandplain Gerardia (*Agalinis acuta*)

Six of the 12 known extant populations occur in coastal grassland natural communities on Long Island. The endangered status of this species is attributed primarily to loss of habitat from development and encroachment by invasive exotic competitors.[104]

Seabeach Amaranth (*Amaranthus pumilus*)

Seabeach Amaranth is found on sandy beaches of the Atlantic coast, where it grows on shifting sands between dunes and the high-tide mark. Habitat degradation is attributed to the construction of beach stabilization structures that inhibit the natural movement of sand.[105]

Small Whorled Pogonia (*Isotria medeoloides*)

Small whorled pogonia occurs in dry to mesic deciduous or deciduous-coniferous forests, generally in forests with an open understory. Small whorled pogonia was historically known from Central and Eastern New York and Long Island. The NYNHP ranks this species as historical, which indicates that the species has not been seen in New York in at least 20-30 years.[106]

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[101] Ibid.
[102] Ibid.
[103] Ibid.
[104] Ibid.
[105] Ibid.
[106] Young, S.M. 2007. New York rare plant status lists. Albany, NY: New York Natural Heritage Program.

State-Listed Species

The state-listed species that are known to occur on Plum Island include piping plover, common loon (*Gavia immer*), common tern, roseate tern, osprey, Northern harrier (*Circus cyaneus*), red-shoulder hawk (*Buteo lineatus*), Cooper's hawk (*Accipiter cooperii*), sharp-shinned hawk (*A. striatus*), Northern goshawk (*A. gentilis*), and peregrine falcon (*Falco pererinus*). The common loon, osprey, red-shoulder hawk, sharp-shinned hawk, Cooper's hawk, and Northern goshawk are all species of special concern. The Northern harrier and common tern are listed as a threatened species and the roseate tern, piping plover, and peregrine falcon are listed as endangered species. The osprey and Northern harrier are known breeders on Plum Island the remaining birds have been observed foraging on or near Plum Island (*i.e.*, in the waters off of Plum Island).

State-listed endangered and threatened plants that have been reported from Plum Island include hop sedge (*Cyperus lupulinus var. lupulinus*), coastal sedge (*C. polystachyos var. texensis*), and spring ladies'-tresses (*Spiranthes vernalis*). Seabeach knotweed is also known to occur on Plum Island, based on the information provided by the NYSDEC Natural Heritage Program.

3.8.3. Consequences

To evaluate impacts to the Property resulting from activities associated with the potential reuse options, effects on biological resources resulting from implementation of the alternatives are defined and assessed. As previously noted, the reuse options discussed in the EIS are a selection of potential reuse options, are speculative, and are discussed to compare one reuse option to another. Impacts to biological resources from alternative implementation would vary depending upon the intensity and duration of anticipated activities included in the potential reuse options. In this section, intensity and duration of alternative activities and associated impacts to biological resources are defined and evaluated.

3.8.3.1 No Action Alternative – Retain in Federal Ownership

Implementation of the No Action Alternative would not adversely impact or improve biological resources. Changes to biological resources associated with decommissioning of the PIADC and mothballing the existing facilities with the federal government remaining in control of security are expected to have long-term beneficial impacts.

Plum Island

Terrestrial Resources

Negligible short-term adverse impacts to terrestrial vegetation and community ecology from decommissioning, maintenance, and security activities would be expected. However, this alternative would also likely result in long-term beneficial effects from reduced human activity on Plum Island. The reduced activity on Plum Island would lead to reduced disturbance to wildlife from human intrusion; therefore, changes to terrestrial resources would be negligible. Undisturbed areas on Plum Island would continue to be allowed to progress through natural successional stages. Invasive plant species would continue to be prevalent on Plum Island.

Wildlife, such as small mammals and birds would continue to be allowed to flourish on Plum Island, and extirpation of deer would cease. Construction activities associated with decommissioning and maintenance would pose low risk to wildlife populations on Plum Island and any accidental or incidental impacts would be negligible in a regional context. Population viability would not be threatened, and there would be no measurable long-term effect on population numbers or distribution over a species' range of occurrence.

Freshwater and Marine Resources

No short-term or long-term changes in the marine environment surrounding Plum Island would be associated with decommissioning, maintenance, and security activities. Changes to freshwater aquatic communities would not be expected under the No Action Alternative – Retain in federal ownership. Reduced ferry services to and from Plum Island may provide benefits to the marine environment as a result of reduced boat traffic through localized decreases in turbidity, noise, and vibration. However, these benefits would likely be negligible due to the relative scale of existing marine resources compared with the marine resource currently affected by the ferry services. Impacts to freshwater habitats on Plum Island are currently avoided to best extent practicable, and no future development within these environments is proposed under the No Action Alternative. Current discharges from the existing waste water treatment plant are regulated under the NYSDEC SPDES program.

Threatened and Endangered Species

Changes to habitats on Plum Island that are known to support rare, threatened and endangered species would not be expected under the No Action Alternative. State and federally listed species tend to occur in areas of Plum Island that are currently afforded protection based on being listed rare and or significant habitat, wetland habitat or occur within undevelopable flood zones. Therefore it is unlikely that these species would be impacted by the proposed alternative. In addition the reduction in marine traffic (*i.e.*, reduced ferry service to and from Plum Island) would lower the risk of boat strikes to threatened and endangered marine species such as sea turtles. However, the reduction of risk would be negligible based upon the proportion of traffic in Plum Gut and Long Island Sound associated with Plum Island-Orient Point. BMPs would serve to protect protected species during any construction activities, should activities occur in habitats used by rare, threatened and endangered species.

Orient Point

Terrestrial Resources

No naturally occurring terrestrial resources exist on the Orient Point support facility; therefore, the No Action Alternative would have no effect.

Freshwater and Marine Resources

No freshwater resources exist on the Orient Point support facility. Marine resources could potentially benefit from the No Action Alternative based on a reduction in boat traffic from reduced ferry service to Plum Island. However, these benefits would likely be negligible based

on the limited use of the marine environment at the facility and the presence of a private marina and public ferry service adjacent to the Orient Point support facility.

Threatened and Endangered Species

Terrestrial rare, threatened, and endangered species do not occur on the Orient Point support facility; therefore, the No Action Alternative would not result in any impacts. The reduction in marine traffic at Orient Point could reduce the risk of boat strikes to marine species. However, the reduction of risk would be negligible based upon the proportion of traffic associated with Plum Island-Orient Point and the marina and public ferry traffic adjacent to the Orient Point parcel.

3.8.3.2 Action Alternative – Sale of the Property

3.8.3.2.1 Reuse Option 1 – Adaptive Reuse of Existing Infrastructure

Implementation of Reuse Option 1 would not adversely impact or improve biological resources. Modifications to accommodate a new facility function would require no or minimal expansion to the existing structures on Plum Island and the Orient Point support facility. Existing buildings would remain in their current location and encompass their current extent; additional development outside of currently developed areas would not occur under this option. Existing buildings would be reused with interior renovations. Any modifications to existing buildings and or infrastructure and future activities conducted on Plum Island would be subject to federal, state, and local regulations.

Plum Island

Terrestrial Resources

No short-term or long-term changes to terrestrial habitats or community ecology would be expected from implementing Reuse Option 1 – Adaptive Reuse of Existing Infrastructure. The current level and extent of development and activities on Plum Island would not noticeably change. Existing roads and landscaped areas would continue to be maintained. The introduction or spread of invasive species would be limited by implementation of BMPs to mitigate impacts from construction equipment and/or to revegetate disturbed areas. In addition, an invasive species/wildlife management plan could be developed as a part of this option to mitigate invasive species and enhance the existing habitats on Plum Island.

Wildlife such as small mammals and birds would continue to be allowed to flourish on Plum Island. The occasional deer that swim to Plum Island would no longer be extirpated. Construction activities associated with Reuse Option 1 and maintenance would pose limited risk to wildlife populations on Plum Island and any accidental or incidental impacts would be negligible in a regional context. Public beach access would be determined under the appropriate New York State Coastal Policies (Policy 19 and 20) and Town of Southold regulations (which both consider protection of fragile coastal resources). Population viability is not expected to be threatened, and there would be no measurable long-term effect on population numbers or distribution over a species' range of occurrence.

Freshwater and Marine Resources

No short-term or long-term changes to freshwater or marine resources would be expected from implementation of Reuse Option 1. No change in the current level and extent of development and activities on Plum Island would be expected.

Threatened and Endangered Species

No changes to rare, threatened and endangered species, including critical habitats, would be expected from implementation of Reuse Option 1. Conditions that affect threatened and endangered species would not change from their current state. Implementation of BMPs would serve to protect protected species during any future construction activities. The aforementioned invasive species/wildlife management plan would include threatened and endangered species management, to enhance the existing habitats on Plum Island for these species. The plan would also support formal designation of areas on Plum Island for conservation and preservation where these species are currently and or potentially could occur on Plum Island.

Orient Point

Terrestrial Resources

No naturally occurring terrestrial resources exist on the Orient Point support facility; therefore, implementation of Reuse Option 1 – Adaptive Reuse of Exiting Infrastructure would have no adverse effects.

Freshwater and Marine Resources

There are no freshwater resources on the Orient Point support facility property. No impacts to marine resources would be expected from modification and reuse because the current level and extent of development and activities would not significantly change.

Threatened and Endangered Species

No changes to terrestrial, marine, or aquatic resources, including critical habitats, would be expected from Reuse Option 1. As such, the conditions that affect threatened and endangered species would not change from their current state.

3.8.3.2.2 Reuse Option 2 – Development (Range of Residential Density Scenarios)

The redevelopment of Plum Island under Reuse Option 2 may have a minor to moderate adverse impact on biological resources, especially during seasonal peak occupancy. Residential development at higher density than minimum scenario in areas shown in Figure 2.3-1 could impact terrestrial resources based on loss of habitat, fragmentation of habitat, and increased human activity. Impacts to freshwater and marine resources would be avoided and or mitigated through development restrictions imposed by existing local, state, and federal regulations. Residential development may adversely affect rare, threatened, and endangered species through direct impacts and loss of terrestrial habitat.

Plum Island

Terrestrial Resources

Redevelopment of Plum Island could have minor to moderate short-term and long-term impacts to terrestrial resources. The development parcels shown in Figure 2.3-1 include areas on Plum Island that are undeveloped upland forested habitat. Development of Parcel 1 in Figure 2.3-1 could impact a small section of currently undisturbed upland forest and sections of currently disturbed upland forest, while the remaining area of the parcel has already been developed. Development of the two smallest areas, Parcels 2 and 4, could also impact small sections of currently undisturbed and disturbed upland forest. However, development of Parcel 3 could impact portions of currently undisturbed upland forests. Though a large portion of Parcel 3 is open field or has already been developed (*e.g.*, Fort Terry), the majority of Parcel 3 consists of upland forests, which constitute a large portion of this cover type on Plum Island. In contrast, beach and dune communities would not be expected to be impacted by the development of the parcels. However, potential human encroachment of Plum Island beaches may increase, which could result in disturbance of existing species. Upland development in close proximity to coastal areas could result in indirect effects to shorebirds and beach native plant populations. Recreational beach access and shoreline protection and access projects could decrease the existing amount of natural, undisturbed beach habitat or prevent habitats from functioning in a natural manner. Once property use would be known, future development would be subject to the New York SEQR process. Public beach access and shoreline protection and access projects would be determined and evaluated under the appropriate New York State Coastal Policies (Policy 19 and 20) and Town of Southold regulations (which both consider protection of fragile coastal resources).

Minor to moderate indirect effects would be expected associated with human encroachment on beaches and other undeveloped areas, new facilities (stores, restaurants, gas stations) that might be developed to support residential development, and other new development in the project area. In association with any residential development scenario, the enactment of beach recreation guidelines pertaining to the protection of rare, threatened, and endangered species would be of high importance.

Development of the parcels on Plum Island could result in a decrease in terrestrial resources through direct loss, habitat fragmentation, and habitat loss. Initial development would likely require the removal of vegetation, which would later be replaced by landscaping or natural re-establishment where structures are not present. However, the extent and composition of the replaced terrestrial vegetation, and thereby the terrestrial community ecology, would not be expected to be entirely consistent with pre-existing conditions. Consequently, changes in vegetation composition and cover type could increase habitat fragmentation on Plum Island. The development of the parcels would likely reduce the available habitat on Plum Island, and the connectivity between the remaining habitable areas. Creation of lawns and roads would cause habitat changes that would potentially affect Plum Island's ability to sustain existing plant and animal species. Habitat loss would directly reduce the resources available to terrestrial organisms, and thereby the number of organisms Plum Island is capable of supporting. The introduction or spread of invasive species would be limited by implementation of BMPs to mitigate impacts from construction equipment and/or to revegetate disturbed areas.

Terrestrial organisms most affected by habitat reduction would include upland forest-dwelling species such as birds, eastern box turtles and raccoons. Predominantly shore-dwelling species such as osprey that utilize upland resources for portions of their life cycle (*i.e.*, nesting) could also be affected. Species that do not utilize upland habitats, such as plovers and sanderlings, would not be expected to be affected by residential development on the identified Potential Development Parcels.

Wildlife such as small mammals and birds could be displaced or killed during construction as a result of noise, vehicle traffic, or high levels of human activity. The number of animals impacted directly by construction activities would be negligible in the Long Island Sound area. Population viability would not be threatened and there would be no measurable long-term effect on population numbers or distribution over a species' range of occurrence.

Freshwater and Marine Resources

No changes to freshwater and marine resources would be expected from Reuse Option 2. The Potential Development Parcels avoid development in freshwater resource areas including ponds and wetlands and their regulatory buffers and would not be expected to impact these resources. Marine resources would not be expected to be impacted because this option would not significantly change activities, such as ferry traffic, that affect marine resources. In addition, no piers or docks would be permitted, and no expansion of the existing harbor area would be allowed. A permit would be required from the Town and the U.S. Army Corps of Engineers should future development on Plum Island impact wetlands. In addition, impacts to adjacent areas and/or upland buffers would also trigger the need for a permit from the Town.

Threatened and Endangered Species

Habitats utilized by federally listed threatened and endangered species would not be directly impacted under Reuse Option 2, with the exception of upland habitats that may have the potential to support small whorled pogonia. However, potential impacts to this species are not expected as its occurrence on Plum Island is unlikely, and the species has not been observed in New York State in at least 20 years. Any future development on Plum Island would be subject to SEQR compliance and other local, state, and federal laws regarding protected species.

Development and residential use within areas shown on Figure 2.3-1 may affect state-listed species that utilize terrestrial habitats that occur within proposed development areas. Species that utilize upland forest habitats could potentially be impacted, such as nesting osprey and the Northern harrier that are known to forage and nest on Plum Island. Other state-listed wildlife species that potentially utilize these habitats include the red-shoulder hawk, Cooper's hawk, sharp-shinned hawk, Northern goshawk, and peregrine falcon. State-listed plants that may occur in the proposed development areas include hop sedge, coastal sedge, and spring ladies'-tresses. Development would be subject to SEQR compliance and local, state, and federal laws designed to control impacts on protected species. Development and residential use may require an Endangered Species Incidental Take Permit (6 NYCRR Part 182), which would require a site-specific study of the species of concern and development of a species management/habitat conservation plan. Implementation of BMPs would serve to protect protected species during any construction activities.

Orient Point

Terrestrial Resources

No naturally occurring terrestrial resources exist on the Orient Point support facility; therefore, no adverse impacts would be expected under Reuse Option 2. The current level and extent of development and activities would not significantly change at Orient Point.

Freshwater and Marine Resources

No freshwater resources exist on the Orient Point support facility. In addition, no changes to marine resources would be expected from Reuse Option 2, which would not significantly change activities that affect marine resources.

Threatened and Endangered Species

No changes to terrestrial, marine, or aquatic resources, including critical habitats, would be expected under Reuse Option 2. As such, the conditions at Orient Point that affect threatened and endangered species would not change from their current state.

3.8.3.2.3 Reuse Option 3 – Conservation/Preservation

Implementation of Reuse Option 3 would benefit biological resources on Plum Island. Conservation or preservation of all or most of Plum Island would eliminate or greatly reduce impacts to biological resources from human activities. In addition, preservation and management by a conservation entity would allow opportunities for future studies and management of the property for rare, threatened and endangered species. This option would also allow existing habitats to continue through their natural successional stages and allow wildlife that utilize Plum Island to avoid being disturbed by humans.

Plum Island

Terrestrial Resources

Beneficial changes to the existing habitats on Plum Island would occur under Reuse Option 3. Reduced human activity on Plum Island would diminish habitat fragmentation and reduce disturbance to species from human intrusion; however, because the current level of activity and development is low and existing habitat fragmentation is minimal, terrestrial resource changes would be negligible. Invasive plant species control would likely be implemented, allowing for the establishment of native plant communities in areas that are now overgrown with invasive species. If construction is required, the introduction or spread of invasive species would be limited by implementation of BMPs to mitigate impacts from construction equipment and/or to revegetate disturbed areas. Once property use would be known, future development would be subject to the New York SEQR process. Public beach access would be determined under the appropriate New York State Coastal Policies (Policy 19 and 20) and Town of Southold regulations (which both consider protection of fragile coastal resources).

Freshwater and Marine Resources

Benefits of a minor nature to freshwater and marine resources may be associated with Reuse Option 3 – Conservation/Preservation. Reduction of ferry services and resulting reduction in boat traffic could provide benefits to marine resources through localized decreases in turbidity, noise, and vibration. Improvements would be minimal based on the relative scale of existing marine resources compared with the marine resource currently affected by ferry services.

Threatened and Endangered Species

Beneficial impacts to rare, threatened and endangered species or their habitats would be expected under Reuse Option 3. Conservation/preservation covenants on Plum Island would provide long-term protection of preferred habitat used by protected species. Also, the reduction of marine traffic to Plum Island could reduce the risk of boat strikes to threatened and endangered marine species such as sea turtles. However, the degree of risk reduction would likely be negligible based upon the proportion of traffic in Plum Gut and Long Island Sound associated with Plum Island-Orient Point. Implementation of BMPs would serve to protect protected species during any construction activities.

As a part of Reuse Option 3, a restoration plan could be developed and implemented. The plan could include an invasive species/wildlife management plan to focus on enhancing existing habitats. The plan could also include restoration of significant wetlands areas and areas known to support threatened and endangered species that have been impacted by activities on Plum Island. Some restoration opportunities that exist on Plum Island include elimination of beach/dune enrichment activities and restoration of wetland habitat including restoring wetland functions and values of the polishing pond after decommissioning of the WWTP.

Orient Point

Terrestrial Resources

No naturally occurring terrestrial resources exist on the Orient Point support facility; therefore, no impacts would be expected under Reuse Option 3.

Freshwater and Marine Resources

Freshwater resources do not exist on the Orient Point support facility; therefore, no impacts would be expected under Reuse Option 3. Negligible to minor beneficial impacts to marine resources may be associated with this option. As with Plum Island, the decommissioning of the ferry services and Plum Island terminal could increase the amount of available marine habitat; however, improvements would be likely be minimal based on the relative scale of resources, and the continuation of marina activities and public ferry services adjacent to the Orient Point parcel.

Threatened and Endangered Species

No changes to terrestrial critical habitats or terrestrial threatened and endangered species would be expected under Reuse Option 3 – Conservation/Preservation. The reduction of marine traffic at Orient Point could reduce the risk of boat strikes to marine species. However, the reduction of

risk would be negligible based upon the proportion of traffic associated with Plum Island-Orient Point relative to the marina and public ferry traffic adjacent to the Orient Point parcel.

3.9. CULTURAL RESOURCES

3.9.1. Methodology

The *National Historic Preservation Act* of 1966 (NHPA) requires federal agencies to record, evaluate, preserve, and plan for management of resources that are included in, or eligible for, the National Register of Historic Places (NRHP). The NRHP is a list of districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, and culture. Section 106 of the NHPA requires federal agencies to identify and assess the effects that their actions have on historic properties and consult with the New York SHPO, Indian Tribes, and members of the public, and consider their views and concerns about historic preservation issues when making final project decisions.

To identify known archaeological and historically significant resources at the Property, database searches were conducted on the internet, at the Suffolk County Historical Society, the Town of Southampton, the New York Historical Society, and among historical records and maps located at the PIADC. In addition, an Archaeological Resources Predictive Model (Predictive Model) report associated with PIADC was prepared for GSA in 2010. The Predictive Model identified areas where there may be a greater likelihood of encountering archaeological resources based on historic data review and historic and current features such as wetlands and floodplains, which can be seen in Figure 3.9-1 below.

Additional historic preservation laws and EOs that are applicable to the conveyance of the Property may include the *Archeological and Historic Preservation Act* of 1974, the *Archeological Resources Protection Act* of 1979, *Native American Graves and Repatriation Act* of 1990, AIRFA of 1978, EO 13007: Indian Sacred Sites, and EO 11593: Protection and Enhancement of the Cultural Environment.

In consultation with the SHPO, the Joint Lead Agencies identified Native American Indian tribes whose ancestral lands could be affected by the sale of Plum Island. Letters were sent to each of the contacts, describing the proposed project. Copies of the coordination letters and responses received are included in Appendix C.

The terms of potential impacts are described as follows:

Negligible: The impact would be at the lowest level of detection or barely perceptible and not measurable. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Minor: The impact would not affect the character-defining features of a historic resource listed on or eligible for listing on the National Register. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Moderate: The impact would alter a character-defining feature(s) of the historic resource but would not diminish the integrity of the resource to the extent that its National Register eligibility

would be jeopardized. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Major: The impact would alter a character-defining feature(s) of the historic resource, diminishing the integrity of the resource to the extent that it is no longer eligible to be listed on the National Register. For purposes of Section 106, the determination of effect would be *adverse effect*.

3.9.2. Affected Environment

Based on surveys, studies and plans completed in 1998 and 2003 and through consultation with the SHPO, a number of resources located on Plum Island have been identified as potentially eligible for listing on the NRHP. Those resources include the Plum Island Lighthouse, which was nominated and listed in February 2011. A Phase I archaeological survey over an approximately 24-acre parcel on Plum Island was conducted as part of the evaluation for the proposed NBAF facilities and no significant resources were identified. The Joint Lead Agencies are currently updating both the 1998 survey and the 2003 Preservation Plan in consultation with the SHPO. The Joint Lead Agencies will continue to comply with applicable requirements of the NHPA until that process is completed. This process may extend beyond the completion of the NEPA analysis.

Background

The information presented in this section is a compilation from numerous articles and reports: *An Overview of Plum Island: History, Research and Effects on Long Island*;[107] *The Plum Island Animal Disease Laboratory*;[108] *United States Animal Health Association Newsletter*;[109] *About Plum Island Animal Disease Center*;[110] *Historical Resources Survey of Plum Island, NY*;[111] and *Historic Preservation Plan for Plum Island, NY*.[112]

Though no known prehistoric resources have been identified on Plum Island to date; however, extending back 10,000 years and up to the 17th century, the Long Island area was inhabited by numerous small groups of Algonquins. These groups shared a language and culture throughout the Middle Atlantic region and what is now New England. They chiseled clam shells and whelk

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[107] Cella, Alexandra. 2003. An Overview of Plum Island: History, Research and Effects on Long Island. *Long Island Historical Journal*, Vol. 16, Nos. 1 and 2, pp. 176-181.

[108] United States Agricultural Research Service. 1956. *Miscellaneous Publication No. 730: The Plum Island Animal Disease Laboratory.* Animal Disease and Parasite Research Branch: Washington, D.C.

[109] United States Animal Health Association. 2003. *United States Animal Health Association Newsletter*, Vol. 30, No. 4. Accessed July, 20, 2010. http://www.usaha.org/news/newsletter/USAHA-Newsletter-Oct2003.pdf.

[110] Department of Homeland Security. 2010. *About Plum Island Animal Disease Center.* Accessed July, 20, 2010. http://www.dhs.gov/files/labs/editorial_0902.shtm.

[111] Hefner, R.J. 1998. Historic resources survey, Plum Island, New York. Submitted to U.S. Department of Agriculture, Plum Island Research Services Center, Plum Island, New York. East Hampton, NY.

[112] FPM Group. 2003. Historic preservation plan for Plum Island, New York. Prepared in association with GAI Consultants, Monroeville, PA. Submitted to U.S. Department of Agriculture, Plum Island Research Services Center, Plum Island, New York. Ronkonkoma, NY.

to make wampum, the currency of eastern natives and, in the 17th century, adopted as money by colonists.

Plum Island was probably first seen by European explorers in 1614 when Adrian Block, an Englishman with the Dutch West India Company, first charted the area. Originally known as the Isle of Patmos, explorers later renamed Plum Island for the native beach plums that grow along the shores; a Dutch map from around 1640 shows the name "Pruym Eyelant" (Plum Island). The first white resident to the area was Lion Gardiner, who settled in 1639 on Long Island between the north and south forks. Orient is the eastern-most hamlet in the Town on Long Island's North Fork. The hamlet was originally settled by five families given a land grant by the King of England in the 1600s, and their names King, Terry, Latham, Tuthill and Vail still exist in local families.

Plum Island's first recorded individual owner of Plum Island was Samuel Wyllys, son of the Governor of Connecticut, who purchased Plum Island from Wyandanch, the ruling Indian chieftain of Long Island, in 1669 for a coat, a barrel of biscuits, 100 muxes (iron drills used to make wampum beads from shells), and fish hooks. The first white residents on Plum Island were probably the families of Joseph Beebe and Isaac Schellinx (or Schellinger), who built homes there prior to 1717. Joseph Beeb owned the western portion of Plum Island, while Schellinx owned the east. Plum Island was to be divided into two farms for most of its subsequent history. Richard Jerome acquired the western portion of Plum Island by 1833; however, Jerome had owned portions of the western half as early as 1826, when he sold 3 acres to the U.S. Government to build a lighthouse. The lighthouse in 1847 consisted of a white tower 50 feet from the keeper's house that had a "burnished copper reflector" and burned sperm oil (whale oil), while the current Plum Island Light Station was built in 1869. A map of Plum Island dated 1858 shows two houses on Plum Island in addition to the lighthouse. One house is indicated as Richard Jerome's, and the other as Alvin Mallory's; the residences are situated on the western and eastern portions of Plum Island, respectively. In an 1873 map the residence that had been used by Mallory appears to be gone, replaced to the east by the residence of Robert Clark. In the late nineteenth century, a two-story private clubhouse was built on a bluff overlooking the boat harbor by members of the Smokepipe Club of Hartford, Connecticut with the permission of Richard Jerome's son, suggesting that the clubhouse was built prior to 1883. The eastern farm was smaller and passed through a series of hands until the late nineteenth century, when all but the 3-acre parcel that contained the Plum Island Light Station was acquired by Abram Hewett in 1890.

In 1897, the U.S. War Department purchased 150 acres of Plum Island from Abram Hewett to establish a military post to protect the surrounding harbor and coast from naval attack during the Spanish-American War. The War Department purchased the remainder of Plum Island in 1901 and the artillery post was further developed into Fort Terry. Plum Island's Fort Terry was active during World War I, was declared surplus property after the war, and was put under the control of personnel at Fort H.G. Wright, located on Fishers Island. Fort Terry was reactivated in 1941 during World War II and used as an army training camp, and replenished submarines and patrolling ships with supplies. Following the war, the Fort was again declared surplus in 1948 and put under the control of Fort H.G. Wright. On April 25, 1952, Fort Terry was transferred to the U.S. Army Chemical Corps, which had been planning an animal research facility on Plum

Island since 1951. From 1952 to 1954, 18 Fort Terry buildings where renovated to accommodate research.

After the completion of all the construction work, on May 26, 1954, the U.S. Army Plum Island Facility was officially deactivated, without ever having been used as the new laboratory facilities, and turned over to the USDA in response to outbreaks of FMD. There were nine FMD outbreaks in the U.S. beginning in 1870, and continuing until eradication in 1929; however, FMD outbreaks in Mexico in 1946 and Canada in 1952 persuaded Congress to authorize a facility in the U.S. capable of studying diseases of this nature. Plum Island was turned over to the USDA on July 1, 1954 to establish a research facility for foot-and-mouth disease, the PIADC. PIADC includes buildings, industrial facilities and equipment, roadways, utilities, specialized facilities, easements, and rights of way.

Historic Army maps of Plum Island (*i.e.*, Fort Terry) show a cemetery located near the existing sewage treatment facility. Archived information regarding the Fort indicated that the cemetery existed on-site from 1907 to 1913. It was determined that the cemetery had potential to impact the Fort water supply and it was ordered closed, and no other locations on Plum Island were deemed suitable for a cemetery. Therefore, the cemetery was moved off-site on April 23, 1913, and the remains were transferred to Cypress Hills National Cemetery in Brooklyn, New York. A single headstone known to be present on Plum Island is marked with the inscription "*Col. Thomas Gardiner 1724-1786 Son of John Gardiner of Narragansett.*" The marker is located in a small, natural bowl-shaped depression on the south side of the moraine immediately west of the current laboratory buildings (Figure 3.9-1).

Potentially Significant Prehistoric Archaeological Resources

In a limited survey of Plum Island (24 acres), no prehistoric archaeological resources were identified.[113] As described in the Predictive Model, the previous discovery of a mammoth skeleton on the west end of Plum Island indicates that the island could contain prehistoric remains that range in age from Paleo-Indian to the time of European contact. In addition, numerous prehistoric archaeological sites are known to be present on the rest of Long Island,[114,115] and such resources may also be present on Plum Island. Figure 3.9-1 developed from the Archaeological Resources Predictive Model shows areas with high potential for prehistoric resources on Plum Island. Potential prehistoric remains on Plum Island would most likely be concentrated along the north edge of Plum Island proximate to Long Island Sound, along the west edge of Plum Island adjacent to Plum Gut, and within 200 meters of freshwater sources elsewhere on Plum Island. The northern edge of Plum Island, inland for approximately 200 meters, is more likely to contain prehistoric resources than the southern margins, as it is expected that the Long Island Sound would have been a much richer and more varied source of food than the Atlantic Ocean. It is also more sheltered, and a better place for longer-term settlement. The

[113] U.S. Department of Homeland Security (DHS), National Bio and Agro-Defense Facility final environmental impact statement.

[114] Suffolk County Archaeological Association. 1979. The history and archaeology of the Montauk Indians, Vol. III. Stony Brook, NY.

[115] Truex, J.E. 1982. The second coastal archaeology reader: 1900 to the present, Vol. V. Stony Brook, NY: Suffolk County Archaeological Association.

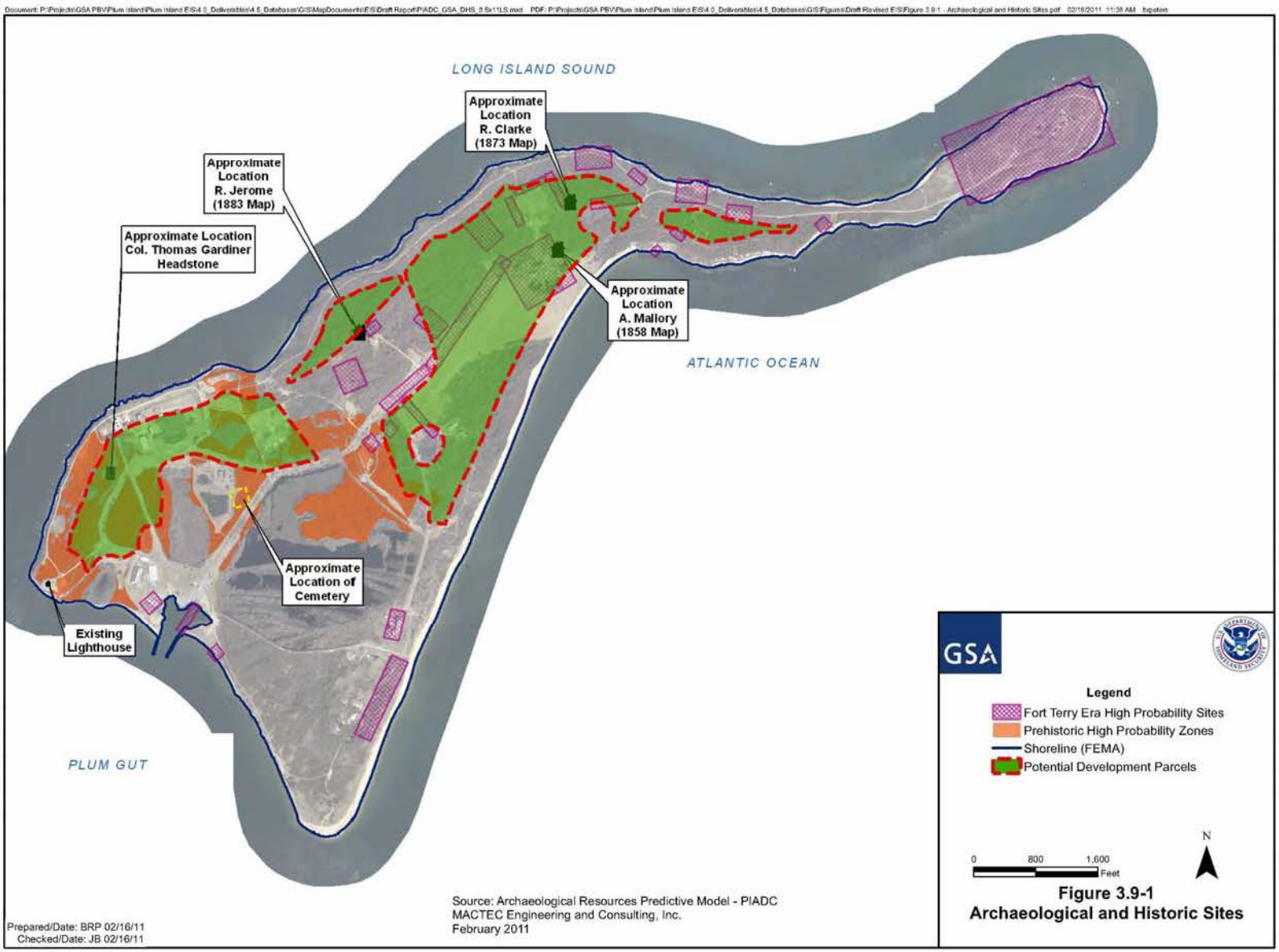

Figure 3.9-1: Archaeological and Historical Sites on Plum Island

same factors that make the northern edge of Plum Island more attractive than the southern edge worked to favor the western over the eastern end of Plum Island. Availability of potable water is a powerful factor dictating settlement and land use in a maritime environment such as Plum Island, and the areas of greatest prehistoric use were probably those areas with easy access to potable surface water and to the northern and/or western shores. It is also more likely that prehistoric settlement concentrated on the higher, flatter areas to the east and north of the floodplain.

Potentially Significant Historic Archaeological Resources

Potentially significant historic archaeological resources on Plum Island have been identified from historic maps and reflect the actual locations of resources as they can best be determined from those maps:

- the 3-acre Plum Island Light Station complex on the west end of Plum Island;
- the harbor area on the west end of Plum Island;
- the bluff edge overlooking the harbor on the west end to a distance of 100 m inland from the edge of the bluff;
- the cemetery and the area within 200 m of the cemetery;
- the Jerome, Mallory, and Clark farmsteads as shown on historic maps; and
- the Fort Terry complex.

Architectural Resources

The Plum Island Light Station is listed on the NRHP. Other structures that may be eligible for listing on the NRHP include:

- Battery Floyd and Battery Eldridge (*i.e.*, Battery Construction No. 217);
- Shelter Search Light 13 and Shelter Search Light 14; and
- Fort Terry complex.

DHS, as the current property manager, is evaluating other resources for NRHP eligibility, such as those associated with Fort Terry, and will prepare appropriate nominations. The potentially significant prehistoric and historic archaeological resources and the architectural resources, both eligible for and listed on the NRHP are all hereinafter referred to as "Historic Resources."

3.9.3. Consequences

3.9.3.1 No Action Alternative – Retain in Federal Ownership

The No Action Alternative would not adversely impact Historic Resources, as the high probability zones for archeological resources are limited to undeveloped and undisturbed areas

that would not be affected by the decommissioning process, and the structures that would be decommissioned are not Historic Resources.

3.9.3.2 Action Alternative – Sale of the Property

Any future development on the Property would be subject to applicable state and federal regulations, including the NHPA. The Joint Lead Agencies and the SHPO may develop deed covenants for certain resources listed or eligible for listing on the NRHP, in order to preserve the distinctive materials, features and spaces that make them eligible for inclusion in the NRHP.

3.9.3.3 Reuse Option 1 – Adaptive Reuse of Existing Infrastructure

Historic Resources that are eligible for listing or listed on the NRHP would be subject to the deed covenants and applicable federal, state, and local regulations.

Prehistoric Resources

Reuse Option 1 would not impact potentially significant prehistoric archaeological resources, because the high probability zones for these resources are limited to undeveloped and undisturbed areas.

Historic Resources

Historic Resources that are eligible for listing or listed on the NRHP would be subject to the deed covenants and applicable federal, state, and local regulations.

3.9.3.4 Reuse Option 2 – Development (Range of Residential Density Scenarios)

The redevelopment of Plum Island under Reuse Option 2 could impact Historic Resources.

Prehistoric Resources

The redevelopment of Plum Island could impact prehistoric resources, if any are present, because redevelopment of portions of Potential Development Parcels 1 and 3 could have an impact on a segment of the high probability zone for prehistoric resources shown on Figure 3.9-1. The development of the remaining parcels would not impact high probability areas for prehistoric resources.

Historic Resources

The redevelopment of Plum Island could impact historic archaeological resources. The redevelopment of portions of the Potential Development Parcels 3 and 4 could impact the Fort Terry complex. In addition, the redevelopment of the Potential Development Parcel 1 could impact the approximated site of the Gardiner headstone, the redevelopment of the Potential Development Parcel 2 could impact the approximated site of the former Jerome farmstead, and the redevelopment of the Potential Development Parcel 3 could impact the approximated sites of the former Mallory and Clarke farmsteads.

The impacts to architectural resources listed or eligible for listing on the NRHP would be negligible, as impacts from redevelopment or removal would be subject to deed restrictions as well as any applicable federal, state, and local regulations. Development impacts to archaeological resources would also be controlled under applicable federal, state, and local regulations.

3.9.3.5 Reuse Option 3 – Conservation/Preservation

Reuse Option 3 would not likely adversely impact Historic Resources.

Prehistoric Resources

The conservation of Plum Island would not likely impact potential prehistoric resources, as the high probability zones for these resources are limited to undeveloped and undisturbed areas that would not be affected by any changes to existing structures.

Historic Resources

The impacts to historic archeological and architectural resources listed or eligible for listing on the NRHP would be negligible, as any changes would be subject to deed restrictions as well as federal, state, and local regulations that preserve the distinctive materials, features and spaces that make them eligible for inclusion in the NRHP**.**

3.10. SOCIOECONOMICS/ENVIRONMENTAL JUSTICE

The socioeconomic study area for this EIS includes one county in New York State (Suffolk County) and two counties in the State of Connecticut (Middlesex and New London). Since the PIADC employs residents from the above-mentioned counties, this section will summarize socioeconomic and environmental justice baseline conditions that could be affected by the Action and No Action Alternatives.

3.10.1. Methodology

The methodology for assessing potential socioeconomic and environmental justice impacts from the sale begins with identifying a study area. The socioeconomic and environmental justice study area represents the location where workers of PIADC live and commute to. This study area was determined based on an analysis of the commuting patterns to and from the PIADC on a county level. Information on commuting patterns was obtained largely from journey-to-work data contained in U.S. Census statistics describing daily commuting patterns to and from a given location. These data were used to define the affected environment by considering any county that constituted approximately 5 percent or more of the worker flows into the PIADC as comprising the study area.

The socioeconomic impacts analysis first focuses on descriptive parameters of the affected human environment, including demographics, environmental justice, economic, and social assets of a community. Demographics focus on population trends, age, income, and education. Environmental justice considers segments of the community that constitute minority and low income populations. Economic characteristics provide information on the labor market and local

employment base. Housing and quality of life measures such as access to schools, health care, and police and fire protection are also influenced by socioeconomic factors. Various analysis tools were used to examine and present the descriptive parameters. For example, school-aged children and the elderly are sensitive population groups that have additional needs and require additional services. Therefore, populations under 18 years of age and above 65 years of age are highlighted in the environment analyses portion of this report. In addition to the most recent information available from the U.S. Census (including the American Community Survey [ACS] 2006-2008 three year estimate data), Bureau of Economic Analysis (BEA), and Bureau of Labor Statistics (BLS) sources, information from the NBAF EIS, 2008 has been used to support the baseline information.

The socioeconomic impacts analysis then focuses on the anticipated impacts of the PIADC on the local community. This section will describe and estimate potential consequences from decommissioning the PIADC and varying development options on the descriptive parameters. These include anticipated changes in employment opportunities, labor income, population changes, housing demand, as well as anticipated changes in the quality of life as measured by the expected change in the demand for general public services.

Impact Analysis for Planning Modeling System (IMPLAN) was used to estimate the economic effects on the Plum Island socioeconomic study area. IMPLAN is a widely used economic impact assessment model system developed and provided by Minnesota IMPLAN Group, Inc. (MIG, Inc.). IMPLAN is a "regional accounts" model that identifies the relationships between hundreds of economic sectors for an identified region. Specifically, IMPLAN identifies all the industries that a specific industry purchases its inputs from, and all the industries or sectors to which it sells its outputs. County-specific industry and economic data for Suffolk, Middlesex, and New London counties were obtained from the MIG Inc., and used for this analysis. IMPLAN's inter-industry relationships are based on national production coefficients and can be fine-tuned to better reflect local production practices where necessary.

The inter-industry linkages and consumer spending patterns vary from region to region. Therefore, the outputs of the impact analysis such as the potential amount of labor employed and income for each option varied according to the type of industries employed and their inter-industry linkages. IMPLAN estimates the total economic effects arising from the proposed action as well as its alternative actions by accounting for direct, indirect, and induced effects of the anticipated investment. The total economic impact includes the following changes in income and employment:

- *Direct impacts* are the employment and income directly supported by the industry in question (*e.g.*, hotel operations)
- *Indirect impacts* are the employment and income generated by industries (*e.g.*, ferry boat service) that support the subject industry (*e.g.*, hotel operations).
- *Induced impacts* are the employment and income generated as a result of household expenditures supported by income from the industry in question (*e.g.*, spending of labor income from the hotel operations).

Together, the total sum of direct, indirect, and induced impacts constitute the multiplier effect, which is defined as the ratio between the total estimated impact and the direct economic impact.

The terms of potential impacts are described as follows:

Negligible: Little or no noticeable change in economic activity, employment and income levels, or population migration or immigration.

Minor: Local changes in economic activity, employment and income levels, or population migration or immigration.

Moderate: Regional changes in overall economic activity, employment and income levels, or population migration or immigration.

Major: Widespread, significant changes in overall economic activity, employment and income levels, or population migration or immigration.

3.10.2. Affected Environment

As discussed above in the methodology, the Plum Island socioeconomic study area was determined primarily based on journey-to-work information for the workers of PIADC, as obtained from the U.S. Census. The study area is shown in Figure 3.10-1.

Demographics

According to U.S. Census 2009 estimates, there were 1,951,007 people living in the study area with an ethnic makeup of 85.5 percent White (80.6 percent Non-Hispanic White), 6.5 percent Black or African American, 0.4 percent American Indian and Native Alaskan, 2.3 percent Asian, 0 percent Native Hawaiian and Other Pacific Islander, and 5.3 percent from other ethnic groups. Hispanics of any ethnicity made up 9.1 percent of the population.

According to the 2006-2008 ACS, the population in the study area was spread out with 24.2 percent people under the age of 18, 9.0 percent from 18 to 24, 34.8 percent from 25 to 49, 19.0 percent from 50 to 64, and 12.9 percent who were 65 years of age or older. The median, as well as largest, age group was 35 to 49 years.

According to the ACS, the majority of the population comprises high school graduates (31.1 percent). The next largest groups in terms of level of educational attainment were those with some college but no degree (18.0 percent), or those with bachelor's degrees (17.6 percent).

The median income for a household in the study area was $75, 273, and the per capita income was $34,978 (2006-2008 average in 2008 inflation-adjusted dollars). Approximately 5.9 percent of the population was below the poverty line according to the 2000 Census. According to the BEA, 1,072,509 people were employed in the study area in 2008, and the ACS recorded a total of 1,381,643 housing units with 648,682 or 47.0 percent of those units being occupied. ACS average household size data was used to estimate the study area's average household size to be 2.64 (U.S. Census 2006-2008 ACS).

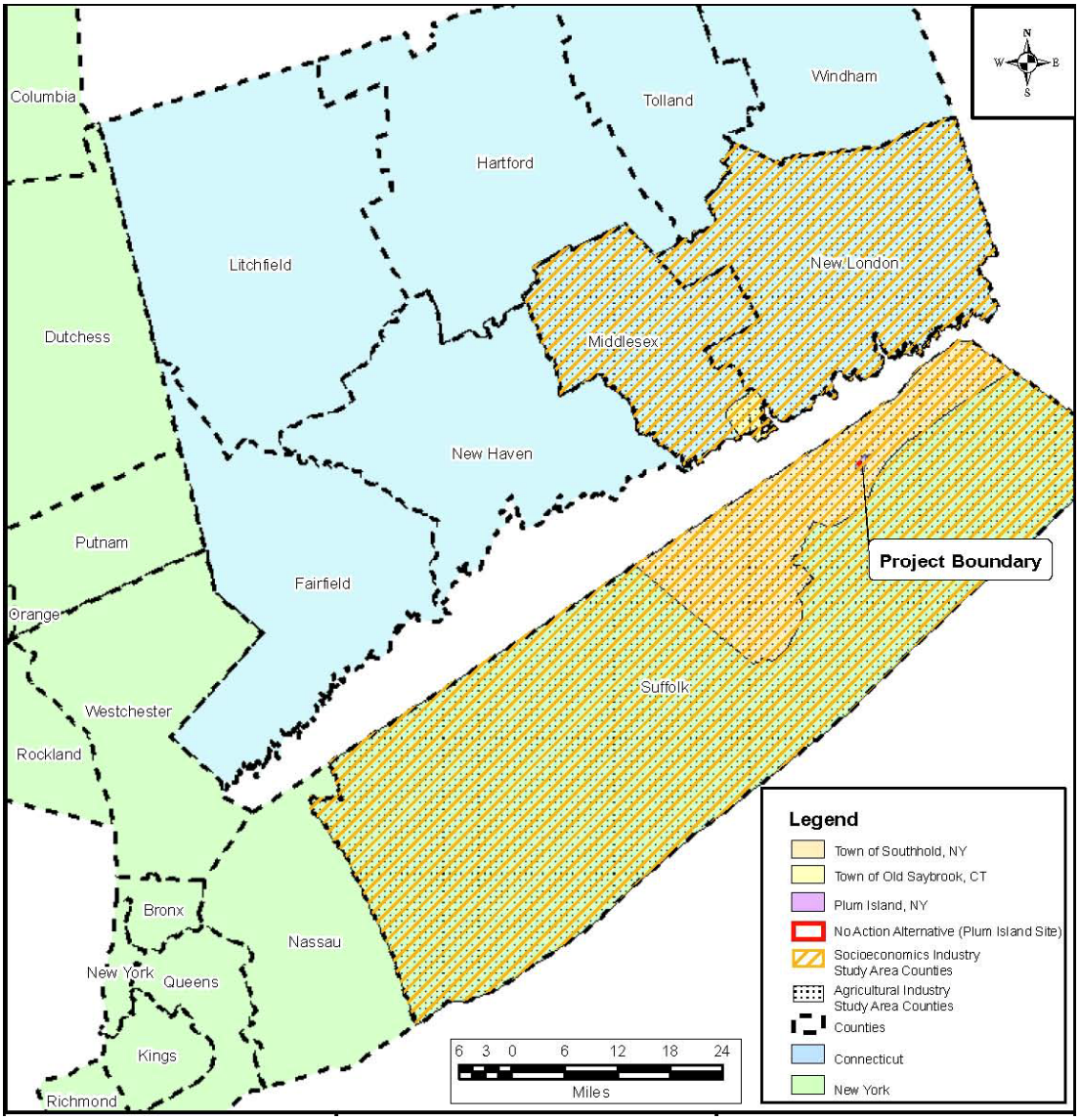

Figure 3.10-1: Plum Island Socioeconomic Study Area

Source: NBAF Final EIS citing the U.S. Census 2000 SF1 Data

Population

In 2009, the total estimated population of Suffolk County, New York was 1,518,475 persons, 266,830 persons in New London County, Connecticut, and 165,702 persons in Middlesex County, Connecticut. The total estimated population increased by 299,350 persons between 1980 and 2009. Overall, population in the three counties increased between 1980 and 2009 by 18.1 percent, with an 18.2 percent increase in Suffolk County, 28.4 percent increase in Middlesex County, and 11.9 percent increase in New London County (Figure 3.10-2). Both Suffolk County and Middlesex County grew faster than their associated states over the same period (New York increased by 11.3 percent and Connecticut increased by 13.2 percent from 1980 to 2009). The total population of the study area increased each decade after 1980 and was largely influenced by

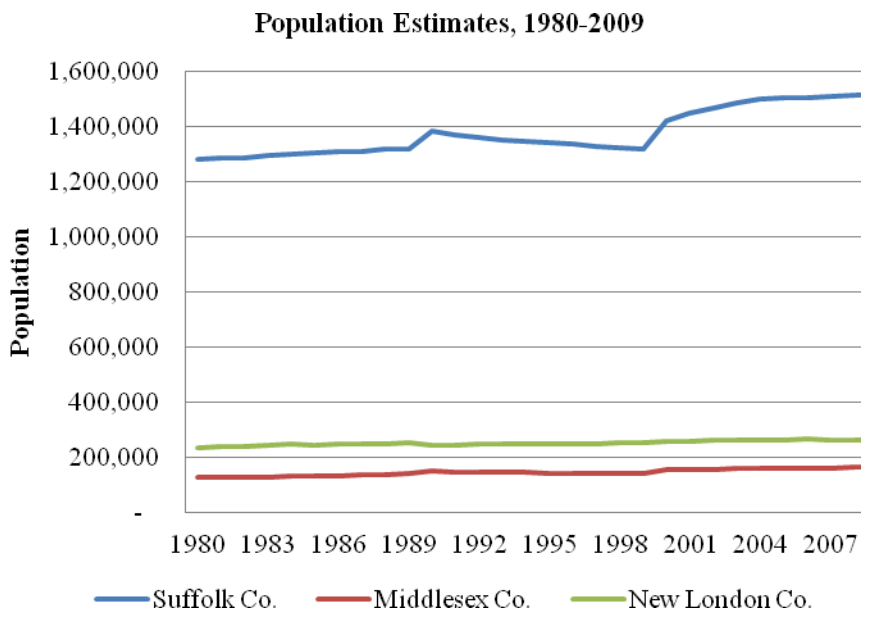

Figure 3.10-2: Population Trends for the Plum Island Study Area (1980 – 2009)

Source: U.S. Census Bureau, Population Division

the growing population in Suffolk County. Factors influencing the observed population trend in Suffolk County include suburban development (particularly in western Suffolk County, with workers commuting to New York City) and the location of major institutions in the county such as the State University of New York at Stony Brook.[116]

Table 3.10-1 summarizes the compound annual growth rate (CAGR) for the study area (0.69 percent) as well as for New York (0.31 percent) and Connecticut (0.34 percent) from 2000 to 2009. Between 2000 and 2009, the population of the study area grew approximately twice as fast as New York and Connecticut annually. Suffolk County and New London County grew at approximately the same pace, which was more than double the annual growth of their respective states. New London County's annual growth was similar to Connecticut's. The Town grew the fastest of the study area.

Plum Island has no residential population. Although separated by approximately 1 mile of waterway, the nearest residential population is located on Orient Point, which is the easternmost coast of North Fork, Long Island, in the Town. For this analysis, the Town in Suffolk County is considered the area affected the most by the sale because of its close proximity to Plum Island.[117]

[116] U.S. Department of Homeland Security (DHS), National Bio and Agro-Defense Facility final environmental impact statement.

[117] Ibid.

Table 3.10-1: Study Area Compound Annual Growth Rate, 2000 – 2009

Region	Population		Compound Annual Growth Rate (CAGR) Percent*
	2000	2009	2000-2009
Town of Southold	20,599	22,631	1.05
Suffolk County	1,419,369	1,518,475	0.75
Middlesex County	155,071	165,702	0.74
New London County	259,088	266,830	0.33
Study Area	1,833,528	1,951,007	0.69
New York	18,998,044	19,541,453	0.31
Connecticut	3,411,726	3,518,288	0.34

Source: U.S. Census Bureau, 2009 Population Estimates, Census 2000

*The CAGR is a simplified estimate that measures the growth of the population as if it had grown at a steady single rate on an annually compounded basis.

Age

The most recent U.S. Census data for population ages of the study area, obtained from the 2006 - 2008 ACS, is summarized in Table 3.10-2. Nearly 24.2 percent of the study area population was under 18 years of age, and 12.9 percent was aged 65 years and older. The population of Suffolk County under 18 years of age was the largest in the study area (24.7 percent), and its population aged 65 years and older was the smallest in the study area (12.8 percent). The proportion of the population under 18 years of age and 65 years and older were similar for Middlesex County (22.0 percent and 14.1 percent respectively) and New London County (23.0 percent and 13.2 percent respectively). The proportion of the Suffolk County population estimated to be under 18 years of age was greater than in New York (22.6 percent) and Connecticut (22.9 percent). The proportion of the population of Suffolk County estimated to be 65 years of age and older was smaller than in New York (13.4 percent) and Connecticut (13.8 percent).

Table 3.10-2: Study Area Age Profile, 2006-2008 Average

	Town of Southold		Suffolk County		Middlesex County		New London County		Study Area	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Under 5 years	556	2.5	94,189	6.2	8,827	5.4	15,826	6.0	118,842	6.1
5 to 5 years	1,287	5.9	100,810	6.7	10,152	6.2	15,458	5.8	126,420	6.5
10 to 14 years	1,354	6.2	108,152	7.2	10,321	6.3	18,599	7.0	137,072	7.1
15 to 17 years	889	4.1	69,120	4.6	6,744	4.1	11,175	4.2	87,039	4.5
18 to 24 years	1,131	5.2	137,190	9.1	13,694	8.4	23,711	8.9	174,595	9.0
25 to 34 years	1,265	5.8	162,362	10.7	17,457	10.6	33,622	12.7	213,441	11.0
35 to 49 years	4,498	20.5	358,235	23.7	40,229	24.5	64,114	24.2	462,578	23.8
50 to 64 years	4,983	22.7	287,628	19.0	33,402	20.4	47,899	18.0	368,929	19.0
65 years and above	5,976	27.2	193,030	12.8	23,090	14.1	34,985	13.2	251,105	12.9
Total	**21,939**	**100.0**	**1,510,716**	**100.0**	**163,916**	**100.0**	**265,389**	**100.0**	**1,940,021**	**100.0**

Source: U.S. Census Bureau, 2006-2008 ACS

Education

The most recent educational attainment data for the study area was obtained from the U.S. Census 2006 - 2008 ACS and is summarized in Table 3.10-3. This table shows that 10.7 percent of the study area's population at 25 years of age and older did not graduate from high school, 49.1 percent of the study area population graduated from high school or had some college education, 8.6 percent had an associate's degree and 31.6 percent had a bachelor's degree or higher level of education. The proportion of residents that did not graduate from high school in the study area was smaller than in New York (15.3 percent) and Connecticut (11.4 percent). The study area proportion of residents with a bachelor's degree or higher level of education was also smaller than that of in New York (32.4 percent) and Connecticut (35.6 percent).

Table 3.10-3: Study Area Educational Attainment, 2006-2008 Average

	Town of Southold		Suffolk County		Middlesex County		New London County		Study Area	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Less than Ninth Grade	1,025	6.1	42,993	4.3	3,076	2.7	8,288	4.5	54,357	4.2
9th to 12th Grade	755	4.5	65,855	6.6	6,871	6.0	11,768	6.4	84,494	6.5
High School Graduate	4,642	27.6	313,134	31.3	32,004	28.0	59,320	32.4	404,458	31.1
Some College, No Degree	2,476	14.7	177,661	17.7	20,901	18.3	34,779	19.0	233,341	18.0
Associate Degree	1,476	8.8	88,033	8.8	9,174	8.0	14,774	8.1	111,981	8.6
Bachelor's Degree	3,607	21.5	175,270	17.5	23,388	20.5	29,986	16.4	228,644	17.6
Graduate or Professional Degree	2,834	16.9	138,309	13.8	18,764	16.4	24,299	13.3	181,372	14.0
Total	16,815	100.0	1,001,255	100.0	114,178	100.0	183,214	100.0	1,298,647	100.0

Source: U.S. Census Bureau, 2006-2008 ACS

Income

According to the U.S. Census 2006 – 2008 ACS, the median household incomes adjusted to 2008 dollars ranged from $65,580 in New London County to $84,767 in Suffolk County as shown in Table 3.10-4. The study area's estimated median household income of $75,273 was above the median household income for New York ($54,659) and Connecticut ($67,034). Per capita income across the study area had less variation and was lowest in New London County at $32,279, in inflation-adjusted 2008 dollars. The study area was estimated to have a per capita income of $34,978, higher than that in New York ($30,645), but lower than Connecticut's ($35,747).

Table 3.10-4: Study Area Income Profile, 2006-2008 Average (inflation-adjusted to 2008 dollars)

	Town of Southold	Suffolk County	Middlesex County	New London County	Study Area
Income	**US Dollars**				
Median Household Income	70,646	84,767	75,471	65,580	75,273
Per Capita Income	39,052	35,140	37,515	32,279	34,978

Source: U.S. Census Bureau, 2006-2008 ACS

Total labor income for each county in the study area was obtained from BLS, as also shown in Table 3.10-5. Labor income was $31,020 billion for Suffolk County, $3,480 billion for

Middlesex County, and $6,114 billion for New London County. The total labor income for the study area was $40,615 billion for 2008.[118]

Table 3.10-5: Study Area Income Profile (2008 dollars)

	Suffolk County	Middlesex County	New London County	Study Area
Total Labor Income (in thousands)	US Dollars			
	31,020,453	3,480,179	6,114,231	40,614,863

Source: Bureau of Labor Statistics

Environmental Justice

Environmental justice considers sensitive minority and low income populations in the community to determine whether the proposed action and its alternatives may have a disproportionate high and adverse human health or environmental effect on those populations. Environmental justice analysis is conducted in compliance with EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations*. Based on guidance from the CEQ, minority populations should be identified where either: (a) the minority population of the area exceeds 50 percent, or (b) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis.[119] Low income populations are defined as those below the federal poverty thresholds identified using statistical poverty thresholds from the U.S. Census. USEPA guidance states, "The composition of the population should … be compared to the characteristics of the population (*e.g.*, percentage of minority populations residing near a proposed project versus the percentage of minority populations located within a single or multiple-county area surrounding the proposed project."[120] Applying this methodology to the identification of low income populations in this EIS, the percentage of low income populations in the study area is compared to the percentage of low income populations located within the States of Connecticut and New York. Specifically, a low income population is identified when an area has a poverty rate that is significantly greater than the States' poverty rates.

Ethnicity and poverty rates reflected in this EIS were obtained from the U.S. Census 2000. Data are provided at the town and county level as well as the Census block group level. A block group is a cluster of Census blocks within a Census tract, and each block group generally contains 600 to 3,000 people.[121] The block group is the smallest geographical unit for which the U.S. Census

[118] Wages include bonuses, stock options, profit distributions, the cash value of meals and lodging, tips and other gratuities, and, in some States, employer contributions to certain deferred compensation plans such as 401(k) plans.

[119] Council on Environmental Quality (CEQ). 1997. Environmental justice guidance under the National Environmental Policy Act.

[120] U.S. Environmental Protection Agency (USEPA). 1998. Final guidance for incorporating environmental justice concerns in EPA's NEPA compliance analysis.

[121] U.S. Census Bureau. 2000. Census 2000 geographic definitions.

tabulates data used in the environmental justice analysis and provides an opportunity to identify "pockets" of minority or low income population within a larger geographic area such as a town or county.

Ethnic compositions of the overall study area are summarized in Table 3.10-6. In 2000, persons of Hispanic origin constituted the largest percentage minority group in the study area (9.1 percent), which was comparable to the percentage in Connecticut (9.4) and smaller than in New York (15.1 percent) and the United States (12.5 percent). African Americans constituted 6.5 percent of the study area, a smaller proportion than in New York (15.9 percent), Connecticut (9.1 percent), and the United States (12.2 percent). Overall, the proportion of minorities in the study area (19.5 percent) was smaller than in the United States (30.9 percent), New York (38.0 percent), and Connecticut (22.5 percent). The study area's total minority population, or aggregate, is calculated by adding the percentages of Hispanic White and Non-White Alone population (Table 3.10-6). The study area is below the CEQ threshold of 50 percent for minority populations.

Table 3.10-6: Study Area Ethnic Composition, 2000

	Town of Southold		Suffolk County		Middlesex County		New London County		Study Area	
	Number	**Percent**	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
White Alone	19,266	93.5	1,200,755	84.6	141,555	91.3	225,406	87	1,567,716	85.5
Non-Hispanic White	18,687	90.7	1,118,405	78.8	138,979	89.6	219,542	84.7	1,476,926	80.6
Hispanic White	579	2.8	82,350	5.8	2,576	1.7	5,864	2.3	90,790	5
Non-White Alone	1,333	6.5	218,614	15.4	13,516	8.7	33,682	13	265,812	14.5
Black or African American Alone	600	2.9	98,553	6.9	6,856	4.4	13,703	5.3	119,112	6.5
American Indian and Alaska Native Alone	14	0.1	3,807	0.3	269	0.2	2,487	1	6,563	0.4
Asian Alone	92	0.4	34,711	2.5	2,419	1.6	5,075	2	42,205	2.3
Native Hawaiian and Other Pacific Islander Alone	14	0.1	484	0	58	0	151	0.1	693	0
Other	613	3	81,059	5.7	3,914	2.5	12,266	4.7	97,239	5.3
Total	**20,599**	**100**	**1,419,369**	**100**	**155,071**	**100**	**259,088**	**100**	**1,833,528**	**100**
Hispanic Population Total	982	4.8	149,411	10.5	4,649	3	13,236	5.1	167,296	9.1

Source: U.S. Census Bureau 2000

Table 3.10-7 identifies the number of Census block groups that meet the CEQ criteria for a minority population. The block group analysis addresses individual race and ethnicity classifications as well as the aggregate of all minority populations. There are no block groups in the Town of Southold that meet the CEQ criteria. In Suffolk County, 186 block groups are identified. Most of these are categorized as Aggregate, where the total of individual minority races in a block group exceeds 50 percent. All of the minority block groups in Suffolk County are located at least 24 miles from Plum Island; most of the block groups are located at least 50 miles away. In Middlesex County, one block group is identified as a minority population and is located approximately 35 miles from Plum Island. Ten block groups in New London County are identified as minority populations and are located 10 to 14 miles north of Plum Island.

Three of the minority population block groups in the study area are located in American Indian Reservations (AIRs). In Suffolk County, the boundaries of two block groups match the boundaries of two state AIRs: Poospatuck Reservation and Shinnecock Reservation. State AIRs are reservations established by some state governments for tribes recognized by the State.[122] The Poospatuck Reservation is located approximately 43 miles west of Plum Island, and the Shinnecock Reservation is located approximately 24 miles west of the island. In New London County, one minority population block group is located in the Mohegan Reservation, a federal AIR set aside by the U.S. Government. The block group is located approximately 53 miles north of Plum Island. No state or federal AIRs are located in the Town of Southold or Middlesex County.

Table 3.10-7: Study Area Ethnic Composition by Block Group, 2000

	Town of Southold	Suffolk County	Middlesex County	New London County	Study Area
Total Number of Block Groups	**24**	**990**	**118**	**191**	**1,299**
Number of Block Groups with Minority Populations >50 Percent					
Black or African American Alone	0	37	0	0	37
American Indian and Alaska Native Alone	0	2	0	0	2
Asian Alone	0	0	0	0	0
Native Hawaiian and Other Pacific Islander Alone	0	0	0	0	0
Other	0	0	0	0	0
Hispanic	0	25	0	1	26
Aggregate	0	122	1	9	132
Total	**0**	**186**	**1**	**10**	**197**

Source: U.S. Census Bureau 2000

Table 3.10-8 summarizes the poverty rates within the study area. Middlesex County had the lowest proportion of persons living below poverty in the study area, and New London County contained the highest proportion of persons living below the poverty line. The percentage of persons living below poverty in the study area was 5.9 percent, substantially smaller than the poverty rate in New York (14.6 percent) and Connecticut (7.9 percent).

Table 3.10-8: Study Area Poverty Rate, 2000

	Town of Southold		Suffolk County		Middlesex County		New London County		Study Area	
	Number	**Percent**	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
Population For Whom Poverty Status is Determined	20,414	100	1,393,546	100	149,529	100	247,198	100	1,790,273	100
Population With Income in 1999 Below Poverty Level	1,178	5.8	83,171	6	6,911	4.6	15,780	6.4	105,862	5.9

Source: U.S. Census Bureau 2000

[122] U.S. Census Bureau. 2010. 2010 geographic terms and concepts.

Table 3.10-9 presents the number of block groups in the study area that significantly exceed their State's poverty rate and therefore are identified as low income populations. For the purpose of this EIS, a low income population, recognized as significantly exceeding the State's poverty rate, is determined to exist if the poverty rate of a block group exceeds the respective State's poverty rate by more than 20 percentage points. In the study area, there are 15 block groups with poverty levels that meet these criteria. In Suffolk County, there are eight low income block groups, which are located 25 to 73 miles from Plum Island. In Middlesex County, three block groups are determined to be low income populations and are located approximately 35 miles north of Plum Island. Four low income block groups are located in New London County, 13 to 25 miles away from Plum Island.

Table 3.10-9: Study Area Poverty Rate by Block Group, 2000

	Town of Southold	Suffolk County	Middlesex County	New London County	Study Area
Total Number of Block Groups	24	990	118	191	1,299
Number of Block Groups Significantly (20 Percentage Points) >State Poverty Rate	0	8	3	4	15

Source: U.S. Census Bureau 2000

Economic Conditions

Employment

Labor force and unemployment data was obtained from the BLS for years 2000 through 2009. In general, the civilian labor force in the study area grew from 952,839 persons in 2000 to 1,041,751 persons in 2009, an increase of 8.5 percent over 10 years, which was larger than the growth rate for New York (5.5 percent) and Connecticut (8.1 percent) during the same period. The unemployment rate in the three counties within the study area generally mirrored that of New York and Connecticut across the 10 years – gradually rising between 2000 and 2003, followed by a gradual fall between 2003 and 2007, and a steep rise between 2007 and 2009 (Figure 3.10-3). Individually, each county had an unemployment rate that was lower than their respective states.

The most recent commuting data for the study area was obtained from the 2000 U.S. Census. All three counties have the majority of their labor forces commuting to work within county borders (Table 3.10-10). Middlesex County had slightly more than half of its labor force working in Middlesex and approximately 24 percent working in neighboring Hartford County, which is home to the city of Hartford, the capital of Connecticut. Approximately 83 percent of New London County residents work in the county with a small fraction working in Hartford County (5.5 percent) and Middlesex County (3.8 percent). Approximately three-quarters of Suffolk County residents work in Suffolk County, with another 14 percent commuting daily to neighboring Nassau County for work.

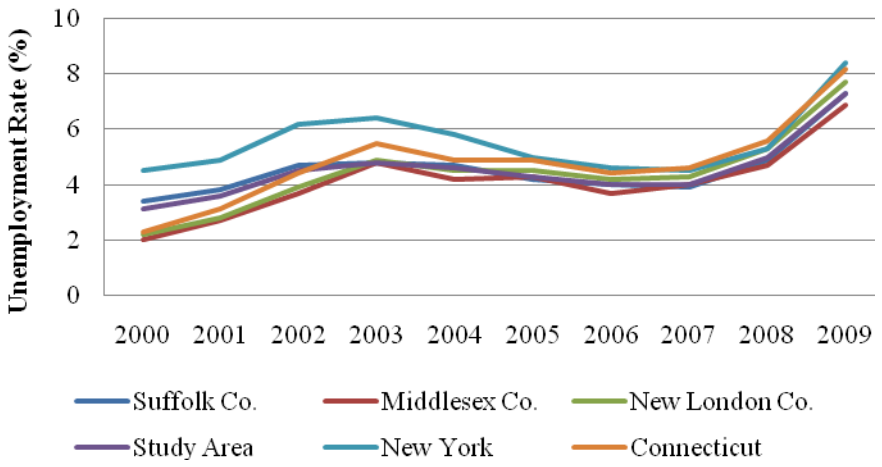

Figure 3.10-3: Unemployment Rate in the Plum Island Study Area, 2000 - 2009

Source: BLS

Table 3.10-10: Study Area Journey-to-Work Patterns, 2000

Residence County	Workplace County	Number of Workers	Percent
Suffolk, NY	Suffolk, NY	491,836	73.4
	Nassau, NY	90,930	13.6
	New York, NY	41,121	6.1
	Queens, NY	25,159	3.8
	Kings, NY	10,586	1.6
	All other areas	10,774	1.6
Middlesex, CT	Middlesex, CT	41,641	51.6
	Hartford, CT	19,225	23.8
	New Haven, CT	12,833	15.9
	New London, CT	3,878	4.8
	Fairfield, CT	1,161	1.4
	All other areas	1,977	2.4
New London, CT	New London, CT	107,232	82.8
	Hartford, CT	7,093	5.5
	Middlesex, CT	4,909	3.8
	Windham, CT	3,181	2.5
	New Haven, CT	1,638	1.3
	All other areas	5,500	4.2

Source: U.S. Census Bureau, 2000 County-to-County Worker Flow Files

Another measure of employment is the count of actual jobs. The following employment base analysis uses the count of actual jobs in ascertaining the relative importance and proportion of various industrial sectors present in the study area using the latest BEA employment information (2001-2008).

Information regarding employment by industry for the study area followed by each individual county is illustrated in Figures 3.10-4 to 3.10-7. In 2008, the number of jobs in the study area was 1,072,509. Suffolk County contributed to more than 75.6 percent of the total jobs (810,022 jobs[123]). New London accounted for 16.5 percent of the jobs (177,164 jobs), and Middlesex accounted for 9.3 percent of the jobs (99,854 jobs). In 2008, services (41.4 percent) constituted the largest percentage of jobs. The three largest service industries were health care and social services (11.6 percent), professional and technical services (7.3 percent), and accommodation and food services (5.6 percent).

Another large source of employment for the study area included government and government enterprises. Government enterprises cover a majority of their operating costs by selling goods and services similar to private sector firms. Example of government enterprises include government-owned and -operated transportation services (such as the ferry services), postal, electric utility, sewer and sanitation services, gas and water supply, and post exchanges. The government and government enterprises data also captures all transportation to and from Plum Island. Government-owned and contractor-operated ferries connect Orient Point to the study area Island location and Old Saybrook, Connecticut. Access is restricted to the employees, contractors, and visitors of the current facility.

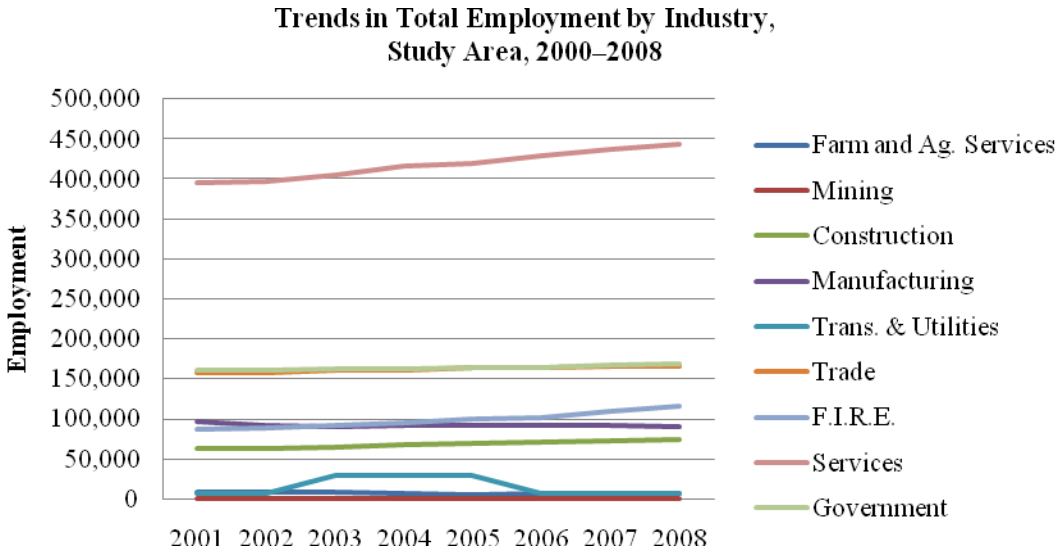

Figure 3.10-4: Plum Island Study Area Employment by Industry, 2001-2008

Source: Regional Economic Information System, BEA, U.S. Department of Commerce

[123] In 2008, the number of jobs in the transportation and utilities industries was not available due to non-disclosure concerns.

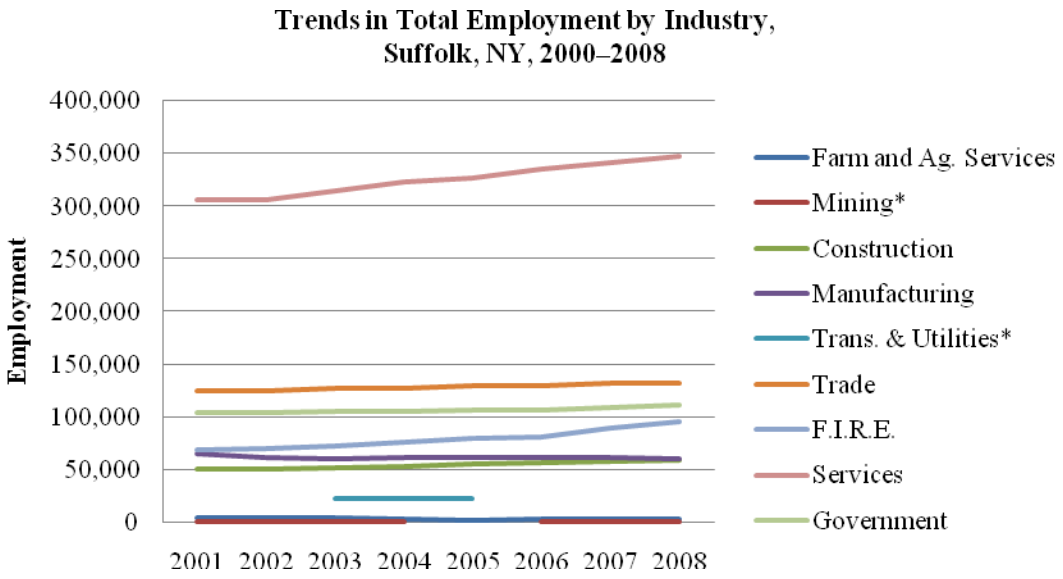

Figure 3.10-5: Suffolk County, New York Employment by Industry, 2001–2008

Source: Regional Economic Information System, BEA, U.S. Department of Commerce

*Some data for Mining, Trans. & Utilities are unavailable due to non-disclosure of confidential information.

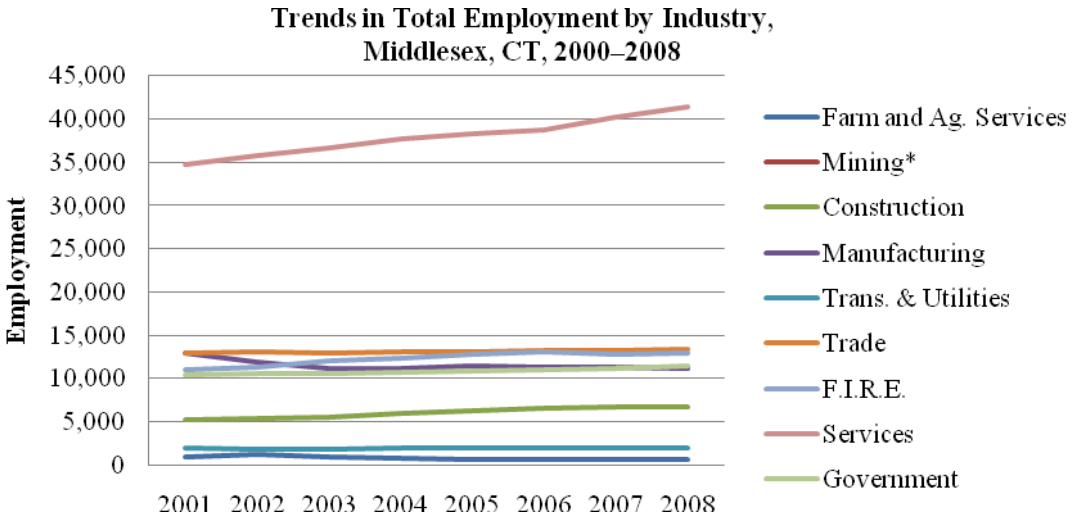

Figure 3.10-6: Middlesex County, Connecticut Employment by Industry, 2000-2008

Source: Regional Economic Information System, BEA, U.S. Department of Commerce

*Some data for Mining are unavailable due to non-disclosure of confidential information

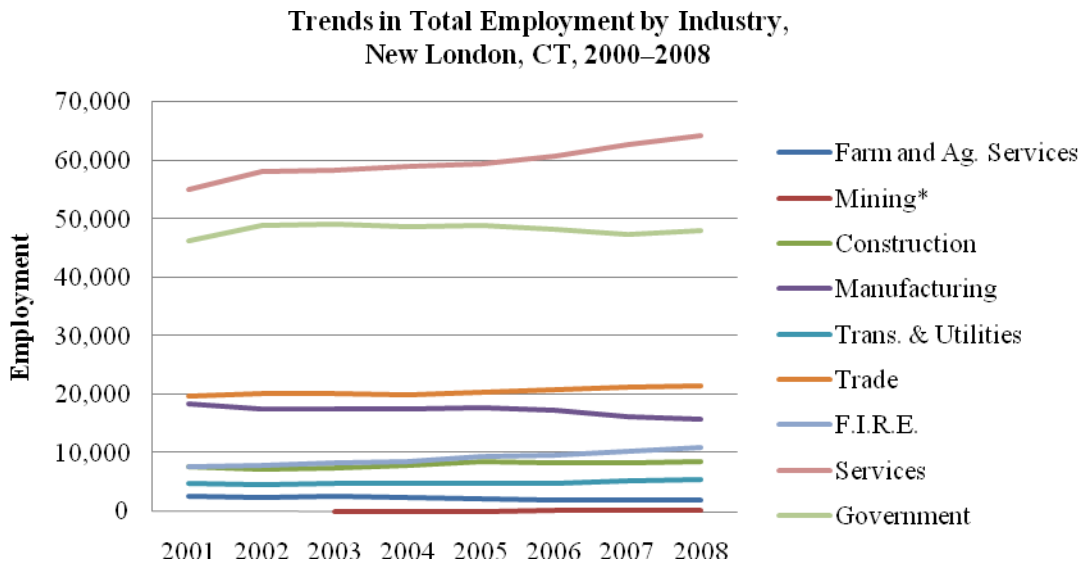

Figure 3.10-7: New London County, Connecticut Employment by Industry, 2001-2008

Source: Regional Economic Information System, BEA, U.S. Department of Commerce

*Some data for Mining are unavailable due to non-disclosure of confidential information

Additional information on the major employers in the study area for Connecticut was obtained from the *Connecticut Business News Journal*.[124] Information on major employers for Suffolk County was obtained from the Suffolk County Department of Planning, which pools some employer data with the adjacent Nassau County. The major employers for the study area are summarized in Table 3.10-11. North Shore Health System, which is a network of 14 hospitals spread over Suffolk and Nassau Counties and other health care providers, such as the Winthrop Health System and Stony Brook University Hospital, were among the leading employers in Suffolk County.[125] Similarly, Middlesex Hospital is a leading firm in Middlesex County.[126]

During the scoping process for the NBAF EIS,[127] public concern regarding the possible impacts from PIADC operations on agricultural production – particularly animal production – was raised. In response to the public's concern, a summary of the NBAF EIS[128] agriculture industry baseline analysis follows. DHS and IMPLAN data on the study area was used to describe the importance of the agricultural industry to the local economy for the year 2006. "[The] agricultural industry generally constituted less than 1 percent of employment both in terms of total jobs supported and in terms of total compensation paid in all three counties together and individually. The only

124 Connecticut Business News Journal. 2009. http://www.conntact.com/.
125 U.S. Department of Homeland Security (DHS), National Bio and Agro-Defense Facility final environmental impact statement.
126 Ibid.
127 Ibid.
128 Ibid.

Table 3.10-11: Study Area Major Employers

Suffolk County (NY)*	Middlesex and New London Counties (CT)
North Shore Health System	Middlesex Hospital
Diocese of Rockville Center	Lawrence & Memorial Hospital
Wauldbaums supermarkets	Wesleyan University
North Fork Bank	Connecticut College
Long Island Railroad	Chemtura Corp.
Cablevision Systems	
Winthrop Health System	
Home Depot	
Pathmark supermarkets	
King Kullen supermarkets	
Key Span	
Long Island University	
Stony Brook University Hospital	
United Parcel Service	
Brookhaven National Laboratory	
Newsday	
Estee Lauder	
Computer Associates	

Source: *Connecticut Business News Journal* (2009) & Suffolk County Department of Planning (2005)

* This includes some firms with operations in adjacent Nassau County.

exception is in New London County where it supports 1.3 percent of total jobs in the county."[129] Total agriculture production, which includes intermediate and final consumption of agricultural products, was $454 million with animal production accounting for $65 million of the total with a very small portion the livestock coming from the study area.[130]

Housing

The most recent housing information for the study area was obtained from the U.S. Census 2006-2008 ACS. The number of housing units in the study area that were occupied was estimated to be 88.5 percent for the three-year average, and 11.5 percent were estimated to be vacant (Table 3.10-12). The proportion of vacant units in the study area was estimated to be slightly larger than in New York (10.5 percent) and Connecticut (7.8 percent). According to the 2008 NBAF EIS, the majority of vacant units in the study area were used for seasonal and recreational

[129] Ibid.
[130] Ibid.

use.[131] New London County was estimated to have the highest proportion of renter-occupied housing units. The percentage of owner-occupied housing units in the study area (70.4 percent) was estimated to be greater than in New York (55.6 percent) and Connecticut (69.5 percent).

Table 3.10-12: Study Area Housing Units by Occupancy, 2006-2008 Average

	Town of Southold		Suffolk County		Middlesex County		New London County		Study Area	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Occupied Housing Units	8,920	59.6	478,920	46.8	66,077	47.8	103,685	47.1	648,682	47.0
Owner-Occupied Housing Units	7,609	50.8	393,874	38.5	49,423	35.8	72,545	33.0	515,842	37.3
Renter-Occupied Housing Units	1,311	8.8	85,046	8.3	16,654	12.0	31,140	14.1	132,840	9.6
Vacant Housing Units	6,054	40.4	65,430	6.4	6,066	4.4	12,783	5.8	84,279	6.1
Total	14,974	100.0	1,023,270	100.0	138,220	100.0	220,153	100.0	1,381,643	100.0

Source: U.S. Census Bureau, 2006-2008 ACS

For the 2006-2008 three-year average, the single-family detached house was the predominant form of housing in the study area and constituted 565,881 units (77.2 percent) (Table 3.10-13). The majority of housing units in buildings with more than 10 units were located in the Middlesex County.

The 2006-2008 three-year average median housing value for the study area was estimated to be $341,633 in 2008 inflation-adjusted dollars, which is higher than the median housing value for both New York ($311,700) and Connecticut ($305,111) (Table 3.10-14). The Town was estimated to have the highest median housing value ($576,400), and New London County was estimated to have the lowest median housing value ($269,800).

Table 3.10-13: Study Area Housing Units by Structure Type, 2006-2008 Average

	Town of Southold		Suffolk County		Middlesex County		New London County		Study Area	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1, Detached	13,551	90.5	439,251	80.7	51,549	71.5	75,081	64.5	565,881	77.2
1, Attached	218	1.5	24,056	4.4	2,623	3.6	4,134	3.5	30,813	4.2
2	365	2.4	19,548	3.6	3,415	4.7	10,407	8.9	33,370	4.6
3 or 4	132	0.9	11,219	2.1	3,447	4.8	8,408	7.2	23,074	3.1
5 to 9	288	1.9	12,524	2.3	3,364	4.7	6,165	5.3	22,053	3.0
10 to 19	94	0.6	17,070	3.1	2,183	3.0	3,144	2.7	22,397	3.1
20+	273	1.8	15,536	2.9	4,742	6.6	6,314	5.4	26,592	3.6
Mobile Home	53	0.4	5,140	0.9	820	1.1	2,777	2.4	8,737	1.2
Other	0	0.0	6	0.0	0	0.0	38	0.0	44	0.0
Total	14,974	100.0	544,350	100.0	72,143	100.0	116,468	100.0	732,961	100.0

Source: U.S. Census Bureau, 2006-2008 ACS

Table 3.10-14: Study Area Median Housing Values, 2006-2008 Average (inflation-adjusted to 2008 dollars)

	Town of Southold	Suffolk County	Middlesex County	New London County	Study Area
	US Dollars				
Median Value	576,400	442,600	312,500	269,800	341,633

Source: U.S. Census Bureau, 2006-2008 ACS

[131] U.S. Department of Homeland Security (DHS), National Bio and Agro-Defense Facility final environmental impact statement.

The 2006-2008 three-year average for median rent is summarized in Table 3.10-15. Suffolk County had the highest median rent, and New London County had the lowest median rent. The three-year average median rent in the Town, estimated to be $961, was higher than the estimated median rents for New York ($824) and Connecticut ($804).

Table 3.10-15: Study Area Median Rent, 2006-2008 Average (inflation-adjusted to 2008 dollars)

	Town of Southold	Suffolk County	Middlesex County	New London County	Study Area
	US Dollars				
Median Rent	961	1,265	802	807	958

Source: U.S. Census Bureau, 2006-2008 ACS

Community Social Assets

Community social assets include man-made or natural resources of a region that contribute to the well-being of its residents (*i.e.*, the quality of life in the community). The relative importance of these attributes to a person's quality of life is subjective. For the purposes of this study, the quality of life of the study area includes recreation facilities, public schools, law enforcement, fire protection services, and medical facilities.

Recreation

The Suffolk County Parks Department (SCDP) manages more than 46,000 acres of park land. Suffolk County recreational resources include numerous parks inland, on beaches, and on islands. Large county parks in eastern Suffolk County include:

- Cedar Point County Park, East Hampton – 607 acres. Features include recreational fishing, hiking, picnicking, camping, playground, rowboat rentals, bicycling, saltwater fishing, scuba diving, and hunting.
- Cupsogue Beach County Park, Westhampton – 296 acres. Features include swimming and camping.
- Indian Island County Park, Riverhead – 275 acres. Features include hiking, picnicking, camping, fishing, an activity field, and a playground.[132]
- Orient Beach State Park, Orient – 363 acres. Features include fishing, swimming, hiking, biking, and picnicking.[133]

[132] Suffolk County Department of Parks (SCDP). 2010. http://www.co.suffolk.ny.us/departments/parks.aspx.

[133] New York State Office of Parks, Recreation & Historic Preservation (NYS Parks). 2011. http://nysparks.state.ny.us/parks/106/details.aspx.

There are also numerous parks and entertainment venues located throughout New London and Middlesex counties that offer additional recreational activities in the study area. Additionally, Plum Gut serves as a popular recreational fishing area for local fishermen.

Public Schools

There are no residents of Plum Island, nor is Plum Island part of any school district. School districts nearest to Plum Island on the mainland include the Oysterponds Union Free School District in Orient Point, Suffolk County, and the New London School District in New London County.

Providing education for students through Grade 6, the Oysterponds Union Free School District had a total enrollment of 104 students and an average class size of 16 during the 2008-2009 school year.[134] The New London School District consists of seven schools, serving students from pre-kindergarten to Grade 12. The district's total enrollment during the 2009-2010 school year was 3,000, with average class sizes ranging from 22 in kindergarten to 22.5 in Grade 5. The average class size for high school was 19.8.[135]

Law Enforcement

The Federal Protective Service (FPS) provides full-time law enforcement on the Property, as well as contract security. FPS personnel verify contractors' and visitors' backgrounds before these individuals are allowed onto the Property.

Also included in the study area was the east end of Suffolk County, which is served by numerous local police departments, including the Town Police Department, the Greenport Police Department, and the East Hampton Police Department. Local police departments are supported by services available through the Suffolk County Police Department, which includes the following specialized units:

- The Emergency Services Section, which handles accidents, rescue operations, and hazardous materials.
- The Marine Bureau patrols the waters surrounding Suffolk County and includes 83 officers and maintains extensive marine search and rescue capabilities.[136]

Likewise, New London County receives similar services from the New London Police Department and the local Old Saybrook Town Police Department.[137,138]

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134 New York State Department of Education. 2009. http://www.nysed.gov/.

135 Connecticut State Department of Education. 2010. http://www.sde.ct.gov/sde/site/default.asp.

136 Suffolk County Police Department. 2010. http://www.co.suffolk.ny.us/police/.

137 New London Police Department. 2010. http://www.ci.new-london.ct.us/content/27/619/default.aspx.

138 Old Saybrook Police Department. 2010. http://www.oldsaybrookct.org/Pages/OldSaybrookCT_Police/index.

Fire Protection

The Town Fire Department is a volunteer fire department with 189 volunteer members, two fire stations, and 20 support vehicles. It receives approximately 600 calls per year.[139]

The Suffolk County Department of Emergency Management and the Suffolk County Department of Fire, Rescue and Emergency Services coordinate responses to fire and other emergencies in the county.[140] Fire protection services are also provided to the study area by the New London and Middlesex County fire departments. The Plum Island Fire Department provides primary fire protection to Plum Island and PIADC. The Plum Island Fire Department participates in a mutual aid plan to provide assistance and protection for all Suffolk County communities (including Plum Island) in case of fire, medical emergencies, and other emergencies.

Medical Facilities

The closest hospital to the Property is the Eastern Long Island Hospital (ELIH) in the Village of Greenport, approximately 15 miles from Plum Island. ELIH is a 90-bed facility. The Emergency Department was expanded in 2005 to include nine beds.[141] Large regional hospitals in the area include the University Hospital at Stony Brook. The study area is also served by Lawrence and Memorial Hospital and Middlesex Hospital.

3.10.3. Consequences

To evaluate impact to the property resulting from activities associated with the potential reuse options, socioeconomic effects resulting from implementation of the alternatives are defined and assessed. These socioeconomic impacts from alternative implementation would vary depending upon the intensity and duration of anticipated activities included in the potential reuse options. This section defines and evaluates the intensity and duration of alternative activities and associated impacts to the socioeconomics in terms of employment and income, population and housing, and community social assets (quality of life).

3.10.3.1 No Action Alternative – Retain in Federal Ownership

Implementation of the No Action Alternative would not significantly impact the socioeconomics of the study area. Socioeconomic changes associated with decommissioning of the PIADC, maintaining the existing facilities in mothballed status, and securing the property would be negligible to minor.

Employment and Income

In maintaining ownership of the property under the No Action Alternative, the federal government would be financially negatively impacted due to the loss of potential proceeds from the sale of the property and having to bear the ongoing cost of protecting and maintaining the

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139 Southold Fire Department. 2010. http://www.southoldfd.com/.

140 Suffolk County Government. 2010. http://www.co.suffolk.ny.us/.

141 Eastern Long Island Hospital (ELIH). 2010. http://www.elih.org/.

Property. Employment, personal income, and local and state tax revenue impacts would be partially offset by the facility maintenance and security employees that would continue to provided required maintenance and/or security activities.

Although existing transportation services would no longer be operated by DHS under the No Action Alternative, maintenance and/or security personnel would still need continued access and hence, transportation to the property. The existing transportation facilities and services could switch ownership to another federal agency or be absorbed by the operating public ferry service adjacent to the Orient Point facility. The frequency of demand for ferry service to the property would likely decrease from the smaller workforce.

The proposed maintenance and/or security activities on Plum Island would have a small incremental benefit on the local economy. Payroll expenditures for labor on the property and off-site, and related spending by supply firms and employees to satisfy the continued maintenance and/or security activities would result in purchases in the study area, generating local revenue.

Either the number of employees or the operational cost to continue the maintenance and/or security activities are needed to estimate these economic effects. However, a precise statement of the numbers of maintenance and security employees or the operational costs required for the continued maintenance and/or security activities is not available. Therefore, the number of employees required to perform the continued maintenance and/or security activities is assumed to be 1/5 of PIADC's current operations and maintenance and security staff. This is equivalent to approximately 30 contracted maintenance employees and 10 federal security employees.

The economic benefits from continued maintenance and/or security activities would extend until the federal government makes future decisions about changing the land use. Direct employment (Table 3.10-16) refers to the actual maintenance and/or security jobs on the property only, while total economic employment includes direct employment and all other employment generated as a result of the multiplier effect from the maintenance and/or security employment. Some examples of this are food and drink establishments, wholesale trade, and retail trade.

Table 3.10-16: No Action – Long-Term Annual Economic Impacts – No Action Alternative

Operations	
Jobs Maintaining and/or Protecting the Property (jobs)	40
Impacts	
Total Employment (jobs)	57
Total Labor Income Impact ($ millions)	3.8
Federal, State, and Local Tax ($ millions)	0.9
State and Local Tax ($ millions)	0.4

Note: In 2010 dollars

Based on the assumption of the number of employees, the estimated impact for continued maintenance and/or security activities would directly support 30 maintenance and 10 security

employees, and generate a total of 57 jobs including the 40 direct jobs required for maintenance and/or security activities.

The estimated income generated during the maintenance and/or security activities for the Property is $3.8 million dollars. This corresponds to 0.01% of all estimated 2008 labor income (adjusted to 2010 dollars) in the three-county study area. The continued maintenance and/or security activities for the Property would also generate additional taxes estimated at $900,000, of which $400,000 is estimated to be collected through state and local taxes that should flow to the local governments.

Population and Housing

The 40 maintenance and/or security workers are assumed to work and live within the study area, based on the Census journey-to-work data (discussed in Section 3.10.2.2.1). A majority of the 260 PIADC employees not involved with the continued maintenance and/or security of the Property could relocate to the NBAF. Assuming the U.S. Census 2006-2008 ACS average household size for the study area of 2.64 (discussed in Section 3.10.2.1), this would represent a population decrease of 687.

In total, the population of the study area could decrease by 687 as a result of the No Action Alternative. This population decrease is 0.04% of the 2009 study area population, which is negligible relative to the study area's annual population growth of 0.69% compounded annually (discussed in Section 3.10.2.1.1).

This minor decrease in population is not expected to significantly impact housing demand in the study area. The housing market would be able to meet the increased demand from the study area's annual population growth, which would not be significantly impacted from the No Action Alternative. Therefore, no significant effects on housing availability or prices are anticipated to occur.

Community Social Assets (Quality of Life)

There would be no significant changes in the population of the study area under the No Action Alternative. Therefore, no significant effects are anticipated on the availability of community social assets such as recreation facilities, public schools, law enforcement, and medical facilities.

Fire protection in the study area includes the Plum Island Fire Department participating in a mutual aid plan to provide assistance and protection for all Suffolk County communities. The Plum Island Fire Department would no longer exist; therefore, the mutual aid plan would have to be adjusted to accommodate all Suffolk County communities without the participated of the Plum Island Fire Department.

3.10.3.2 Action Alternative – Sale of the Property

3.10.3.2.1 Reuse Option 1 – Adaptive Reuse of Existing Infrastructure

Implementation of Reuse Option 1 would not adversely impact or significantly improve the socioeconomics of the study area. DHS would sell the Property to another party. Modifications

to accommodate a new facility function would require no or minimal expansion to the existing structures on Plum Island and the Orient Point facility. Existing buildings would remain in their current location; additional development would not be allowed to occur under this option. Existing buildings would be reused with interior renovations. Any modifications to existing buildings and or infrastructure and future activities conducted on Plum Island would be subject to federal, state, and local regulations. No socioeconomic impacts are expected.

Employment and Income

Staffing size and operation costs for the new facility function under Reuse Option 1 are anticipated to be similar to PIADC's current staff size and operation costs. Modifications to accommodate the new facility function are estimated to be made to Plum Island, but these improvements are not anticipated to significantly change the facilities current level of economic activity in terms of employment and income with the local economy. Should the Property be sold to a private owner, the Property would no-longer be in tax-exempt status, and the local municipalities could receive additional tax revenues.

Population and Housing

The population in the study area is not anticipated to change from Reuse Option 1 – Adaptive Reuse of Existing Infrastructure; therefore, no effects on housing availability or prices would occur.

Community Social Assets (Quality of Life)

There would be no significant changes in the population of the study area under Reuse Option 1. Therefore, no significant effects are anticipated for the provision and hence, availability, of community social assets such as recreation facilities, public schools, law enforcement, fire protection services, and medical facilities.

3.10.3.2.2 Reuse Option 2 – Development (Range of Residential Density Scenarios)

The redevelopment of Plum Island under Reuse Option 2 could likely have negligible to minor positive effects on the socioeconomics of the study area. Low-density development in areas shown in Figure 2.3-1 would provide employment and income from the development of residential units (and possible limited business activities), and provide state and local tax revenue from the residential development. The residential density scenarios result in a range of 1 to 500 residential units and support infrastructure that would be sustained by Plum Island's existing water and wastewater capacity.

There would be two phases of socioeconomic impact: 1) a construction phase that would cause short-term effects, and 2) a continued operation and maintenance phase that would have long-term effects. Residential development would increase the population and housing on Plum Island. With the minimum density scenario, population impacts would be negligible. With comparable and maximum density scenarios, population impacts would be expected to be greatest in the summer months and on weekends, when seasonal residents would occupy Plum Island. Community social assets are not anticipated to be significantly impacted by the increased population and housing on Plum Island.

Short-Term Employment and Income

The relocation of the PIADC mission to the NBAF could cause the study area to lose additional revenue from PIADC spending, and the local municipalities to lose additional state and local tax revenues from the approximately 300 staff previously employed by the PIADC. However, employment, personal income, and local and state tax revenue impacts could be partially offset by the long-term effects of new residential development with comparable or maximum density scenarios. Under these scenarios, there would be development of 168 residential units and 500 units, respectively (and possible limited business). This development would have a short-term, small incremental benefit on the local economy during the construction phase and a long-term, small incremental benefit on the local economy from the continued operation and maintenance phase, which is discussed in more detail in the Long-Term Employment and Income section of this option.

Payroll expenditures for labor on the Property and off-site, and related spending by supply firms and employees to satisfy the construction phase would result in purchases in the study area, generating local revenue.

Either the number of employees or total cost for the construction phase is needed to estimate these short-term economic effects. However, a precise statement of the numbers of employees or costs for the construction phase required to build the residential units on Plum Island in accordance with any scenario is not available. In addition, though they provided input to indicate opinions regarding comparable and maximum density levels, county and local town development planners did not provide estimates of the number of employees or costs required to construct this low-density development. Therefore, construction cost estimates were obtained from a similar GSA project involving the disposal of an island in New York, the 1998 Governors Island Disposition Final EIS. These estimates were extrapolated for this Plum Island EIS.

The Governors Island Disposition Final EIS Reuse Option estimated that the cost of constructing 1,076 new residential units is $195 million, including 90 percent for construction expenditures and 10 percent for design costs, without accounting for land and financing costs.[142] This equates to a construction cost per residential unit ratio of $181,227 per unit in 1998 dollars. After adjusting the construction cost per unit ratio to 2010 dollars using the Office of Management and Budget's Gross Domestic Product and Deflators data, the ratio is $234,944 per unit.[143] The actual cost of construction per unit that may occur in the future can vary widely; however, this ratio provides a baseline for analysis. Using this ratio, the 168 residential units resulting from the comparable scenario are estimated to cost approximately $39.5 million (in 2010 dollars), of which 90 percent ($35.5 million) would be for construction expenditures and 10 percent ($3.9 million) would be for design costs. Comparably, the 500 units resulting from the maximum scenario are estimated to cost approximately $117 million (in 2010 dollars), of which $105.3 million would be for construction expenditures and $11.7 million would be for design costs. The North American Classification System has several industries for design services, but IMPLAN rolls them up into a single industry called architectural, engineering, and related services.

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142 Edwards and Kelcey Engineers, Inc. 1998. Governors Island disposition – final environmental impact statement.

143 Office of Management and Budget. 2010. http://www.gpoaccess.gov/usbudget/fy10/hist.html.

The economic benefits during the construction phase of the comparable and maximum scenarios for Reuse Option 2 on Plum Island are shown in Table 3.10-17. Direct employment refers to the construction and design jobs on the Property only, while total economic employment includes direct employment and all other employment generated as a result of the multiplier effect from the construction and design expenditures. Some examples of this are food and drink establishments, wholesale trade, and retail trade.

Table 3.10-17: Reuse Option 2 – Short-Term Economic Impacts – Development (Range of Residential Density Scenarios)

Construction Phase		
	168 Units	*500 Units*
Total Construction Jobs (job years)	263	731
Impacts		
Total Employment (job years)	405	1,127
Total Labor Income Impact ($ millions)	23.0	64.0
Federal, State, and Local Tax ($ millions)	5.3	14.7
State and Local Tax ($ millions)	2.9	8.0

Note: In 2010 dollars

With respect to comparable and maximum density scenarios, and based on the assumption of construction costs, the construction of the proposed residential units (and possible limited business) would, over the short-term construction phase, directly support 263 to 731 job years[144] of employment with an associated total employment ranging from 405 to 1,127 job years. The effect of this construction work would be short-term and only last for the duration of the construction work.

The estimated short-term income generated during the construction phase is $23 million dollars for the comparable density scenario and $64 million for the maximum density scenario. This corresponds to 0.06 percent or 0.16 percent, respectively, of all estimated 2008 labor income (adjusted to 2010 dollars) in the three-county study area. The construction phase would also generate additional short-term taxes with an estimated $5.3 million for the comparable scenario and $14.7 million for the maximum scenario, of which $2.9 million or $8 million, respectively, is estimated to be collected through state and local taxes that should flow to the local governments.

Short-Term Population and Housing

The majority of construction workers would come from the study area or commute from the adjacent counties; therefore, construction-related employment from Reuse Option 2 is not estimated to result in an increase in the study area population. Any population change during

[144] Job years includes both full time and part-time employment and can occur over multiple years rather than full time equivalent employment.

construction would be for a small percentage of the total construction period employment and be temporary.

Since construction of the residential units (and possible limited business) is not anticipated to effect the population of the study area during the construction phase of Reuse Option 2, no effects on housing availability or prices are also anticipated during the construction phase.

Short-Term Community Social Assets (Quality of Life)

As stated above, there would be no anticipated change to the population of the study area under Reuse Option 2 during the construction phase. Therefore, no significant effects are anticipated for the provision and, hence, availability of community social assets such as recreation facilities, public schools, law enforcement, fire protection services, and medical facilities during the construction phase.

Long-Term Employment and Income

As stated in the Short-Term Employment and Income section above, there would be development of 168 and 500 residential units from the comparable and maximum scenarios, respectively, (and possible limited business) under Reuse Option 2. The proposed development would have a long-term, small incremental benefit on the local economy from the continued operation and maintenance phase. For example, long-term employees would be required for maintenance of the residential units (and possible limited business) and marina, as well as employees for community social services, such as the waste water treatment facility and fire protection services.

Payroll expenditures for labor on the Property and off-site, and related spending by supply firms and employees to satisfy the continued operation and maintenance phase activities would result in purchases in the study area, generating local revenue.

Either the number of employees or costs for the operations and maintenance phase are needed to estimate these long-term economic effects. However, a precise statement of the numbers of employees or costs for the operations and maintenance phase required for the new residential units on Plum Island is not available. In addition, though the Town of Southold provided input to indicate opinions regarding comparable and maximum density levels, county and local town development planners did not provide estimates of the number of employees or costs required to operate and maintain residential development scenarios. Therefore, similar to the construction costs discussed in the section above, the operation and maintenance employment estimates were obtained from the Governors Island Disposition final EIS and extrapolated for this EIS.

The Governors Island Disposition Final EIS Reuse Option estimates the total number of operation and maintenance employees needed for the 1,076 new residential units is 805 employees.[145] This results in an operation and maintenance per residential unit ratio of 0.75 employees per unit. Using this ratio, the 168 residential units resulting from the comparable scenario are estimated to require approximately 126 employees to operate and maintain the

[145] Edwards and Kelcey Engineers, Inc., Governors Island disposition.

development. This analysis further assumes that half of the 126 employees (63 employees) would provide operation services such as wastewater treatment and fire protection services and the other 63 employees would provide maintenance services such as maintenance of the residential units. Comparably, the 500 units resulting from the maximum density scenario are estimated to require approximately 179 employees. Nearly half of the employees (94 employees) would provide operation services, and the remaining 93 employees would provide operation services.

The economic benefits during the construction phase of the comparable and maximum scenarios for Reuse Option 2 on Plum Island are shown in Table 3.10-18. Direct employment refers to the operation and maintenance jobs on the Property only, while total economic employment includes direct employment and all other employment generated as a result of the multiplier effect from the operation and maintenance employment. Some examples of this are food and drink establishments, wholesale trade, and retail trade.

Table 3.10-18: Reuse Option 2 – Long-Term Economic Impacts – Development (Range of Residential Density Scenarios)

Operation and Maintenance of the Residential Units		
	168 Units	*500 Units*
Total Operation and Maintenance Jobs (jobs)	126	179
Impacts		
Total Employment (jobs)	213	302
Total Labor Income Impact ($ millions)	13.4	19.0
Federal, State, and Local Tax ($ millions)	3.2	4.6
State and Local Tax ($ millions)	1.7	2.4

Note: In 2010 dollars

Based on the assumptions of the required operation and maintenance employment, operation and maintenance of the proposed residential units (and possible limited business) on Plum Island would, over the long-term operation and maintenance phase, directly support 126 or 179 jobs annually with an associated total employment of 213 or 302 jobs annually. The effects of these operation and maintenance activities would be long-term.

The estimated long-term income generated from the continued operation and maintenance phase is $13.4 million or $19 million annually (in 2010 dollars). This corresponds to 0.03 percent or 0.05 percent, respectively, of all estimated 2008 labor income (adjusted to 2010 dollars) in the three-county study area. The operation and maintenance phase would also generate additional long-term taxes estimated to be annually $3.2 million for the comparable scenario and $4.6 million for the maximum scenario, of which $1.7 million or $2.4 million, respectively, is estimated to be collected through state and local taxes that should flow to the local governments.

In addition, Reuse Option 2, under any residential density scenario, could place property on the tax rolls, which currently generates no residential property tax revenue. The comparable density

scenario is consistent with the net density of Fishers Island, New York. Fishers Island is used as a basis for estimating the tax revenue for Plum Island under this option because it has the most similar traits to Plum Island in terms of its geography and demographics. Under this option, Plum Island would have the following valuation and tax rate, as shown in Table 3.10-19.[146]

Table 3.10-19: Reported Fishers Island Tax Rate

Districts	Valuation ($)	Tax Rate
Fishers Island Fire	8,339,062	47.171
Fishers Island Ferry	8,339,062	91.344
Fishers Island Garbage	8,339,062	64.114
Fishers Island Library	8,368,562	5.950
Fishers Island School	8,368,502	361.269

Taking into account the taxes owed per person to the town, county, and state, the tax rate for each Fishers Island real property owner, as provided by the Town Tax Assessor's Office, is shown in Table 3.10-20.[147]

Table 3.10-20: Reported Fishers Island Residential Property Tax Rate

Per Household	Tax Rate
Town of Southold	261.584
MTA Payroll Tax	0.620
NYSRPTL	10.549
Suffolk County	18.615
FI School District	361.269
FI Library District	5.950
FI Fire District	47.171
FI Ferry District	91.344
FI Garbage District	64.114
Total Tax Rate	**861.216**

According to the Town Tax Assessor's Office, the total taxes paid per household are based on the assessed value (market value multiplied by equalization rate) of a real property divided by $1,000, and multiplied by the total tax rate, as follows:

Assessed value ($) ÷ 1,000 x 861.216

A 2009 estimation of the median real property value of a residential unit on Fishers Island is $602,413, adjusted to 2010 dollars.[148, 149] According to the comparable scenario of Reuse Option

146 Town of Southold Tax Assessor's Office. 2010. http://southoldtown.northfork.net/assessors.htm.
147 Ibid.
148 City-Data.com. 2010. http://www.city-data.com/city.

2, an estimated 168 residential units would be accommodated by Plum Island. Hence, the estimated total residential property tax revenue for Plum Island would be:

[($602,413 x 0.0115) ÷ 1,000 x 861.216] x 168 = $1,002,336 in 2010 dollars.

Furthermore, Fishers Island also receives financial assistance from the State of New York for its school district. The Town Tax Assessor's Office estimated the 2010 State Aid to be $270,004. While it is uncertain if Plum Island would have a school district under Reuse Option 2, it can be expected that Plum Island would receive a proportional amount of State Aid if it does.

Long-Term Population and Housing

The operations and maintenance workers (126 in comparable scenario, 179 in maximum scenario) are assumed to work and live within the study area based on the Census journey-to-work data (discussed in Section 3.10.2.2.1). In addition, the new residential units would help the study area meet its continuing demand for housing. These new operations and maintenance workers and new residential units would either partially or completely offset the population loss resulting from the 300 PIADC employees that could relocate to the NBAF. Assuming the U.S. Census 2006-2008 ACS average household size for the study area of 2.64 (discussed in Section 3.10.2.1), the comparable scenario would represent a long-term population decrease of 17, while the maximum scenario would result in a long-term population increase of approximately 1,000.

In total, the population decrease of the study area associated with the comparable scenario is negligible, and the population increase associated with the maximum scenario, equivalent to 0.05 percent of the 2009 study area population, is minor relative to the study area's annual population growth of 0.69 percent compounded annually (discussed in Section 3.10.2.1.1). However, these new residential units on Plum Island would help meet the continued demand for housing in the study area, which has low vacancy rates.

A minor change in population that would result from either scenario is not expected to significantly impact housing demand in the study area. The housing market would be able to meet the increased demand from the study area's annual population growth, which would not be significantly impacted from Reuse Option 2. Therefore, no significant effects on housing availability or prices are anticipated to occur.

Long-Term Community Social Assets (Quality of Life)

As stated above, there would be no significant changes in the population of the study area under Reuse Option 2 during the operations and maintenance phase. In addition, the community social assets that were provided for PIADC activities are anticipated to be available for the new Island residents. Therefore, no significant effects are anticipated for the provision and hence, availability, of community social assets such as recreation facilities, public schools, law enforcement, fire protection services, and medical facilities during the operations and maintenance phase.

[149] Office of Management and Budget, http://www.gpoaccess.gov/usbudget/fy10/hist.html.

3.10.3.2.3 Reuse Option 3 – Conservation/Preservation

Implementation of Reuse Option 3 would have negligible to minor adverse impacts to the socioeconomics of the study area. Existing facilities could be removed or modified to offer educational or interpretive opportunities and regularly scheduled transportation services terminated by the new property owner. DHS would likely sell the Property to a public or private conservation entity that would manage Plum Island. Socioeconomic changes associated with conservation/preservation activities and securing the property would be negligible.

Employment and Income

The relocation of the PIADC mission to the NBAF could cause the study area economy to lose additional revenue from PIADC spending and the local municipalities to lose additional state and local tax revenues from the approximately 300 staff previously employed by the PIADC. However, employment, personal income, and local and state tax revenue impacts could be partially offset by the conservation/preservation and security employees that would manage Plum Island to protect, maintain, and enhance the significant natural and cultural resources.

The proposed conservation/preservation management and security activities on Plum Island would have a small incremental benefit on the local economy. Payroll expenditures for labor on the Property and off-site, and related spending by supply firms and employees to satisfy the conservation/preservation management and security activities would result in purchases in the study area, generating local revenue.

Either the number of employees or the operational cost to continue the maintenance and/or security activities are needed to estimate these economic effects. However, a precise statement of the numbers of maintenance and security employees or the operational costs required for the continued maintenance and/or security activities is not available. Therefore, the number of employees required to perform the conservation/preservation management and security activities is assumed to be 1/10 of PIADC's current operations and maintenance and security staff. This is equivalent to approximately 15 conservation/preservation management employees and 5 security employees.

The North American Industry Classification System (NAICS) categorizes conservation/preservation activities as either U.S. industry 813312 Environment, Conservation and Wildlife Organizations (private agencies) or 924120 Administration of Conservation Programs (government agencies). The NAICS classification of security services is NAICS 561612 Security Guards and Patrol Services.

Under Reuse Option 3, the largest socioeconomic change in the study area would occur under the NAICS conservation/preservation industry classification that has the lowest total economic benefit, because it would have the smallest offsetting effect of the approximately 300 PIADC employees relocating out of the study area. Therefore, this analysis uses the NAICS 813312 Environment, Conservation and Wildlife Organizations industry for the 15 conservation/preservation, because this NAICS industry has the smallest total economic impact to the study area.

The economic benefits from the proposed conservation/preservation management and security activities on Plum Island are shown in Table 3.10-21. Direct employment refers to the actual maintenance and/or security jobs on the Property only, while total economic employment includes direct employment and all other employment generated as a result of the multiplier effect from the maintenance and/or security employment. Some examples of this are food and drink establishments, wholesale trade, and retail trade.

Table 3.10-21: Reuse Option 3 – Long-Term Annual Economic Impacts – Conservation/Preservation Option

Operations	
Jobs Maintaining and/or Protecting the Property (jobs)	20
Impacts	
Total Employment (jobs)	27
Total Labor Income Impact ($ millions)	1.4
Federal, State, and Local Tax ($ millions)	0.3
State and Local Tax ($ millions)	0.1

Note: In 2010 dollars

Based on the assumption of the number of employees, the estimated impact for continued maintenance and/or security activities would directly support 15 conservation/preservation and 5 security employees, and generate a total of 27 jobs including the 20 direct jobs required for conservation/preservation and security activities.

The estimated income generated during the maintenance and/or security activities for the Property is $1.4 million dollars. This corresponds to 0.004% of all estimated 2008 labor income (adjusted to 2010 dollars) in the three-county study area. The continued maintenance and/or security activities for the Property would also generate additional taxes estimated at nearly $300,000 dollars, of which about $130,000 is estimated to be collected through state and local taxes that should flow to the local governments.

Population and Housing

The 20 conservation/preservation and security workers are assumed to work and live within the study area, based on the Census journey-to-work data (discussed in Section 3.10.2.2.1). The 300 PIADC employees could relocate to the NBAF. Assuming the U.S. Census 2006-2008 ACS average household size for the study area of 2.64 (discussed in Section 3.10.2.1), this would represent a population decrease of 792.

In total, the population of the study area would decrease by 792 as a result of Reuse Option 3. This population decrease is 0.04% of the 2009 study area population, which is negligible relative to the study area's annual population growth of 0.69% compounded annually (discussed in Section 3.10.2.1.1).

This minor decrease in population is not expected to significantly impact housing demand in the study area. The housing market would be able to meet the increased demand from the study

area's annual population growth, which would not be significantly impacted from Reuse Option 3 – Conservation/Preservation. Therefore, no significant effects on housing availability or prices are anticipated to occur.

Community Social Assets (Quality of Life)

As stated above, there would be no significant changes in the population of the study area under Reuse Option 3. Therefore, no significant effects are anticipated on the availability of community social assets such as recreation facilities, public schools, law enforcement, and medical facilities.

Fire protection in the study area includes the Plum Island Fire Department participating in a mutual aid plan to provide assistance and protection for all Suffolk County communities. The Plum Island Fire Department would no longer exist; therefore, the mutual aid plan would have to be adjusted to accommodate all Suffolk County communities without the participation of the Plum Island Fire Department.

3.11. TRAFFIC AND TRANSPORTATION

3.11.1. Methodology, Regulatory Background and Traffic Analysis Parameters

The general methodology for the inclusion of traffic and transportation analysis involved the review and verification of current regional traffic and transportation data and identification of the roadway infrastructure network.

Regulatory conditions for traffic analysis are generally dictated by overall transportation industry standards as published by the Federal Highway Authority (FHWA) and U.S. Department of Transportation (USDOT). These organizations serve as oversight agencies ensuring the respective regional, state and local jurisdictions follow the appropriate guidelines and parameters. For traffic analysis parameters, delays are generally considered the leading indicators of traffic flow and operations; the shorter the delay, the better the roadway segment flows and the intersection operates. Federal regulations do not dictate specific levels of operation or minimum delays. It is primarily the local jurisdiction's judgment, supported by the analyst's qualitative calculations, that establishes the best options.

For the purposes of this analysis, transportation facilities are divided into two categories of flow: uninterrupted and interrupted. Uninterrupted facilities include an interstate highway with no fixed elements such as traffic signals or stop signs. Interrupted facilities such as conventional city streets and county roads have access points, intersections and stop conditions. Roadway networks comprise various types of classified and functionally characteristic facilities, including freeways and interstates, major and minor arterials and various sizes of collector and local roads. Each also is classified as urban or rural. The roadway network within the affected environment is considered an interrupted facility and a collector/local road network.

Capacity analysis is a set of procedures for estimating the traffic carrying ability of roadway facilities over a range of defined operational conditions. Capacity is used to express the maximum hourly rate at which vehicles can reasonably be expected to traverse a given point under prevailing roadway and traffic conditions.

Level of Service (LOS) is a measure of quality of operational conditions within a traffic stream based on service measures such as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and the ratio of facility volume to capacity (v/c). Six LOSs from A (best) to F (worst), define each type of transportation facility. Each LOS represents a range of operating conditions and the driver's perception of those conditions. Most analysis, design or planning efforts typically use service flow rates at LOS C or D to ensure acceptable operating service for facility users. LOS E generally is considered unacceptable for planning purposes unless there are extenuating circumstances or attaining a higher LOS is not feasible or extremely costly. For LOS F, it is difficult to predict flow due to stop-and-start conditions.

Generally, traffic analyses are calculated during the peak hours, both AM and PM, which tend to slightly vary, but overall represent the respective rush hours. This type of analysis is for the most severe traffic situations and would represent the longest delays. Oftentimes, as is the case for this transportation analysis, much of the traffic generated is over the course of the entire day, and other than the commuting workers, not isolated to a specific duration. The resulting calculations therefore represent the most severe traffic restrictions. For roadway segments similar to the study area, Table 3.11-1 represents the controlling criteria:

Table 3.11-1: Regulatory Criteria for Roadway Segment Analysis

LOS	v/c	Description
A	0.03	Free Flow
B	0.13	Reasonably Free Flow
C	0.28	Stable Flow
D	0.43	Approaching Unstable Flow
E	0.90	Unstable Flow
F	>1.0	Forced or Broken Flow

Roadway transportation conditions are evaluated using capacity estimates that depend on several factors. These factors include the number of lanes, the width of the lanes, roadway gradients, the location of lateral obstructions, the percentage of truck and bus volumes, other physical characteristics and the condition of the roadway network. Queuing refers to the traffic backup that occurs as a result of vehicle delays.

Traffic volumes generally are reported as Annual Average Daily Traffic (AADT). This is the total number of vehicles per day averaged over the entire year.

The terms of potential impacts are described as follows:

Negligible: Nearby populations or visitors would not be impacted, or changes in traffic and transportation would be below or at the level of detection. Any impacts would be short-term.

Minor: Adverse and beneficial changes in traffic and transportation would be detectable, although the changes would be slight. Nearby populations or visitors would be aware of the impacts associated with the alternative, but the impacts would be slight.

Moderate: Adverse and beneficial changes in traffic and transportation would be readily apparent. Nearby populations or visitors would be aware of the impacts associated with the alternative and would likely be able to express opinions regarding the changes.

Major: Adverse and beneficial changes in traffic and transportation would be readily apparent and have significant consequences. Nearby populations or visitors would be aware of the impacts associated with the alternative and would likely express strong opinions regarding the changes.

3.11.2. Affected Environment

Highways, Roads, and Marine Transportation

Primary access points to Plum Island include Long Island, New York, and Old Saybrook, Connecticut. Restricted access ferry service to Plum Island is available from Orient Point, New York, and Old Saybrook, Connecticut.

From Long Island, New York, the Long Island Expressway (Interstate 495) provides a high-volume east-west artery from New York City to communities on Long Island (Nassau and Suffolk Counties). East of the terminus of I-495 at the Town of Riverhead, traffic destined for the North Fork of Long Island from the west is serviced by NYS Route 25 and County Route (CR) 48, two-lane highways that represent the primary collector road systems for the area. Routes 25 and 48 traverse the Town west to east, eventually merging into Route 25 and reaching Orient Point where restricted ferry service is available to Plum Island from the Plum Island ferry terminal (Figure 3.11-1). Most PIADC staff commute from Orient Point to Plum Island between 6:30 AM and 8:00 AM and return from Plum Island to Orient Point between 3:00 PM and 5:00 PM. Traffic has increased steadily in the North Fork area, averaging 38 percent from 1993 to 2006 for an annual increase of 2.9 percent per year based on New York State Department of Transportation (NYSDOT) data. Although the increase in traffic results in decreasing mobility and increasing congestion at times and may result in significant congestion in the future, current analysis of traffic volumes indicates that there are currently no major congestion issues.

Cross Sound Ferry Services operates ferry service from Orient Point, on Long Island, to New London, Connecticut, for cars, trucks, and passengers (Figure 3.11-2). In addition, Sea Jet Service is available for passengers only. The North Ferry Company operates year-round ferry service from Shelter Island to Greenport for cars, trucks, and passengers. The Plum Island Ferry at Old Saybrook is a restricted ferry service operating from the Old Saybrook dock to Plum Island for the transport of PIADC employees only. Plum Island ferry transportation services from the Old Saybrook dock do not include the transportation of heavy and/or bulk materials. For transportation of these items from Connecticut, ferries must depart from New London (or other ports) on commercial ferries, as PIADC has no freight loading or transport capabilities at its docking facility at Old Saybrook. Transportation from these alternate ports requires more than one hour each way completing the passage of heavy/bulk loads.

Ferry access to Plum Island is restricted and limited to employees, contractors, and visitors of PIADC. Transportation on Plum Island is essentially restricted to government-owned vehicles; however, contractor- and privately owned vehicles are occasionally allowed on Plum Island by special permission. All employees and visitors to PIADC use the government-owned and

Figure 3.11-1: Traffic Patterns in the Vicinity of Plum Island

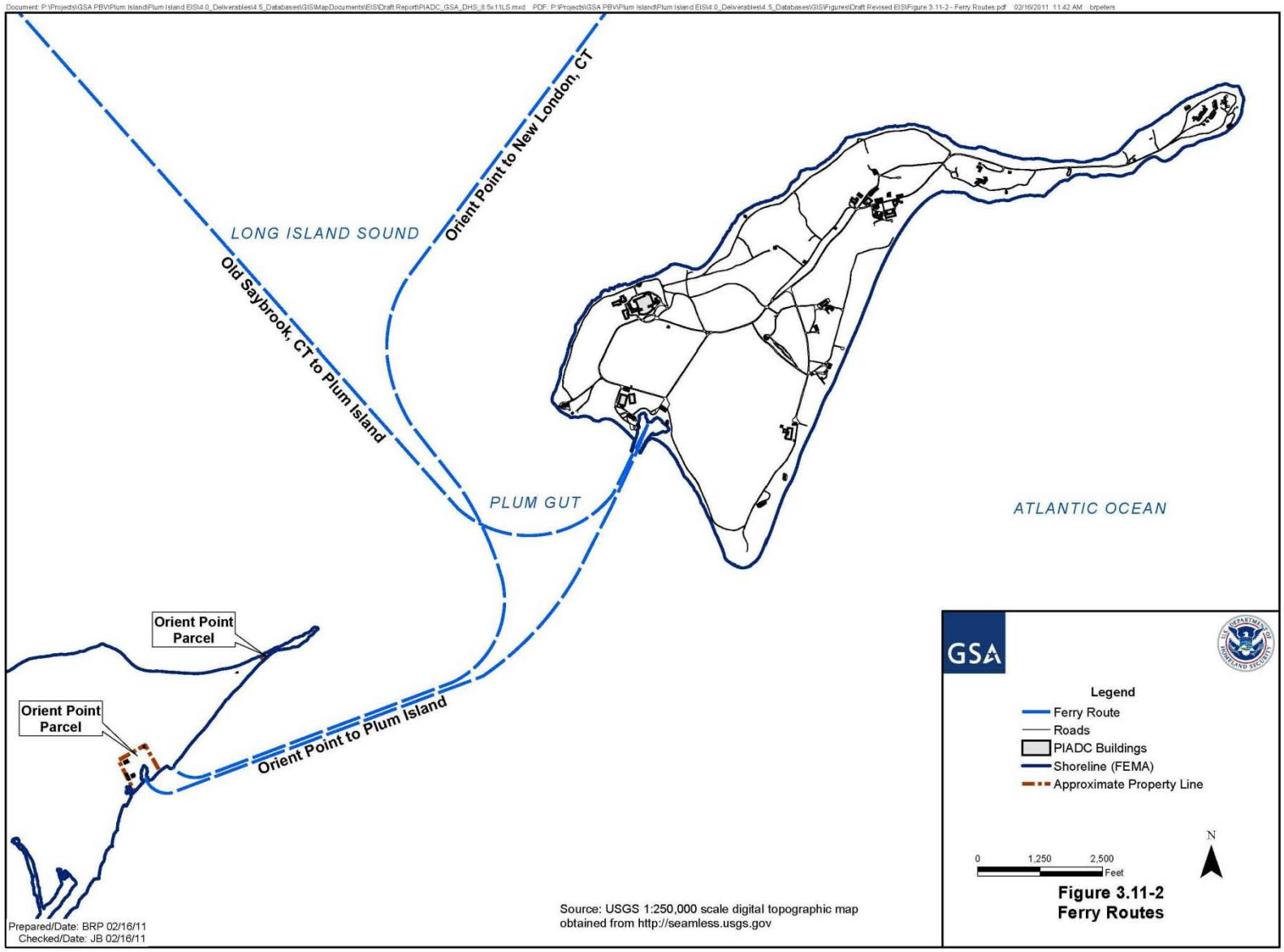

Figure 3.11-2: Ferry Routes in the Vicinity of Plum Island

contractor-operated marine transportation to and from Plum Island. The government ferries depart daily from Orient Point, New York, and Old Saybrook, Connecticut. There are 216 parking spaces (including 7 handicapped spaces) at the Orient Point facility. Docking or landing of private marine vessels is prohibited unless specifically authorized by PIADC's security department. Non-governmental marine access is exclusively restricted to landings of cargo and equipment (*e.g.*, construction materials and heavy construction vehicles) that PIADC's marine fleet cannot safely or effectively transport. The Long Island public ferry facilities are located in Orient Point. The Plum Island ferry terminal is located adjacent to the public ferry terminal of Cross Sound Ferry Services. Orient Point is the closest land mass to Plum Island and affords the best and most expedient means for transporting people and heavy and/or bulk materials to/from Plum Island. Transit times between the terminals at Orient Point and Plum Island's Plum Gut Harbor are approximately 20 to 30 minutes depending on sea conditions.

From Connecticut, I-95 is the major high-volume highway serving through traffic and the communities of the Connecticut coast, including Middlesex and New London Counties. From I-95, access to Plum Island is from the Old Saybrook Dock in the Town of Old Saybrook, Connecticut. The Old Saybrook Dock is located approximately 2 miles south of the intersection of Highway 95 and State Road (SR) 9. Several transportation routes, including U.S. Highway 1 and State Highway 154, are available from I-95 to the PIADC's docking facilities. These routes are largely limited to two-way, multi-lane light commercial streets.

Existing Conditions Analysis

The traffic conditions on Plum Island were not analyzed due to the severely restrained traffic volumes and the low number of vehicles permitted on Plum Island. Existing two-lane roadways are adequate to address the traffic conditions on Plum Island. Table 3.11-2 reflects the traffic analysis of SR 25, a two-lane road on Orient Point, based on NYSDOT available traffic data. For the purposes of this analysis, only land-based, vehicular traffic was studied. Marine-based transportation was not reviewed.

Table 3.11-2: Existing Conditions Analysis; Orient Point

Road Name	NYDOT #	From	To	Direction	v/c (2008)	LOS (2008)
NY 25	#070052	RT 114	CR 48	NB	0.25	B
NY 25	#070052	RT 114	CR 48	SB	0.24	B
NY 25	#070296	CR 48	Narrow River Rd	EB	0.15	B
NY 25	#070296	CR 48	Narrow River Rd	WB	0.15	B
NY 25	#070295	Narrow River Rd	Orient Pt End 25	EB	0.14	B
NY 25	#070295	Narrow River Rd	Orient Pt End 25	WB	0.13	B
900C	#070940	Orient Park Rd	NY 25	NB	0.01	A
900C	#070940	Orient Park Rd	NY 25	SB	0.01	A

Table 3.11-2 indicates that all directions of traffic flow of the roadways on Orient Point have high LOS ratings of A or B, well above the service flow rates of C and D that are typically used in facility and infrastructure design. This illustrates that the ratio of the current traffic volume compared to the current roadway facility capacity is low, and that the area facilities are capable of handling a heavier traffic flow volume without compromising common industry design goals.

3.11.3. Consequences

Affected Environment/Existing Conditions

Traffic projections and any traffic analyses for Plum Island are somewhat constrained due to the nature of the existing conditions and the severe limitation of vehicular traffic on Plum Island.[150] For any of the potential reuse options under the Action Alternative, this condition would continue to be a limiting constraint and traffic conditions would not deteriorate significantly. The additional constraint of Plum Island traffic is the secure nature of Plum Island and the extreme limitations to vehicular activity. Traffic conditions on the mainland, Orient Sound area, can and would grow; however, the existing traffic infrastructure would be able to support the anticipated growth.

The rate of oil barge traffic to Plum Island may vary from the existing rate, but it is not known at this time whether the rate would increase or decrease. The actual rate of oil barge traffic will be dependent on the nature of the proposed development, which fuel alternatives any developer(s) will choose to implement, and the extent to which the developed facilities will be subjected to year-round use. The increase in barges carrying trucks and construction materials to Plum Island will have temporary, short-term impacts. Whether the barged trucks/construction materials originate in New London, Connecticut, or in Orient Point, New York, will depend upon the availability and cost of the actual construction materials used.

Environmental Consequences/Environmental Impacts

Additional traffic generated by any of the potential reuse options would result in minimal to modest growth depending on the respective option. The additional traffic numbers developed are expected to be worst case/maximum amounts of additional traffic volumes based on the historical growth rates and the trip generation developed based on the specific potential reuse option. The estimated additional trips generated due to the proposed reuse option development were applied to the existing traffic data to develop the Year 2008 information, which was then subsequently used for the traffic circulation analysis. The historical growth rate of 2.9% for the mainland, Orient Point area, was used. This is a very aggressive growth rate, which is probably unrealistic and very unlikely to be maintained due the existing and projected zoning and development limitations on this section of the mainland. It is predominantly a rural area without any dense centers and would likely remain that way throughout the study period.

A summary of the additional traffic generated under the respective potential reuse options is shown on the tables in Appendix D. The respective roadway section analyses are also shown on those tables. The additional traffic loads do not present any degradation of traffic service levels for the study period, Year 2025. Any traffic effects to the local roadway network will be insignificant, defined for this analysis as maintaining the current LOS.

[150] Traffic calculations and assumptions are included in Appendix D.

3.11.3.1 No Action Alternative – Retain in Federal Ownership

Under this alternative, the roadway infrastructure network within the study area would continue to operate under conditions similar to existing with no appreciable traffic effects or degradation of LOS.

3.11.3.2 Action Alternative – Sale of the Property

3.11.3.2.1 Reuse Option 1 – Adaptive Reuse of Existing Infrastructure

Examples of potential reuse options for Plum Island could include a private sector laboratory, an academic research facility, or a business complex with a commercial component for Island tourists, or others. Adaptive reuse would use the existing facility so that every option would have similar gross floor areas. The existing PIADC was coded as a research and development center (Code 760) based on the trip generation codes provided in ITE Trip Generation 7th Edition Volume 3. The total trips are estimated to be 424 ADT.

Under Reuse Option 1, there is no degradation of LOS for any of the roadway infrastructure within the Orient Point area, nor a typical 2 lane roadway on Plum Island itself.

Since the effects of the sale on the existing traffic patterns are insignificant, no mitigation measures are anticipated or required. Routine roadway maintenance and improvements by the governing agencies, Town, County, and State would suffice. There would be no detrimental cumulative effects from a transportation perspective since there are no other planned roadway improvement projects designated in the study area.

3.11.3.2.2 Reuse Option 2 – Development (Range of Residential Density Scenarios)

Development for the comparable density scenario under Reuse Option 2 (residential net density of one unit per 2 acres) includes approximately 168 residential units, as well as the required support infrastructure. The comparable density scenario total trip generation would be 1,260 ADT.

This level of proposed development represents limited, controlled growth and would have minor impacts to current or projected LOS. However, the traffic patterns under this scenario could be different from existing traffic patterns based on seasonal and weekend use of residences on Plum Island. The predicted peak 1,260 ADT might occur on busy summer weekends, with traffic during the week and during off-season months being significantly less.

Development for the maximum density scenario under Reuse Option 2 includes approximately 500 residential units, as well as the required support infrastructure. The maximum density scenario total trip generation would be 3,750 ADT. With this level of added trips, traffic conditions would continue to function within generally acceptable LOS and impacts would be moderate. Traffic patterns under this scenario could be different from existing traffic patterns based on seasonal and weekend use of residences on Plum Island. The predicted peak of 3,750 ADT might occur on busy summer weekends, with traffic during the week and during off-season months being significantly less.

Since the effects of the sale on the existing traffic patterns are minor to moderate, and projected traffic remains within generally acceptable LOS, mitigation measures may be required. Establishment of new lanes or roads and intersection improvements with traffic signals and controls would likely mitigate increased traffic on Plum Island and at Orient Point to maintain acceptable LOS and accommodate seasonal peak demand. Routine roadway maintenance and improvements by the governing agencies, Town, County, and State would be expected to suffice. There would be no detrimental cumulative effects from a transportation perspective since there are no other planned roadway improvement projects designated in the study area.

3.11.3.2.3 Reuse Option 3 – Conservation/Preservation

Under Reuse Option 3, some existing facilities on Plum Island may be removed and existing transportation services terminated or severely reduced, with limited active and/or passive public visitation or recreation facilities allowed. The general public access would be restricted. Occasional trips would be allowed for educational/interpretive visits, maintenance, and/or security activities. Reuse Option 3 – Conservation/Preservation is anticipated to generate 5 trips daily and would have no detrimental impacts to the existing roadway infrastructure or operating conditions.

Since the effects of the sale on the existing traffic patterns are insignificant, no mitigation measures are anticipated or required. Routine roadway maintenance and improvements by the governing agencies, Town, County, and State would suffice. There would be no detrimental cumulative effects from a transportation perspective since there are no other planned roadway improvement projects designated in the study area.

3.12. EXISTING HAZARDOUS, TOXIC, OR RADIOLOGICAL WASTE CONTAMINATION

3.12.1. Methodology

This section presents a discussion of existing hazardous, toxic, or radiological waste (HTRW) contamination. The information in this section is derived from a review of existing DHS-provided documents. The documents contain information relative to past site investigations and environmental remediation activities conducted at the Property. These activities were conducted in association with the Resource Conservation and Recovery Act (RCRA), CERCLA, and the state-regulated underground storage tank program.

RCRA addresses the management of municipal and industrial solid waste (*i.e.*, non-hazardous waste) and provides a system for managing hazardous waste. The goals of RCRA are to: (1) protect human health and the environment from the potential hazards of waste disposal, (2) conserve energy and natural resources, (3) reduce the amount of waste generated, and (4) ensure that wastes are managed in an environmentally sound manner.

RCRA applies to hazardous waste (Subtitle C of 40 CFR 261), solid wastes (Subtitle D), and USTs (Subtitle I). Its scope includes waste generators and transporters, and facilities engaged in the treatment, storage, or disposal of hazardous and solid waste.

Under CERCLA, contaminated sites are included on the National Priorities List (NPL). Eligibility for inclusion on the NPL, commonly referred to as “Superfund” is determined by

available data from investigations and a site's score on the Hazard Ranking System (HRS). In 1996, after detailed investigations of suspected and known waste disposal sites on Plum Island, USEPA determined that PIADC's score on the HRS was not sufficient for inclusion on the NPL. This determination did not relieve PIADC of its obligation to remediate contaminated sites or from compliance with New York State's cleanup regulations. Therefore, PIADC voluntarily moved forward with the investigation and remediation of numerous sites in concert with the NYSDEC's and SCDHS's recommendations for each of the PIADC sites. Because the program was initiated with the intent of inclusion under CERCLA, the program continued to be known as the "CERCLA program," even though PIADC was not an NPL site.

Underground storage tanks (USTs) on the Property are regulated by NYSDEC. UST regulations include Environmental Conservation Law (ECL) Article 17, Title 10 and regulation 6 NYCRR Parts 612-614.

The following analysis assumes that any future activities under any of the potential reuse options will be subject to and compliant with appropriate requirements for control of hazardous substances, such as waste site assessment and implementation of institutional and/or engineering controls.

The terms of potential impacts are described as follows:

Negligible: Operations, long-term management, and sustainability of HTRW conditions would not be impacted, or the impact would be at or below the lower levels of detection.

Minor: Adverse and beneficial impacts would be detectable but would be of a magnitude that would not have an appreciable effect on operations, long-term management, or sustainability of HTRW conditions.

Moderate: Adverse and beneficial impacts would be readily apparent and would result in a substantial change to operations, long-term management, or sustainability of HTRW conditions in a manner noticeable to the public.

Major: Adverse and beneficial impacts would be readily apparent and would result in a substantial change to operations, long-term management, or sustainability of HTRW conditions in a manner noticeable to the public, and would be markedly different from existing operations.

3.12.2. Affected Environment

Plum Island began operation as a Department of the Army site in 1879 (Fort Terry) and operated in that capacity until it was declared Army surplus in 1948. It served as a U.S. Army Chemical Corps facility until 1954 when ownership was transferred to the U.S. Department of Agriculture's ARS to develop and maintain a diagnostic capability for exotic animal diseases foreign to the United States, and to conduct research on the prevention and control of these diseases. Many former military fortifications found on Plum Island were used in the initial decades of PIADC's operation as animal holding facilities. Later, the military batteries were used to store surplus materials. PIADC remained under ARS control until June 2003 when it was transferred to DHS. A management-imposed "nothing leaves Plum Island" policy that was instituted at the outset of PIADC's establishment meant that all waste streams and their residuals

generated on Plum Island remained there and could not be transported off Plum Island for further treatment and/or disposal. The purpose of the policy was to ensure that waste removal processes would not be responsible for allowing biological agents under study to escape the confines of Plum Island. This policy encompassed all materials and objects used, consumed, and discarded at PIADC, including wastes generated by diagnostic and research activities. Items that could be burned were incinerated in one of several incineration units. Non-burnable materials (metal, glass, and ceramics) and items too large to be incinerated were chemically and/or thermally decontaminated and disposed on-island, usually buried in trenches or pits. In 1991, ARS approved a new biological safety plan that modified safety procedures pertaining to waste handling and disposal practices. This plan permitted the removal of most solid waste streams after appropriate decontamination protocols were performed. Some waste streams were subsequently transferred from Plum Island to permitted treatment, storage, and disposal facilities on the mainland.

In recent years, cleanup and removal actions have occurred at multiple sites where wastes were historically disposed. These actions were coordinated with appropriate federal, state, and local authorities responsible for ensuring compliance with applicable environmental and public health regulations, including RCRA and CERCLA.[151]

RCRA

Pursuant to a 1994 Compliance Order issued by the U.S. Environmental Protection Agency (USEPA) Region 2 under RCRA, PIADC was required to assess 87 sites to determine if their operational and hazardous waste compliance history suggested they had been used for hazardous waste treatment, storage, or disposal. The 87 sites included 72 buildings, five incinerators, and ten former military batteries.

PIADC was further required to develop and implement a Closure Plan in accordance with RCRA Interim Status regulations at sites where hazardous waste had been managed. After the initial site investigations and assessments, regulatory oversight was transferred to NYSDEC and SCDHS regulators. The first phase of the assessment found that 53 of the 87 sites had not been associated with hazardous waste management. Thirteen of the 34 remaining sites were eligible for "administrative closure," that is, no further actions or investigations were required for them to be considered closed in accordance with RCRA. The 21 remaining sites requiring further action (*i.e.,* screening, contamination removal, and remediation) comprised individual buildings and structures having a broad range of historical use at Plum Island. Extensive media sampling in and around each of the 21 buildings/structures was performed. As a result, no further action was required at 3 of the 21 sites. Remedial and removal actions were taken to achieve RCRA closure at the remaining 18 sites including one military battery (Battery Engineers). All RCRA sites identified at PIADC as having been used to manage RCRA wastes have been closed with certification from the NYSDEC.[152,153]

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151 Tetra Tech, Inc. 2008. Final environmental impact statement, National Bio and Agro-Defense Facility. Prepared for U.S. Department of Homeland Security.

152 Ibid.

153 MACTEC Engineering and Consulting, Inc. (MACTEC), Environmental data gap analysis report.

CERCLA

Under CERCLA, investigations were undertaken at PIADC to evaluate the nature and extent of environmental impacts from waste disposal activities that had historically occurred on Plum Island and to determine if Plum Island was eligible for placement on the NPL. A September 2002 CERCLA Program report describes the results of initial CERCLA investigations undertaken at PIADC. These investigations of potential waste disposal areas encompassed 49 sites: 21 Waste Management Areas (WMAs), 15 additional Areas of Potential Concern (AOPCs), ten historical Army batteries, and three Army support structures known or suspected to have been used for storage and/or disposal of potentially hazardous materials. The 21 WMAs and 15 AOPCs were identified during an intensive historical aerial photography study completed in 1999 by BMT Entech, Inc. to identify possible historical waste dumping areas by searching for surficial disturbances, ground scarring, and/or possible disposal trenches. Stereoscopic examination of 14 individual years of photography covering the years 1938 to 1993 was conducted. Following a subsequent Army buildings survey, 10 former Army batteries and three Army support structures were added to the program.[154] The locations of the 49 sites investigated during the CERCLA program are shown on Figure 3.12-1.

Seven WMAs (WMAs 3, 9, 12, 18, 21, 23, and 25) and two AOPCs (AOPCs 15 and 17) not depicted on Figure 3.12-1 are not included in the PIADC CERCLA program's 49 sites. The nine sites had been identified in during a 1996 Preliminary Assessment/Site Investigation but were not carried into CERCLA program with approval from the regulators, because the sites were determined to be relatively innocuous, as documented in the CERCLA Program Report.[155,156]

Regulator-approved work plans were developed in support of the site investigation and were implemented during a field program conducted in 1999. The CERCLA Program Report describes the results of the initial CERCLA investigations undertaken at the 49 sites. The site investigations involved the collection of more than 1,000 media and quality assurance/quality control samples that were analyzed for volatile and semivolatile compounds, pesticides, polychlorinated biphenyls (PCBs), and metals. Screening of the risks posed by Plum Island contamination to possible targets and receptors suggested that the site should not be placed on the NPL.

Findings from the site investigations resulted in specific recommendations for the 49 individual sites; the recommendations were discussed and documented during an on-Island meeting attended by NYSDEC, SCDHS, and PIADC representatives on May 8, 2001. At the meeting several sites were determined to require no further action. Other sites were determined to require post-meeting investigations; the first phase of these investigations occurred in 2002.[157]

Groundwater sampling and analysis conducted during the site investigations indicated that relatively low contaminant concentrations were present. In no instances were volatile organic

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154 Ibid.
155 Entech, CERCLA program report.
156 MACTEC Engineering and Consulting, Inc. (MACTEC), Environmental data gap analysis report.
157 Ibid.

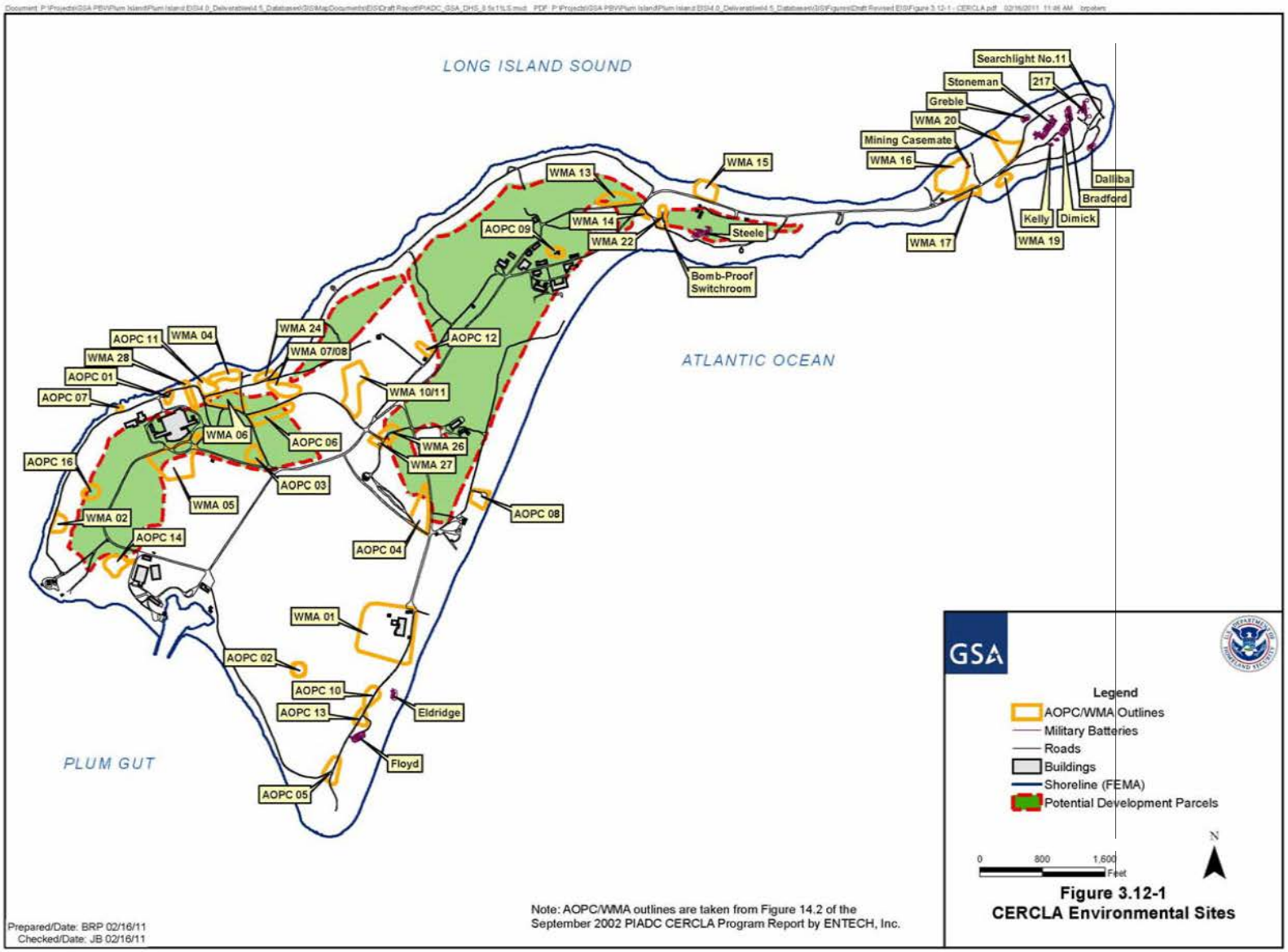

Figure 3.12-1: Plum Island CERCLA Environmental Sites

compounds detected above federal drinking water standards (*i.e.*, Maximum Contaminant Levels). Naphthalene, a semi-volatile organic compound, was detected in groundwater behind Building 101, near a known area of fuel oil contamination. No pesticides or polychlorinated biphenyls (PCBs) were detected. Calcium, potassium, magnesium, and sodium concentrations reported in samples collected from coastal monitoring wells were indicative of saline groundwater conditions. Concentrations of other inorganics detected in groundwater were marginal and likely within the range of natural background variability.[158]

A summary of the current regulatory status of each of the 49 CERCLA sites is presented in Appendix E. Approximately half (25 sites) of the 49 sites were assigned No Further Action (NFA) in May 2001 based on the investigation findings. For the other 24 sites, NYSDEC recommended that additional studies and/or site remediation be undertaken before NFA status could be considered. At certain sites (of the 24), the additional studies and/or site remediation recommended by NYSDEC were subsequently completed. For the remaining sites, DHS is continuing its ongoing program of site investigation and remediation. In its most recent communication with DHS,[159] the NYSDEC outlined some remaining actions needed to be undertaken prior to the sale of the Property to insure that any remaining environmental issues are adequately characterized. The site summary in Appendix E incorporates this most recent communication with NYSDEC.

In its April 30, 2010 correspondence to DHS, the NYSDEC outlined remaining actions that need to be undertaken relative to the ongoing CERCLA program to insure that any outstanding issues are adequately addressed. The DHS is currently completing remaining CERCLA program closure and clean-up operations in compliance with applicable federal, state, and local regulatory standards.

PETROLEUM STORAGE TANKS

The 2007 Phase I Environmental Site Assessment Report prepared by Terracon presents information relating to PIADC's fuel storage and distribution system and secondary containment systems. PIADC uses No. 2 fuel oil for heating, hot water, emergency power, and incineration. It also uses gasoline for vehicles; diesel for heavy machinery and ferries; and, used oil for heating the warehouse. In total, Plum Island stores approximately 650,000 gallons of petroleum products. The majority of this total is fuel oil that is stored in three 210,000-gallon ASTs that are filled from a fuel barge that docks at the Plum Island harbor and pumps fuel through a permitted aboveground pipeline. PIADC received approximately 200,000 gallons of fuel oil by barge during each of the four or five deliveries per year.

There are four USTs currently in use on Plum Island; two of the tanks store No. 2 fuel oil, one tank stores diesel fuel, and one tank stores gasoline. There are two No 2 fuel oil USTs at Orient Point used for building heating. All six USTs are of fiberglass, double-wall construction and

[158] BMT Entech, Inc. 2002. CERCLA program report for Plum Island Animal Disease Center. Contract No. 43-3K15-1-0006. Prepared for U.S. Department of Agriculture.

[159] New York State Department of Environmental Conservation (NYSDEC). 2010. Letter response to GSA request for information for the Environmental Impact Statement for the sale of Plum Island, Orient Point, New York.

were installed in 1994 and 1995. The tanks are in compliance with current regulations and inspected weekly by PIADC personnel and annually by the NYSDEC.[160]

The March 1995 Closure Report for Petroleum Storage Tanks by STV Sanders and Thomas documents the closure, excavation, and removal of a total of 34 USTs and three ASTs located on Plum Island and at the Orient Point ferry terminal. The three ASTs and 27 of the USTs were removed and closed out with no environmental impacts identified, based on determinations by the SCDHS. A SCDHS representative was on-site when each of the tanks was closed, excavated, and removed. Seven of the USTs that were excavated and removed were determined by the SCDHS representative to have had releases or overfills resulting in petroleum-contaminated soil. These seven USTs sites (*i.e.*, excavations) were referred to the NYSDEC for assessment and determination of future monitoring and cleanup strategies. Spill numbers were designated for the seven USTs located in three areas as follows:

- Tanks #8, 9, and 51 – Plum Island Dock Area (Spill No. 92-01281)
- Tank #18 – West Incinerator of Building 101 (Spill No. 94-11562)
- Tank #1-O, 2-O, and 4-O – Ferry Term inal, Orient Point, New York (Spill No. 94-07091).

A review of the NYSDEC online spills tracking database indicates that the spill numbers associated with the seven USTs have been closed, indicating that these spills have been remediated (http://www.dec.ny.gov/chemical/8437.html).

The December 1995 Addendum I to the Closure Report addresses the closure of three 1,000-gallon USTs at Battery Stoneman and two 500-gallon USTs at Battery Steele. These USTs were pumped empty of petroleum, cleaned, and closed in place. A non-compressible foam slurry was used to seal the tanks. In addition, one 10,000-gallon UST at Battery 217 was excavated and removed. NYSDEC and SCDHS representatives on-site during the tank closure process indicated that there was negligible environmental impact from the tanks. Therefore, the sites were closed out, and no further action was required.

The July 1998 Addendum II to the Closure Report addresses the removal of seven 50,000-gallon ASTs from the Plum Island Harbor Area; the closure of one 28,000-gallon UST next to Building 257; and, one 8,000-gallon UST south of Building 102. The USTs were closed in place by either filling with a concrete slurry mix or filling with sand and concrete. There are two NYSDEC spill numbers (No. 95-12713 and 96-00355) currently open for the light non-aqueous phase liquid petroleum spill being remediated north of Building 101. An oil recovery system, installed in 2000, is in place and is recovering free product from this spill area. The combined recovery of fuel oil from vacuum enhanced fuel recovery and the automated recovery system is 9,648 gallons of fuel oil as of June 2011.[161]

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[160] MACTEC Engineering and Consulting, Inc. (MACTEC), Environmental data gap analysis report.

[161] Ibid.

3.12.3. Consequences

To evaluate impacts to the Property resulting from activities associated with the proposed alternatives, effects on existing HTRW contamination resulting from implementation of the alternatives are defined and assessed. Impacts to existing HTRW contamination from alternative implementation would vary depending upon the intensity and duration of anticipated activities included in the alternative. In this section, intensity and duration of alternative activities and associated impacts to existing HTRW contamination are defined and evaluated.

3.12.3.1 No Action Alternative – Retain in Federal Ownership

The No Action Alternative would have no impacts to Plum Island or Orient Point. DHS would complete remaining CERCLA program closure and clean-up operations in compliance with federal, state, and local regulatory standards subject to the availability of funds.

3.12.3.2 Action Alternative – Sale of the Property

3.12.3.2.1 Reuse Option 1 – Adaptive Reuse of Existing Infrastructure

The DHS is currently completing remaining CERCLA program closure and clean-up operations in compliance with applicable federal, state, and local regulatory standards. Upon implementation of Reuse Option 1, existing buildings could remain in their current location and encompass their current extent; additional development would not be allowed to occur. Existing buildings could be reused with interior renovations. Because remaining environmental remediation areas on Plum Island are in locations away from current land use, anticipated actions to be conducted by the DHS at these areas are not expected to impact adaptive reuse activities. Where necessary, mitigation measures to lessen impacts to activities associated with Reuse Option 1 by HTRW remediation could include scheduling of hazardous waste testing and remediation prior to sale of the Property and, as necessary, during facility decommissioning and building renovation to accommodate adaptive reuse activities.

Pursuant to CERCLA Section 120(h), the federal government is required to state in the deed that all remedial action necessary to protect human health and the environment has been taken, and that any additional remedial actions found necessary after the sale date shall be conducted by the United States.

3.12.3.2.2 Reuse Option 2 – Development (Range of Residential Density Scenarios)

Upon implementation of Reuse Option 2, a range of 1 to 500 residential units could be developed on Plum Island. The locations of the CERCLA program sites relative to the Potential Development Parcels presented in Section 2.3 are shown in Figure 3.12-1.

Ten CERCLA sites (or portions thereof) appear to be located within the Potential Development Parcels (Figure 3.12-1). Of the ten CERCLA sites:

- one site is an existing landfill (*i.e.*, WMA 26) that was investigated during the CERCLA program and for which NYSDEC has requested that an institutional control such as a deed restriction be placed to prohibit residential development

- for three sites (*i.e.*, WMA 6, WMA 13, and AOPC 6) where excavation and off-site disposal of regulated medical waste (RMW) has been undertaken, NYSDEC requested in its April 30, 2010 correspondence to DHS that any remaining necessary remediation measures be identified and evaluated

- at the remaining six sites (*i.e.*, WMA 5, WMA 28, AOPC 3, AOPC 4, AOPC 9, and AOPC 16), NYSDEC has indicated that no further action is needed as a result of its review of the findings from the CERCLA site investigations

The DHS is currently completing remaining CERCLA program closure and clean-up operations as part of its ongoing activities to achieve compliance with federal, state, and local regulatory standards. Anticipated activities to be conducted by the DHS at environmental remediation areas on Plum Island located within a residential development area could inhibit development plans for areas at and near the ten CERCLA sites located in the Potential Development Parcels. Where necessary, mitigation measures to lessen impacts to Reuse Option 2 from existing contamination within the development area include:

- the contents of the existing landfill WMA 26 could be excavated and removed to allow residential development or, alternately, institutional controls could be implemented to prohibit residential development at that location

- an assessment of environmental conditions at WMA 6, WMA 13, and AOPC 6, including sampling and analysis if needed, could be undertaken along with any remaining remediation measures deemed by NYSDEC to be necessary

- an assessment of construction worker risk, a Health and Safety Plan to include a strategy to manage risks to construction workers, and a Soil Management Plan would be completed prior to implementation of construction activities associated with residential development

Pursuant to CERCLA Section 120(h), the federal government is required to state in the deed that all remedial action necessary to protect human health and the environment has been taken, and that any additional remedial actions resulting from the federal government's use of the Property after the transfer date shall be conducted by the United States.

3.12.3.2.3 Reuse Option 3 – Conservation/Preservation

The DHS is currently completing remaining CERCLA program closure and clean-up operations in compliance with federal, state, and local regulatory standards. Upon implementation of Reuse Option 4, activities on Plum Island and Orient Point would be limited to those conducted by private conservation entity maintenance and security personnel who would manage the Property to protect, maintain, and enhance significant natural and cultural resources. Anticipated actions to be conducted at environmental remediation areas on Plum Island would be coordinated with activities associated with conservation/preservation. Any conflicts between the two efforts could likely be resolved with minimal effort; as a result, anticipated activities at the environmental remediation areas would not be expected to impact conservation/preservation activities. However, if necessary, mitigation measures to lessen impacts to activities associated with Reuse

Option 3 by HTRW remediation could include scheduling of hazardous waste testing and remediation prior to sale and, as necessary, during facility decommissioning to accommodate activities associated with conservation/preservation.

Pursuant to CERCLA Section 120(h), the federal government is required to state in the deed that all remedial action necessary to protect human health and the environment has been taken, and that any additional remedial actions resulting from the federal government's use of the Property after the sale date shall be conducted by the United States.

3.13. WASTE MANAGEMENT

3.13.1. Methodology

This section describes the existing waste management infrastructure and the construction and operation impacts on waste management. Information on the affected environment and waste management impacts that would vary by alternative was primarily derived from:

- site visits and other information gathered by the EIS preparation team
- publicly available information from municipal, state, and federal regulatory and environmental websites and databases.

The following analysis assumes that any future activities under any of the potential reuse options will be subject to and compliant with appropriate requirements for waste management, such as wastewater discharge permits.

The terms of potential impacts are described as follows:

Negligible: Operations, long-term management, and sustainability of waste handling would not be impacted, or the impact would be at or below the lower levels of detection.

Minor: Adverse and beneficial impacts would be detectable but would be of a magnitude that would not have an appreciable effect on operations, long-term management, or sustainability of waste handling.

Moderate: Adverse and beneficial impacts would be readily apparent and would result in a substantial change to operations, long-term management, or sustainability of waste handling in a manner noticeable to the public.

Major: Adverse and beneficial impacts would be readily apparent and would result in a substantial change to operations, long-term management, or sustainability of waste handling in a manner noticeable to the public, and would be markedly different from existing operations.

3.13.2. Affected Environment

Wastewater generated at PIADC is separated into two categories with regard to source and treatment: Research Waste and Non-Research Waste. Research wastes include wastewaters

generated by laboratory sinks and drains, restroom facilities, and animal handling/holding areas within Building 101. Liquid wastes are conveyed from Building 101 via underground piping and enter Building 102 for pretreatment through grinding units for size classification, then into a series of holding tanks for mixing and heating at various temperatures and residence times under continuous flow or batch conditions. This portion of the research waste pretreatment system is collectively referred to as the "Heat Exchanger Treatment System." From here the fluids are sent to one of two "Retention Tube Rooms" that house approximately 3,500 feet of piping. The pretreated effluent passes through this system to dissipate heat before being combined with non-research waste for secondary and tertiary treatment in the central wastewater treatment plant (WWTP).

Plum Island has a central WWTP that is owned, operated, and maintained by DHS, and that discharges treated non-research wastes to Long Island Sound. Non-research waste includes all pretreated sewage from the research facility, as well as sink, drain, and sewage wastes from the non-research support facilities on Plum Island. Combined, the waste is treated in the central WWTP, located southeast of the main PIADC laboratory in the south-central portion of Plum Island. The existing WWTP was built in 1995 and was upgraded in 2004. The upgraded WWTP is a tertiary treatment facility with a maximum permitted capacity of 80,000 gpd. The WWTP currently operates in compliance with New York SPDES Permit No. NY0008117, which defines maximum daily loadings and concentrations of various constituents, including BOD, TSS, coliforms (total and fecal), pH, chlorine, oil and grease, and several organic compounds. Nitrogen concentrations are not monitored; however, WWTP discharges, although treated, still contain various nutrients, including nitrogen and phosphorus. Based on a review of Plum Island WWTP monthly discharge data from November 2004 through June 2006, average daily discharges of BOD and TSS were 1.4 pounds and 2.2 pounds, respectively, well below the permitted daily allowance of 22.47 pounds for BOD and TSS.[162] Based on the same data, average daily flow from the WWTP was 46,000 gpd.

Non-research wastewater includes pre-treated sewage from the research facility as well as sink, drain, and sewage wastes from the non-research support facilities on Plum Island. The largest contributor of wastes from non-research facilities is Building 100, which contains the majority of the employees and administrative/support functions at PIADC. Combined non-research waste and pre-treated research waste is then treated in the central WWTP located several hundred feet southeast of the research laboratory.

The wastewater treatment plant is a tertiary treatment facility that includes chemical treatment and irradiation (with ultraviolet light) to enhance disinfection of the effluent. Treated wastewater passes through man-made engineered wetlands specifically designed to further treat the effluent prior to its discharge from an outfall into Plum Gut Harbor. The wastewater treatment plant is currently permitted to treat 80,000 gpd.

Long Island Sound is impaired for dissolved oxygen (DO). A TMDL report completed in 2000 for Long Island Sound is designed to ensure the attainment of water quality standards for DO. The TMDL is based upon nitrogen loadings, because nitrogen is the limiting nutrient controlling

[162] U.S. Environmental Protection Agency (USEPA). Permit Compliance System (PCS) database in Envirofacts. http://www.epa.gov/enviro/facts/pcs/search.html.

algal blooms and subsequent DO reductions. Based on the TMDL report, the daily load of nitrogen to Long Island Sound was 275 tons.[163] However, nitrogen does not represent the only cause of DO impairment of Long Island Sound. Biochemical oxygen demand (BOD), TSS, and phosphorus can reduce DO concentrations through enhanced biological activity and are components of the surface water discharges generated on Plum Island.

Solid wastes generated during research activities in the PIADC laboratory are either treated or decontaminated. Wastes that are medical in origin and that have come into contact with infectious material are managed as RMW. The RMW is treated in a method called "autoclaving," during which wastes are sterilized by contact with high-pressure saturated steam. Non-RMW wastes generated in the laboratory are autoclaved or decontaminated using an airlock washdown or other approved decontamination method. Residuals from these treatment activities are transported to appropriately permitted off-site disposal facilities. Many conventional solid waste materials, including cardboard, paper, plastic bottles, aluminum cans, glass, and books/magazines, are sent to a permitted recycling facility.[164]

Solid waste will likely continue to be transported to a permitted landfill on Long Island. The actual content and volume of the solid waste to be transported will be determined post-sale depending on the buyer's land use implementation.

3.13.3. Consequences

To evaluate impacts to the Property resulting from activities associated with the proposed reuse options, effects on waste management resulting from implementation of the alternatives are defined and assessed. Impacts to waste management from alternative implementation would vary depending upon the intensity and duration of anticipated activities included in the potential reuse option. In this section, intensity and duration of alternative activities and associated impacts to waste management are defined and evaluated.

3.13.3.1 No Action Alternative – Retain in Federal Ownership

Upon implementation of the No Action Alternative, the PIADC and the existing central wastewater treatment plant and its ancillary structures would likely be decommissioned. Activities on Plum Island and Orient Point would be limited to those conducted by maintenance and security personnel. The limited amounts of wastewater and solid wastes generated by these activities could be collected and contained in portable units and transported to off-site disposal facilities. Significant detrimental impacts to waste management are not expected as a result of the No Action Alternative.

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[163] New York State Department of Environmental Conservation (NYSDEC) and Connecticut Department of Environmental Protection (CDEP). 2000. A total maximum daily load analysis to achieve water quality standards for dissolved oxygen in Long Island Sound. Prepared in conformance with Section 303(d) of the Clean Water Act and the Long Island Sound Study.

[164] Tetra Tech, Inc., Final environmental impact statement.

3.13.3.2 Action Alternative – Sale of the Property

3.13.3.2.1 Reuse Option 1 – Adaptive Reuse of Existing Infrastructure

Upon implementation of Reuse Option 1, the PIADC and the existing central wastewater treatment plant and its ancillary structures would likely be retained and continue to be used in the current manner. Existing buildings could remain in their current location and encompass their current extent; additional development could not be allowed to occur. Existing buildings could be reused with interior renovations. Modifications to existing buildings and or infrastructure and future activities conducted on Plum Island would be subject to federal, state, and local regulations.

Wastewater flows for Reuse Option 1 would likely be similar to existing flows, resulting in the need for little or no treatment plant expansion. Solid wastes generated by this option could be collected and transported off-site to disposal facilities similar to the current handling of these materials. Mitigation measures to lessen waste generation impacts posed by activities associated with this option could include solid waste recycling, water conservation, and wastewater reuse. Significant detrimental impacts to waste management are not expected as a result of this option.

3.13.3.2.2 Reuse Option 2 – Development (Range of Residential Density Scenarios)

Upon implementation of Reuse Option 2, the PIADC and the existing central wastewater treatment plant and its ancillary structures could be retained and could continue to be used in the current manner.

Based on the identified range of residential density scenarios, development could be supported by the existing wastewater capacity on Plum Island. Assuming a per-unit wastewater discharge of 100 gpd, the resulting estimated wastewater flow for the comparable scenario, a total of 168 units, would be approximately 16,800 gpd, and the estimated wastewater flow for the maximum scenario, a total of 500 units, would be approximately 50,000 gpd. Wastewater flow under both scenarios would be considerably less than the currently permitted wastewater flow of 80,000 gpd. Approximately 7.84 tons of solid waste per week would be expected to be generated from the comparable scenario, and 23.33 tons of solid waste per week from the maximum scenario. These wastes could be collected and transported off-site to disposal facilities similar to the current handling of these materials.

Wastewater and solid waste generated from the new land use activity at the Orient Point facility could be treated, recycled, and/or disposed in the same manner as is currently employed.

Mitigation measures to lessen waste generation impacts posed by activities associated with Reuse Option 2 could include solid waste recycling, water conservation, and wastewater reuse. Significant detrimental impacts to waste management are not expected as a result of this option.

3.13.3.2.3 Reuse Option 3 – Conservation/Preservation

Upon implementation of Reuse Option 3, the PIADC and the existing central wastewater treatment plant and its ancillary structures could be decommissioned and possibly removed. Activities on Plum Island and Orient Point would likely be limited to those conducted by

educational/interpretive visitors, private conservation entity maintenance, and security personnel who would manage Plum Island to protect, maintain, and enhance significant natural and cultural resources. The limited amounts of wastewater and solid wastes generated by this activity could be collected and contained in portable units and transported to off-site disposal facilities. A positive impact to waste management realized under this option would be a likely reduction in waste generation and in the corresponding need for waste management services.

4 LIST OF AGENCIES CONSULTED

U.S. Fish and Wildlife Service (cooperating agency)
Environmental Protection Agency (cooperating agency)

Natural Resources Conservation Service
Federal Emergency Management Agency
National Oceanic and Atmospheric Administration – National Marine Fisheries Service

State of New York
New York State Department of Health
New York State Department of Environmental Conservation
New York State Department of Transportation
New York State Department of Agriculture and Markets
New York State Historic Preservation Office
State of Connecticut
Connecticut Department of Agriculture

Village of Greenport
Town of Southold
Town of Old Saybrook
Suffolk County Department of Health Services
Suffolk County Department of Environment and Energy
Suffolk County Planning Department

Cayuga Nation
Delaware Nation of Oklahoma
Mohawk Nation
Oneida Indian Nation
Onondanga Nation
Seneca-Cayuga Tribe of Oklahoma
Seneca Nation of Indians
Shinnecock Indian Nation
St. Regis Mohawk Tribe
Stockbridge-Munsee Community Band of Mohican Indians
Tonawanda Band of Seneca Indians
Tuscarora Nation
Unkechaug Nation

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APPENDIX A

THE LIST OF ADDRESSEES INVITED TO PARTICIPATE IN THE SCOPING MEETINGS

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Scoping Report Mailing List
EIS for the Sale of Plum Island, NY

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					Fairweather-Brown Design Associates, Inc.	205 Bay Avenue		Greenport	NY	11944	
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Scoping Report Mailing List
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Scoping Report Mailing List
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Scoping Report Mailing List
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APPENDIX B

ADDITIONAL DETAILS REGARDING EACH OF THE LAWS, REGULATIONS, AND POLICIES OF THE REGULATORY FRAMEWORK AND THEIR APPLICABILITY TO THIS EIS

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APPENDIX B

FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS

Federal, state, and local regulations and Executive Orders (EOs) applicable to the Proposed Action are addressed in various sections throughout this EIS when relevant to particular environmental resources and conditions. The full text of the laws, regulations, and EOs is available on the U.S. Government's official website at http://www.firstgov.gov.

Federal

Consolidated Security, Disaster Assistance and Continuing Appropriations Act (Pub. L. 110-329, September 30, 2009)

The Consolidated Security, Disaster Assistance and Continuing Appropriations Act (CSDACAA) of 2009 directs the Secretary of DHS to "liquidate the Plum Island asset by directing the Administrator of the General Services to sell through public sale all real and related personal property and transportation assets which support Plum Island operations, subject to such terms and conditions as necessary to protect government interests and meet program requirements."

National Environmental Policy Act (42 U.S. Code [U.S.C.] § 4321, *et seq.*)

NEPA requires that federal agencies conduct an environmental impact analysis before taking an action that has the potential to significantly impact the human environment. The environmental planning process must use site-specific data, consider interdisciplinary aspects of the project, consider reasonable alternatives, and involve the public, among other requirements.

Council on Environmental Quality (40 CFR 1500-1508)

NEPA is implemented through regulations of the CEQ. CEQ published NEPA regulations in 1978 and added to them in 1981 with a guidance document titled *Forty Most Asked Questions Concerning CEQ NEPA Regulations*. CEQ requires each federal agency to implement procedures to make the NEPA process more useful to agency decision makers and the public (40 CFR 1500.2). CEQ includes regulations and guidance on proper planning and timing, document preparation and commenting, decision making, and public involvement.

Community Environmental Response Facilitation Act (Pub. L. 102-426, October 19, 1992)

The Community Environmental Response Facilitation Act (CERFA) amends Section 120(h)(3) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This law requires a transferring agency to provide a covenant, when transferring a parcel identified as contaminated, that all response actions or corrective actions "found to be necessary" would be undertaken by the United States. The deed for

such parcels must also provide a right of access to perform all additional response actions that would be necessary, as appropriate.

Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. § 9601)

CERCLA, commonly known as "Superfund," created a tax on the chemical and petroleum industries and provided broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. The law authorizes two kinds of response actions: short-term removals, where actions may be taken to address releases or threatened releases requiring prompt response, and long-term remedial response actions, which permanently and significantly reduce the dangers of releases of hazardous substances that are serious, but not immediately life-threatening. These actions can be conducted only at sites listed on the USEPA National Priorities List (NPL).

Superfund Implementation (EO 12580 and EO 13016)

EO 12580, *Superfund Implementation*, and EO 13016, *Amendment to Executive Order 12580*, are the implementing EOs for CERCLA. As such, the EOs delegate certain CERCLA authorities and responsibilities to USEPA and other federal agencies.

Toxic Substances Control Act (15 U.S.C. § 2601-2692)

The Toxic Substances Control Act (TSCA) was enacted to "regulate commerce and protect human health and the environment by requiring testing and necessary use restrictions on certain chemical substances." Unlike most of the existing environmental laws, TSCA regulates not only the end products of manufacturing or processing activities, but also provides regulation for the manufacture of substances not yet developed, the permitted use of these chemicals, and the allowed manufacturing quantities. TSCA requires manufacturers to test substances, to submit reports, and to maintain records on their health and environmental effects. Substances regulated under TSCA include polychlorinated biphenyls (PCBs) and asbestos.

Emergency Planning and Community Right-to-know Act (42 U.S.C. § 11004-11049)

The Emergency Planning and Community Right-to-know Act (EPCRA) of 1986 encourages and supports emergency planning efforts at the state and local levels, and requires that facilities provide the public and local governments with information concerning potential chemical hazards present in their communities. EPCRA requires a facility to document, notify, and report information regarding the chemicals that are used. EPCRA also establishes the Toxics Release Inventory (TRI), an inventory of routine toxic chemical emissions from certain facilities.

Federal Compliance with Right-to-know Laws and Pollution Prevention Requirements (EO 12856)

EO 12856, *Federal Compliance with Right-to-know Laws and Pollution Prevention Requirements*, requires all federal facilities to comply "with the maximum extent practicable without compromising national security" with the EPCRA, and with the Pollution Prevention Act (PPA) of 1990.

Resource Conservation and Recovery Act (42 U.S.C. § 6901, *et seq.*)

The Resource Conservation and Recovery Act (RCRA) tracks waste from "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste governed by the USEPA. RCRA also guides the management of nonhazardous solid wastes, and addresses issues that could result from underground storage tanks (USTs) storing petroleum and other hazardous substances.

Pollution Prevention Act (42 U.S.C. § 13101, *et seq.*)

The PPA of 1990 establishes a national policy of pollution control, including pollution prevention and reduction at the source, environmentally safe recycling or treatment, and disposal or release of pollutants. The facility owner/operator is responsible for compliance.

Federal Compliance with Pollution Control Standards (EO 12088)

EO 12088, *Federal Compliance with Pollution Control Standards*, requires all federal agencies to be in compliance with environmental laws and fully cooperate with USEPA, state, interstate, and local agencies to prevent, control, and abate environmental pollution.

Clean Air Act (42 U.S.C. § 7401, *et seq.*)

The Clean Air Act (CAA), as amended, provides for protection and enhancement of the Nation's air resources. Localized impacts on air quality may be experienced during construction or equipment operation. The owner/operator would be responsible for acquiring and adhering to air permits, as required by federal, state, and local regulations; therefore, the facility would remain compliant with state and local air quality requirements. USEPA has published final rules on general conformity (40 CFR Part 51 in FR, November 30th , 1993) that apply to federal actions in areas designated "nonattainment" for the criteria pollutants under the CAA. USEPA has identified several types of federal actions in which conformity of such actions can be presumed (Final Rule, 40 CFR Parts 6, 51, and 93, FR, November 30th, 1993, Supplementary Information J, p. 63229). Additional information is given in the "Air Quality Regulatory Framework" section below.

Clean Water Act (33 U.S.C. § 1251, *et seq.*)

The Clean Water Act (CWA), as amended, regulates discharges to the waters of the United States. Compliance with applicable provisions of the CWA would be

accomplished by coordination with the appropriate resource agencies; submittal of permit applications, if required; and response to agency review. Section 404 of the CWA regulates the discharge of dredged or fill material into jurisdictional waters of the United States. The acquiring entity would have to coordinate with the U.S. Army Corps of Engineers (USACE) if regulated dredge or fill activities occur. Point sources of pollution would have to comply with National Pollutant Discharge Elimination System (NPDES) permit requirements.

Impacts to tidal waters, streams, and wetlands are regulated under Section 404 of the CWA, as amended. “Waters of the U.S.” include wetlands and other water bodies such as streams, rivers, lakes, and tidal waters. U.S. Army Corps of Engineers (USACE) (33 CFR 328.3), and the USEPA (40 CFR 230.3) define wetlands as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." In accordance with this definition, areas classified as wetlands must possess the following three diagnostic characteristics: a predominance of hydrophytes vegetation, hydria soils, and wetland hydrology.

Floodplains (EO 11988)

EO 11988 directs all federal agencies to refrain from conducting, supporting, or allowing actions in floodplains unless it is the only practicable alternative. Specific directives identified in EO 11988 to achieve this goal include evaluation of the following considerations: the practicability of alternatives to any longitudinal encroachments, risks of the action, impacts on natural and beneficial floodplain values, support of incompatible floodplain development, measures to minimize floodplain impacts and to preserve/restore any beneficial floodplain values impacted by the project, and provision of opportunities for early and adequate public review of proposed floodplain encroachments. The “base floodplain” is defined as the area subject to flooding by the flood or tide having a 1 percent chance of being exceeded in any given year (*i.e.*, a “100-year” event), while “encroachment” is defined as an action within the limits of the base floodplain.

Wetlands (EO 11990)

EO 11990, *Protection of Wetlands,* directs agencies to take actions to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands on federal property.

Coastal Zone Management Act (16 U.S.C. § 1431 *et seq.*)

In 1972, the Coastal Zone Management (CZM) Act established a national program to encourage coastal states to develop and implement Coastal Zone Management Plans (CZMPs). Both Connecticut and New York have developed CZMPs and programs that are federally approved under CZM. Section 307 of CZM 1972, as amended, requires federal agencies proposing activities within or outside the coastal zone that affect any land or water use or natural resource of the coastal zone to ensure that those activities are

conducted in a manner that is consistent to the maximum extent practicable with the enforceable policies of approved state coastal management programs.

Coastal Barrier Resources Act (Pub. L. 97-348, October 18, 1982)

The Coastal Barrier Resources Act (CBRA), as amended, is designed to meet three objectives: 1) minimize the loss of human life by discouraging development in high-risk areas vulnerable to storm surges and hurricane winds; 2) reduce wasteful expenditure of federal resources; and 3) protect the natural resources associated with undeveloped coastal barriers. CBRA designates various undeveloped coastal barriers, which are illustrated by a set of maps adopted by law. These designated areas are made ineligible for both direct and indirect federal expenditures and financial assistance, which are believed to encourage development of fragile, high-risk, and ecologically sensitive coastal barriers.

Estuary Protection Act (16 U.S.C. § 1221 *et seq.*)

The Estuary Protection Act highlights the values of estuaries and the need to conserve their natural resources. Estuaries, their natural resources, and their importance for commercial and industrial development have been considered in evaluating alternative courses of action in this DEIS.

Endangered Species Act (15 U.S.C. § 1531, *et seq.*)

The Endangered Species Act (ESA) requires that actions authorized by a federal agency not jeopardize the continued existence of an endangered or threatened species, or result in the destruction or adverse modification of habitat that is determined to be critical. Section 7 of the ESA of 1973, as amended, requires the responsible federal agency to consult with the USFWS concerning endangered and threatened species under its jurisdiction.

Fish and Wildlife Coordination Act (16 U.S.C. § 661 *et seq.*)

Section 10 of the Fish and Wildlife Coordination Act (FWCA) directs federal agencies to consult with USFWS, the NOAA National Marine Fisheries Service (NMFS), and state agencies before authorizing alterations to water bodies. The purpose of the FWCA is to ensure that wildlife conservation receives equal consideration, and that it is coordinated with other features of water resource programs.

Bald and Golden Eagle Protection Act (16 U.S.C. § 668-668c)

The Bald and Golden Eagle Protection Act (BGEPA), enacted in 1940, and amended several times since then, prohibits anyone, without a permit issued by the Secretary of the Interior, from “taking” bald or golden eagles, including their parts, nests, or eggs. The BGEPA defines “take” as “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.” The BGEPA provides criminal penalties for persons who “take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or

import, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof."

Migratory Bird Treaty Act (16 U.S.C. § 703 *et seq.*)

The Migratory Bird Treaty Act (MBTA) protects birds that migrate with the changing seasons. This protection covers the bird, the bird's nests, and its eggs from hunting, killing, possession, selling, or buying, unless otherwise permitted by regulations.

Responsibilities of Federal Agencies to Protect Migratory Birds (EO 13186)

EO 13186 supports the conservation intent of the migratory bird conventions by integrating bird conservation principles, measures, and practices into agency activities, and by avoiding or minimizing, to the extent practicable, adverse impacts on migratory bird resources when conducting agency actions. Further, its intent is to restore and enhance the habitat of migratory birds, and prevent or abate the pollution or detrimental alteration of the environment for the benefit of migratory birds, and to ensure that environmental analyses of federal actions required by the NEPA or other established environmental review processes evaluate the effects of actions and agency plans on migratory birds, with emphasis on species of concern.

Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. § 1801 *et seq.*)

The 1996 Magnuson-Stevens Act requires cooperation among NMFS, fishers, and federal and state agencies to protect, conserve, and enhance Essential Fish Habitat (EFH). EFH is defined as those waters and substrates necessary to fish for spawning, breeding, feeding, or growth to maturity. The designation and conservation of EFH seek to minimize adverse effects on habitat caused by fishing and non-fishing activities.

Recreational Fisheries (EO 12962)

EO 12962 directs federal agencies in furtherance of the purposes of the Fish and Wildlife Act (FWA) of 1956, the FWCA, NEPA, and the Magnuson Fishery Conservation and Management Act (MFCMA), and other pertinent statutes, and to conserve, restore, and enhance aquatic systems to provide for increased recreational fishing opportunities nationwide. This DEIS has considered the goals of this EO, and the proposed sale is not expected to have disproportionately high or adverse effects on recreational fisheries.

Marine Protected Areas (EO 13158)

EO 13158 is designed to protect the significant natural and cultural resources within the marine environment for the benefit of present and future generations by strengthening and expanding the Nation's system of Marine Protected Areas (MPAs). This DEIS has noted the location of MPAs in considering alternative courses of action for the proposed sale. The Proposed Action would avoid harm to the natural and cultural resources within designated MPAs.

Marine Mammal Protection Act (16 U.S.C. § 1361 *et seq.*)

The Marine Mammal Protection Act (MMPA) prohibits, with certain exceptions, the "take" of marine mammals in U.S. waters and by U.S. citizens on the high seas, and the importation of marine mammals and marine mammal products into the U.S. This action is coordinated with the NMFS and the USFWS to determine whether any marine mammals under their respective jurisdictions may be affected by the project.

Invasive Species (EO 13112)

EO 13112 was signed establishing the National Invasive Species Council (NISC). The EO required that a Council of Departments dealing with invasive species be created. The council was designed to ensure that federal programs and activities to prevent and control invasive species are coordinated, effective, and efficient. NISC provides high-level interdepartmental coordination of federal invasive species actions, and works with other federal and non-federal groups to address invasive species issues at the national level.

Facilitation of Cooperative Conservation (EO 13352)

EO 13352 establishes that the Departments of the Interior, Agriculture, Commerce, and Defense and the USEPA implement laws relating to the environment and natural resources in a manner that promotes cooperative conservation, with an emphasis on appropriate inclusion of local participation in federal decision making, in accordance with their respective agency missions, policies, and regulations.

Protection and Enhancement of Environmental Quality (EO 11514)

EO 11514, *Protection and Enhancement of Environmental Quality*, requires federal agencies to provide leadership so as to protect and enhance the quality of the environment, to ensure expedience and transparency in all dealings, and to perform internal reviews to ensure consistency with NEPA.

Environmental Justice (EO 12898 and EO 13045)

All projects involving a federal action (funding, permit, or land) must comply with EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations*. This EO directs federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low income populations to the greatest extent practicable and permitted by law. Pursuant to EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks*, federal agencies are directed, as appropriate and consistent with the agency's mission, to make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children. Agencies are encouraged to participate in implementation of the EO by ensuring that their policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks.

National Historic Preservation Act (16 U.S.C. § 470, *et seq.*)

The National Historic Preservation Act (NHPA) of 1966, as amended, sets forth policies and procedures regarding historic properties, which are defined as districts, sites, buildings, structures, and objects included on or eligible for the National Register of Historic Places (NRHP). Section 106 of NHPA requires federal agencies to consider the effects of their undertakings on such properties and to consult with the SHPO and possibly the Advisory Council on Historic Preservation (ACHP) to determine whether they are eligible for the NRHP.

American Indian Religious Freedom Act (Pub. L. 95-341, August 11, 1978)

The American Indian Religious Freedom Act (AIRFA) requires consultation with the Indian tribes that may be affected by the Proposed Action to ensure that the action does not interfere with their rights to traditional religious practices.

Consultation and Coordination with Indian Tribal Governments (EO 13175)

EO 13175 sets forth guidelines for all federal agencies to: 1) establish regular and meaningful consultation and collaboration with Indian tribal officials in the development of federal policies that have tribal implications; 2) strengthen the U.S. Government-to-government relationships with Indian tribes; and 3) reduce the imposition of unfunded mandates upon Indian tribes. Coordination and consultation with the Indian Tribal Governments with an interest in the study area signify compliance.

Native American Graves Protection and Repatriation Act (Pub. L. 101-601, November 16, 1990)

The Native American Graves Protection and Repatriation Act (NAGPRA) requires federal agencies and institutions that receive federal funding to return Native American cultural items and human remains to their respective peoples. Cultural items include funerary objects, sacred objects, and objects of cultural patrimony. In addition, it authorizes a program of federal grants to assist in the repatriation process.

State

State Pollutant Discharge Elimination System (New York Environmental Conservation Law [NYECL] § 17-0801, *et seq.*)

This is a state program that has been approved by the USEPA for the control of wastewater and stormwater discharges in accordance with the CWA. Under New York State law, the program is known as the "State Pollutant Discharge Elimination System (SPDES)" and is broader in scope than that required by the CWA in that it controls point source discharges to groundwater as well as surface waters.

Underground Storage Tanks (6 New York Codes, Rules and Regulations [NYCRR] 613-614)

The NYSDEC UST regulations focus on tanks with capacities greater than 1,100 gallons.

Wetlands (6 NYCRR 660-665)

At the state level, NYSDEC regulates freshwater and tidal wetlands; however, New York State regulations are administered at the local level through local bylaws and regulations.

Local

Floodplains (Town of Southold Code § 111 and 148)

Local zoning regulations, specifically Chapter 111 (*Coastal Erosion Hazard Area*) and Chapter 148 (*Flood Damage Prevention*), of the Town of Southold, New York, regulate development in flood zones delineated on FEMA FIRM.

Waterfront Consistency Review (Town of Southold Code § 268)

The Town of Southold's Local Waterfront Revitalization Program (LWRP) is a comprehensive land and water use plan for its natural, public, working waterfront, and developed waterfront resources. The Southold LWRP provides a comprehensive framework within which critical waterfront issues can be addressed and planned and waterfront improvement projects pursued and implemented.

Underground Storage Tanks (Suffolk County Sanitary Code Articles 12 and 17)

The Suffolk County Department of Health Services UST regulations focus on tanks with capacities greater than 1,100 gallons.

Wetlands (Town of Southold Code § 275)

New York State regulations are administered at the local level through local bylaws and regulations. The Town of Southold regulates activities in Chapter 275 (*Wetlands & Shoreline*) for wetlands and vernal pools, as well as wetland buffer areas and adjacent areas of freshwater and tidal wetlands, respectively.

Other Documentation

Long Island Sound Stewardship Initiative

The Long Island Sound Stewardship Initiative (LISSI) is a document produced by the LISSI Work Group that identifies key areas in the Long Island Sound watershed that reflect regional differentiation, a variety of ecosystems and natural habitats, and public access to the water. The inaugural 33 stewardship sites for LISSI were signed into adoption by the Long Island Sound Study (LISS) Policy Committee, including USEPA Regions I and II, NYSDEC, and the Connecticut Department of Environmental Protection (CTDEP). Plum Island is designated as one of these inaugural areas, and is

described as an, "exemplary colonial water bird habitat, including sites that are [of] national – if not international – significance [and is] identified by the USFWS as a Significant Coastal Habitat." LISSI is a voluntary program that attempts to preserve native plant and animal communities and unique habitat types, improve recreation and public access opportun ties, protect threatened and endangered species in their natural habitats, preserve sites that are important for long-term scientific research and education, and promote efforts to plan for multiple land uses.

Air Quality Regulatory Framework

Ambient Air Quality Standards

USEPA has promulgated National Ambient Air Quality Standards (NAAQS) to protect public health and welfare. NAAQS have been established for each of the following six major criteria pollutants: carbon monoxide, lead, nitrogen dioxide, ozone, respirable particulate matter (PM_{10} and $PM_{2.5}$), and sulfur dioxide.

Air pollution monitors are used to evaluate ambient air contaminant concentrations. The data generated from these networks are evaluated in terms of meeting or exceeding the established primary and secondary criteria pollutant NAAQS. If a monitoring site persistently exceeds the USEPA-set NAAQS, then the region may be classified as nonattainment for that specific pollutant.

Individual states are free to adopt standards more stringent than the Federal NAAQS. NYSDEC has established Ambient Air Quality Standards (AAQS) for New York that are listed in Part 257, "Air Quality Standards," of the NYSDEC regulations. In some cases, the New York AAQS are more stringent than the NAAQS (Table 1-1).

Table 1-1: National and New York AAQS

Pollutant	Averaging Period	New York AAQS (µg/m^3)		NAAQS (µg/m^3)	
		Primary	Secondary	Primary	Secondary
Sulfur Dioxide	3-hour	1,300	750	N/A	1,300
	24-hour	365	260	365	N/A
	Annual	80	N/A	80	N/A
Particulate Matter (PM_{10})	24-hour	150	150	150	150
	Annual	50	50	50	50
Particulate Matter ($PM_{2.5}$)	24-hour	35	35	35	35
	Annual	15	15	15	15
Carbon Monoxide	1-hour	40,000	40,000	40,000	40,000
	8-hour	10,000	10,000	10,000	10,000
Ozone	1-hour	120	120	N/A	N/A
	8-hour	N/A	N/A	120	120
Nitrogen Dioxide	Annual	100	100	100	100
Lead	Quarterly	N/A	N/A	1.5	1.5

µg/m^3=Micrograms per cubic meter.
N/A=Not applicable.

New York State Implementation Plans

The CAA requires that each state develop a State Implementation Plan (SIP) to provide the regulatory framework to implement the CAA and how it plans to attain and maintain the NAAQS. The New York State SIP adopted the NAAQS and New York AAQS. Attainment of the AAQS is required under the CAA, and each state has a prescribed amount of time in which to bring non-compliant areas into compliance. New York State is divided into nine Air Quality Control Regions (AQCRs), based on geographic location. NYSDEC operates a network of ambient air quality monitoring stations located throughout the state in each of the AQCRs to evaluate the attainment status of each region with respect to the respective AAQS. Suffolk County is in the New York- Northern New Jersey-Long Island AQCR.

Suffolk County Nonattainment

In accordance with the NAAQS that USEPA has developed, Suffolk County has been designated as being in nonattainment for $PM_{2.5}$ and moderate nonattainment for the 8-hour ozone standard. The pollutants currently monitored in the New York-Northern New Jersey-Long Island AQCR include respirable PM, carbon monoxide, ozone, nitrogen oxides, and lead. A summary of the characteristics of these pollutants follows.

Greenhouse Gases

In 2010, CEQ provided a draft guidance memorandum for Federal agencies to consider, in scoping their NEPA analyses, whether analysis of the direct and indirect greenhouse gas emissions from proposed actions may provide meaningful information to decision makers and the public. Specifically, if a proposed action would be reasonably anticipated to cause direct emissions of 25,000 metric tons or more of carbon dioxide-equivalent greenhouse gas emissions on an annual basis, or if long-term greenhouse gas emissions could be significant, agencies should consider the potential for impacts.

Respirable Particulate Matter (PM_{10} and $PM_{2.5}$)

PM is a class of air pollutants that includes airborne particles of a wide range of sizes and chemical composition and can exist as either a liquid droplet (aerosols) or solids suspended in the atmosphere. PM is emitted into the atmosphere from a wide variety of sources, including both natural and anthropogenic. Natural sources include salt particles resulting from evaporation of sea spray, windborne pollen, molds, bacteria, particles eroded from beaches, soil and rock, and particles from forest fires. Major anthropogenic sources include combustion of fossil fuels (*e.g.*, power generation, vehicular exhaust, boilers, engines, and home heating), construction activities, agricultural activities, and wood burning fireplaces.

Respirable PM includes both particles that are less than 10 microns in diameter (PM_{10}) and “fine” particles less than 2.5 microns in diameter ($PM_{2.5}$). Both PM_{10} and $PM_{2.5}$ can affect human respiratory functions and are a cause of concern. $PM_{2.5}$ is of particular concern in that these smaller particles have the ability to penetrate and remain in the deepest passages of the lungs. Gasoline-powered vehicles (such as passenger automobiles and sport utility vehicles [SUVs]) produce relatively small quantities of

respirable particulates, but diesel-powered vehicles, especially heavy trucks and buses, emit significant amounts of respirable particulates.

Carbon Monoxide

Carbon monoxide is colorless, odorless gas that is produced primarily from the incomplete combustion of gasoline and other fossil fuels. In the region of this project, the majority of carbon monoxide emissions comes from motor vehicles. Carbon monoxide concentrations can vary greatly over relatively short distances, and elevated concentrations are usually limited to locations near crowded intersections and along heavily traveled and congested roadways.

Nitrogen Oxides and Ozone

Nitrogen oxides are produced when fuels are burned at high temperatures. Although there are a number of individual compounds that are considered to be nitrogen oxides, only the compounds nitric oxide and nitrogen dioxide are released by motor vehicles into the atmosphere in significant quantities. Nitrogen oxides are of concern because of their role in the formation of photochemical oxidants, commonly referred to as “ozone.” Ozone is formed through a series of chemical reactions that occur in the presence of sunlight. Because these chemical reactions are slow and occur as the pollutant is diffusing downwind, the resulting elevated ozone levels are often found many miles from the sources of the precursor pollutants. The effects of nitrogen oxide emissions from sources are therefore generally examined on a regional basis. The change in regional mobile source emissions of nitrogen oxide is directly related to the type of vehicles, the total number of vehicle trips, and the vehicle miles traveled through the local metropolitan area.

Lead

Lead emissions are associated with industrial sources and motor vehicles that use gasoline containing lead additives. Most U.S. vehicles available since 1975 and all vehicles available after 1980 are designed to use unleaded fuel. As these newer vehicles replaced the older ones, motor-vehicle-related lead emissions decreased, and, as a result, ambient concentrations of lead have declined significantly.

Air Quality Permitting

NYSDEC has developed a list of exempt and trivial activities (6 New York Codes, Rules, and Regulations [NYCRR] Subpart 201-3) that would in themselves not require air quality permitting if they were the only source present at a facility. An emission inventory defines whether an air quality permit would be required. The level of air quality permitting required would depend on the magnitude of potential air emissions. If potential emissions from a source exceed 100 tons per year (tpy) of any criteria pollutant, 10 tpy of a single hazardous air pollutant (HAP), or 25 tpy of the combination of all HAPs, the source is classified as major and require Title V permitting. Depending on the magnitude and nature of source emissions, air pollution control measures may include implementation of lowest achievable emission rates (LAERs), reasonable available

control technology (RACT), maximum available control technology (MACT), or best available control technology (BACT).

The projected emissions would be used to determine the impact to the NAAQS. The USEPA Screen3 model is an air contaminant concentration evaluation tool. This cursory computer model is used to determine the potential of a point source to exceed the NAAQS at site-specified distances. The screening format for each action alternative is developed with equivalent terrain features, facility/stack characteristics, and meteorology assumptions. The Island facility under a different action alternative and use may need to apply for emission reduction credits (ERCs) and have pollutant-specific offsets, depending on the potential implications of various alternatives. The significance level and offset ratio for the pollutants are presented in Tables 1-2, 1-3, and 1-4.

Table 1-2: NYSDEC Significant Impacts for Nonattainment Areas

Air Contaminant		Significant Air Quality Impact	
		ppm	Weight/Volume
PM_{10}	Calendar year		1.0 µg/m^3
	24-hour		5.0 µg/m^3
Carbon monoxide	8-hour	0.45	0.5 mg/m^3
	1-hour	1.8	2.0 mg/m^3

mg/m^3=Milligrams per cubic meter.
ppm=Parts per million.

Table 1-3: Ozone Nonattainment Area and Transport Region Classification for Volatile Organic Compounds and Nitrogen Oxide

Area/Contaminant Classification	Major Facility Size Threshold (tpy)	Significant Source Project Threshold (tpy)	Significant Net Emission Increase Threshold (tpy)	Offset Ratio
Marginal, or Moderate, or Ozone Transport Region				
VOC	50	40	40	1.15:1 or more
Nitrogen oxide	100	40	40	1.15:1 or more
Severe				
VOC	25	2.5	More than 25	1.3:1 or more
Nitrogen oxide	25	2.5	More than 25	1.3:1 or more

VOC=Volatile organic compound.

Table 1-4: Nonattainment Area Classification for PM-10 and Carbon Monoxide

Area/Contaminant Classification	Major Facility Size Threshold (tpy)	Significant Source Project Threshold (tpy)	Significant Net Emission Increase Threshold (tpy)	Offset Ratio
Moderate				
PM_{10}	100	15	15	1:1 or more
Carbon monoxide	50	100	100	1:1 or more

APPENDIX C

COPIES OF THE COORDINATION LETTERS AND RESPONSES

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GSA New England Region

March 30, 2010

New York State Historic Preservation Office
ATTN: Ruth Pierpont
Peebles Island Resource Center
PO Box 189
Waterford, NY 12188-0189

Subject: **Request for Information** for the Environmental Impact Statement for the Sale of Plum Island, Orient Point, New York

Dear Ms. Pierpont:

The General Services Administration (GSA) is acting as agent and working with the US Department of Homeland Security (DHS) as a Joint Lead Agency to dispose of Plum Island, New York, an 840-acre island off the North Fork of Long Island, and an ancillary support facility at Orient Point, New York. The property disposal will be conducted through a competitive public sale. GSA published a Notice of Intent to proceed with the EIS on March 18, 2010 in the *Federal Register*. At this time, we invite you to provide any comments on the proposed action or the alternatives that will be considered in an Environmental Impact Statement (EIS) that is being prepared for the action, as described below.

The EIS will be prepared pursuant to the requirements of the National Environmental Policy Act (NEPA) of 1969, and the President's Council on Environmental Quality Regulations (40 CFR 1500-1508), as implemented by GSA Order PBS P 1095.4C, GSA. DHS will act as a Joint Lead Agency in ongoing consultation with GSA for the NEPA and associated regulatory compliance activities.

The purpose of this proposed action is to examine the effects associated with the anticipated sale of Plum Island, New York and its support facility at Orient Point, New York including all real and related personal property and transportation assets (the "Property," Figure 1). The need for this proposed action is mandated in Section 540 of the Consolidated Security, Disaster Assistance, and Continuing

U. S. General Services Administration
Thomas P. O'Neill, Jr. Federal Building
10 Causeway Street, Room 925
Boston, MA 02222
www.gsa.gov

Appropriations Act of 2009; United States Public Law 110-329 (the "Act"), which directs the Secretary of the DHS to liquidate the Plum Island asset by directing the Administrator of the GSA to sell through public sale all real and related personal property and transportation assets which support Plum Island operations, subject to such terms and conditions as necessary to protect government interests and meet program requirements. The Act mandates the sale as a result of the determination by DHS to construct and operate a new National Bio and Agro-Defense Facility (NBAF) in Manhattan, Kansas and move its operations from the PIADC to the NBAF (Record of Decision dated 1/16/2009).

The EIS will address the potential impacts to the environment of two alternatives: sale of the Property (the "Action Alternative"), and continued Federal ownership (the "No-Action Alternative"). The Action Alternative will be further refined into a series of reasonably foreseeable land use options. Because the federal government has no authority to regulate future land uses, a precise statement of the specific land use-related environmental and socioeconomic effects that could result from reuse would be largely speculative. In response to the lack of certainty concerning future reuse of the Property, the EIS will identify reasonable land use options that could result upon the sale of the Property. When the Property leaves federal ownership, proposed uses would be subject to local and state environmental and land use regulation, including the New York State Environmental Quality Review Act. In order that potential environmental effects of the project may be fully evaluated and considered, GSA is requesting that you respond in writing concerning any beneficial or adverse impacts relative to the interests of the New York State Historic Preservation Office.

In accordance with NEPA requirements, we are eliciting your comments and invite you to review the project. We request you reply by April 30, 2010 with your initial comments so that we may ensure that important resources are fully considered in the preparation of the draft EIS. Please reply to: Mr. Phil Youngberg, Environmental Manager, c/o Mr. John Dugan, General Services Administration (GSA), 10 Causeway Street, Room 925, Boston, MA 02222.

Furthermore, GSA will be hosting a public scoping meeting in the Town of Southold, New York in May, 2010. Details will be published two weeks in advance of the scoping meeting and the New York State Historic Preservation Office will be invited to attend and provide additional comments at that time. A copy of the forthcoming draft EIS will be prepared and will be sent to you in CD-ROM format for comment. The EIS will also be made available on the internet.

If you have any questions, please do not hesitate to contact Mr. Phil Youngberg via FAX at 617-565-5720 or e-mail phil.youngberg@gsa.gov. We would also be available to arrange a meeting with you at your convenience to discuss this project. Thank you for your attention to this matter.

Sincerely,

Phil Youngberg
Environmental Manager
Public Buildings Service

Attachments:
Figure 1: Project Vicinity Map

GSA New England Region

March 30, 2010

New York State Department of Environmental Conservation
ATTN: Betty Ann Hughes
Chief - SEQR and Training Unit
Division of Environmental Permits
625 Broadway, 4th Floor
Albany, NY 12233-1750

Subject: **Request for Information** for the Environmental Impact Statement for the Sale of Plum Island, Orient Point, New York

Dear Ms Hughes:

The General Services Administration (GSA) is acting as agent and working with the US Department of Homeland Security (DHS) as a Joint Lead Agency to dispose of Plum Island, New York, an 840-acre island off the North Fork of Long Island, and an ancillary support facility at Orient Point, New York. The property disposal will be conducted through a competitive public sale. GSA published a Notice of Intent to proceed with the EIS on March 18, 2010 in the *Federal Register*. At this time, we invite you to provide any comments on the proposed action or the alternatives that will be considered in an Environmental Impact Statement (EIS) that is being prepared for the action, as described below.

The EIS will be prepared pursuant to the requirements of the National Environmental Policy Act (NEPA) of 1969, and the President's Council on Environmental Quality Regulations (40 CFR 1500-1508), as implemented by GSA Order PBS P 1095.4C, GSA. DHS will act as a Joint Lead Agency in ongoing consultation with GSA for the NEPA and associated regulatory compliance activities.

The purpose of this proposed action is to examine the effects associated with the anticipated sale of Plum Island, New York and its support facility at Orient Point, New York including all real and related personal property and transportation assets (the "Property," Figure 1). The need for this proposed action is mandated

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10 Causeway Street, Room 925
Boston, MA 02222
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in Section 540 of the Consolidated Security, Disaster Assistance, and Continuing Appropriations Act of 2009; United States Public Law 110-329 (the "Act"), which directs the Secretary of the DHS to liquidate the Plum Island asset by directing the Administrator of the GSA to sell through public sale all real and related personal property and transportation assets which support Plum Island operations, subject to such terms and conditions as necessary to protect government interests and meet program requirements. The Act mandates the sale as a result of the determination by DHS to construct and operate a new National Bio and Agro-Defense Facility (NBAF) in Manhattan, Kansas and move its operations from the PIADC to the NBAF (Record of Decision dated 1/16/2009).

The EIS will address the potential impacts to the environment of two alternatives: sale of the Property (the "Action Alternative"), and continued Federal ownership (the "No-Action Alternative"). The Action Alternative will be further refined into a series of reasonably foreseeable land use options. Because the federal government has no authority to regulate future land uses, a precise statement of the specific land use-related environmental and socioeconomic effects that could result from reuse would be largely speculative. In response to the lack of certainty concerning future reuse of the Property, the EIS will identify reasonable land use options that could result upon the sale of the Property. When the Property leaves federal ownership, proposed uses would be subject to local and state environmental and land use regulation, including the New York State Environmental Quality Review Act. In order that potential environmental effects of the project may be fully evaluated and considered, GSA is requesting that you respond in writing concerning any beneficial or adverse impacts relative to the interests of the New York State Department of Environmental Conservation.

In accordance with NEPA requirements, we are eliciting your comments and invite you to review the project. We request you reply by April 30, 2010 with your initial comments so that we may ensure that important resources are fully considered in the preparation of the draft EIS. Please reply to: Mr. Phil Youngberg, Environmental Manager, c/o Mr. John Dugan, General Services Administration (GSA), 10 Causeway Street, Room 925, Boston, MA 02222.

Furthermore, GSA will be hosting a public scoping meeting in the Town of Southold, New York in May, 2010. Details will be published two weeks in advance of the scoping meeting and the New York State Department of Environmental Conservation will be invited to attend and provide additional comments at that time. A copy of the forthcoming draft EIS will be prepared and will be sent to you in CD-ROM format for comment. The EIS will also be made available on the internet.

If you have any questions, please do not hesitate to contact Mr. Phil Youngberg via FAX at 617-565-5720 or e-mail phil.youngberg@gsa.gov. We would also be available to arrange a meeting with you at your convenience to discuss this project. Thank you for your attention to this matter.

Sincerely,

Phil Youngberg
Environmental Manager
Public Buildings Service

Attachments:
Figure 1: Project Vicinity Map

GSA New England Region

March 30, 2010

New York State Department of Environmental Conservation
ATTN: Robert Ewing
Pollution Prevention Director and Programs
625 Broadway
Albany, NY 12233-1750

Subject: **Request for Information** for the Environmental Impact Statement for the Sale of Plum Island, Orient Point, New York

Dear Mr. Ewing:

The General Services Administration (GSA) is acting as agent and working with the US Department of Homeland Security (DHS) as a Joint Lead Agency to dispose of Plum Island, New York, an 840-acre island off the North Fork of Long Island, and an ancillary support facility at Orient Point, New York. The property disposal will be conducted through a competitive public sale. GSA published a Notice of Intent to proceed with the EIS on March 18, 2010 in the *Federal Register*. At this time, we invite you to provide any comments on the proposed action or the alternatives that will be considered in an Environmental Impact Statement (EIS) that is being prepared for the action, as described below.

The EIS will be prepared pursuant to the requirements of the National Environmental Policy Act (NEPA) of 1969, and the President's Council on Environmental Quality Regulations (40 CFR 1500-1508), as implemented by GSA Order PBS P 1095.4C, GSA. DHS will act as a Joint Lead Agency in ongoing consultation with GSA for the NEPA and associated regulatory compliance activities.

The purpose of this proposed action is to examine the effects associated with the anticipated sale of Plum Island, New York and its support facility at Orient Point, New York including all real and related personal property and transportation assets (the "Property," Figure 1). The need for this proposed action is mandated in Section 540 of the Consolidated Security, Disaster Assistance, and Continuing

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The EIS will address the potential impacts to the environment of two alternatives: sale of the Property (the "Action Alternative"), and continued Federal ownership (the "No-Action Alternative"). The Action Alternative will be further refined into a series of reasonably foreseeable land use options. Because the federal government has no authority to regulate future land uses, a precise statement of the specific land use-related environmental and socioeconomic effects that could result from reuse would be largely speculative. In response to the lack of certainty concerning future reuse of the Property, the EIS will identify reasonable land use options that could result upon the sale of the Property. When the Property leaves federal ownership, proposed uses would be subject to local and state environmental and land use regulation, including the New York State Environmental Quality Review Act. In order that potential environmental effects of the project may be fully evaluated and considered, GSA is requesting that you respond in writing concerning any beneficial or adverse impacts relative to the interests of the New York State Department of Environmental Conservation.

In accordance with NEPA requirements, we are eliciting your comments and invite you to review the project. We request you reply by April 30, 2010 with your initial comments so that we may ensure that important resources are fully considered in the preparation of the draft EIS. Please reply to: Mr. Phil Youngberg, Environmental Manager, c/o Mr. John Dugan, General Services Administration (GSA), 10 Causeway Street, Room 925, Boston, MA 02222.

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If you have any questions, please do not hesitate to contact Mr. Phil Youngberg via FAX at 617-565-5720 or e-mail phil.youngberg@gsa.gov. We would also be available to arrange a meeting with you at your convenience to discuss this project. Thank you for your attention to this matter.

Sincerely,

Phil Youngberg
Environmental Manager
Public Buildings Service

Attachments:
Figure 1: Project Vicinity Map

GSA New England Region

March 30, 2010

Ms. Julie Crocker
NOAA/NMFS
Protected Resources Division
55 Great Republic Dr
Gloucester, MA 01903

Subject: **Request for Information** for the Environmental Impact Statement for the Sale of Plum Island, Orient Point, New York

Dear Ms Crocker:

The General Services Administration (GSA) is acting as agent and working with the US Department of Homeland Security (DHS) as a Joint Lead Agency to dispose of Plum Island, New York, an 840-acre island off the North Fork of Long Island, and an ancillary support facility at Orient Point, New York. The property disposal will be conducted through a competitive public sale. GSA published a Notice of Intent to proceed with the EIS on March 18, 2010 in the *Federal Register*. At this time, we invite you to provide any comments on the proposed action or the alternatives that will be considered in an Environmental Impact Statement (EIS) that is being prepared for the action, as described below.

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In accordance with NEPA requirements, we are eliciting your comments and invite you to review the project. We request you reply by April 30, 2010 with your initial comments so that we may ensure that important resources are fully considered in the preparation of the draft EIS. Please reply to: Mr. Phil Youngberg, Environmental Manager, c/o Mr. John Dugan, General Services Administration (GSA), 10 Causeway Street, Room 925, Boston, MA 02222.

Furthermore, GSA will be hosting a public scoping meeting in the Town of Southold, New York in May, 2010. Details will be published two weeks in advance of the scoping meeting and the NOAA/NMFS will be invited to attend and provide additional comments at that time. A copy of the forthcoming draft EIS will be prepared and will be sent to you in CD-ROM format for comment. The EIS will also be made available on the internet.

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Sincerely,

Phil Youngberg
Environmental Manager
Public Buildings Service

Attachments:
Figure 1: Project Vicinity Map

GSA New England Region

March 30, 2010

Natural Resources Conservation Service
Riverhead Service Center
423 Griffing Avenue
Riverhead, NY 11901

Subject: **Request for Information** for the Environmental Impact Statement for the Sale of Plum Island, Orient Point, New York

Dear Sir or Madam:

The General Services Administration (GSA) is acting as agent and working with the US Department of Homeland Security (DHS) as a Joint Lead Agency to dispose of Plum Island, New York, an 840-acre island off the North Fork of Long Island, and an ancillary support facility at Orient Point, New York. The property disposal will be conducted through a competitive public sale. GSA published a Notice of Intent to proceed with the EIS on March 18, 2010 in the *Federal Register*. At this time, we invite you to provide any comments on the proposed action or the alternatives that will be considered in an Environmental Impact Statement (EIS) that is being prepared for the action, as described below.

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The purpose of this proposed action is to examine the effects associated with the anticipated sale of Plum Island, New York and its support facility at Orient Point, New York including all real and related personal property and transportation assets (the "Property," Figure 1). The need for this proposed action is mandated in Section 540 of the Consolidated Security, Disaster Assistance, and Continuing

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The EIS will address the potential impacts to the environment of two alternatives: sale of the Property (the "Action Alternative"), and continued Federal ownership (the "No-Action Alternative"). The Action Alternative will be further refined into a series of reasonably foreseeable land use options. Because the federal government has no authority to regulate future land uses, a precise statement of the specific land use-related environmental and socioeconomic effects that could result from reuse would be largely speculative. In response to the lack of certainty concerning future reuse of the Property, the EIS will identify reasonable land use options that could result upon the sale of the Property. When the Property leaves federal ownership, proposed uses would be subject to local and state environmental and land use regulation, including the New York State Environmental Quality Review Act. In order that potential environmental effects of the project may be fully evaluated and considered, GSA is requesting that you respond in writing concerning any beneficial or adverse impacts relative to the interests of the Natural Resources Conservation Service.

In accordance with NEPA requirements, we are eliciting your comments and invite you to review the project. We request you reply by April 30, 2010 with your initial comments so that we may ensure that important resources are fully considered in the preparation of the draft EIS. Please reply to: Mr. Phil Youngberg, Environmental Manager, c/o Mr. John Dugan, General Services Administration (GSA), 10 Causeway Street, Room 925, Boston, MA 02222.

Furthermore, GSA will be hosting a public scoping meeting in the Town of Southold, New York in May, 2010. Details will be published two weeks in advance of the scoping meeting and the Natural Resources Conservation Service will be invited to attend and provide additional comments at that time. A copy of the forthcoming draft EIS will be prepared and will be sent to you in CD-ROM format for comment. The EIS will also be made available on the internet.

If you have any questions, please do not hesitate to contact Mr. Phil Youngberg via FAX at 617-565-5720 or e-mail phil.youngberg@gsa.gov. We would also be available to arrange a meeting with you at your convenience to discuss this project. Thank you for your attention to this matter.

Sincerely,

Phil Youngberg
Environmental Manager
Public Buildings Service

Attachments:
Figure 1: Project Vicinity Map

GSA New England Region

March 30, 2010

U.S. Fish and Wildlife Service
New York Field Office
3817 Luker Road
Cortland, NY 13045

Subject: **Request for Information** for the Environmental Impact Statement for the Sale of Plum Island, Orient Point, New York

Dear Sir or Madam:

The General Services Administration (GSA) is acting as agent and working with the US Department of Homeland Security (DHS) as a Joint Lead Agency to dispose of Plum Island, New York, an 840-acre island off the North Fork of Long Island, and an ancillary support facility at Orient Point, New York. The property disposal will be conducted through a competitive public sale. GSA published a Notice of Intent to proceed with the EIS on March 18, 2010 in the *Federal Register*. At this time, we invite you to provide any comments on the proposed action or the alternatives that will be considered in an Environmental Impact Statement (EIS) that is being prepared for the action, as described below.

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In accordance with NEPA requirements, we are eliciting your comments and invite you to review the project. We request you reply by April 30, 2010 with your initial comments so that we may ensure that important resources are fully considered in the preparation of the draft EIS. Please reply to: Mr. Phil Youngberg, Environmental Manager, c/o Mr. John Dugan, General Services Administration (GSA), 10 Causeway Street, Room 925, Boston, MA 02222.

Furthermore, GSA will be hosting a public scoping meeting in the Town of Southold, New York in May, 2010. Details will be published two weeks in advance of the scoping meeting and the U.S. Fish and Wildlife Service will be invited to attend and provide additional comments at that time. A copy of the forthcoming draft EIS will be prepared and will be sent to you in CD-ROM format for comment. The EIS will also be made available on the internet.

If you have any questions, please do not hesitate to contact Mr. Phil Youngberg via FAX at 617-565-5720 or e-mail phil.youngberg@gsa.gov. We would also be available to arrange a meeting with you at your convenience to discuss this project. Thank you for your attention to this matter.

Sincerely,

Phil Youngberg
Environmental Manager
Public Buildings Service

Attachments:
Figure 1: Project Vicinity Map

GSA New England Region

March 30, 2010

Cayuga Nation
Mr. Daniel Hill
PO Box 116
Akron, NY 14001

Subject: **Request for Information** for the Environmental Impact Statement for the Sale of Plum Island, Orient Point, New York

Dear Mr. Hill:

The General Services Administration (GSA) is acting as agent and working with the US Department of Homeland Security (DHS) as a Joint Lead Agency to dispose of Plum Island, New York, an 840-acre island off the North Fork of Long Island, and an ancillary support facility at Orient Point, New York. The property disposal will be conducted through a competitive public sale. GSA published a Notice of Intent to proceed with the EIS on March 18, 2010 in the *Federal Register*. At this time, we invite you to provide any comments on the proposed action or the alternatives that will be considered in an Environmental Impact Statement (EIS) that is being prepared for the action, as described below.

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In accordance with NEPA requirements, we are eliciting your comments and invite you to review the project. We request you reply by April 30, 2010 with your initial comments so that we may ensure that important resources are fully considered in the preparation of the draft EIS. Please reply to: Mr. Phil Youngberg, Environmental Manager, c/o Mr. John Dugan, General Services Administration (GSA), 10 Causeway Street, Room 925, Boston, MA 02222.

Furthermore, GSA will be hosting a public scoping meeting in the Town of Southold, New York in May, 2010. Details will be published two weeks in advance of the scoping meeting and the Cayuga Nation will be invited to attend and provide additional comments at that time. A copy of the forthcoming draft EIS will be prepared and will be sent to you in CD-ROM format for comment. The EIS will also be made available on the internet.

If you have any questions, please do not hesitate to contact Mr. Phil Youngberg via FAX at 617-565-5720 or e-mail phil.youngberg@gsa.gov. We would also be available to arrange a meeting with you at your convenience to discuss this project. Thank you for your attention to this matter.

Sincerely,

Phil Youngberg
Environmental Manager
Public Buildings Service

Attachments:
Figure 1: Project Vicinity Map

GSA New England Region

March 30, 2010

Ms. Tamara Francis, NAGPRA Director
Delaware Nation of Oklahoma
PO Box 825
Anadarko, OK 73005

Subject: **Request for Information** for the Environmental Impact Statement for the Sale of Plum Island, Orient Point, New York

Dear Ms. Francis:

The General Services Administration (GSA) is acting as agent and working with the US Department of Homeland Security (DHS) as a Joint Lead Agency to dispose of Plum Island, New York, an 840-acre island off the North Fork of Long Island, and an ancillary support facility at Orient Point, New York. The property disposal will be conducted through a competitive public sale. GSA published a Notice of Intent to proceed with the EIS on March 18, 2010 in the *Federal Register*. At this time, we invite you to provide any comments on the proposed action or the alternatives that will be considered in an Environmental Impact Statement (EIS) that is being prepared for the action, as described below.

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In accordance with NEPA requirements, we are eliciting your comments and invite you to review the project. We request you reply by April 30, 2010 with your initial comments so that we may ensure that important resources are fully considered in the preparation of the draft EIS. Please reply to: Mr. Phil Youngberg, Environmental Manager, c/o Mr. John Dugan, General Services Administration (GSA), 10 Causeway Street, Room 925, Boston, MA 02222.

Furthermore, GSA will be hosting a public scoping meeting in the Town of Southold, New York in May, 2010. Details will be published two weeks in advance of the scoping meeting and the Delaware Nation of Oklahoma will be invited to attend and provide additional comments at that time. A copy of the forthcoming draft EIS will be prepared and will be sent to you in CD-ROM format for comment. The EIS will also be made available on the internet.

If you have any questions, please do not hesitate to contact Mr. Phil Youngberg via FAX at 617-565-5720 or e-mail phil.youngberg@gsa.gov. We would also be available to arrange a meeting with you at your convenience to discuss this project. Thank you for your attention to this matter.

Sincerely,

Phil Youngberg
Environmental Manager
Public Buildings Service

Attachments:
Figure 1: Project Vicinity Map

GSA New England Region

March 30, 2010

Mohawk Nation Council of Chiefs
Via Box 336
Rooseveltown, NY 13683

Subject: **Request for Information** for the Environmental Impact Statement for the Sale of Plum Island, Orient Point, New York

Dear Sir or Madam:

The General Services Administration (GSA) is acting as agent and working with the US Department of Homeland Security (DHS) as a Joint Lead Agency to dispose of Plum Island, New York, an 840-acre island off the North Fork of Long Island, and an ancillary support facility at Orient Point, New York. The property disposal will be conducted through a competitive public sale. GSA published a Notice of Intent to proceed with the EIS on March 18, 2010 in the *Federal Register*. At this time, we invite you to provide any comments on the proposed action or the alternatives that will be considered in an Environmental Impact Statement (EIS) that is being prepared for the action, as described below.

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directs the Secretary of the DHS to liquidate the Plum Island asset by directing the Administrator of the GSA to sell through public sale all real and related personal property and transportation assets which support Plum Island operations, subject to such terms and conditions as necessary to protect government interests and meet program requirements. The Act mandates the sale as a result of the determination by DHS to construct and operate a new National Bio and Agro-Defense Facility (NBAF) in Manhattan, Kansas and move its operations from the PIADC to the NBAF (Record of Decision dated 1/16/2009).

The EIS will address the potential impacts to the environment of two alternatives: sale of the Property (the "Action Alternative"), and continued Federal ownership (the "No-Action Alternative"). The Action Alternative will be further refined into a series of reasonably foreseeable land use options. Because the federal government has no authority to regulate future land uses, a precise statement of the specific land use-related environmental and socioeconomic effects that could result from reuse would be largely speculative. In response to the lack of certainty concerning future reuse of the Property, the EIS will identify reasonable land use options that could result upon the sale of the Property. When the Property leaves federal ownership, proposed uses would be subject to local and state environmental and land use regulation, including the New York State Environmental Quality Review Act. In order that potential environmental effects of the project may be fully evaluated and considered, GSA is requesting that you respond in writing concerning any beneficial or adverse impacts relative to the interests of the Mohawk Nation Council of Chiefs.

In accordance with NEPA requirements, we are eliciting your comments and invite you to review the project. We request you reply by April 30, 2010 with your initial comments so that we may ensure that important resources are fully considered in the preparation of the draft EIS. Please reply to: Mr. Phil Youngberg, Environmental Manager, c/o Mr. John Dugan, General Services Administration (GSA), 10 Causeway Street, Room 925, Boston, MA 02222.

Furthermore, GSA will be hosting a public scoping meeting in the Town of Southold, New York in May, 2010. Details will be published two weeks in advance of the scoping meeting and the Mohawk Nation Council of Chiefs will be invited to attend and provide additional comments at that time. A copy of the forthcoming draft EIS will be prepared and will be sent to you in CD-ROM format for comment. The EIS will also be made available on the internet.

If you have any questions, please do not hesitate to contact Mr. Phil Youngberg via FAX at 617-565-5720 or e-mail phil.youngberg@gsa.gov. We would also be available to arrange a meeting with you at your convenience to discuss this project. Thank you for your attention to this matter.

Sincerely,

Phil Youngberg
Environmental Manager
Public Buildings Service

Attachments:
Figure 1: Project Vicinity Map

GSA New England Region

March 30, 2010

Oneida Indian Nation
Mr. Jesse Bergevin, Historian
1256 Union Street
PO Box 662
Oneida, NY 13421-0662

Subject: **Request for Information** for the Environmental Impact Statement for the Sale of Plum Island, Orient Point, New York

Dear Mr. Bergevin:

The General Services Administration (GSA) is acting as agent and working with the US Department of Homeland Security (DHS) as a Joint Lead Agency to dispose of Plum Island, New York, an 840-acre island off the North Fork of Long Island, and an ancillary support facility at Orient Point, New York. The property disposal will be conducted through a competitive public sale. GSA published a Notice of Intent to proceed with the EIS on March 18, 2010 in the *Federal Register*. At this time, we invite you to provide any comments on the proposed action or the alternatives that will be considered in an Environmental Impact Statement (EIS) that is being prepared for the action, as described below.

The EIS will be prepared pursuant to the requirements of the National Environmental Policy Act (NEPA) of 1969, and the President's Council on Environmental Quality Regulations (40 CFR 1500-1508), as implemented by GSA Order PBS P 1095.4C, GSA. DHS will act as a Joint Lead Agency in ongoing consultation with GSA for the NEPA and associated regulatory compliance activities.

The purpose of this proposed action is to examine the effects associated with the anticipated sale of Plum Island, New York and its support facility at Orient Point, New York including all real and related personal property and transportation assets (the "Property," Figure 1). The need for this proposed action is mandated in Section 540 of the Consolidated Security, Disaster Assistance, and Continuing

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Appropriations Act of 2009; United States Public Law 110-329 (the "Act"), which directs the Secretary of the DHS to liquidate the Plum Island asset by directing the Administrator of the GSA to sell through public sale all real and related personal property and transportation assets which support Plum Island operations, subject to such terms and conditions as necessary to protect government interests and meet program requirements. The Act mandates the sale as a result of the determination by DHS to construct and operate a new National Bio and Agro-Defense Facility (NBAF) in Manhattan, Kansas and move its operations from the PIADC to the NBAF (Record of Decision dated 1/16/2009).

The EIS will address the potential impacts to the environment of two alternatives: sale of the Property (the "Action Alternative"), and continued Federal ownership (the "No-Action Alternative"). The Action Alternative will be further refined into a series of reasonably foreseeable land use options. Because the federal government has no authority to regulate future land uses, a precise statement of the specific land use-related environmental and socioeconomic effects that could result from reuse would be largely speculative. In response to the lack of certainty concerning future reuse of the Property, the EIS will identify reasonable land use options that could result upon the sale of the Property. When the Property leaves federal ownership, proposed uses would be subject to local and state environmental and land use regulation, including the New York State Environmental Quality Review Act. In order that potential environmental effects of the project may be fully evaluated and considered, GSA is requesting that you respond in writing concerning any beneficial or adverse impacts relative to the interests of the Oneida Indian Nation.

In accordance with NEPA requirements, we are eliciting your comments and invite you to review the project. We request you reply by April 30, 2010 with your initial comments so that we may ensure that important resources are fully considered in the preparation of the draft EIS. Please reply to: Mr. Phil Youngberg, Environmental Manager, c/o Mr. John Dugan, General Services Administration (GSA), 10 Causeway Street, Room 925, Boston, MA 02222.

Furthermore, GSA will be hosting a public scoping meeting in the Town of Southold, New York in May, 2010. Details will be published two weeks in advance of the scoping meeting and the Oneida Indian Nation will be invited to attend and provide additional comments at that time. A copy of the forthcoming draft EIS will be prepared and will be sent to you in CD-ROM format for comment. The EIS will also be made available on the internet.

If you have any questions, please do not hesitate to contact Mr. Phil Youngberg via FAX at 617-565-5720 or e-mail phil.youngberg@gsa.gov. We would also be available to arrange a meeting with you at your convenience to discuss this project. Thank you for your attention to this matter.

Sincerely,

Phil Youngberg
Environmental Manager
Public Buildings Service

Attachments:
Figure 1: Project Vicinity Map

GSA New England Region

March 30, 2010

Onondanga Nation
Mr. Anthony Gonyea
RR #1, Route 11A
Box 319B
via: Nedrow, NY 13120

Subject: **Request for Information** for the Environmental Impact Statement for the Sale of Plum Island, Orient Point, New York

Dear Mr. Gonyea:

The General Services Administration (GSA) is acting as agent and working with the US Department of Homeland Security (DHS) as a Joint Lead Agency to dispose of Plum Island, New York, an 840-acre island off the North Fork of Long Island, and an ancillary support facility at Orient Point, New York. The property disposal will be conducted through a competitive public sale. GSA published a Notice of Intent to proceed with the EIS on March 18, 2010 in the *Federal Register*. At this time, we invite you to provide any comments on the proposed action or the alternatives that will be considered in an Environmental Impact Statement (EIS) that is being prepared for the action, as described below.

The EIS will be prepared pursuant to the requirements of the National Environmental Policy Act (NEPA) of 1969, and the President's Council on Environmental Quality Regulations (40 CFR 1500-1508), as implemented by GSA Order PBS P 1095.4C, GSA. DHS will act as a Joint Lead Agency in ongoing consultation with GSA for the NEPA and associated regulatory compliance activities.

The purpose of this proposed action is to examine the effects associated with the anticipated sale of Plum Island, New York and its support facility at Orient Point, New York including all real and related personal property and transportation assets (the "Property," Figure 1). The need for this proposed action is mandated in Section 540 of the Consolidated Security, Disaster Assistance, and Continuing

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Appropriations Act of 2009; United States Public Law 110-329 (the "Act"), which directs the Secretary of the DHS to liquidate the Plum Island asset by directing the Administrator of the GSA to sell through public sale all real and related personal property and transportation assets which support Plum Island operations, subject to such terms and conditions as necessary to protect government interests and meet program requirements. The Act mandates the sale as a result of the determination by DHS to construct and operate a new National Bio and Agro-Defense Facility (NBAF) in Manhattan, Kansas and move its operations from the PIADC to the NBAF (Record of Decision dated 1/16/2009).

The EIS will address the potential impacts to the environment of two alternatives: sale of the Property (the "Action Alternative"), and continued Federal ownership (the "No-Action Alternative"). The Action Alternative will be further refined into a series of reasonably foreseeable land use options. Because the federal government has no authority to regulate future land uses, a precise statement of the specific land use-related environmental and socioeconomic effects that could result from reuse would be largely speculative. In response to the lack of certainty concerning future reuse of the Property, the EIS will identify reasonable land use options that could result upon the sale of the Property. When the Property leaves federal ownership, proposed uses would be subject to local and state environmental and land use regulation, including the New York State Environmental Quality Review Act. In order that potential environmental effects of the project may be fully evaluated and considered, GSA is requesting that you respond in writing concerning any beneficial or adverse impacts relative to the interests of the Onondanga Nation.

In accordance with NEPA requirements, we are eliciting your comments and invite you to review the project. We request you reply by April 30, 2010 with your initial comments so that we may ensure that important resources are fully considered in the preparation of the draft EIS. Please reply to: Mr. Phil Youngberg, Environmental Manager, c/o Mr. John Dugan, General Services Administration (GSA), 10 Causeway Street, Room 925, Boston, MA 02222.

Furthermore, GSA will be hosting a public scoping meeting in the Town of Southold, New York in May, 2010. Details will be published two weeks in advance of the scoping meeting and the Onondanga Nation will be invited to attend and provide additional comments at that time. A copy of the forthcoming draft EIS will be prepared and will be sent to you in CD-ROM format for comment. The EIS will also be made available on the internet.

If you have any questions, please do not hesitate to contact Mr. Phil Youngberg via FAX at 617-565-5720 or e-mail phil.youngberg@gsa.gov. We would also be available to arrange a meeting with you at your convenience to discuss this project. Thank you for your attention to this matter.

Sincerely,

Phil Youngberg
Environmental Manager
Public Buildings Service

Attachments:
Figure 1: Project Vicinity Map

GSA New England Region

March 30, 2010

Seneca-Cayuga Tribe of Oklahoma
Chief LeRoy Howard
R2301 E. Steve Owens Boulevard
Miami, OK 74355

Subject: **Request for Information** for the Environmental Impact Statement for the Sale of Plum Island, Orient Point, New York

Dear Chief Howard:

The General Services Administration (GSA) is acting as agent and working with the US Department of Homeland Security (DHS) as a Joint Lead Agency to dispose of Plum Island, New York, an 840-acre island off the North Fork of Long Island, and an ancillary support facility at Orient Point, New York. The property disposal will be conducted through a competitive public sale. GSA published a Notice of Intent to proceed with the EIS on March 18, 2010 in the *Federal Register*. At this time, we invite you to provide any comments on the proposed action or the alternatives that will be considered in an Environmental Impact Statement (EIS) that is being prepared for the action, as described below.

The EIS will be prepared pursuant to the requirements of the National Environmental Policy Act (NEPA) of 1969, and the President's Council on Environmental Quality Regulations (40 CFR 1500-1508), as implemented by GSA Order PBS P 1095.4C, GSA. DHS will act as a Joint Lead Agency in ongoing consultation with GSA for the NEPA and associated regulatory compliance activities.

The purpose of this proposed action is to examine the effects associated with the anticipated sale of Plum Island, New York and its support facility at Orient Point, New York including all real and related personal property and transportation assets (the "Property," Figure 1). The need for this proposed action is mandated in Section 540 of the Consolidated Security, Disaster Assistance, and Continuing

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Appropriations Act of 2009; United States Public Law 110-329 (the "Act"), which directs the Secretary of the DHS to liquidate the Plum Island asset by directing the Administrator of the GSA to sell through public sale all real and related personal property and transportation assets which support Plum Island operations, subject to such terms and conditions as necessary to protect government interests and meet program requirements. The Act mandates the sale as a result of the determination by DHS to construct and operate a new National Bio and Agro-Defense Facility (NBAF) in Manhattan, Kansas and move its operations from the PIADC to the NBAF (Record of Decision dated 1/16/2009).

The EIS will address the potential impacts to the environment of two alternatives: sale of the Property (the "Action Alternative"), and continued Federal ownership (the "No-Action Alternative"). The Action Alternative will be further refined into a series of reasonably foreseeable land use options. Because the federal government has no authority to regulate future land uses, a precise statement of the specific land use-related environmental and socioeconomic effects that could result from reuse would be largely speculative. In response to the lack of certainty concerning future reuse of the Property, the EIS will identify reasonable land use options that could result upon the sale of the Property. When the Property leaves federal ownership, proposed uses would be subject to local and state environmental and land use regulation, including the New York State Environmental Quality Review Act. In order that potential environmental effects of the project may be fully evaluated and considered, GSA is requesting that you respond in writing concerning any beneficial or adverse impacts relative to the interests of the Seneca-Cayuga Tribe of Oklahoma.

In accordance with NEPA requirements, we are eliciting your comments and invite you to review the project. We request you reply by April 30, 2010 with your initial comments so that we may ensure that important resources are fully considered in the preparation of the draft EIS. Please reply to: Mr. Phil Youngberg, Environmental Manager, c/o Mr. John Dugan, General Services Administration (GSA), 10 Causeway Street, Room 925, Boston, MA 02222.

Furthermore, GSA will be hosting a public scoping meeting in the Town of Southold, New York in May, 2010. Details will be published two weeks in advance of the scoping meeting and the Seneca-Cayuga Tribe of Oklahoma will be invited to attend and provide additional comments at that time. A copy of the forthcoming draft EIS will be prepared and will be sent to you in CD-ROM format for comment. The EIS will also be made available on the internet.

If you have any questions, please do not hesitate to contact Mr. Phil Youngberg via FAX at 617-565-5720 or e-mail phil.youngberg@gsa.gov. We would also be available to arrange a meeting with you at your convenience to discuss this project. Thank you for your attention to this matter.

Sincerely,

Phil Youngberg
Environmental Manager
Public Buildings Service

Attachments:
Figure 1: Project Vicinity Map

GSA New England Region

March 30, 2010

Seneca Nation of Indians
Kathleen Mitchell, THPO
467 Center Street
Salamanca, NY 14779

Subject: **Request for Information** for the Environmental Impact Statement for the Sale of Plum Island, Orient Point, New York

Dear Ms. Mitchell:

The General Services Administration (GSA) is acting as agent and working with the US Department of Homeland Security (DHS) as a Joint Lead Agency to dispose of Plum Island, New York, an 840-acre island off the North Fork of Long Island, and an ancillary support facility at Orient Point, New York. The property disposal will be conducted through a competitive public sale. GSA published a Notice of Intent to proceed with the EIS on March 18, 2010 in the *Federal Register*. At this time, we invite you to provide any comments on the proposed action or the alternatives that will be considered in an Environmental Impact Statement (EIS) that is being prepared for the action, as described below.

The EIS will be prepared pursuant to the requirements of the National Environmental Policy Act (NEPA) of 1969, and the President's Council on Environmental Quality Regulations (40 CFR 1500-1508), as implemented by GSA Order PBS P 1095.4C, GSA. DHS will act as a Joint Lead Agency in ongoing consultation with GSA for the NEPA and associated regulatory compliance activities.

The purpose of this proposed action is to examine the effects associated with the anticipated sale of Plum Island, New York and its support facility at Orient Point, New York including all real and related personal property and transportation assets (the "Property," Figure 1). The need for this proposed action is mandated in Section 540 of the Consolidated Security, Disaster Assistance, and Continuing

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Appropriations Act of 2009; United States Public Law 110-329 (the "Act"), which directs the Secretary of the DHS to liquidate the Plum Island asset by directing the Administrator of the GSA to sell through public sale all real and related personal property and transportation assets which support Plum Island operations, subject to such terms and conditions as necessary to protect government interests and meet program requirements. The Act mandates the sale as a result of the determination by DHS to construct and operate a new National Bio and Agro-Defense Facility (NBAF) in Manhattan, Kansas and move its operations from the PIADC to the NBAF (Record of Decision dated 1/16/2009).

The EIS will address the potential impacts to the environment of two alternatives: sale of the Property (the "Action Alternative"), and continued Federal ownership (the "No-Action Alternative"). The Action Alternative will be further refined into a series of reasonably foreseeable land use options. Because the federal government has no authority to regulate future land uses, a precise statement of the specific land use-related environmental and socioeconomic effects that could result from reuse would be largely speculative. In response to the lack of certainty concerning future reuse of the Property, the EIS will identify reasonable land use options that could result upon the sale of the Property. When the Property leaves federal ownership, proposed uses would be subject to local and state environmental and land use regulation, including the New York State Environmental Quality Review Act. In order that potential environmental effects of the project may be fully evaluated and considered, GSA is requesting that you respond in writing concerning any beneficial or adverse impacts relative to the interests of the Seneca Nation of Indians.

In accordance with NEPA requirements, we are eliciting your comments and invite you to review the project. We request you reply by April 30, 2010 with your initial comments so that we may ensure that important resources are fully considered in the preparation of the draft EIS. Please reply to: Mr. Phil Youngberg, Environmental Manager, c/o Mr. John Dugan, General Services Administration (GSA), 10 Causeway Street, Room 925, Boston, MA 02222.

Furthermore, GSA will be hosting a public scoping meeting in the Town of Southold, New York in May, 2010. Details will be published two weeks in advance of the scoping meeting and the Seneca Nation of Indians will be invited to attend and provide additional comments at that time. A copy of the forthcoming draft EIS will be prepared and will be sent to you in CD-ROM format for comment. The EIS will also be made available on the internet.

If you have any questions, please do not hesitate to contact Mr. Phil Youngberg via FAX at 617-565-5720 or e-mail phil.youngberg@gsa.gov. We would also be available to arrange a meeting with you at your convenience to discuss this project. Thank you for your attention to this matter.

Sincerely,

Phil Youngberg
Environmental Manager
Public Buildings Service

Attachments:
Figure 1: Project Vicinity Map

GSA New England Region

March 30, 2010

Shinnecock Indian Nation Tribal Office
Randy King, Chairperson
PO Box 5006
Southampton, NY 11969

Subject: **Request for Information** for the Environmental Impact Statement for the Sale of Plum Island, Orient Point, New York

Dear Mr. King:

The General Services Administration (GSA) is acting as agent and working with the US Department of Homeland Security (DHS) as a Joint Lead Agency to dispose of Plum Island, New York, an 840-acre island off the North Fork of Long Island, and an ancillary support facility at Orient Point, New York. The property disposal will be conducted through a competitive public sale. GSA published a Notice of Intent to proceed with the EIS on March 18, 2010 in the *Federal Register*. At this time, we invite you to provide any comments on the proposed action or the alternatives that will be considered in an Environmental Impact Statement (EIS) that is being prepared for the action, as described below.

The EIS will be prepared pursuant to the requirements of the National Environmental Policy Act (NEPA) of 1969, and the President's Council on Environmental Quality Regulations (40 CFR 1500-1508), as implemented by GSA Order PBS P 1095.4C, GSA. DHS will act as a Joint Lead Agency in ongoing consultation with GSA for the NEPA and associated regulatory compliance activities.

The purpose of this proposed action is to examine the effects associated with the anticipated sale of Plum Island, New York and its support facility at Orient Point, New York including all real and related personal property and transportation assets (the "Property," Figure 1). The need for this proposed action is mandated in Section 540 of the Consolidated Security, Disaster Assistance, and Continuing

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Appropriations Act of 2009; United States Public Law 110-329 (the "Act"), which directs the Secretary of the DHS to liquidate the Plum Island asset by directing the Administrator of the GSA to sell through public sale all real and related personal property and transportation assets which support Plum Island operations, subject to such terms and conditions as necessary to protect government interests and meet program requirements. The Act mandates the sale as a result of the determination by DHS to construct and operate a new National Bio and Agro-Defense Facility (NBAF) in Manhattan, Kansas and move its operations from the PIADC to the NBAF (Record of Decision dated 1/16/2009).

The EIS will address the potential impacts to the environment of two alternatives: sale of the Property (the "Action Alternative"), and continued Federal ownership (the "No-Action Alternative"). The Action Alternative will be further refined into a series of reasonably foreseeable land use options. Because the federal government has no authority to regulate future land uses, a precise statement of the specific land use-related environmental and socioeconomic effects that could result from reuse would be largely speculative. In response to the lack of certainty concerning future reuse of the Property, the EIS will identify reasonable land use options that could result upon the sale of the Property. When the Property leaves federal ownership, proposed uses would be subject to local and state environmental and land use regulation, including the New York State Environmental Quality Review Act. In order that potential environmental effects of the project may be fully evaluated and considered, GSA is requesting that you respond in writing concerning any beneficial or adverse impacts relative to the interests of the Shinnecock Indian Nation Tribal Office.

In accordance with NEPA requirements, we are eliciting your comments and invite you to review the project. We request you reply by April 30, 2010 with your initial comments so that we may ensure that important resources are fully considered in the preparation of the draft EIS. Please reply to: Mr. Phil Youngberg, Environmental Manager, c/o Mr. John Dugan, General Services Administration (GSA), 10 Causeway Street, Room 925, Boston, MA 02222.

Furthermore, GSA will be hosting a public scoping meeting in the Town of Southold, New York in May, 2010. Details will be published two weeks in advance of the scoping meeting and the Shinnecock Indian Nation Tribal Office will be invited to attend and provide additional comments at that time. A copy of the forthcoming draft EIS will be prepared and will be sent to you in CD-ROM format for comment. The EIS will also be made available on the internet.

If you have any questions, please do not hesitate to contact Mr. Phil Youngberg via FAX at 617-565-5720 or e-mail phil.youngberg@gsa.gov. We would also be available to arrange a meeting with you at your convenience to discuss this project. Thank you for your attention to this matter.

Sincerely,

Phil Youngberg
Environmental Manager
Public Buildings Service

Attachments:
Figure 1: Project Vicinity Map

GSA New England Region

March 30, 2010

St. Regis Mohawk Tribe
Arnold Printup, Jr., THPO
412 State Route 37
Akwesasne, NY 13655

Subject: **Request for Information** for the Environmental Impact Statement for the Sale of Plum Island, Orient Point, New York

Dear Mr. Printup:

The General Services Administration (GSA) is acting as agent and working with the US Department of Homeland Security (DHS) as a Joint Lead Agency to dispose of Plum Island, New York, an 840-acre island off the North Fork of Long Island, and an ancillary support facility at Orient Point, New York. The property disposal will be conducted through a competitive public sale. GSA published a Notice of Intent to proceed with the EIS on March 18, 2010 in the *Federal Register*. At this time, we invite you to provide any comments on the proposed action or the alternatives that will be considered in an Environmental Impact Statement (EIS) that is being prepared for the action, as described below.

The EIS will be prepared pursuant to the requirements of the National Environmental Policy Act (NEPA) of 1969, and the President's Council on Environmental Quality Regulations (40 CFR 1500-1508), as implemented by GSA Order PBS P 1095.4C, GSA. DHS will act as a Joint Lead Agency in ongoing consultation with GSA for the NEPA and associated regulatory compliance activities.

The purpose of this proposed action is to examine the effects associated with the anticipated sale of Plum Island, New York and its support facility at Orient Point, New York including all real and related personal property and transportation assets (the "Property," Figure 1). The need for this proposed action is mandated in Section 540 of the Consolidated Security, Disaster Assistance, and Continuing

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The EIS will address the potential impacts to the environment of two alternatives: sale of the Property (the "Action Alternative"), and continued Federal ownership (the "No-Action Alternative"). The Action Alternative will be further refined into a series of reasonably foreseeable land use options. Because the federal government has no authority to regulate future land uses, a precise statement of the specific land use-related environmental and socioeconomic effects that could result from reuse would be largely speculative. In response to the lack of certainty concerning future reuse of the Property, the EIS will identify reasonable land use options that could result upon the sale of the Property. When the Property leaves federal ownership, proposed uses would be subject to local and state environmental and land use regulation, including the New York State Environmental Quality Review Act. In order that potential environmental effects of the project may be fully evaluated and considered, GSA is requesting that you respond in writing concerning any beneficial or adverse impacts relative to the interests of the St. Regis Mohawk Tribe.

In accordance with NEPA requirements, we are eliciting your comments and invite you to review the project. We request you reply by April 30, 2010 with your initial comments so that we may ensure that important resources are fully considered in the preparation of the draft EIS. Please reply to: Mr. Phil Youngberg, Environmental Manager, c/o Mr. John Dugan, General Services Administration (GSA), 10 Causeway Street, Room 925, Boston, MA 02222.

Furthermore, GSA will be hosting a public scoping meeting in the Town of Southold, New York in May, 2010. Details will be published two weeks in advance of the scoping meeting and the St. Regis Mohawk Tribe will be invited to attend and provide additional comments at that time. A copy of the forthcoming draft EIS will be prepared and will be sent to you in CD-ROM format for comment. The EIS will also be made available on the internet.

If you have any questions, please do not hesitate to contact Mr. Phil Youngberg via FAX at 617-565-5720 or e-mail phil.youngberg@gsa.gov. We would also be available to arrange a meeting with you at your convenience to discuss this project. Thank you for your attention to this matter.

Sincerely,

Phil Youngberg
Environmental Manager
Public Buildings Service

Attachments:
Figure 1: Project Vicinity Map

GSA New England Region

March 30, 2010

Stockbridge-Munsee Community Band of Mohican Indians
Sherry White, THPO
PO Box 70
N8754 MoNeConNuck Road
Bowler, WI 54416

Subject: **Request for Information** for the Environmental Impact Statement for the Sale of Plum Island, Orient Point, New York

Dear Ms. White:

The General Services Administration (GSA) is acting as agent and working with the US Department of Homeland Security (DHS) as a Joint Lead Agency to dispose of Plum Island, New York, an 840-acre island off the North Fork of Long Island, and an ancillary support facility at Orient Point, New York. The property disposal will be conducted through a competitive public sale. GSA published a Notice of Intent to proceed with the EIS on March 18, 2010 in the *Federal Register*. At this time, we invite you to provide any comments on the proposed action or the alternatives that will be considered in an Environmental Impact Statement (EIS) that is being prepared for the action, as described below.

The EIS will be prepared pursuant to the requirements of the National Environmental Policy Act (NEPA) of 1969, and the President's Council on Environmental Quality Regulations (40 CFR 1500-1508), as implemented by GSA Order PBS P 1095.4C, GSA. DHS will act as a Joint Lead Agency in ongoing consultation with GSA for the NEPA and associated regulatory compliance activities.

The purpose of this proposed action is to examine the effects associated with the anticipated sale of Plum Island, New York and its support facility at Orient Point, New York including all real and related personal property and transportation assets (the "Property," Figure 1). The need for this proposed action is mandated in Section 540 of the Consolidated Security, Disaster Assistance, and Continuing

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Appropriations Act of 2009; United States Public Law 110-329 (the "Act"), which directs the Secretary of the DHS to liquidate the Plum Island asset by directing the Administrator of the GSA to sell through public sale all real and related personal property and transportation assets which support Plum Island operations, subject to such terms and conditions as necessary to protect government interests and meet program requirements. The Act mandates the sale as a result of the determination by DHS to construct and operate a new National Bio and Agro-Defense Facility (NBAF) in Manhattan, Kansas and move its operations from the PIADC to the NBAF (Record of Decision dated 1/16/2009).

The EIS will address the potential impacts to the environment of two alternatives: sale of the Property (the "Action Alternative"), and continued Federal ownership (the "No-Action Alternative"). The Action Alternative will be further refined into a series of reasonably foreseeable land use options. Because the federal government has no authority to regulate future land uses, a precise statement of the specific land use-related environmental and socioeconomic effects that could result from reuse would be largely speculative. In response to the lack of certainty concerning future reuse of the Property, the EIS will identify reasonable land use options that could result upon the sale of the Property. When the Property leaves federal ownership, proposed uses would be subject to local and state environmental and land use regulation, including the New York State Environmental Quality Review Act. In order that potential environmental effects of the project may be fully evaluated and considered, GSA is requesting that you respond in writing concerning any beneficial or adverse impacts relative to the interests of the Stockbridge-Munsee Community Band of Mohican Indians.

In accordance with NEPA requirements, we are eliciting your comments and invite you to review the project. We request you reply by April 30, 2010 with your initial comments so that we may ensure that important resources are fully considered in the preparation of the draft EIS. Please reply to: Mr. Phil Youngberg, Environmental Manager, c/o Mr. John Dugan, General Services Administration (GSA), 10 Causeway Street, Room 925, Boston, MA 02222.

Furthermore, GSA will be hosting a public scoping meeting in the Town of Southold, New York in May, 2010. Details will be published two weeks in advance of the scoping meeting and the Stockbridge-Munsee Community Band of Mohican Indians will be invited to attend and provide additional comments at that time. A copy of the forthcoming draft EIS will be prepared and will be sent to you in CD-ROM format for comment. The EIS will also be made available on the internet.

If you have any questions, please do not hesitate to contact Mr. Phil Youngberg via FAX at 617-565-5720 or e-mail phil.youngberg@gsa.gov. We would also be available to arrange a meeting with you at your convenience to discuss this project. Thank you for your attention to this matter.

Sincerely,

Phil Youngberg
Environmental Manager
Public Buildings Service

Attachments:
Figure 1: Project Vicinity Map

GSA New England Region

March 30, 2010

Tonawanda Band of Seneca Indians
Chief Roger Hill
7027 Meadville Road
Basom, NY 14013

Subject: **Request for Information** for the Environmental Impact Statement for the Sale of Plum Island, Orient Point, New York

Dear Chief Hill:

The General Services Administration (GSA) is acting as agent and working with the US Department of Homeland Security (DHS) as a Joint Lead Agency to dispose of Plum Island, New York, an 840-acre island off the North Fork of Long Island, and an ancillary support facility at Orient Point, New York. The property disposal will be conducted through a competitive public sale. GSA published a Notice of Intent to proceed with the EIS on March 18, 2010 in the *Federal Register*. At this time, we invite you to provide any comments on the proposed action or the alternatives that will be considered in an Environmental Impact Statement (EIS) that is being prepared for the action, as described below.

The EIS will be prepared pursuant to the requirements of the National Environmental Policy Act (NEPA) of 1969, and the President's Council on Environmental Quality Regulations (40 CFR 1500-1508), as implemented by GSA Order PBS P 1095.4C, GSA. DHS will act as a Joint Lead Agency in ongoing consultation with GSA for the NEPA and associated regulatory compliance activities.

The purpose of this proposed action is to examine the effects associated with the anticipated sale of Plum Island, New York and its support facility at Orient Point, New York including all real and related personal property and transportation assets (the "Property," Figure 1). The need for this proposed action is mandated in Section 540 of the Consolidated Security, Disaster Assistance, and Continuing

U. S. General Services Administration
Thomas P. O'Neill, Jr. Federal Building
10 Causeway Street, Room 925
Boston, MA 02222
www.gsa.gov

Appropriations Act of 2009; United States Public Law 110-329 (the "Act"), which directs the Secretary of the DHS to liquidate the Plum Island asset by directing the Administrator of the GSA to sell through public sale all real and related personal property and transportation assets which support Plum Island operations, subject to such terms and conditions as necessary to protect government interests and meet program requirements. The Act mandates the sale as a result of the determination by DHS to construct and operate a new National Bio and Agro-Defense Facility (NBAF) in Manhattan, Kansas and move its operations from the PIADC to the NBAF (Record of Decision dated 1/16/2009).

The EIS will address the potential impacts to the environment of two alternatives: sale of the Property (the "Action Alternative"), and continued Federal ownership (the "No-Action Alternative"). The Action Alternative will be further refined into a series of reasonably foreseeable land use options. Because the federal government has no authority to regulate future land uses, a precise statement of the specific land use-related environmental and socioeconomic effects that could result from reuse would be largely speculative. In response to the lack of certainty concerning future reuse of the Property, the EIS will identify reasonable land use options that could result upon the sale of the Property. When the Property leaves federal ownership, proposed uses would be subject to local and state environmental and land use regulation, including the New York State Environmental Quality Review Act. In order that potential environmental effects of the project may be fully evaluated and considered, GSA is requesting that you respond in writing concerning any beneficial or adverse impacts relative to the interests of the Tonawanda Band of Seneca Indians.

In accordance with NEPA requirements, we are eliciting your comments and invite you to review the project. We request you reply by April 30, 2010 with your initial comments so that we may ensure that important resources are fully considered in the preparation of the draft EIS. Please reply to: Mr. Phil Youngberg, Environmental Manager, c/o Mr. John Dugan, General Services Administration (GSA), 10 Causeway Street, Room 925, Boston, MA 02222.

Furthermore, GSA will be hosting a public scoping meeting in the Town of Southold, New York in May, 2010. Details will be published two weeks in advance of the scoping meeting and the Tonawanda Band of Seneca Indians will be invited to attend and provide additional comments at that time. A copy of the forthcoming draft EIS will be prepared and will be sent to you in CD-ROM format for comment. The EIS will also be made available on the internet.

If you have any questions, please do not hesitate to contact Mr. Phil Youngberg via FAX at 617-565-5720 or e-mail phil.youngberg@gsa.gov. We would also be available to arrange a meeting with you at your convenience to discuss this project. Thank you for your attention to this matter.

Sincerely,

Phil Youngberg
Environmental Manager
Public Buildings Service

Attachments:
Figure 1: Project Vicinity Map

GSA New England Region

March 30, 2010

Tuscarora Nation Office
Chief Leo Henry
2006 Mt. Hope Road
Lewiston, NY 14092

Subject: **Request for Information** for the Environmental Impact Statement for the Sale of Plum Island, Orient Point, New York

Dear Chief Henry:

The General Services Administration (GSA) is acting as agent and working with the US Department of Homeland Security (DHS) as a Joint Lead Agency to dispose of Plum Island, New York, an 840-acre island off the North Fork of Long Island, and an ancillary support facility at Orient Point, New York. The property disposal will be conducted through a competitive public sale. GSA published a Notice of Intent to proceed with the EIS on March 18, 2010 in the *Federal Register*. At this time, we invite you to provide any comments on the proposed action or the alternatives that will be considered in an Environmental Impact Statement (EIS) that is being prepared for the action, as described below.

The EIS will be prepared pursuant to the requirements of the National Environmental Policy Act (NEPA) of 1969, and the President's Council on Environmental Quality Regulations (40 CFR 1500-1508), as implemented by GSA Order PBS P 1095.4C, GSA. DHS will act as a Joint Lead Agency in ongoing consultation with GSA for the NEPA and associated regulatory compliance activities.

The purpose of this proposed action is to examine the effects associated with the anticipated sale of Plum Island, New York and its support facility at Orient Point, New York including all real and related personal property and transportation assets (the "Property," Figure 1). The need for this proposed action is mandated in Section 540 of the Consolidated Security, Disaster Assistance, and Continuing

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The EIS will address the potential impacts to the environment of two alternatives: sale of the Property (the "Action Alternative"), and continued Federal ownership (the "No-Action Alternative"). The Action Alternative will be further refined into a series of reasonably foreseeable land use options. Because the federal government has no authority to regulate future land uses, a precise statement of the specific land use-related environmental and socioeconomic effects that could result from reuse would be largely speculative. In response to the lack of certainty concerning future reuse of the Property, the EIS will identify reasonable land use options that could result upon the sale of the Property. When the Property leaves federal ownership, proposed uses would be subject to local and state environmental and land use regulation, including the New York State Environmental Quality Review Act. In order that potential environmental effects of the project may be fully evaluated and considered, GSA is requesting that you respond in writing concerning any beneficial or adverse impacts relative to the interests of the Tuscarora Nation Office.

In accordance with NEPA requirements, we are eliciting your comments and invite you to review the project. We request you reply by April 30, 2010 with your initial comments so that we may ensure that important resources are fully considered in the preparation of the draft EIS. Please reply to: Mr. Phil Youngberg, Environmental Manager, c/o Mr. John Dugan, General Services Administration (GSA), 10 Causeway Street, Room 925, Boston, MA 02222.

Furthermore, GSA will be hosting a public scoping meeting in the Town of Southold, New York in May, 2010. Details will be published two weeks in advance of the scoping meeting and the Tuscarora Nation Office will be invited to attend and provide additional comments at that time. A copy of the forthcoming draft EIS will be prepared and will be sent to you in CD-ROM format for comment. The EIS will also be made available on the internet.

If you have any questions, please do not hesitate to contact Mr. Phil Youngberg via FAX at 617-565-5720 or e-mail phil.youngberg@gsa.gov. We would also be available to arrange a meeting with you at your convenience to discuss this project. Thank you for your attention to this matter.

Sincerely,

Phil Youngberg
Environmental Manager
Public Buildings Service

Attachments:
Figure 1: Project Vicinity Map

GSA New England Region

March 30, 2010

Unkechaug Nation
Chief Harry B. Wallace
207 Poospansk Lane
Mastic, NY 11950

Subject: **Request for Information** for the Environmental Impact Statement for the Sale of Plum Island, Orient Point, New York

Dear Chief Wallace:

The General Services Administration (GSA) is acting as agent and working with the US Department of Homeland Security (DHS) as a Joint Lead Agency to dispose of Plum Island, New York, an 840-acre island off the North Fork of Long Island, and an ancillary support facility at Orient Point, New York. The property disposal will be conducted through a competitive public sale. GSA published a Notice of Intent to proceed with the EIS on March 18, 2010 in the *Federal Register*. At this time, we invite you to provide any comments on the proposed action or the alternatives that will be considered in an Environmental Impact Statement (EIS) that is being prepared for the action, as described below.

The EIS will be prepared pursuant to the requirements of the National Environmental Policy Act (NEPA) of 1969, and the President's Council on Environmental Quality Regulations (40 CFR 1500-1508), as implemented by GSA Order PBS P 1095.4C, GSA. DHS will act as a Joint Lead Agency in ongoing consultation with GSA for the NEPA and associated regulatory compliance activities.

The purpose of this proposed action is to examine the effects associated with the anticipated sale of Plum Island, New York and its support facility at Orient Point, New York including all real and related personal property and transportation assets (the "Property," Figure 1). The need for this proposed action is mandated in Section 540 of the Consolidated Security, Disaster Assistance, and Continuing

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Thomas P. O'Neill, Jr. Federal Building
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Appropriations Act of 2009; United States Public Law 110-329 (the "Act"), which directs the Secretary of the DHS to liquidate the Plum Island asset by directing the Administrator of the GSA to sell through public sale all real and related personal property and transportation assets which support Plum Island operations, subject to such terms and conditions as necessary to protect government interests and meet program requirements. The Act mandates the sale as a result of the determination by DHS to construct and operate a new National Bio and Agro-Defense Facility (NBAF) in Manhattan, Kansas and move its operations from the PIADC to the NBAF (Record of Decision dated 1/16/2009).

The EIS will address the potential impacts to the environment of two alternatives: sale of the Property (the "Action Alternative"), and continued Federal ownership (the "No-Action Alternative"). The Action Alternative will be further refined into a series of reasonably foreseeable land use options. Because the federal government has no authority to regulate future land uses, a precise statement of the specific land use-related environmental and socioeconomic effects that could result from reuse would be largely speculative. In response to the lack of certainty concerning future reuse of the Property, the EIS will identify reasonable land use options that could result upon the sale of the Property. When the Property leaves federal ownership, proposed uses would be subject to local and state environmental and land use regulation, including the New York State Environmental Quality Review Act. In order that potential environmental effects of the project may be fully evaluated and considered, GSA is requesting that you respond in writing concerning any beneficial or adverse impacts relative to the interests of the Unkechaug Nation.

In accordance with NEPA requirements, we are eliciting your comments and invite you to review the project. We request you reply by April 30, 2010 with your initial comments so that we may ensure that important resources are fully considered in the preparation of the draft EIS. Please reply to: Mr. Phil Youngberg, Environmental Manager, c/o Mr. John Dugan, General Services Administration (GSA), 10 Causeway Street, Room 925, Boston, MA 02222.

Furthermore, GSA will be hosting a public scoping meeting in the Town of Southold, New York in May, 2010. Details will be published two weeks in advance of the scoping meeting and the Unkechaug Nation will be invited to attend and provide additional comments at that time. A copy of the forthcoming draft EIS will be prepared and will be sent to you in CD-ROM format for comment. The EIS will also be made available on the internet.

If you have any questions, please do not hesitate to contact Mr. Phil Youngberg via FAX at 617-565-5720 or e-mail phil.youngberg@gsa.gov. We would also be available to arrange a meeting with you at your convenience to discuss this project. Thank you for your attention to this matter.

Sincerely,

Phil Youngberg
Environmental Manager
Public Buildings Service

Attachments:
Figure 1: Project Vicinity Map

Haywood, Paul

From: Jenkins, Josh
Sent: Tuesday, May 25, 2010 11:07 AM
To: Bourdeau, Jonathan; Bales, Nancy
Subject: FW: Tim Bishop Scoping Meeting Remarks

From: Schneider, Jon [mailto:Jon.Schneider@mail.house.gov]
Sent: Tuesday, May 25, 2010 11:03 AM
To: Jenkins, Josh
Subject: Tim Bishop Scoping Meeting Remarks

Statement of Congressman Tim Bishop
Plum Island Scoping Meeting
May 20, 2010

I would like to thank the General Services Agency and the Department of Homeland Security for holding tonight's scoping meeting, Greenport High School for serving as host. I also thank everyone from this community who have come tonight to share their thoughts on the future of Plum Island. I apologize that because of votes tonight, I cannot be there in person.

The process involved with the sale of Plum Island and the construction of the National Bio- and Agro-defense Facility (NBAF) in Manhattan, Kansas could be given as Exhibit A in why so many people are skeptical about government.

Given our nation's mounting budget deficits and the need to balance our spending priorities, many have questioned the wisdom of spending over $650 million of taxpayer dollars to create a massive new research facility that would duplicate many of the functions currently served by Plum Island and other existing facilities. I believe that there are more cost-effective solutions than the NBAF to meet the nation's agro-defense research needs, including continuing efforts to modernize existing facilities around the country.

Under the previous administration, the Department of Homeland Security assured members of Congress that the sale of Plum Island would come close to covering the costs of closure, transfer and construction of NBAF. However, the evidence suggests that is just flat wrong.

As a point of reference for a reasonable expectation of what Plum Island might sell for – Robins Island, a 435-acre island also within the jurisdiction of Southold Town, like Plum Island – sold for $11 million in 1993 and had no clean up or decommissioning requirements. Given property value increases over the past seventeen years, recent estimates place the current value of Plum Island's 840 acres in the range of $50 to $80 million. This is assuming there is an interested buyer who wants to lay out tens of millions to buy an island which even Hannibal Lecter turned his nose up at, zoning which will likely be drastically altered by the Town of Southold, and the prospect of not being able to construct anything or realize any return on investment for at least a decade.

And, by the way, that is before we even scratch the surface of decommissioning the Animal Disease Center and clean up whatever mess the federal government has made at this highly toxic and hazardous site. In short, if someone thinks this sale will net the federal government dime one, forget about an island, I've got a bridge to sell you.

A $50-80 million sale does not pay for a $650 million project. Not in Long Island, not in Kansas, not even in Washington.

Tonight, I believe you will hear a lot of good ideas from the community about Plum Island's future. I agree with those who say the island would be an ideal location for a National Refuge. Ironically, its isolation and unique federal presence has preserved much of Plum Island. This goal would not be at odds with a limited presence on the existing developed site, such as an alternative energy research facility.

I will leave it to others to spell out alternatives more clearly, because my single-minded immediate focus is to do the one sane thing, and keep the current research facility on the island and block the unnecessary NBAF.

Without any funding in place to build NBAF, the Department of Homeland Security has never adequately answered questions raised by a 2009 Government Accountability Office report, which concluded that a Foot-and-Mouth disease outbreak on Plum Island would have a $31 million economic impact, while the same event would have a $1 billion impact in Kansas. Here is a direct quote from that report: "Given the significant limitations in DHS's analyses that we found, the conclusion that FMD work can be conducted as safely on the mainland as on Plum Island is not supported."

Before we cross a point of no return, I want everyone to open their eyes and look at what we're doing here. We have not begun decommissioning Plum Island, we have not laid a single brick or appropriated a single dollar to construct NBAF. Rather than pour hundreds of millions of taxpayer dollars down a sinkhole in Kansas and open the Pandora's Box of decommissioning Plum Island, we should abandon NBAF and make use of existing facilities that continue to serve this nation well.

Again, thank you for holding this hearing tonight and listening to the voices of our community.

Jon Schneider
Deputy Chief of Staff/District Director
Office of Congressman Tim Bishop (NY-01)
(631) 696-6500

www.house.gov/timbishop
Sign up for Congressman Bishop's e-newsletter

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
STATE OFFICE BUILDING
250 VETERANS MEMORIAL HIGHWAY
HAUPPAUGE, N.Y. 11788-5518

SUBIMAL CHAKRABORTI, P.E.
REGIONAL DIRECTOR

STANLEY GEE
ACTING COMMISSIONER

May 27, 2010

Mr. Phil Youngberg
Environmental Manager
Public Building Services
U.S. General Services Administration
Thomas P. O'Neill, Jr. Federal Bldg.
10 Causeway St, Room 925
Boston, MA 02222

TAG # 10-0142
CAG # 10-007482
EIS for the sale of Plum Island

Dear Mr. Youngberg:

On behalf of the New York State Department of Transportation (NYSDOT), thank you for inviting the NYSDOT to participate in the Public Scoping Meeting for the preparation of an EIS regarding the sale of Plum Island.

A member of my staff represented the NYSDOT at the meeting held in Greenport, NY on May 20, 2010, and we look forwarding to continuing our involvement as this process moves forward.

Very truly yours,

Wayne R. Ugolik
Director, Regional Planning and Program Management

COUNTY OF SUFFOLK

STEVE LEVY
SUFFOLK COUNTY EXECUTIVE

DEPARTMENT OF PLANNING

THOMAS A. ISLES, A.I.C.P.
DIRECTOR OF PLANNING

May 28, 2010

Mr. Phil Youngberg
Environmental Manager, Public Buildings Service
U.S. General Services Administration
Thomas P. O'Neill, Jr. Federal Building
10 Causeway Street, Room 925
Boston, MA 02222

RE: Proposed Sale of Plum Island, New York
National Environmental Policy Act (NEPA)
Initial Comments

Dear Mr. Youngberg:

These initial comments are provided in response to the "Request for Information for the Environmental Impact Statement" for the Sale of Plum Island, Orient Point, New York. We offer the following comments:

- All alternatives should be evaluated based upon their potential impact to water quality, shellfish and finfish resources in both the Peconic and Gardiners Bays.

- Suffolk County owns the underwater lands to the south of Plum Island. Specifically, N.Y. Environmental Conservation Law § 13-0302 (1) provides the following:

  > Underwater lands ceded to County of Suffolk. All the right, title and interest in which the people of the state of New York have in and to the lands under water of Gardiner's and Peconic Bays in the County of Suffolk, except underwater lands within one thousand feet of the high water mark is hereby ceded to such county, for the purposes of shellfish cultivation, to be managed and controlled by such county, provided that such land shall revert to the state when they shall cease to be used for shellfish cultivation. For the purposes of this section, the term "Gardiner's and Peconic Bays" shall mean the waters of Gardiner's and Peconic Bays and the tributaries thereof between the westerly shore of Great Peconic Bay and an easterly line running from the most easterly point of Plum Island to Goff Point at the entrance of Nepeague Harbor.

LOCATION
H. LEE DENNISON BLDG - 4TH FLOOR
100 VETERANS MEMORIAL HIGHWAY

MAILING ADDRESS
P O BOX 6100
HAUPPAUGE, NY 11788-0099

Phone: (631) 853-5191
Fax: (631) 853-4044

Given this interest, Suffolk County is potentially an involved, decision-making agency. Accordingly, we request copies of all documents generated as a result of the NEPA process.

- In accordance with your correspondence dated April 28, 2010, we request a meeting with the Government Services Administration (GSA) in order to discuss the proposed sale of Plum Island and its associated ramifications.

- Consideration should be given to the inclusion of an additional alternative involving the preservation of the island for open space purposes.

- The EIS should analyze all potential impacts associated with soil and groundwater contamination/quality and any potential impacts associated with future development/use of the property.

- The EIS should include analysis of potential economic impacts to the local economy from the standpoint of local job elimination and the discontinuance of expenditures on local goods and services associated with the operation and maintenance of the site.

Enclosed please find also a copy of a summary which describes the County's ongoing Shellfish Aquaculture Lease program along with a copy of N.Y. Environmental Conservation Law § 13-0302.

Thank you for the opportunity to provide these initial comments in connection with the Request for Information for the Environmental Impact Statement for the Sale of Plum Island, Orient Point, New York.

Sincerely,

Thomas A. Isles, A.I.C.P.
Director

TAI:bd
Enclosures (2)

cc: Daniel Gulizio, Deputy Director, S.C. Department of Planning
DeWitt S. Davies, Chief Environmental Analyst, S.C. Department of Planning
James Bagg, Chief Environmental Analyst, S.C. Department of Planning
Lauretta R. Fischer, Principal Environmental Analyst, S.C. Department of Planning
Michael Mulé, Senior Planner, S.C. Department of Planning

LOCATION
H. LEE DENNISON BLDG. - 4TH FLOOR
100 VETERANS MEMORIAL HIGHWAY

MAILING ADDRESS
P. O. BOX 6100
HAUPPAUGE, NY 11788-0099

Phone: (631) 853-5191
Fax: (631) 853-4044

Effective: September 14, 2004

Mckinney's Consolidated Laws of New York Annotated Currentness
Environmental Conservation Law (Refs & Annos)
Chapter 43-B. Of the Consolidated Laws (Refs & Annos)
Article 13. Marine and Coastal Resources (Refs & Annos)
Title 3. Marine Fisheries (Refs & Annos)
→ § 13-0302. Lands underwater of Gardiner's and Peconic bays

1. Underwater lands ceded to county of Suffolk. All the right, title and interest in which the people of the state of New York have in and to the lands under water of Gardiner's and Peconic bays in the county of Suffolk, except underwater lands within one thousand feet of the high water mark is hereby ceded to such county, for the purposes of shellfish cultivation, to be managed and controlled by such county, provided that such lands shall revert to the state when they shall cease to be used for shellfish cultivation. For the purposes of this section, the term "Gardiner's and Peconic bays" shall mean the waters of Gardiner's and Peconic bays and the tributaries thereof between the westerly shore of Great Peconic bay and an easterly line running from the most easterly point of Plum island to Goff point at the entrance of Napeague harbor.

2. Ratification. The grant of lands under the waters of Gardiner's and Peconic bays, by the commissioners of shell fisheries, in accordance with the provisions of chapter 385 of the laws of 1884, as amended, subsequently held and used by the grantees, heirs, successors, and assigns on which all taxes and assessments have been paid, are hereby ratified and confirmed. Any underwater lands in Gardiner's and Peconic Bays previously granted that revert or escheat to the state or are subject to tax deed by the county of Suffolk shall be available to the county for leasing pursuant to this section. All other lands under such waters, which pursuant to such chapters, have escheated or reverted to the state, are hereby ceded to Suffolk county for the purposes of the cultivation of shellfish, subject to existing valid grants and easements; provided however, that nothing in this section shall interfere with the right of the commissioner of general services to grant lands and easements under water to owners of adjacent uplands, pursuant to the provisions of the public lands law, or of the legislature to make such grants without regard to upland ownership, and to grant franchises to utilities, municipalities and governmental, educational, or scientific bodies for cables, outfalls, ecological studies, and experimentation with controlled marine life.

3. Leases. Suffolk county may lease lands under water ceded to it by the state for the purpose of shellfish cultivation. Provided if no such leases have been executed by December thirty-first, two thousand ten, such authority to lease pursuant to this section shall terminate.

a. Leases may be issued only within areas designated as shellfish cultivation zones on a map or maps to be prepared and approved by the county of Suffolk.

b. No lease shall be granted except upon written application on forms furnished by the county of Suffolk, and properly executed and signed by the applicant.

c. Before a lease is approved, notice shall be provided for at least two months by posting such notice at the bureau of marine resources in the department, the office of the county clerk, and the office of the town clerk in which all or any part of the lands to be leased are located. Such notice shall also be published in the official newspaper of the county. The notice shall include the name of the lessee, the boundaries of the lease, and the area of the lease. A copy of the proposed lease shall be available for public inspection and copying in the office of the county clerk.

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4. Establishment of shellfish cultivation zones. Before leasing or using the lands hereby ceded to it, the county of Suffolk shall cause an accurate survey to be made of such lands, and a map or maps to be prepared therefrom. Such map or maps shall establish shellfish cultivation zones within Gardiner's and Peconic bays. Such map or maps shall be approved by local law. After such map or maps have been adopted, the county shall have the authority to issue leases for shellfish cultivation within the shellfish cultivation zones, as provided herein. Such map or maps shall be updated by the county of Suffolk every five years.

a. Underwater lands within one thousand feet of the high water mark shall not be included in a shellfish cultivation zone.

b. Underwater lands where bay scallops are produced regularly and harvested on a commercial basis shall not be included in a shellfish cultivation zone.

c. Underwater lands where there is an indicated presence of shellfish in sufficient quantity and quality and so located as to support significant hand raking and/or tonging harvesting shall not be included in a shellfish cultivation zone.

d. Underwater lands where the leasing will result in a significant reduction of established commercial finfish or crustacean fisheries shall not be included in a shellfish cultivation zone.

5. Regulations. The county shall, by local law, before leasing any such underwater lands, adopt regulations governing:

a. applications for leases;

b. notices to be given;

c. the form and terms of leases;

d. standards for the approval or denial of leases;

e. administration of leases;

f. the transfer or renewal of leases;

g. marking grounds and testing;

h. fees;

i. recording of leases;

j. bonds; and

k. such other matters as are appropriate to the leasing program.

6. Department authority. Notwithstanding any of the provisions of this section:

a. any person engaging in the cultivation or harvesting of shellfish in a shellfish cultivation zone pursuant to this

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section shall obtain a permit in accordance with section 13-0316 of this title; and

b. the department shall regulate and control the use of certain types of vessels and equipment for harvesting shellfish, requirements for reseeding, the right to enter upon such leased lands for reseeding or making shellfish population surveys, and enforce all other applicable state laws relating to said underwater lands.

7. Duties of the county clerk. Leases issued pursuant to this section shall be recorded in the office of the county clerk in the manner and form to be determined by local law as provided in subdivision five of this section.

8. Summary proceedings. Upon the failure of a lessee to pay the rental on any date due under the terms of the lease or upon revocation as provided for by local law pursuant to subdivision five of this section, the county may, after written notice to the lessee declare the lease cancelled as of the date set forth in such notice, and may immediately thereafter evict the lessee from such lands. The provisions of article seven of the real property actions and proceedings law shall apply and govern the procedure in such case.

9. Disposition of fees and rents. All fees and rents received shall be deposited into the general fund of the county. However, in the alternative, nothing shall prohibit the county of Suffolk, by local law, from establishing a special fund for the promotion of aquaculture where such fees and rents shall be deposited.

CREDIT(S)

(Added L.2004, c. 425, § 3, eff. Sept. 14, 2004.)

HISTORICAL AND STATUTORY NOTES

2006 Main Volume

L.2004, c. 425 legislation

L.2004, c. 425, §§ 1, 2, 4, provide:

"§ 1. Legislative findings. Pursuant to chapter 385 of the laws of 1884, as amended, and chapter 990 of the laws of 1969, the legislature ceded to the county of Suffolk the underwater lands of Gardiner's and Peconic bays as described in such chapters and provided for a statutory framework whereby the business of cultivating shellfish could be managed and regulated. Chapter 990 of the laws of 1969 gave the county of Suffolk the right to lease such underwater lands to persons engaged in shellfish cultivation. Such chapter also ratified and confirmed the title to underwater land grants pursuant to chapter 385 of the laws of 1884, as amended, in which taxes had been paid.

"After more than thirty years, the county of Suffolk still has not undertaken a leasing program to persons cultivating shellfish as was intended by chapter 990 of the laws of 1969. Such a program has not been established in spite of the fact that the potential economic benefits from promoting aquaculture to the county of Suffolk and the state of New York are substantial.

"A leasing program has not been enacted by the county of Suffolk because a shellfish cultivation program as permitted by the provisions of chapter 990 of the laws of 1969 would be too costly and cumbersome to implement. The failure to undertake an aquaculture leasing program for these underwater lands in Gardiner's and Peconic bays has resulted in adverse economic impacts and the loss of economic opportunity for the region.

"The county of Suffolk has worked diligently to study ways to foster shellfish cultivation in Gardiner's and Peconic

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bays. By Resolution 487-2001, Suffolk county established a fourteen member Suffolk county aquaculture committee. In June 2002 such committee issued a report entitled "Policy Guidance for Suffolk County on Shellfish Cultivation in Peconic and Gardiner's Bays". Such report made recommendations on policy issues relating to the lease of underwater lands for the cultivation of shellfish.

"Based upon such report, Suffolk county approved Resolution 1229-2002 which directed the county's agencies to prepare a more specific survey plan for shellfish cultivation leasing in Peconic and Gardiner's bays. Such report was completed in April 2003. Such report, prepared by the county addresses policy issues related to shellfish cultivation, and identified several changes to state law, specifically chapter 990 of the laws of 1969, which would be required to implement a successful shellfish cultivation leasing program. Suffolk county, by Scnsc Resolution 39-2003 requested that the state make such legislative amendments. In addition, in July 2001, the Nature Conservancy of Long Island formed the Peconic Bay Aquaculture Advisory Committee to study and make recommendations with regard to the numerous issues involved in establishing a viable and environmentally sustainable aquaculture program in the Peconic region. This advisory committee identified eighteen specific recommendations for the aquaculture program. Those recommendations are incorporated as part of the the findings of this act. Such recommendations will be critical to the success of the county's shellfish cultivation leasing program.

"It is the purpose of this act to amend the existing law regarding the leasing of underwater lands in Gardiner's and Peconic bays in order to foster the establishment and obtain the economic benefits of a shellfish cultivation leasing program consistent with established conservation principles. It is also the purpose of this act to ratify, confirm, and clarify the rights to cultivate shellfish underwater land grants issued under previous statutes.

"§ 4. Effect of other laws. Any provision of chapter 385 of the laws of 1884, as amended, or any other general or special law to the contrary notwithstanding, this act shall be controlling, but all other provisions of such laws, specific, general, or special, not inconsistent herewith shall remain in full force and effect."

"§ 2. Chapter 990 of the laws of 1969, relating to ceding lands under water of Gardiner's and Peconic bays to Suffolk County and to the management of such lands for the cultivation of shellfish, is REPEALED."

McKinney's E. C. L. § 13-0302, NY ENVIR CONSER § 13-0302

Current through L.2009, chapters 1 to 14, 16, 17 and 50 to 56.

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Steve Levy
Suffolk County Executive

SUFFOLK COUNTY SHELLFISH AQUACULTURE LEASE PROGRAM IN PECONIC BAY AND GARDINERS BAY

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Introduction

Suffolk County (County) has adopted a shellfish aquaculture lease program (Lease Program) pursuant to Resolution No. 646-2009 that provides secure access to publicly owned underwater lands in Peconic Bay and Gardiners Bay, New York for the purpose of shellfish cultivation. The Lease Program has been designed to fulfill the requirements set forth in New York State Environmental Conservation Law §13-0302 by establishing a framework for the leasing of underwater lands that minimizes environmental impacts and user conflicts while supporting the growth of the shellfish aquaculture industry.

The development of the Lease Program was a formidable undertaking that required the collective knowledge and input from commercial fishermen, shellfish farmers, regulatory agencies, organizations, businesses and other parties familiar with the Peconic Estuary. Obtaining this knowledge was facilitated by the participation of the Aquaculture Lease Program Advisory Committee (ALPAC) over a four year period.

Suffolk County's Role in Shellfish Aquaculture

Historically, the County had certain authorities pertaining to shellfish cultivation in Peconic Bay and Gardiners Bay under New York State law, and was actively engaged in the administration of a program that issued grants of underwater lands for private oyster farming. Pursuant to New York State Environmental Conservation Law (ECL) §13-0302 and as authorized under the Laws of New York 2004, Chapter 425 (2004 Leasing Law), the State of New York ceded underwater lands in Peconic and Gardiners Bays seaward of the 1,000 foot high water mark to Suffolk County for the purpose of shellfish cultivation. The 2004 Leasing Law contains provisions that eliminate onerous requirements, but also adds safeguards to assure that the legitimate concerns of all bay user groups were considered during development of the Lease Program. Requirements set forth in the 2004 Leasing Law to reduce the impacts of the Lease Program include restrictions specifying where leases cannot be located. Such areas defined by the 2004 Leasing Law are as follows:

- "underwater lands where bay scallops are produced regularly and harvested on a commercial basis"
- "underwater lands where there is an indicated presence of shellfish in sufficient quantity and quality and so located as to support significant hand raking and/or tonging harvesting"
- "underwater lands where the leasing will result in a significant reduction of established commercial finfish or crustacean fisheries."

The Need for a Shellfish Aquaculture Lease Program

The Lease Program has been developed to provide a mechanism that allows shellfish aquaculturists to continue and expand the cultivation of shellfish. The cultivation of the common oyster (*Crassostrea virginica*) and the hard clam (*Mercenaria mercenaria*) has been and still is an important part of the maritime tradition in Peconic Bay and Gardiners Bay. Presently, shellfish aquaculture activities are conducted in these bays on private underwater land grants (oyster grants) and Temporary Marine Area Use Assignments (TMAUAs) administered by the New York State Department of Environmental Conservation (NYSDEC). The Lease Program supports the continuation of these existing shellfish aquaculture operations, and also encourages moderate growth of the shellfish industry by providing individuals with an opportunity to obtain access to underwater lands. It also provides further stability and security to existing and future shellfish aquaculture operations by issuing 10-year leases. The Lease Program is expected to expand the marine-based economy and create related job opportunities.

The Lease Program

The County's authority is limited to the conveyance of underwater land for shellfish cultivation, and does not extend to the regulation of this activity. As such, the County controls: the *location* of shellfish farms through issuance of leases on underwater land within an adopted Shellfish Cultivation Zone; and the *extent and intensity* of aquaculture use through limits on lease size and number. However, lease applicants must still obtain all necessary regulatory permits from relevant government agencies for conducting off-bottom or on-bottom shellfish culture activities on their leases. In particular, a shellfish culture permit must be obtained from NYSDEC. The dual functions of the County and NYSDEC will help to ensure that the Lease Program is carried out in accordance with proper environmental mitigation measures to protect marine resources and activities in Peconic and Gardiners Bays.

The Lease Program replaces the existing, *ad hoc* system of providing access to marine resources for shellfish cultivation with a modern approach that assures certainty in terms of its administration, accountability on the part of lessees, and equity among the diverse users of Peconic Bay and Gardiners Bay.

The County has adopted Lease Program regulations governing: applications for leases; notices to be given; the form and term of leases; standards for the approval or denial of leases; administration of leases; the transfer or renewal of leases; recording of leases; and other matters that are appropriate to the Lease Program.

Shellfish Cultivation Zone

The Shellfish Cultivation Zone map (see pages 4 and 5) shows the area within which shellfish leases can be issued. The Shellfish Cultivation Zone meets all criteria in the 2004 Leasing Law. This 29,969-acre zone includes NYSDEC TMAUA locations; private oyster grants; and other contiguous areas where the impacts/conflicts of shellfish aquaculture activities on environmental resources/socio-economic concerns will be minimal. Leases for new shellfish farms will consist of 5- or 10-acre parcels. New shellfish aquaculture leases are limited to a total of 60 additional acres per year, for a maximum of 300 acres during the first five years of the program, and a total of 600 acres by the tenth year of program implementation. Including those participants that will be given the opportunity to grandfather into the program, the maximum area that could be potentially leased during the first 10 years of program implementation is 3,173.5 acres. This accounts for less than 2.9% of the 110,000 acres of underwater land area subject to the County's shellfish leasing authority. The program also provides municipalities, researchers, and not-for-profit entities with the opportunity to obtain non-commercial shellfish cultivation leases for experimental, educational, and resource restoration purposes.

The Lease Program will be implemented in a way that will allow for program adjustments to mitigate any unforeseen impacts. The Shellfish Cultivation Zone will be reviewed every five years and amended, as necessary. The Lease Program is subject to review during the second 5-year period of implementation to establish program components after 10 years. This review will be based on an environmental assessment, which will include, but is not limited to: data on environmental conditions of the bays; results of the Lease Program to date; need/demand for additional lease space; and town, public and industry input.

Lease Program Website

The County's Shellfish Aquaculture Lease Program website has been maintained since the initiation of the work on the specification of technical aspects of the program since June 2005. Complete records of all ALPAC meetings (notices, agendas, meeting summaries, presentations); consultant work task draft reports and associated maps; and all final program reports and related documentation are accessible on this website. The website will be used to post announcements of events and dates and in general, keep the public informed of all meetings and actions that are taken during the public notice and lease site review process, and subsequent execution of lease agreements between Suffolk County and shellfish farmers.

The program website address is listed below.

http://www.suffolkcountyny.gov/aquaculture

SUFFOLK COUNTY SHELLFISH A
IN PECONIC BAY A

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Real Property Tax map parcel linework used with permission of Suffolk County Real Property Tax Service Agency (R.P.T.S.A.). This rendering is a DRAFT MAP in that 1) the data displayed is an interagency or intra agency work* produced for the purpose of identifying and correcting data. It is not a final agency determination. It is not statistical or factual compilation of data. In some cases correct data has been left out and questionable or inaccurate data has been exaggerated to help identify errors. In short, this is a DRAFT MAP produced in an effort to aid in the correction of data and is not held out as being complete or accurate in any way.

*Exempted from (F.O.I.L.) the provisions of the Freedom of Information Law [Public Officers Law Article 6 Section 84-90] by section 87.2.g

This map is a compilation of data from:
1. The New York State Digital Orthophotoic Aerials.
2. The Suffolk County Real Property Tax Map Parcel Line Work.
3. The Suffolk County Nassau Property Tax Service GIS Base Map.
4. Field GPS Locations and Verifications.

Anthony Abruzzo, L. S.
Map & Coordinate Supervisor, Department of Environment & Energy
New York State Land Surveyor License Number 049567

QUACULTURE LEASE PROGRAM
D GARDINERS BAY

Legend

- Lease Program Boundary (NYSECL 13-0302)
- Town Boundary (SC Real Property Tax Map Agency)
- 1000 ft High Water Mark Buffer
- Shellfish Cultivation Zone
- Village

Shellfish Cultivation Zone Total Area = 29,969 Acres

Approximate scale of total acreage of new leases that could be leased over the first 5 years (300 Acres)

Approximate scale of total acreage of new leases that could be leased by the 10th year (600 Acres)

SUFFOLK COUNTY DEPARTMENT OF ENVIRONMENT & ENERGY

July 6, 2009 - CD-09-100

MAP 1: SHELLFISH CULTIVATION ZONE

Suffolk County, New York

Summary of the Lease Application Process

Existing TMAUAs in the Shellfish Cultivation Zone must be converted into County leases in accordance with the provisions outlined in the Suffolk County Shellfish Aquaculture Lease Program. A private oyster grant holder can apply for a lease on his/her grant, or a portion thereof, if the owner can document a prior historical or current use of the grant for shellfish aquaculture involving species other than oysters. If a grant has had no permitted aquaculture activity involving species other than oysters for the 10-year period between January 1, 1999 and December 31, 2008, it will be considered "fallow" and may only enter the Lease Program in a limited, phased process. Leases will not be issued on oyster grants with a title conflict until all such conflicts are resolved and documentation/proof of same has been submitted to the County. In addition, the Lease Program allows for future growth of the industry by providing additional use of underwater land for aquaculture on up to 600 acres over the first 10 years of the program. A summary of the leasing process follows:

Lease Program Participants:

Holders of TMAUAs; private oyster grant owners; applicants for new leases subject to annual acreage cap limit (60 acres per year for the first 10 years of the program); and applicants for non-commercial leases (municipalities, researchers, etc.).

Pre-Application Meeting:

All prospective lease applicants are required to attend a mandatory pre-application meeting with the Suffolk County Department of Planning prior to submitting their applications.

Submission and Review of Application:

All lease program participants must submit an application to the Department of Planning during the application period established by the County. Lease applicants, other than private oyster grant owners, must identify a preferred lease site location and two alternative lease sites. The Department will review all completed applications received, and make a determination on applicant eligibility.

Number of Leases Permitted:

Each applicant will be limited to two leases; separate applications are required for each lease. Second applications for new leases will only be considered when acreage is available and the annual acreage cap limit has not been met.

Public Notice:

The Department of Planning will issue a public notice on all proposed lease sites. The public, regulatory agencies and municipalities will have 60 days to submit written comments on proposed lease sites to the Department in response to this public notice. All comments received will be summarized and submitted to the Aquaculture Lease Board.

Aquaculture Lease Board:

The County Aquaculture Lease Board will conduct a public meeting after the public notice period, at which all potential lease sites in a given application cycle will be presented for consideration from a regional perspective. The public will be given the opportunity to make comments on all potential lease sites at this meeting. Subsequent to this meeting, the Lease Board will convene and make a determination on those lease sites that will be available for leasing; those lease sites that will be conditionally eligible; and those lease sites that will be eliminated from further consideration.

Preparation of Lease:

The Department of Planning will then process lease applications, and lease documents will be prepared in conjunction with the Department of Law for execution, including a certified survey of the lease site. For conditionally eligible lease sites, the applicant must conduct a benthic survey to objectively determine the population density of hard clams on the lease site. If the survey documents a hard clam density of 2.0 or more legal sized hard clams per square meter, the site in question cannot be leased.

Fees:

For an initial lease, applicants must submit a lease application fee of $100. An application fee is also required when applying for a lease renewal, expansion of acreage, relocation of the lease (if not required by a governmental entity), and lease subletting or assignment. An annual lease rental fee of $200 plus $5 per acre is required at the beginning of each year during the 10-year lease on public land. For private grant land owners, the lease rental fee would be $200 per year during the 10-year lease.

A complete description of all aspects of the County's Shellfish Aquaculture Lease Program is contained within the "*Lease Program Management Plan*" document (available on the Program's website). This document also contains all administrative and procedural requirements that must be addressed by prospective lease applicants.

Lease Program Benefits

- The County secures ownership title to approximately 100,000 acres of underwater land in Peconic Bay and Gardiners Bay. The County retains its authority to designate locations in these bays for the conduct of compatible shellfish aquaculture activities in the future.
- Private investment in shellfish aquaculture businesses increases and shellfish farms are established at secure locations that do not pose conflicts with commercial fishermen and other bay users. This, in turn, expands the marine-based economy of Suffolk County and creates jobs that contribute to the quality of life and sense of place in East End communities.
- The production of large numbers of oysters, hard clams and bay scallops in dense populations on shellfish farms augments the spawning potential of native shellfish populations. Increased numbers of filter feeding bivalves on shellfish farms exerts a positive influence on water quality by helping to control nutrient cycling, which in turn contributes to the prevention of noxious plankton blooms, such as brown tide. These and other ecosystem services associated with shellfish farms are provided on a sustainable basis at little to no cost to the general public.
- Leasing is institutionalized as a Suffolk County government responsibility and function. The Lease Program is implemented using administrative mechanisms that provide for continuing input from Towns of Southold, Riverhead, Southampton, Shelter Island and East Hampton and consideration of local interests.

Steve Levy
Suffolk County Executive

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Hon. Edward J. Warner, Jr.

M. Jodi Rell
GOVERNOR
STATE OF CONNECTICUT

June 1, 2010

Phil Youngberg
Environmental Manager
General Services Administration
10 Causeway Street, Room 925
Boston, MA 02222

Dear Mr. Youngberg:

I want to thank you for the opportunity to provide comments on the draft Environmental Impact Statement (EIS) that is being prepared by the United States General Service Administration (GSA) related to the potential future sale of Plum Island, New York.

The existing Plum Island facility is located less than ten miles off of Connecticut's coast and is a relatively short distance from many population centers, both in Connecticut and New York. Plum Island is also located in Long Island Sound, one of the most important estuarine habitats in the entire country. Over the last two decades, the states of Connecticut and New York have invested billions of dollars to protect and preserve the natural resources of the Sound.

For nearly 60 years, the federal government has operated the Plum Island Animal Disease Center on the island. Prior to the opening of this important research facility, the US Army operated and maintained Fort Terry on the island as part of the nation's coastal defense system. While both uses of the island have played important roles in ensuring the safety, security and well-being of the citizens of the United States, the mission of Fort Terry has long been over and the mission of the research facility is scheduled to conclude by 2018.

Recognizing that the nation was in need of a new agricultural research facility, the Departments of Homeland Security and Agriculture initiated a process to select a site for the construction of the National Biological and Agricultural Defense Facility. Following the selection of Manhattan, Kansas as the site for the new research facility, the US Congress, through Public Law 110-329, directed GSA to sell Plum Island.

Although the new facility is not expected to be fully operational until 2018, GSA has started the process to sell the island and this scoping process and the drafting of an EIS is the first step toward the potential sale of Plum Island.

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I understand that such a process can sometimes be lengthy and I can appreciate the desire to move expeditiously, however, there appear to be far too many unknowns that both limit the state's ability to provide comments through this scoping process and forestall an accurate and complete assessment of the impacts and consequences the sale of Plum Island will have on the residents of Connecticut and our region's natural resources.

One of my primary concerns is the limited information presently available to fully understand the implications of the potential sale of Plum Island. The lack of specific information – such as the disease agents and vaccines currently stored, buried and studied on the island along with the overall environmental condition of the research facility, the land surrounding the complex and Fort Terry – contribute to general concerns the state of Connecticut and, most importantly, the public have related to this sale.

In July 2008, the Department of Homeland Security enlisted the services of Booz Allen Hamilton to prepare a study to consider potential locations for the nation's new biological and agricultural defense facility. As part of this study, Homeland Security outlined, in a broad sense, issues that would need to be addressed if the Plum Island facility was to close. This study also alludes to the transition of functions from Plum Island to another, yet to be constructed facility.

Once the site in Kansas was chosen for the National Biological and Agricultural Defense Facility in 2009, the Department of Homeland Security should have initiated a process to develop a plan to transition functional capabilities and operational capacity to the new laboratory. A transition plan of this nature would have articulated the federal government's approach for appropriately ceasing laboratory operations on the island and for dealing with the aftermath of decades of research.

Specifically, the transition plan should account for: identification of the disease agents and vaccines studied and used in the laboratories; a comprehensive assessment of the environmental condition of the entire island along with consideration of clean-up strategies; options for the disposal of materials from both the research facility and remnants from past military activities; consideration of methods and routes for transporting active agents to the new facility and moving waste materials to disposal sites; and consideration of future uses for the island.

Due to the absence of a transition plan, we are faced with many unknowns concerning the future of Plum Island. The development of such a plan would have helped to inform affected parties prior to the preparation of an EIS. This sequencing would have contributed to a more comprehensive assessment and understanding of the issues associated with the future sale of Plum Island. Instead of proceeding in a logistical fashion that would have allowed for the full vetting of the many unknowns, the GSA and Homeland Security have essentially flipped the entire sequence of federal actions by proceeding with the sale of Plum Island without providing all the information necessary for state and local governments, as well as the public, to evaluate and weigh in on such critical issues as the physical condition of the island, the conditions of its sale and the plans to remove and transport active agents and/or waste materials off of the island.

However, since there may be little formal opportunity to comment on the future disposition of Plum Island, I offer the following specific comments that should be considered in developing the draft EIS:

The Plum Island site has been used for animal disease research for almost 60 years, first under the auspices of the U.S. Army Chemical Corps, then the U.S. Department of Agriculture and currently the Department of Homeland Security. Due to the nature of the activities which have been carried on at the site, the site remediation and waste disposal aspects of preparing this property for sale are the most important issues requiring analysis in this forthcoming EIS.

Site and Facility Remediation

The *Plum Island Animal Disease Center (PIADC) Facility Closure and Transition Study Final Report, July 2008,* prepared for the Department of Homeland Security by Booz Allen Hamilton states on page 4 that, "Although Resource Conservation and Recovery Act (RCRA) and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) actions have been performed to address the majority of site-specific environmental hazards, the structures themselves may contain asbestos, lead, and potentially other hazards that would likely require abatement." On-going remediation work was also referred to at the May 19 GSA scoping public meeting in Old Saybrook, Connecticut. However, no specific information is given in the 2008 Booz Allen Hamilton report concerning the nature of the contamination occurring at the site or the extent of any clean-up efforts already completed, currently underway or planned. Furthermore, EPA's Superfund Site Information System lists the only CERCLA action at Plum Island as Preliminary Assessments conducted in 1988 and 1994 and a Facility Site Inspection Review undertaken in 2003. The site was then archived on the SSI listing. There is no evidence of any removal action having been taken to date under CERCLA.

Animal-related disease research has been conducted at Plum Island for many years. It is within the realm of possibility that residual contamination from such research could impact Connecticut or New York if such material is not handled properly. If boaters in Long Island Sound visit the island and encounter residual contamination, they could bring it back to Connecticut or Long Island. Similarly, while wildlife currently may be discouraged or prohibited from using the island, this will not always be the case. Thus, the clean-up, disposal, and/or containment of waste and contaminated materials, such as infectious residue from Foot and Mouth testing and other animal-related diseases, needs to be carried out to a degree and in a manner that future wildlife using the island cannot contact and transport any such disease. Marine mammals, sea turtles and especially shorebirds would be potential carriers for cross-LIS transport of any disease.

For these reasons of potential animal and human exposure to contamination remaining in the facilities or otherwise on the site of the Animal Disease Center, it is essential that the EIS discuss the characterization of the site for hazards and contamination, including specific buildings involved and their historic uses, and then discuss remediation which has occurred to date and the location, nature, volumes and concentrations of contaminants in the areas still to be remediated.

Plum Island also served as a defense installation for many years. As such, the potential for environmental contamination exists related to the military activities at both Fort Terry and in the vicinity of the research facility, including potentially long forgotten munitions. The EIS that is being prepared should also provide information on the extent of contamination, remediation strategies and disposal options.

Finally, the EIS will need to discuss the disposal of the removed materials including the method of removal, the destination for the removed materials, and the method of transport. It is recognized that for some of these issues, particularly those regarding disposal, alternative courses of action, as opposed to a specific finalized plan, such as identifying the disposal or treatment location, may be the necessary basis for discussion in the EIS. However, remediation and disposal issues must be covered in a sufficient level of detail and rigor to provide assurances to the public that potential hazards at the Plum Island facility have been recognized and evaluated and will be handled in such manner as to eliminate any threat to public health or wildlife, or to other resources.

To the extent that demolition materials or contaminated soils or other remediation by-products may be removed from Plum Island by water though Long Island Sound, the EIS should provide quantification of the number of barges or other vessels involved and should address any potential impacts this transport activity may have on commercial or recreational navigation, water quality and aquaculture in the Sound. In addition, identification of the potential sites (i.e., ports and harbors) sea-going vessels might utilize in transporting materials off of Plum Island should be included in the EIS.

Security

Plum Island today and potentially into the future poses a number of security challenges. These challenges could diminish over time once the new laboratory is constructed and operations cease on the island.

However, the security concerns associated with the future disposition of the island are real and should be incorporated and explored in developing the EIS. In particular, the EIS should outline the measures that will be in place to prevent the spread of disease to livestock and poultry during the transporting of active agents from the island. The EIS should identify the strategies that will be employed to assure foreign animal disease agents, such as Foot and Mouth Disease virus, will be protected from terrorists. In the consideration of disposal options, the EIS should consider security ramifications associated with disposing of materials on site – especially disease agents – and what protections will be in place to ensure such disposal sites are not disturbed.

In addition, until remediation and transition activities are completed security will need to be maintained to deny intentional or unintentional access to the island by unauthorized persons for their own safety.

Further, the new owner(s) should be required to provide security for the island as a condition of sale – ensuring that whatever remains on the island is not disturbed.

Shorebird Resources of Plum Island

Plum Island is one of 33 Long Island Sound Stewardship Areas designated pursuant to the Long Island Sound Stewardship Act of 2005. The purpose of the Stewardship Act is to identify, protect, and enhance upland sites possessing significant ecological, educational, open space, public access or recreational value within the Long Island Sound ecosystem. Plum Island is recognized for the significant ecological value of its colonial waterbird habitat (it hosts the second largest breeding population of roseate terns in North America) and its small, rocky islets dominated by grassy and herbaceous vegetation.

Plum Island has also been identified by Audubon New York as one of 136 designated Important Bird Areas (IBAs) in the state of New York. At-risk species using Plum Island include piping plover, common tern and least tern. Species congregations of interest include common and roseate tern. The site also meets the criterion for winter waterfowl congregation.

Over the years, Plum Island has supported between one and eight pairs of piping plovers annually and two to 108 pairs of least terns. Piping plovers are a Connecticut and federally listed threatened species; least terns are also listed as a threatened species in Connecticut. Both of these species make up a regional population that does not recognize state boundaries and uses Connecticut's and Long Island's shoreline, as well as surrounding islands, to nest. So it is possible that the piping plovers and least terns that have nested on Plum Island may also have nested in Connecticut. Neither of these species is banded, so it is difficult to say this with certainty. Both of these species are nesting in the area from March to August and are usually nesting together on a sandy beach habitat. The EIS should identify the specific areas on Plum Island that are used as nesting habitat, and such areas should be protected during the nesting season from equipment used in demolition or remediation. The sandy beach areas used by these species should be protected from contamination and not be used as staging areas for any contaminated materials that are to be transported.

Fisheries Significance of Plum Island and Vicinity

Many species of finfish found in Long Island Sound undergo seasonal migrations along the Atlantic coast. The area between Orient Point and Fishers Island Sound, which encompasses Plum Island, is the primary migratory corridor for these species. This area is also an important feeding area for finfish, and the varied bathymetry and bottom supports populations of a number of resident species. As a result, the area is one of the most productive recreational and commercial fishing places in LIS and Block Island Sound. Connecticut anglers fish for all of the five most popular recreational species found in Long Island Sound: bluefish, striped bass, scup, blackfish and summer flounder. Charter boat and party boat operators also take their clients to this area for quality fishing experiences.

In addition to finfish, the area is currently the most productive commercial lobster fishing area in Long Island Sound. Following the LIS lobster dieoff in 1999, eastern LIS accounts for about sixty-percent of Connecticut's 2009 lobster landings. In that year, eastern LIS lobster landings amounted to over 461,000 pounds with a dock side value of about $1.98 million. Though economic data specific to Long Island Sound or the Plum Island area is not available, economic analysis from NOAA (2010) indicates that for Connecticut as a whole, Connecticut 2008 commercial fishing industry (from LIS and offshore) accounted for 4,416 jobs, about $126 million in income and about $236 million in sales.

Similarly, NOAA analysis for recreational fisheries indicates that in 2008, Connecticut marine recreational fishing accounted for about $693 million in durable equipment expenditures and about $50 million on expenditures on fishing trips. Due to the importance of this area to Connecticut's commercial and recreational fishers, it is important that any cleanup operations minimize interference with commercial and recreational fishing activities and eliminate the possibility of contaminated runoff or groundwater entering the marine environment. Any materials on Plum Island that could contaminate the aquatic environment must be adequately contained while remediation efforts proceed and must be completely removed.

Sea Turtle Resources

Connecticut and New York have four species of sea turtles that visit Long Island Sound but do not nest or lay eggs here. These consist of two Connecticut and federally endangered species, leatherback and Atlantic Ridley turtles, and the two Connecticut and federally threatened species, loggerhead and Atlantic green turtles. While traditionally thought of as tropical animals, sea turtles do frequent the northern temperate latitudes, including Long Island Sound, during the summer months. The northeast may also be development habitat for juvenile loggerheads and Atlantic Ridleys. However, overall the life history of sea turtles is poorly understood, especially for the early development stages of their lives. As with fisheries, it is important that any residual materials from disease research on Plum Island that could contaminate the aquatic environment be completely removed to avoid contact with and transport by sea turtles.

Similarly, seals that use Plum Island and the small rocky islets off its coast travel the Sound and are frequently spotted along Connecticut's shoreline. These species contribute to the diversity of Connecticut's wildlife community and would be subject to the same concerns cited above for sea turtles.

Connecticut Coastal Management Act Considerations

According to the scoping meeting briefing paper, "Supporting information states that proposed future uses would be subject to ...state environmental...approvals and regulations." It should be recognized in the EIS that this would include adherence to the Connecticut Coastal Management Act (CCMA) and all relevant policies thereof. While Plum Island is located within the New York portion of Long Island Sound, its proximity to Connecticut state waters and its existing maritime connection to the Connecticut shoreline communities demonstrate its influence on this state's coastal zone. Consequently, when GSA elects to proceed with the Plum Island sale, it shall be considered by the Connecticut Office of Long Island Sound Programs to be a Federal activity subject to Federal consistency review under Section 307(c)(1) of the Coastal Zone Management Act of 1972, as amended, Subpart C of Code of Federal Regulations (CFR) Part 930, and Section II Part VII(c) of the State of Connecticut Coastal Management Program and Final Environmental Impact Statement. Relative to this, Connecticut's Federal Consistency List, approved by the National Oceanic and Atmospheric Administration's Office of Ocean and Coastal Resource Management (NOAA-OCRM) lists the disposal of land pursuant to the Property Act (40 USC 101) as amended, by the GSA as subject to Federal consistency review.

The CCMA contains a number of policies pertinent to this action. The EIS will need to evaluate the remediation and disposal of the Plum Island property for consistency with these policies. The following policies, in particular, from the CCMA would apply to the proposed action.

Adverse Impacts Policy prohibits: Degrading water quality through the significant introduction into either coastal waters or groundwater supplies of suspended solids, nutrients, toxics, heavy metals or pathogens...Connecticut General Statutes (CGS) section 22a-93(15)(A)

Coastal Resource Policies declare that: " the pollution of the waters of the state is inimical to the public health, safety and welfare of the inhabitants of the state, is a public nuisance and is harmful to wildlife, fish and aquatic life...[CGS section 22a-422, as referenced by CGS section 22a-92(a)(2)] and require the management of "...estuarine embayments so as to insure that coastal uses proceed in a manner that assures sustained biological productivity, the maintenance of healthy marine populations..."[CGS section 22a-92(c)(2)(A)].

Coastal Use Policies require minimization of "...the risk of oil and chemical spills at port facilities" [CGS section 22a-92(b)(1)(C)], as well as "...safe and sanitary disposal of toxic or hazardous wastes..."[CGS 22a-220(a)].

Pertinent to these policies, I am concerned that the numerous documented living resources could be adversely affected if remediation conducted in association with the sale of Plum Island is not carried out in the most prudent and environmentally sound manner. Sources of concern include, but are not limited to, insufficient site management practices during deconstruction and the potential discharge of petroleum products from barges or other vessels employed during remediation activities that may transit or berth in Connecticut waters. Adverse impacts to living resources and habitats can also be expected to result from the development of the island subsequent to its sale.

The CCMA also includes policies mandating the preservation of water-dependent uses, defined as "...uses and facilities which require direct access to, or location in, marine or tidal waters."[CGS section 22a-93(16)] There presently exists an established water-dependent use related to the operation of Plum Island, i.e., the maritime transportation service that ferries site workers from Old Saybrook to Plum Island. Although that service does not presently benefit the general public, the state is interested in preserving that use, if appropriate, relative to the future use of the island. Abandonment of that water-dependent use would be inconsistent with the CCMA.

Disposal (Sale) of Plum Island Property

The scoping notice discusses the limitation upon the EIS process arising from the uncertainty as to the ultimate ownership and reuse of Plum Island and the ferry terminal and support facility on Orient Point. Current requirements for disposal, as contained in Section 540 of Public Law 110-329, appear to require the sale of the property as opposed to allowing for its transfer to another Federal agency or to the State of New York for conservation or recreation purposes. However, given the habitat value of the island, its designation as a Long Island Sound Stewardship Area and an Important Bird Area, the undeveloped nature of the majority of the island, and the limitations on access to the site, conservation of the island as a wildlife preserve or as a park supporting low intensity recreation would be appropriate and desirable uses for this property. In point of fact, the Long Island Sound Stewardship Act is equivalent federal statutory authority to that authorizing the sale of Plum Island. To sell the entire island without significant conservation restrictions would violate both the letter and the spirit of both the Stewardship Act and the National Estuary Program, through which the Long Island Sound Study was established.

However, if the property is to be sold, the EIS should thoroughly document the disposal process and should discuss alternative frameworks for the disposal. For instance, the simplest process from an administrative perspective would be to sell the island in its entirety to a single purchaser. However, this would limit the pool of potential purchasers and would likely price Plum Island out of the reach of entities who would want to acquire it for conservation purposes. Connecticut strongly advocates that the EIS should evaluate the disposal of the Plum Island property in a fashion allowing for the acquisition of portions of the island with the greatest conservation value via separate transactions. In particular, under this scenario, I would advise offering for private sale only the portion(s) of the island presently developed and occupied (approximately 10%), while preserving the remaining, undeveloped acreage as natural habitat. This may allow conservation organizations or state or local governmental entities, individually or collectively, to purchase specific areas of the island which support the highest concentration of shorebird nesting activity, marine mammal use or sea turtle visitation at prices that would be more affordable than the purchase of the island as a whole. The identification and selection of the areas of Plum Island that would be the most appropriate for such separate sale(s) should be discussed in the EIS, preferably in specific terms, but at least in a conceptual fashion with an agency commitment to provide for such options.

In the event that preservation of the entire undeveloped portion of the island is not feasible, the EIS should also evaluate appropriate conservation easements for the portions of Plum Island most heavily used by piping plovers, least terns, roseate terns and other appropriate species, as well as habitats of endangered or threatened plants. Such restrictions could apply to any portion of the island which would potentially be subject to development after disposal.

The potential need for two additional types of re-use restrictions should also be discussed in the EIS. If the remediation of the site results in any areas of contaminated soil being capped as a protective measure to prevent exposure to humans or wildlife from hazardous materials left in place, restrictions on the development of these areas would likely be required. Also, any restrictions arising from the preservation of historic resources at Fort Terry should be detailed in the EIS.

In addition to land use restrictions, the EIS should evaluate the potential impacts associated with the future development of the island in terms of the need for expanded utility service and increased boat traffic. These types of activities could impact resources on the island and in the waters offshore, such as sensitive shellfish beds that could potentially be impacted by the installation of new electrical lines.

Schedule for EIS Development

The scoping notice sets out a very ambitious timeframe for the development of the EIS, with a draft EIS available for review this summer. Based on past experience, this timeframe is likely to be unrealistic even were all the constituent pieces of the EIS available from previous studies. However, items such as the development of a site remediation plan and an assessment of the flora and fauna of the island, particularly the delineation of areas which are used for shorebird nesting or for other seasonal functions, will likely prove to require a longer timeframe to develop. The recent project timeframe presented at the scoping meetings stated that the Plum Island Animal Disease Center would remain open until 2018 (the earliest date that the new lab in Manhattan, Kansas could be ready). This should remove any time pressure which may have led to the formulation of such a compressed timeframe for EIS development. The accuracy of the EIS could be called into question with such a rushed schedule, and most certainly the thoroughness of the document will be affected. In addition, GSA's ability to consider and incorporate any input received through the public scoping process on such short notice is questionable. I urge GSA to take the time necessary to develop an EIS which properly addresses site resources, remediation needs and methodology, and alternatives for property disposal.

Conclusion

As evidenced by the length of this response, there are many open questions concerning the future disposition of Plum Island. While I respect the process that has been initiated, I feel the sequence of events associated with this federal action contributes to the many unknowns that remain concerning this property.

As we all know, this property and the operations that are conducted there present unique challenges and this sale cannot be treated or handled in a routine manner. I believe GSA should proceed at a cautious, but reasonable pace in determining the future of this island.

I also view this process as a great opportunity – a chance to fully explore the future and full potential of Plum Island as a natural asset worth preserving. While I understand that Congress has called for the sale of this island, I believe we should use the process initiated by GSA as an opportunity to highlight the tremendous natural resources on and around this island and work toward a creative approach to preserve these resources while dealing with the island's research legacy in an appropriate manner.

Thank you, again, for this opportunity to comment on the behalf of the state of Connecticut and its citizens. My office stands prepared to assist with any clarification or provide further details, if necessary. Please contact Matthew Fritz of my staff at (860) 524-7309 if you have questions or wish to follow up on the comments we have submitted.

Sincerely,

M. Jodi Rell

M. Jodi Rell
Governor

cc: John Dugan, GSA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
Boston, Massachusetts
REGION 2
New York, New York

Office of the Regional Administrators

June 2, 2010

Mr. Phil Youngberg, Environmental Manager
c/o Mr. John Dugan
General Services Administration (GSA)
10 Causeway Street
Room 925
Boston, MA 02222

Dear Mr. Youngberg:

This letter is in regard to the Environmental Impact Statement being prepared by the General Services Administration to analyze and address issues that may be identified on the sale of the 840 acre Plum Island, New York. The U.S. Department of Homeland Security (DHS), in cooperation with the U.S. Department of Agriculture (USDA), operates the Plum Island Animal Disease Center (PIADC) on the island. The Consolidated Security, Disaster Assistance, and Continuing Appropriations Act of 2009 mandates the sale of the Island as a result of the determination by DHS to construct and operate a new facility in Manhattan, Kansas and move its operations from Plum Island.

On September 28, 2006, the Environmental Protection Agency joined the Connecticut Department of Environmental Protection and the New York State Department of Environmental Conservation in designating the Plum and Gull Islands complex one of thirty-three inaugural Long Island Sound Stewardship Areas (enclosure 1). The areas were identified through the Long Island Sound Study Stewardship Initiative (http://longislandsoundstudy.net/issues-actions/stewardship/). The designation highlighted the areas of Long Island Sound with the richest recreational and ecological resources, and established a goal of raising awareness of the threats to these resources and facilitating on-the-ground stewardship actions through coordinated resource planning. Later in 2006, Congress passed the Long Island Sound Stewardship Act (P.L. 109-359), which underscored the importance of protecting and preserving critical habitat areas along our shorelines.

Plum Island was cited as a Stewardship Area because of its exemplary colonial waterbird habitat. Its undeveloped and diversely vegetated shoreline supports the second largest breeding population of roseate terns, a federally endangered species, and several hundred Common Terns, a NYS threatened species. Audubon New York has designated Plum Island as an Important Bird Area. To better document bird usage, surveys were conducted over the past three years during the breeding, winter, and migration seasons. More than 100 bird species have been documented on Plum Island and adjacent coastal waters. In 2009, seven active Osprey nests and an active Bank Swallow colony, a bird species on the decline in New York, were noted. Piping

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Plovers, a federally threatened species, use the shoreline habitat for breeding and foraging. In addition, the U.S. Fish and Wildlife Service highlighted Plum Island in a 1991 report as a significant coastal habitat (*Final Report of the Northeast Coastal Areas Study: Significant Coastal Habitats of Southern New England and Portions of Long Island, New York).*

We believe that the EIS for Plum Island should further evaluate the ecological importance of this property through an inventory and assessment of its natural resource values and ecological functions, and analyze opportunities for balanced and appropriate public uses. Any potential contamination threats to public health and the environment associated with the existing disease research facility should also be evaluated along with appropriate remediation or removal actions.

We recommend that the EIS include as an alternative the permanent protection of the entire undeveloped portion of the property, while allowing the developed portion to be sold to the highest bidder for appropriate future commercial or other development uses consistent with conservation and stewardship goals for Long Island Sound. We would also expect the EIS to address air and water quality impacts of the development and conservation alternatives under consideration, including the potential for wetland impacts and the need for drinking water and wastewater facilities associated with future development that may occur. Moreover, any development alternative considered for the facility should consider the potential to implement green construction and operations principles as outlined in enclosure 2. If the potential for development on the island is uncertain the EIS should consider a range of potential development scenarios and associated environmental impacts and mitigation opportunities for each scenario.

In addition, public access to Plum Island should be provided by reserving some form of public access rights from the associated Orient Point nine and one half acre parcel that currently includes buildings, utilities, and ferry docking facilities that support the Plum Island research facility. This overall approach would support the public interest noted in the designation of Plum Island as an inaugural Long Island Sound Stewardship Area.

We believe that the future of Plum Island must be decided with due consideration to the full spectrum of public interest, including existing federal and state conservation policies and interests. We request the opportunity to review a draft of the EIS scope before it is finalized and are willing to discuss our comments at your convenience as necessary. Beyond this, we would welcome the opportunity to serve as cooperating agency on development of the EIS. Should you have any questions or wish to discuss our concerns, please contact Ms. Grace Musumeci, Chief of EPA Region 2's Environmental Review Section, at 212-637-3738.

Judith A. Enck

Judith A. Enck, Regional Administrator
EPA Region 2

H. Curtis Spalding, Regional Administrator
EPA New England

Enclosures

RESOLUTION
OF THE
LONG ISLAND SOUND STUDY
POLICY COMMITTEE
CONCERNING
LONG ISLAND SOUND STEWARDSHIP

Whereas, Long Island Sound is recognized as a National treasure of great cultural, environmental, ecological, and economic importance; and

Whereas, as a highly urbanized estuary, the Long Island Sound ecosystem is under stress from both sustained human uses as well as emerging global and regional environmental conditions; and

Whereas, the *Comprehensive Conservation and Management Plan* for Long Island Sound calls for creation of a system to identify areas of land and water of outstanding or exemplary scientific, educational, or biological value for protection, management or acquisition; and

Whereas, at the direction of the Policy Committee under the Long Island Sound 2003 Agreement, the Long Island Sound Study Management Committee has worked to identify key areas in the Long Island Sound watershed that reflect regional differentiation, a variety of ecosystems and significant natural habitats found in the Sound, and public access to this magnificent body of water;

NOW THEREFORE BE IT RESOLVED THAT, the Long Island Sound Study Policy Committee, assembled in Rye, New York on September 28, 2006, hereby endorses the work of the Management Committee in recommending thirty-three inaugural Stewardship areas, and hereby adopts them as part of the Long Island Sound Stewardship Initiative.

Robert W. Varney, Regional Administrator
US Environmental Protection Agency
New England Region

Gina McCarthy, Commissioner
Connecticut Department of
Environmental Protection

Alan J. Steinberg, Regional Administrator
US Environmental Protection Agency
Region II

Denise M. Sheehan, Commissioner
New York State Department of
Environmental Conservation

EPA Region 2
Green Project Recommendations and Resources

EPA strongly encourages that the concepts outlined below be considered by those receiving federal grant assistance for water, wastewater, stormwater, or water quality protection projects. In this regard, project sponsors are encouraged to use local and/or recycled materials; to recycle materials generated onsite; to utilize low-emissions technologies and fuels; and to incorporate renewable-energy (e.g., solar, wind, geothermal, biogas, and biomass) and energy-efficient and environmentally sustainable technology in project design, construction, and operation.

- **Utilize Clean Diesel Technology** http://www.epa.gov/otaq/diesel/
  Diesel controls, cleaner fuel, and cleaner construction practices can be utilized for both on-road and off-road equipment used for transportation, excavation, and other construction activities. Particular consideration should be given to the following concepts:
  1) Strategies and technologies to reduce unnecessary idling, including auxiliary power units, the use of electric equipment, and establishing and enforcing limits on idling time.
  2) The use of ultra low sulfur diesel fuel in non-road applications.
  3) The use of add-on control technologies like diesel oxidation catalysts and particulate filters, repowering, or newer, cleaner diesel equipment.
     http://www.mass.gov/dep/air/diesel/conretro.pdf
  4) Contract specifications can be used to require contractors to use advanced pollution controls and clean fuels. http://www.epa.gov/diesel/construction/contract-lang.htm. A model specification is available online at http://www.northeastdiesel.org/pdf/NEDC-Construction-Contract-Spec.pdf.

- **Use Alternative and Renewable Energy**
  The U.S. Department of Energy's "Green Power Network" (GPN) provides information and markets that can be used to supply alternative generated electricity. The following link identifies several suppliers of renewable energy.
  http://apps3.eere.energy.gov/greenpower/buying/buying_power.shtml

- **Incorporate onsite energy generation and energy efficient equipment upgrades into projects at drinking water and wastewater treatment facilities**
  Promote the use of captured biogas in combined heat and power systems and/or renewable energy (wind, solar, etc.) to generate energy for use onsite as well as upgrades to more energy efficient equipment (pumps, motors, etc.).
  http://www.epa.gov/waterinfrastructure/bettermanagement_energy.html

- **Utilize Energy Star/Multi-media building and land design practices**
  Consideration should be given to including building practices which have multi-media benefits, including energy efficiency, water conservation, and healthy indoor air quality. Apply building rating systems and tools, such as Energy Star, Energy Star Indoor Air Package, and Water Sense for building construction. http://www.energystar.gov/index.cfm?c=business.bus_bldgs and http://www.usgbc.org/

- **Implement Water Efficiency**
  Water efficiency can make infrastructure systems more sustainable by reducing the quantity of water treated and distributed through the water supply system, and subsequently by the wastewater treatment and disposal systems. EPA is promoting water use practices that increase efficiency, eliminate waste, and conserve water resources, resulting in a decreased burden on our water resources. The WaterSense program, http://www.epa.gov/watersense, promotes the market for water-efficient products through the use of WaterSense-labeled products and the use of contractors certified through a WaterSense-labeled program. Water supply utilities can also decrease the burden on water and wastewater treatment systems by reducing the amount of drinking water lost from their leaking water distribution pipes. Additional details on the Sustainable Infrastructure Initiative can be found at http:\\www.epa.gov/waterinfrastructure.

- **Source Management for Stormwater Runoff**
  Green infrastructure and low impact development approaches can reduce, capture, and treat stormwater runoff at its source. Site-specific practices, such as green roofs, downspout disconnections, rain harvesting/gardens, planter boxes, and porous pavements are designed to mimic natural hydrologic functions and decrease the amount of impervious area and stormwater runoff. Preserving and recreating natural landscape features can create functional and appealing site drainage that treats storm water as a resource rather than a waste product.
  http://www.epa.gov/nps/lid, and
  http://cfpub.epa.gov/npdes/greeninfrastructure/technology.cfm

- **Encourage cost-efficient, environmentally-friendly landscaping**
  EPA's GreenScapes program provides cost-efficient and environmentally friendly solutions for landscaping. Designed to help preserve natural resources and prevent waste and pollution, GreenScapes encourages companies, government agencies, other entities, and homeowners to make holistic decisions regarding waste generation and disposal and the associated impacts on land, water, air, and energy use. http://www.epa.gov/osw/conserve/rrr/greenscapes/index.htm

- **Use recycled materials in highway and construction projects.**
  Many industrial and construction byproducts are suitable and available for use in road or infrastructure construction. http://www.epa.gov/osw/conserve/rrr/imr/index.htm Use of these materials can save money and reduce environmental impact. The Recycled Materials Resource Center has user guidelines and specifications for recycled material.
  http://www.recycledmaterials.org/tools/uguidelines/index.asp.

- **Safely Reuse and/or Recycle Project-related Debris and Waste**
  The *Federal Green Construction Guide for Specifiers* includes a construction waste management specification. http://www.wbdg.org/design/greenspec.php

- **Utilize environmentally preferable purchasing**
  Promote markets for environmentally preferable products by referencing EPA's multi-attribute Environmentally Preferable Purchasing guidance. http://www.epa.gov/epp

SUFFOLK COUNTY LEGISLATURE

EDWARD P. ROMAINE
LEGISLATOR 1ST DISTRICT

June 10, 2010

Phil Youngberg
c/o John Dugan
General Services Administration
10 Causeway Street
Room 925
Boston, MA 02222

Dear Mr. Youngberg

I am writing to provide comment on the proposed sale of the 840-acre Plum Island and the 9 ½- acre Orient Point facility.

The federal government had decided to upgrade its animal disease research center from a Bio-Safety Level 3 laboratory to a Level 4. While the center will be relocated from Plum Island to Manhattan, Kansas, no funds have been allocated for the construction of this new facility. There is also no timeframe for decommissioning Plum Island. I question the purpose and timing of the two public scoping sessions held o the sale. In my opinion, the process is premature.

Before discussing the sale of Plum Island, GSA and the Department of Homeland Security should be proposing a plan for remediation of any and all contaminates on the island. Since 1954, the Department of Agriculture, and more recently the Department of Homeland Security, has studied highly contagious diseases on Plum Island. A complete, independent environment survey needs to be undertaken and uncompromised remediation plan developed. The sale of this property should not be discussed until any and all environmental issues are remediated.

As a federal property, Plum Island is now exempt from local land use requirements. Once the property is sold to private owners, Southold Town land use and zoning codes would apply. It is my understanding that the GSA has not had any discussion with the town regarding planning, zoning or site plan issues. How can GSA offer Plum Island for sale without providing potential buyers with information about permissible land uses?

423 GRIFFING AVENUE • RIVERHEAD, NY 11901 • PHONE (631) 852-3200 • FAX (631) 852-3203

Recently, the federal government spent almost $50 million in upgrading the facilities on Plum Island. Is there a plan for the fixed assets on the island? Will any of the existing structures be demolished or gutted? What buildings will remain? Are any of the fixed assets critical to national security? Will those that are be removed or destroyed? Can any of the fixed assets be reused at the planned Kansas facility? What is the cost of the preparing the island for sale? Will the GSA establish pre-qualifications for potential buyers of this sensitive facility?

I find it odd that the federal government, given its investment in the property and the timely and costly remediation process, has not considered a "no action" option. This would allow Plum Island to remain in federal hands and hopefully be used by other federal agencies or remain as a nature preserve.

At this time there are too many unanswered questions, most of which are critical to the future of the island and Southold Town. I urge the federal government to reconsider the sale of Plum Island until all questions are thoroughly answered.

Sincerely,

Edward P. Romaine

Edward P. Romaine
Suffolk County Legislator, First District

CC: Senator Charles Schumer
Senator Kristin Gillibrand
Congressman Timothy Bishop
Southold Supervisor Scott Russell

EPR: kmo

United States Department of the Interior

FISH AND WILDLIFE SERVICE
3817 Luker Road
Cortland, NY 13045

June 16, 2010

Mr. Phil Youngberg
Environmental Manager
c/o John Dugan
General Services Administration
10 Causeway Street, Room 925
Boston, MA 02222

Dear Mr. Youngberg:

This is in reference to the General Services Administration's (GSA) Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS) for the sale of Plum Island, New York (NY), and an ancillary facility at Orient Point, NY, published in *Federal Register* (FR) Vol. 75, No. 52 on Thursday, March 18, 2010, pursuant to the requirements of the National Environmental Policy Act (NEPA) of 1969, and the President's Council on Environmental Quality Regulations (40 CFR 1500–1508). As noted in the FR, the U.S. Department of Homeland Security (DHS) will act as a Joint Lead Agency in ongoing consultation with the GSA for the NEPA and associated regulatory compliance activities.

The U.S. Fish and Wildlife Service (Service) is providing these comments for your use in preparing the Draft Environmental Impact Statement (DEIS) for this major Federal action. Due to the rich environmental resources present on and around Plum Island, including threatened and endangered species for which the Service has special expertise and authority in the protection and conservation of under provisions of the Endangered Species Act of 1973, as amended (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*), and the Migratory Bird Treaty Act of 1918, as amended (40 Stat. 755, as amended; 16 U.S.C. 703-712), we would welcome the opportunity to serve as a cooperating agency during the EIS process.

Overall, the Service believes that the GSA should undertake a detailed analysis of the impacts of its proposed action on the significant fish and wildlife resources and habitats that are found on and adjacent to Plum Island, including but not limited to, the Federally-listed as threatened piping plover (*Charadrius melodus*) and the endangered roseate tern (*Sterna dougallii dougallii*), migratory bird species, bats, amphibians, wetlands, and upland maritime and hardwood forests, as well as grassland habitats. We also recommend that the GSA consider evaluating additional alternatives to the sale of Plum Island in the DEIS, including an alternative that incorporates public ownership and access and allows passive recreational uses, such as walking trails, wildlife watching, photography, and educational trips.

We understand that the Environmental Protection Agency's (EPA) Regions I and II have provided comments on the proposed action in a letter to the GSA dated June 2, 2010, stressing the ecological and recreational value of Plum Island as the driving force for nominating it as one of thirty-three Long Island Sound Stewardship Areas. We recognize and support their role as administrators of the Long Island Sound and Peconic Bay National Estuary Programs and believe their input and recommendations during the public and agency scoping period should be given serious consideration.

Location

Plum Island is an 840-acre island located about 12 miles southwest of New London, Connecticut, and 1.5 miles from the northeastern tip of Long Island, NY. It is located at the eastern end of Long Island Sound and is bounded on its southern shore by the Peconic Bay, both of which are designated as National Estuaries by the EPA. It is also located in the Atlantic Coast Flyway, a corridor along the eastern North American through which millions of birds migrate twice a year to their breeding and wintering grounds to points north and south. Both Plum Gut and The Race serve as major migratory pathways for various finfish species.

Environmental Resources

Plum Island has been manipulated by man for hundreds of years, culminating in development and infrastructure that supports its current use as the Plum Island Animal Disease Center. However, the majority of the 843-acre Plum Island, with its more than seven miles of coastline, is undeveloped and still contains regionally-significant coastal, upland, wetland, and nearshore habitats. It is surrounded by the extremely productive estuarine/marine waters of Long Island Sound, Plum Gut, Block Island Sound, and Gardiners Bay.

Over the last three seasons from 2007 to 2010, the Service has observed that the nearshore zone provides winter habitat for harbor seals (*Phoca vitulina*) and gray seals (*Halichoerus grypus*). Harbor seals are known to haul-out (leave the water) on the southeastern shoreline of Plum Island for resting and sunning. Other marine mammals that are known to occur in waters off Plum Island include the finback whale (*Balaenoptera physalus*), minke whale (*B. acutorostrata*), and humpback whale (*Megaptera novaeangliae*), as well as the common dolphin (*Delphinus delphis*), bottlenose dolphin (*Tursiops truncatus*), white-sided dolphin (*Lagenorhynchus acutus*), striped dolphin (*Stenella coeruleoalba*), and pilot whale (*Globicephala melaena*) as discussed in Edinger *et al.* (2002).

Limited surveys in various habitat types around the island by the North Fork Audubon Society chapter have resulted in observation of 80 species of migratory birds, comprised of bay ducks, sea ducks, shorebirds, songbirds, and raptors. The southern shores contain sandy beach backed by low-lying dunes that transition to grassland and shrubland. It is in this sandy beach habitat that the Federally-listed piping plover has been observed breeding, based on surveys conducted by the Service and the New York State Department of Environmental Conservation with assistance from Audubon NY over the last several years. Although not well documented, it is suspected that Plum Island is an important migratory stopover area for this species as it migrates from its southern wintering grounds into New England and the Atlantic Canadian Maritime

Provinces. The presence of a piping plover nest was confirmed on Plum Island in 2002, with subsequent nesting occurring in 2009 and 2010. This same habitat consistently supports several pairs of American oystercatchers (*Haematopus palliatus*), a species of high conservation concern.

The surrounding waters provide significant foraging habitat for roseate terns that breed at nearby Great Gull Island, which itself supports the largest breeding colony of roseate terns and New York State-listed common terns (*Sterna hirundo*) in New York. Due to the presence of the listed species noted above, we anticipate that the GSA and DHS will initiate consultation pursuant to the ESA regarding the potential impacts the proposed action may have on these listed species.

Habitat type as a percentage of total land cover on Plum Island is given below (from Department of Homeland Security 2008), but detailed surveys of the flora and fauna of these broad community types are lacking. As a result, evaluation of the potential impacts of the proposed action and any additional alternatives that may be considered would be difficult to undertake. In fact, some of these designations, such as "Barren land," may not be accurate descriptors of existing conditions further complicating the alternative analysis in the DEIS. For instance, "Barren land" includes the southern shoreline of Plum Island, but the Service identifies this as coastal beach and dune habitat, which supports the Federally-listed piping plover, as well as the American oystercatcher. Therefore, to adequately plan and evaluate any proposed alternative detailed biological surveys should be undertaken and the results made available in the DEIS. The GSA should coordinate with the Service on survey methodologies, as well as timing and duration of the studies.

- Deciduous forest 35%
- Barren land 17%
- Grassland 15%
- Herbaceous wetland 14%
- Woody wetland 12%
- Scrub land 5%
- Open water 2% (National Land Cover Dataset 2001, as referenced in the Department of Homeland Security 2008)

In undertaking its analysis of potential impacts of the proposed action, GSA should recognize that Federal, State, and local agencies, as well as private organizations, have highlighted the ecological significance Plum Island and the surrounding areas to the region through the following designations:

Orient Point - Islands Complex Significant Fish and Wildlife Habitat (U.S. Fish and Wildlife Service 1991);

Audubon NY's Orient Point and Plum Island Complex Important Bird Area (Burger and Liner 2005);

Long Island Sound (LIS) National Estuary Program "Plum, Little, and Great Gull Islands Stewardship Area"; and

Plum Gut Significant Coastal Fish and Wildlife Habitat (New York State Department of State Division of Coastal Resources 2005).

The Orient Point - Islands Significant Coastal Habitat Complex identified by the Service underscores its high value for nesting colonies of piping plover and least tern (*Sterna antillarum*) and colonial wading bird rookeries of black-crowned night-heron (*Nycticorax nycticorax*) and great egret (*Casmerodius albus*). Beaches and sand ridges in the Orient Point area contain populations of at least three regionally-rare plant species and historical records for several others: Scotch lovage (*Ligusticum scothicum*), slender knotweed (*Polygonum tenue*), and seabeach knotweed (*Polygonum glaucum*). The latter is also found on Plum Island. Of special significance in this same area are stands of an unusual type of maritime red cedar (*Juniperus virginiana*) forest in which the individual trees are low-growing (3-6 feet in height) and circular in form, many of which are quite old.

The shallow waters are especially significant as wintering waterfowl concentration areas. These waters contain substantial winter populations of scoter (*Melanitta* spp.), greater and lesser scaup (*Aythya marila* and *A affinis*), American black duck (*Anas rubripes*), common goldeneye (*Bucephala clangula*), bufflehead (*Bucephala albeola*), red-breasted merganser (*Mergus serrator*), long-tailed duck (*Clangula hyemalis*), canvasback (*Aythya valisineria*), mallard (*Anas platyrhynchos*), and Canada goose (*Branta canadensis*). Osprey (*Pandion haliaetus*) nest and feed in the marshes on Plum Island.

Recent studies indicate that the waters of Gardiners Bay, the Peconic Bays, and other bodies of water in this general area may serve as important summer feeding and nursery areas for juvenile Kemp's ridley sea turtles (*Lepidochelys kempii*), one of the rarest sea turtles and a Federally-listed endangered species, and for other Federally-protected sea turtle species. These waters are also important feeding areas for common and roseate terns breeding on Great Gull Island. The deep turbulent waters and shallow shoals of Plum Gut (the area of open water between Plum Island and Orient Point) provide significant and diverse habitat for marine fishes of special emphasis in the region, including large concentrations of striped bass (*Morone saxatilis*), bluefish (*Pomatomus saltatrix*), tautog (*Tautoga onitis*), summer flounder (*Paralichthys dentatus*), and scup (*Stenotomus chrysops*), and are regionally important recreational fishing areas. Plum Gut is one of two primary migration corridors for striped bass as they move into Long Island Sound in spring to their breeding grounds and return to southern wintering areas during the fall. Plum Gut is thought to be the major migration corridor for Atlantic salmon (*Salmo salar*) returning to the Connecticut and Pawcatuck Rivers in the early spring.

Finally, the Service's Long island National Wildlife Refuge Complex (Complex) includes ten management units across Long Island, with Wertheim National Wildlife Refuge as its headquarters. The Complex was established to conserve, manage, and where appropriate, restore

wildlife and plant species and their habitats for the benefit of present and future Americans. Biological management focuses on migratory birds and the conservation of threatened and endangered species. The Complex recently acquired Gardiner's Point Island and is in the process of managing it to encourage least and roseate tern nesting at the site. Gardiner's Point Island sits southeast of Plum Island and north of Gardiners Island. All the islands in the area, including Plum Island, have tremendous wildlife and wildlife habitat potential.

Thank you for the opportunity to provide comments during this scoping period. If you have any questions or require further assistance, please have your staff contact Steve Papa of the Long Island Field Office at (631) 776-1401.

Sincerely,

for David A. Stilwell
Field Supervisor

References

Burger, M.F. and J.M. Liner. 2005. *Important Bird Areas of New York*. Audubon New York, NY.

Department of Homeland Security. 2008. National Bio and Agro-Defense Facility – Final Environmental Impact Statement. Vol. II, Appendices A-H.

Edinger, G.J., D.J. Evans, S. Gebauer, T.G. Howard, D.M. Hunt, and A.M. Olivero (editors). 2002. Ecological Communities of New York State. Second Edition. A revised and expanded edition of Carol Reschke's Ecological Communities of New York State. (Draft for review). New York Natural Heritage Program, New York State Department of Environmental Conservation, Albany, NY.

New York State Department of State Division of Coastal Resources. 2005. http://www.nyswaterfronts.com/waterfront_natural_narratives.asp.

U.S. Fish and Wildlife Service. 1991. Northeast Coastal Areas Study: Significant Coastal Habitats of Southern New England and Portions of Long Island, NY.

cc: FWS, Stamford, CT (L. Harrison)
FWS, Charlestown, RI (S. Marino)
FWS, LINWRC, Shirley, NY (M. Williams)

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION

March 31, 2010

Mr. James Biederman, Esq., Program Expert
Public Buildings Service
Real Property Disposal Division (9PRF-10)
400 15th St., SW
Auburn, WA 98001

Re: Sale of Plum Island, New York

Dear Mr. Biederman,

It has come to the attention of this Office that the General Services Administration (GSA) is considering the possible sale of Plum Island, New York for redevelopment or other purposes following the intended relocation of the animal disease research facilities presently operated there. While Plum Island is located within the New York segment of Long Island Sound, its proximity to Connecticut state waters and its existing maritime connection to Connecticut shoreline communities demonstrate its influence on this state's coastal zone. Consequently, I would like to take this opportunity to affirm that if and when the GSA elects to proceed with such a sale, it shall be considered by this Office to be a Federal activity subject to Federal consistency review under Section 307(c)(1) of the Coastal Zone Management Act of 1972, as amended, Subpart C of 15 Code of Federal Regulations (CFR) Part 930, and Section II, Part VII(c) of the State of Connecticut Coastal Management Program and Final Environmental Impact Statement.

Specifically, in accordance with the Federal consistency regulations, GSA must prepare and submit to this Office a Federal Consistency Determination identifying reasonably foreseeable direct and/or indirect effects on Connecticut's coastal resources and uses. Connecticut's designated coastal resources and uses are enumerated in the Connecticut Coastal Management Act at http://www.cga.ct.gov/2005/pub/Chap444.htm and in the enclosed Reference Guide to Coastal Policies and Definitions. The following link will direct you to Connecticut's Federal consistency application form and instructions http://www.ct.gov/dep/cwp/view.asp?a=2705&q=441852&depNav_GID=1622.

As you consider future actions at Plum Island as they may affect Connecticut's coastal zone, please contact Tom Ouellette of this Office at 860-424-3612 or tom.ouellette@ct.gov if you have any questions about Connecticut's Federal consistency review procedures. Thank you.

Sincerely,

Brian P. Thompson, Director
Office of Long Island Sound Programs

Encl.
cc: Betsey C. Wingfield, CT DEP
Allison Castellan, NOAA/OCRM

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Stockbridge-Munsee Tribal Historic Preservation Office

Sherry White - Tribal Historic Preservation Officer
W13447 Camp 14 Road
P.O. Box 70
Bowler, WI 54416

TCNS#_____ Date 04-06-10
PROJECT # Sale of Plum Island
COMPANY NAME GSA

ADDITIONAL INFORMATION NEEDED

_____Site visit by Tribal Historic Preservation Officer
_____Archeological survey, phase 1
_____Literature/record search including colored maps
_____Pictures of site
_____SHPO report
_____Project does not appear to endanger archaeological sites of interest to the Stockbridge-Munsee Tribe.
X Out of area

Has site been previously disturbed?_____ _____
Yes No

If yes, to what extent and when?_____

Will the proposed action adversely affect properties listed, or eligible for, listing on the National Register of Historic Places? (buildings, archaeological sites; objects of significance to a Tribe including graves, funerary objects, and traditional cultural properties) _____ _____
Yes No

Should this project inadvertently uncover a Native American site, even after an archaeological survey or if there is a change to the project, we ask that you halt all construction and notify the Stockbridge-Munsee Tribe immediately.

Sincerely,
Sherry White
Sherry White
Tribal Historic Preservation Officer

(715) 793-3970 *Email: sherry.white@mohican-nsn.gov*

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

APR 12 2010

Phil Youngberg
Environmental Manager
c/o John Dugan
US General Services Administration
Thomas P. O'Neill, Jr. Federal Building
10 Causeway Street, Room 295
Boston, Massachusetts 02222

Re: Sale of Plum Island, Orient Point, NY

Dear Mr. Youngberg,

This is in response to your letter dated March 30, 2010 regarding the US General Service's Administration's preparation of an Environmental Impact Statement (EIS) for the proposed competitive public sale of Plum Island, New York as well as ancillary support facility at Orient Point, New York. Plum Island is an 840-acre island off the North Fork of Long Island. Your letter requested comments on the proposed action or the alternatives that will be considered in an EIS that is being prepared for the action. The EIS will address the potential impacts to the environment of two alternatives: sale of the property (the "action alternative") and continued Federal ownership. The action alternative will be further refined into a series of reasonably foreseeable land use options.

Several species listed by NOAA's National Marine Fisheries Service (NMFS) under the Endangered Species Act (ESA) of 1973, as amended, occur seasonally in the waters surrounding Plum Island. Without more information on the potential uses of the property it is difficult to predict what effects the sale of the property may have on these species. Information on these listed species as well as marine mammals and candidate species is provided below.

Listed Species
Listed sea turtles are also found seasonally in the waters off of New York with the most abundant being the federally threatened loggerhead (*Caretta caretta*) followed by the federally endangered Kemp's ridley (*Lepidochelys kempi*). Federally endangered leatherback (*Dermochelys coriacea*) and green *(Chelonia mydas)* sea turtles also occur seasonally in New York waters. These species are known to occur in Long Island Sound in the vicinity of Plum Island, typically between May and November.

Federally endangered Northern right whales (*Eubalaena glacialis*) and humpback whales (*Megaptera novaeangliae*) are found seasonally in the waters off of New York. Fin whales

(*Balaenoptera physalus*) may also be present near the project site. Sei (*Balaenoptera borealis*) and Sperm (*Physter macrocephalus*) whales are also seasonally present off the coast of New York but are typically found in deeper offshore waters. Large whales are rare visitors to Long Island Sound and are more often found in the waters of the Atlantic Ocean off the southern coast of Long Island.

Technical Assistance for Candidate Species
Candidate species are those petitioned species that are actively being considered for listing as endangered or threatened under the ESA, as well as those species for which NMFS has initiated an ESA status review that it has announced in the *Federal Register*.

Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*) occur in the Hudson River as well as in the coastal waters of New York, including the East River and Long Island Sound. In 2006, NMFS initiated a status review for Atlantic sturgeon to determine if listing as threatened or endangered under the ESA is warranted. The Status Review Report was published on February 23, 2007. NMFS is currently considering the information presented in the Status Review Report to determine if any listing action pursuant to the ESA is warranted at this time. If it is determined that listing is warranted, a final rule listing the species could be published within a year from the date of publication of the proposed rule. Currently, NMFS expects to publish a finding as to whether any listing action is appropriate by the Fall of 2010. As a candidate species, Atlantic sturgeon receive no substantive or procedural protection under the ESA; however, NMFS recommends that project proponents consider implementing conservation actions to limit the potential for adverse effects on Atlantic sturgeon from any proposed project. Please note that once a species is proposed for listing the conference provisions of the ESA apply (see 50 CFR 402.10). As the listing status for this species may change, NMFS recommends that GSA obtain updated status information from NMFS prior to the completion of the EIS.

Marine Mammals
Several species of marine mammals are common residents or occasional visitors to the waters off of New York including gray seals, harbor seals, and harbor porpoise. All marine mammals receive protection under the Marine Mammal Protection Act (MMPA) of 1972, as amended. The MMPA prohibits, with certain exceptions, the take of marine mammals in U.S. waters and by U.S. citizens on the high seas, and the importation of marine mammals and marine mammal products into the U.S. NMFS may issue permits under MMPA Section 104 (16 U.S.C. 1374) to persons that authorize the taking of specific species of marine mammals. Several marine mammals are likely to occur in the project area. The potential for effects to marine mammals depends on the proposed use of the property. Additional information regarding the MMPA permitting process may be obtained from NMFS' Office of Protected Resources Permits, Conservation, & Education Division (301-713-2289). Information on the MMPA permitting process can also be found online at: https://apps.nmfs.noaa.gov/questionnaire/questionnaire.cfm.

Section 7 Consultation
As noted above, without additional information on the proposed use of the property it is difficult to determine how the sale of the property may affect fish populations, marine mammals and sea turtles. Under Section 7(a)(2) of the ESA, each Federal agency is required to insure that any

action they authorize, fund or carry out is not likely to jeopardize the continued existence of any endangered or threatened species. If GSA determines that the proposed sale may affect listed species, a section 7 consultation would be necessary.

Should you have any questions regarding these comments or about the section 7 process, please contact Julie Crocker of my staff at (978)282-8480 or Julie.Crocker@Noaa.gov.

Sincerely,

Mary A. Colligan
Assistant Regional Administrator
for Protected Resources

CC: Rusanowsky, F/NER4

EC: Crocker, F/NER3

File Code: Sec 7 technical assistance - GSA sale of Plum Island NY
PCTS: T/NER/2010/01505

Haywood, Paul

From: Jenkins, Josh
Sent: Monday, April 26, 2010 3:41 PM
To: Bourdeau, Jonathan
Cc: Bales, Nancy
Subject: FW: "Enviro Impact Statement for the Sale of Plum Island"

From: phil.youngberg@gsa.gov [mailto:phil.youngberg@gsa.gov]
Sent: Monday, April 26, 2010 3:32 PM
To: john.kelly@gsa.gov; john.dugan@gsa.gov; Stelmack, Mark; Jenkins, Josh
Cc: carol.chirico@gsa.gov
Subject: Fw: "Enviro Impact Statement for the Sale of Plum Island"

----- Forwarded by Philip B. Youngberg/4P/R04/GSA/GOV on 04/26/2010 03:25 PM -----

Philip B. Youngberg/4P/R04/GSA/GOV

04/26/2010 03:24 PM

To "Jason Ross" <JRoss@delawarenation.com>@GSAEXTERNAL
cc
Subject Re: "Enviro Impact Statement for the Sale of Plum Island"Link

Thank you. I will have the appropriate people at GSA contact you.

Phil Youngberg
404-562-0787 office
404-433-8393 cell

"Jason Ross" <JRoss@delawarenation.com>

04/26/2010 03:05 PM

To <phil.youngberg@gsa.gov>
cc
Subject "Enviro Impact Statement for the Sale of Plum Island"

Hello Mr. Youngberg,

The Delaware Nation has received correspondence regarding the Environmental Impact Statement for the Sale of Plum Island, Orient Point, New York. The Cultural Preservation Director, Ms. Tamara Francis has reviewed the packet provided to us from GSA and has determined that this is in the Delaware Nation's area of interest. The Lenape people were aboriginal to this area in New York.

The Delaware Nation will be a consulting party on this project and we look forward to hearing back from you regarding the project.

Thank you again for consulting with the Delaware Nation,

Jason Ross
Museum/Section 106 Assistant
Cultural Preservation Department
The Delaware Nation
P.O. Box 825
Anadarko, OK 73005
PH# 405) 247-2448
FAX# 405) 247-8905
www.delawarenation.com

New York State Department of Environmental Conservation
Division of Environmental Permits, Region 1
SUNY @ Stony Brook
50 Circle Road, Stony Brook, NY 11790-3409
Phone: (631) 444-0403 • **Fax:** (631) 444-0360
Website: www.dec.ny.gov

Alexander B. Grannis
Commissioner

April 30, 2010

Phil Yougberg, Environmental Manager
c/o John Dugan
US General Services Administration (GSA)
10 Causeway Street, Room 925
Boston, MA 02222

RE: **Response to your Request for Information for the Environmental Impact Statement for the Sale of Plum Island, Orient Point, New York**

Dear Mr. Youngberg:

Thank you for offering the Department of Environmental Conservation (DEC) the opportunity to provide input early in the National Environmental Policy Act (NEPA) process on potential impacts of the proposed sale of Plum Island. DEC has numerous regulatory and resource management authorities, responsibilities and interests on Plum Island which directly affect both the current use and any future uses. This letter will identify the various DEC programs with involvement on the island, and where possible, describe any particular concerns associated with the redevelopment. It will also outline any outstanding or unresolved issues related to the current animal disease research center use which must be resolved before the existing facility is closed and the property is sold. Please note that our comments, particularly on future uses and their impacts, should be considered preliminary as no specific redevelopment proposals or alternatives have been presented to date. For this reason, and the fact that New York State has been delegated the authority to administer several federal environmental regulatory programs directly involved with the current and future activities on the island, we request to participate in the development of the scope of issues for the environmental impact statement (EIS).

Environmental Quality Programs

Most of DEC's Environmental Quality divisions (Division of Solid & Hazardous Materials, Division of Water, Division of Air Resources, Division of Environmental Remediation) regulate aspects of the existing operation at Plum Island, as well as the existing facility's closure and, depending on the specific proposals put forth for redevelopment, may be involved with the future uses of the island.

1. DEC's Division of Solid and Hazardous Materials, has been closely involved in the Regulated Medical Waste (RMW) permitting of the exit autoclaves, the proposed RMW permitting of Building 102 (Wastewater Biological Decontamination) and Building 101 (RMW Incinerators); the closure of multiple buildings on Plum Island under the Resource Conservation and Recovery Act (RCRA); and the current regulatory oversight under RMW and RCRA regulations.

40 years of stewardship 1970-2010

Our Division of Environmental Remediation has been involved with the investigation of specific sites on the island suspected of containing regulated wastes, which identified Waste Management Areas (WMAs) and Areas of Potential Concern (AOPCs). The following WMAs and AOPCs which were known to have contained treated RMW were excavated, with a report generated in December 2007:

WMA 1
WMA 10/11*
WMA 13
AOPC 10*
AOPC 13
AOPC 6
WMA 6
WMA4/AOPC 11

*The following comments are excerpted from the referenced report:

WMA10/11: This area, known as Stony Fields, includes stone and gravel with some 10% RMW which could not be segregated. It was mentioned it would be prudent to install one or more monitoring wells between the site and PIADC's two existing well fields. These wells would serve to ensure that the stony waste repository or the low levels of residual contamination observed in the former landfill soils do not lead to future groundwater contamination. The wells could be sampled annually to ensure protection of the island's sole source potable aquifer.

AOPC 10: Low-level PCB exceedance observed in one 1999 groundwater sample might warrant consideration of a targeted sampling initiative to determine with certainty whether this compound is present in this environmental media. It is not known whether this target sampling was conducted.

The EIS for the sale of Plum Island must evaluate these potential sources of contamination, describe any necessary remediation measures, and examine how potential adverse impacts from future disturbance should best be mitigated.

2. Any landfills existing on the island which have not been completely remediated must be surveyed and a deed restriction placed on these locations.

3. There were outstanding issues with regard to groundwater during the RCRA closure. The closure certification addressed specific buildings, but did not include the groundwater. This issue must be addressed island-wide.

4. Permits issued to the facility include closure requirements for the specific areas under the permit. All closure activities must be completed prior to closure/transfer of the island.

5. Building 257: A draft closure plan for the Building 257 and incinerator was provided in January 1996. To date, this building has not undergone any closure activities. All closure activities must be completed prior to closure/transfer of the island.

The Plum Island facility maintains a current, valid Major Oil Storage Facility License. This oil storage facility will have to be closed and properly decommissioned in conformance with all applicable regulations before the island is sold and redeveloped. It should also be noted that here is an on-going groundwater remediation project underway behind Building 101 associated with a fuel oil spill reported in 1995 and some other past fuel oil spills. While the petroleum product recovery continues, the effectiveness of the current remediation system has begun to decline significantly. The operator recently completed a supplemental subsurface investigation to determine an alternative remediation method to complete the clean up. This remedial action will have to be completed to DEC's satisfaction before the area can be redeveloped.

The island's wastewater treatment plant is regulated by DEC pursuant to the State Pollutant Discharge Elimination System (SPDES) program. In order to be in compliance with the plant's SPDES permit and associated regulations, the current and future owner of the island must ensure that an appropriately trained and certified operator is present at the facility at all times, including during and after the sale of the island. Operation of the wastewater treatment plant may be suspended, and the plant placed in inactive service status, if the owner first requests and obtains the required approval from the Department.

Please also be advised that NYSDEC has established a policy which provides instructions to staff for reviewing an environmental impact statement when it includes a discussion of energy use or greenhouse gas (GHG) emissions. The policy provides guidance as to methods to assess and mitigate the impacts of energy use or GHG emissions when reviewing an EIS. Please see the attached web link to the DEC Policy and contact information for staff in NYSDEC's Central Office who can provided additional information on this issue.

Natural Resource Programs

Depending upon the location and type of projects proposed, the future redevelopment of the island can also be expected to fall under several additional Department jurisdictions, including Articles 24 and 25 of New York State's Environmental Conservation Law, known as the Freshwater Wetlands Act and the Tidal Wetlands Act, respectively. As such, any regulated activities proposed within the jurisdiction of these laws would be subject to the development restrictions and standards of permit issuance provided in the implementing regulations, 6 NYCRR Part 663.5 (Freshwater Wetlands) and 6 NYCRR Part 661.6 (Tidal Wetlands).

Accordingly, the scope of issues for the EIS should require an analysis of the impacts of the full potential build-out of the island under existing Town of Southold zoning on the following resources or areas of concern:

- Significant fish and wildlife habitats on and in the vicinity of Plum Island, including federal and state designated Coastal Significant Fish & Wildlife Habitats and Natural Heritage Program-listed habitat assemblages (see below), endangered / threatened / special concern species of animals or plants, all wetland areas (tidal and freshwater), important bird habitat, essential fish habitat, submerged aquatic vegetation. Please see the attached web links to the applicable Significant Coastal Fish and Wildlife Habitat Descriptions, and an excerpt from the New York Natural Heritage

Program's description of the maritime dune community which exists in the southeastern portion of the island. Particular attention should be paid to the identification of activities likely to cause adverse resource impacts contained therein. A map of Plum Island showing the locations of significant eel grass beds known to DEC is also attached for your information.

- Any EIS prepared for the transfer and/or redevelopment of Plum Island must demonstrate that the proposed action is consistent with New York State's Coastal Policies as detailed and refined in the Town of Southold's approved Local Waterfront Revitalization Plan (LWRP).

- An analysis of water-quality-related issues associated with the redevelopment. For example, discharge of pollutants, excess nutrient discharge, increases in impervious surface coverage, capacity to manage and treat stormwater runoff, sewage treatment capacity and handling options. The effects of possible surface-water-quality-related changes and their effects on shellfish beds, eel grass beds, native fishery resources and aquaculture. This should also include the identification and analysis of impacts to groundwater and the aquifer.

- An analysis of transportation-related infrastructure and use, including needed marina facilities, private docks, ferry facilities, bridge/s and the use of cars and ferries. Identify and discuss the impacts to natural resources from the construction of the identified transportation infrastructure as well as its use. Examples: dredging associated with new or expanded marina or ferry facilities, the construction of a bridge/s and the related impacts of increased automobile use on the island (air pollution, petroleum pollution, etc.).

- Identify and analyze use conflicts which may develop as a result of the redevelopment. What effects will new or expanded ferry routes have on the existing uses of the area surrounding Plum Island, such as commercial and recreational fishing, wild fish resources, shellfish resources and aquaculture? Plum Gut, The Race and nearby waters are prized as recreational fishing areas. How would the development of more transportation infrastructure or new energy infrastructure (underwater cables, generation turbines, etc.) affect the traditional uses of the waters around the island?

- What will be the natural resource impacts from energy-related infrastructure, such as underwater cables, turbines, or wind mills? How will the demand for energy from the new development be met?

- How will the impacts of sea level rise be addressed in redevelopment plans?

- Describe and analyze how the closure and presumed dismantling of the current research laboratory use will impact the natural resources of the island and surrounding waters identified above.

- Identify and discuss a range of reuse alternatives which includes: the sale or other transfer of ownership of the island to another public entity or land preservation organization for conservation purposes, the establishment of deeded easements over portions of the island to protect important natural resources, and the no action alternative.

The following additional specific Issues of concern have also been identified by our staff:

- The following species, which are listed as threatened or endangered by New York State, have been documented to occur on Plum Island. Any proposed redevelopment of Plum Island must evaluate potential adverse impacts to these species:

  Northern Harrier (*Circus cyaneus)*- listed as NYS Threatened –Plum Island is a probable breeding site.

  Piping Plover (*Charadrius melodus*)- listed as NYS Endangered and US Endangered/Threatened - Plum Island is a probable breeding site.

- Plum Island is an historical breeding site for the Great Egret (*Ardea albus)* and Snowy Egret (*Egreta thula),* both protected species in New York State.

- There are a number of NYS regulated freshwater wetlands on the island (FWW#'s PL-1, 2, 4, 5, 6, 7 & 8). Any proposed redevelopment of Plum Island must evaluate potential adverse impacts to these wetlands.

- The existing sanitary treatment lagoon for the lab overflows into regulated freshwater wetlands. The EIS for the sale of Plum Island should indicate whether this lagoon will be utilized in future development, and if the lagoon will not be utilized, the EIS should describe how the site will be remediated.

It should also be noted that an area of archeological sensitively has been identified in the central portion of Plum Island. Under Section 106 of the National Historic Preservation Act and Section 14.09 of the New York State Historic Preservation Act, the State Historic Preservation Office (SHPO) is tasked with ensuring that effects or impacts on archeological sites are considered and avoidance or mitigation measures are developed during the project planning process. Any proposed redevelopment of Plum Island will likely necessitate review by the staff of the SHPO Archeology Unit to determine whether or not the project site falls within a known area of archeological sensitivity. If development is proposed within an area of archeological sensitivity, the project must be further evaluated to determine the extent of any potential impact(s), and to identify measures to be taken to avoid or mitigate such impacts.

Thank you for soliciting our comments on the development of the scope for the DEIS. If I can be of further assistance, please feel free to contact me at 631-444-0403 or slaicher@gw.dec.state.ny.us.

Very truly yours,

Sherri Aicher
Environmental Analyst

Attachments

Link to DEC Policy on the Review of an EIS with Respect to Energy Use and Greenhouse Gas Emissions:

http://www.dec.ny.gov/docs/administration_pdf/eisghgpolicy.pdf

NYSDEC's Central Office contacts for technical assistance on the assessment of GHG's in the EIS process:

Division of Air
Mark Lanzaframe
Environmental Engineer I
Division of Air Resources
Phone: 518-402-8403
mrlanzaf@gw.dec.state.ny.us

Office of Climate Change
John Marschilok
Environmental Engineer II
Office of Climate Change
Phone: 518-402-8448
jxmarsch@gw.dec.state.ny.us

Links to the Significant Coastal Fish & Wildlife Habitat Descriptions for Plum Gut and The Race:

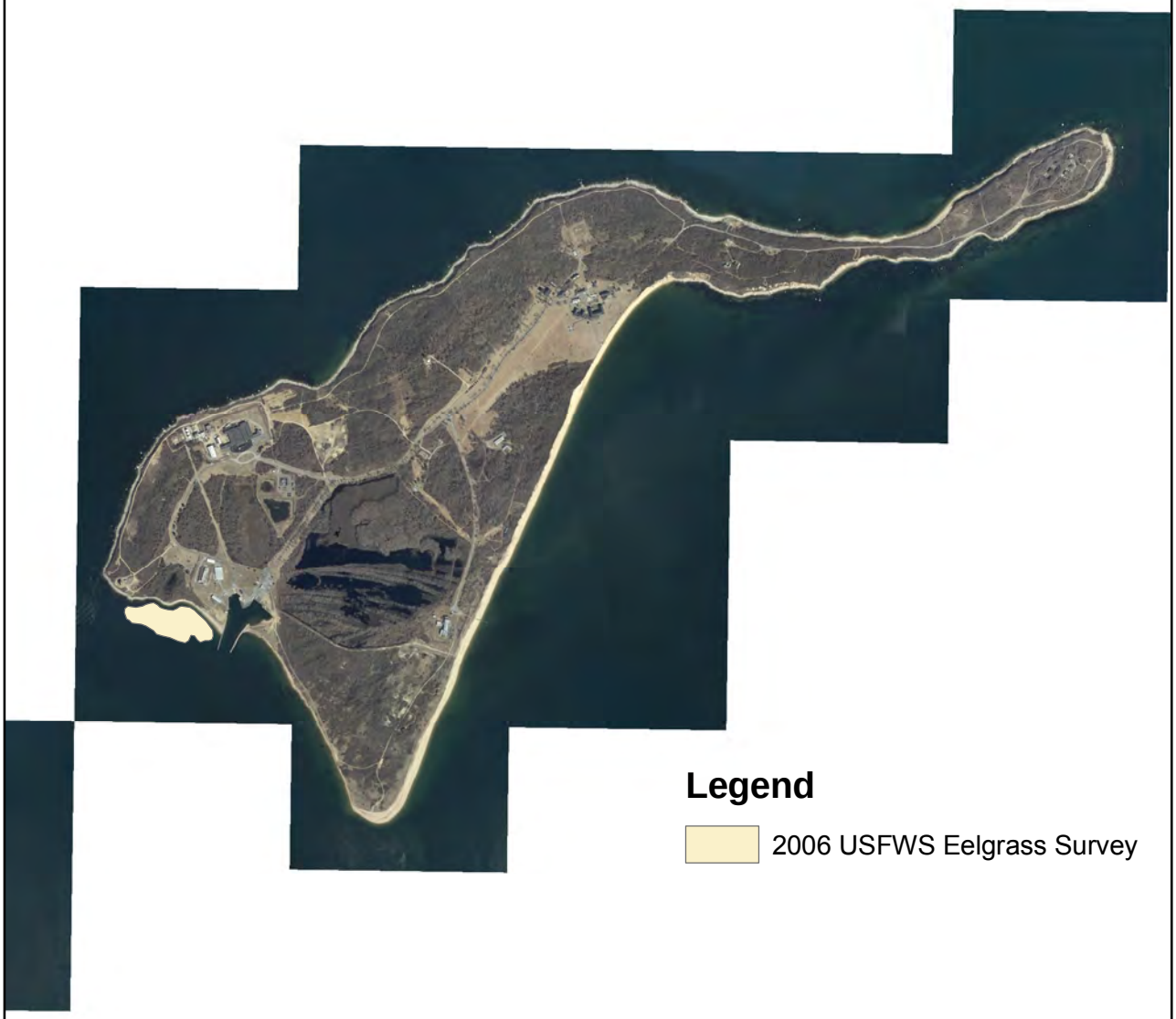
http://nyswaterfronts.com/downloads/pdfs/sig_hab/LongIsland/Plum_Gut.pdf

http://nyswaterfronts.com/downloads/pdfs/sig_hab/LongIsland/The_Race.pdf

New York Natural Heritage Program Habitat Description of Plum Island Maritime Dune Community

The maritime dune community is located at the southeastern end of the island. This dune community is fairly large, in good condition, disturbed by old roads, and mostly encircled by roads. According to the New York Heritage Program, "Any development effort that disrupts connectivity between the open ocean and the maritime dune system should be avoided (e.g., a road running parallel to the beach between the beach and dunes). This community is best protected as part of a large beach, dune, salt marsh complex. Development should avoid fragmentation of such systems to allow dynamic ecological processes (overwash, erosion, and migration) to continue. Connectivity to brackish and freshwater tidal communities, upland beaches and dunes, and to shallow offshore communities should be maintained. Connectivity between these habitats is important not only for nutrient flow and seed dispersal, but also for animals that move between them seasonally. Similarly, fragmentation of linear dune systems should be avoided. Bisecting trails, roads, and developments allow exotic species to invade, potentially increase 'edge species' (such as raccoons, skunks, and foxes), and disrupt physical dune processes." Thus, any proposal to redevelop Plum Island must evaluate potential adverse impacts to the maritime dune community.

2006 USFWS Eelgrass Survey



New York State Office of Parks, Recreation and Historic Preservation

Historic Preservation Field Services • Peebles Island, PO Box 189, Waterford, New York 12188-0189

518-237-8643

www.nysparks.com

David Paterson
Governor

Carol Ash
Commissioner

May 6, 2010

Mr. Phil Youngberg, Environmental Manager
c/o Mr. John Dugan
General Services Administration (GSA)
10 Causeway Street, Room 925
Boston, MA 02222

Re: GSA
Sale of Plum Island
Orient Point, Suffolk County
10PR02105

Dear Mr. Youngberg:

Thank you for requesting the comments of the State Historic Preservation Office (SHPO) regarding the proposed sale of Plum Island. We are reviewing the project in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the National Environmental Policy Act and/or the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8).

We offer the following comments:

1. The Light Station on Plum Island is listed in the New York State Register of Historic Places. Using both the Historic Structure Report for the Plum Island Light Station and the Historic Preservation Plan for Plum Island, New York, prepared by FPM/GAI in 2003, we understand there are a number of other structures which are eligible for listing in the registers:
   a. Plum Island Lighthouse Complex
   b. Batteries Floyd and Eldridge, Battery Construction No. 217
   c. Shelter Searchlights 13 and 14
2. Based on our review of previously submitted material, it does not appear that the potential for significant archaeological deposits to be present on Plum Island has been addressed. Please contact Douglas Mackey at extension 3291 if you have any questions regarding this issue.

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3. Therefore, SHPO recommends that any action to remove Plum Island from Federal ownership should include covenant or other language mandating consultation with the SHPO regarding possible effects to historic and cultural resources as well as to archaeological deposits for any future ground disturbing activities.

We understand there is a public meeting scheduled in the near future as a member of the SHPO staff should be present. Please contact me at 518-237-8643 (ext 3287) or by email at elizabeth.martin@oprhp.state.ny.us should you have any questions. Refer to the project (PR) number above when corresponding about the project.

Sincerely,

Elizabeth Martin

Elizabeth Martin
Historic Sites Restoration Coordinator

Via email only

GSA

GSA New England Region

June 22, 2010

Ms. Elizabeth Martin
Historic Sites Restoration Coordinator
New York Office of Parks, Recreation, and Historic Preservation
P.O. Box 189
Waterford, NY 12188

Re: Sale of Plum Island, NY
Suffolk County
SHPO Project No.: 10PR02105

Dear Ms. Martin,

Thank you for your letter dated May 6, 2010 regarding the proposed sale of Plum Island, NY. Your office identified three sets of structures eligible for listing on the National Register of Historic Places (collectively, the "Eligible Structures"), they include:

1) Plum Island Lighthouse Complex;
2) Batteries Floyd and Eldridge, Battery Construction No. 217;
3) Shelter Searchlights 13 and 14.

Furthermore, your office recommended that, "...any action to remove Plum Island from federal ownership should include covenant or other language mandating consultation with SHPO regarding possible effects to historic and cultural resources as well as to archaeological deposits for any future ground disturbing activities." The General Services Administration (GSA) accepts this recommendation and pursuant to GSA's obligations under Section 106 of the National Historic Preservation Act of 1966, so amended, and in particular 36 CFR Part 800, GSA has determined that this disposal action will have no adverse effect on the Eligible Structures. The attached covenants, which mandate consultation with your office regarding possible effects on historic and cultural resources, will be included in the deed transferring title out of federal ownership. In regards to the Plum Island Lighthouse and associated structures, the Department of Homeland Security is currently preparing a nomination package and will forward this to your office upon completion.

On the topic of significant archaeological deposits, GSA will be preparing a predictive model during the Environmental Impact Statement to identify areas where potentially significant archaeological deposits may be present. If any areas are identified that may encompass significant archaeological deposits, GSA will consult with you to develop a covenant to be included in the deed that will protect the potential archaeological resource.

Finally, on March 30, 2010, GSA sent early coordination letters to fourteen Native American tribes prior to initiating the NEPA scoping process. We received one response, an email from the Delaware Nation of Oklahoma requesting that they be a consulting party. We have attached that email for your review and request your assistance in determining how to best facilitate that consultation under Section 106.

U.S. General Services Administration
Thomas P. O'Neill, Jr. Federal Building
10 Causeway Street
Boston, MA 02222
www.gsa.gov

If you have any questions, or would like to discuss this matter further, please feel free to contact me at 617.565.8094 or john.kelly@gsa.gov.

Sincerely,

John E. Kelly, Director
Real Property Utilization & Disposal
Public Buildings Service

PROPOSED HISTORIC PRESERVATION COVENANT FOR PLUM ISLAND DEED

1. Grantee shall maintain and preserve the Property in accordance with the recommended approaches in *The Secretary of the Interior's Standards for Treatment of Historic Properties, 1995, Standards for Preservation* (Technical Preservation Services for Historic Buildings, National Park Service) in order to preserve and enhance the distinctive materials, features and spaces that make the Property eligible for inclusion in the National Register of Historic Places.

2. When rehabilitation is the appropriate treatment, Grantee shall rehabilitate the Property in accordance with the recommended approaches in *The Secretary of the Interior's Standards for Treatment of Historic Properties, 1995, Standards for Rehabilitation* (Technical Preservation Services for Historic Buildings, National Park Service). Rehabilitation is appropriate when repair and replacement of deteriorated features is necessary or when alteration or additions to the property are planned.

3. Distinctive materials, features, finishes, construction techniques and examples of craftsmanship that characterize the Property shall be preserved.

4. Plans of proposed rehabilitation, construction, alteration or replacement of distinctive materials, features, finishes or spaces which would affect the appearance or structural integrity of the Property shall be reviewed and approved by the State Historic Preservation Officer ("SHPO") for consistency with in *The Secretary of the Interior's Standards for Treatment of Historic Properties, 1995.*

5. Archaeological resources shall be protected and preserved in place. All projects involving ground-disturbing activity shall be reviewed by the SHPO. If such resources must be disturbed, mitigation measures must be undertaken with the express prior written permission of the SHPO.

6. The SHPO shall be permitted at all times to inspect the Property in order to ascertain if the above conditions are being observed.

7. In the event that the Property, or any associated historic artifact associated with the Property ceases to be maintained in compliance with the covenants, conditions and restrictions set forth in this section, in addition to any remedy now or hereafter provided by law, the SHPO may, following reasonable notice to Grantee, institute suit to enjoin said violation or to require restoration of the Property.

8. The covenants, conditions and restrictions contained herein shall be inserted by the Grantee verbatim or by express reference in any deed or other legal instrument by which it divests itself of either the fee simple title or any other lesser estate in the Property.

9. The Grantee agrees that the SHPO may, at its discretion, without prior notice to the Grantee, convey and assign all or part of its rights and responsibilities contained herein to a third party.

10. The failure of the SHPO to exercise any right or remedy granted under this instrument shall not have the effect of waiving or limiting the exercise of any other right or remedy or the use of such right or remedy at any other time.

11. The covenants, conditions and restrictions set forth in this Historic Preservation Covenant shall constitute a binding servitude upon the Property and shall be deemed to run with the land.

12. The above covenants shall be binding in perpetuity; however, the SHPO may, for good cause, modify, suspend, or cancel any or all of the covenants upon written application of the Grantee.

Philip B. Youngberg/4P/R04/GSA/GOV
04/26/2010 03:24 PM
To "Jason Ross" <JRoss@delawarenation.com>@GSAEXTERNAL
cc
Subject Re: "Enviro Impact Statement for the Sale of Plum Island"

Thank you. I will have the appropriate people at GSA contact you.
Phil Youngberg
404-562-0787 office
404-433-8393 cell

"Jason Ross" <JRoss@delawarenation.com>
04/26/2010 03:05 PM
To <phil.youngberg@gsa.gov>
cc
Subject "Enviro Impact Statement for the Sale of Plum Island"

Hello Mr. Youngberg,

The Delaware Nation has received correspondence regarding the Environmental Impact Statement for the Sale of Plum Island, Orient Point, New York. The Cultural Preservation Director, Ms. Tamara Francis has reviewed the packet provided to us from GSA and has determined that this is in the Delaware Nation's area of interest.

The Lenape people were aboriginal to this area in New York. The Delaware Nation will be a consulting party on this project and we look forward to hearing back from you regarding the project.

Thank you again for consulting with the Delaware Nation,
Jason Ross
Museum/Section 106 Assistant
Cultural Preservation Department
The Delaware Nation
P.O. Box 825
Anadarko, OK 73005
PH# 405) 247-2448
FAX# 405) 247-8905
www.delawarenation.com

New York State Office of Parks, Recreation and Historic Preservation

Historic Preservation Field Services • Peebles Island, PO Box 189, Waterford, New York 12188-0189

518-237-8643

www.nysparks.com

David Paterson
Governor

Carol Ash
Commissioner

November 1, 2010

Mr. John E. Kelly, Director
Real Property Utilization & Disposal
General Services Administration (GSA)
10 Causeway Street, Room 925
Boston, MA 02222

Re: GSA
Sale of Plum Island
Orient Point, Suffolk County
10PR02105

Dear Mr. Kelly:

Through Mr. Ian Rosenblum of the Department of Homeland Security (DHS), we are in receipt of your letter dated June 22, 2010, which never arrived here at the New York State Historic Preservation Office (SHPO). We offer our apologies for the delay in responding to your queries.

We concur with the GSA's determination that the proposed sale of Plum Island, New York, will have No Adverse Effect on the historic and cultural resources provided the proposed historic preservation covenant submitted with your letter is included in the deed upon transfer out of federal ownership. One of the conditions included in the covenant is the inspection of the property by the SHPO.. Virginia Bartos, Douglas Mackey and I would very much like to visit Plum Island prior to the de-accessioning of the property to assess the historic and cultural resources not included in the proposed National Register nomination. Would you kindly let me know about scheduling such a visit?

In addition, you requested our assistance with Section 106 consultation and the Native American tribes. We recommend you provide the tribal representatives from the Delaware Nation with the same materials you sent to the SHPO with a request for comments. According to Douglas Mackey (the SHPO archaeology unit), both the Lenape and Shinnecock people have connections to Long Island, however, the Shinnecock Nation, federally recognized in 2010, is more likely to have inhabited the eastern end of the land mass according to their response to SHPO queries. As I do not have a list of the tribes contacted, we do recommend notification of the Shinnecock Nation if

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they have not been notified already: Randy King, Chairperson, Shinnecock Nation Tribal Office, Post Office Box 5006, Southampton, NY, 11969.

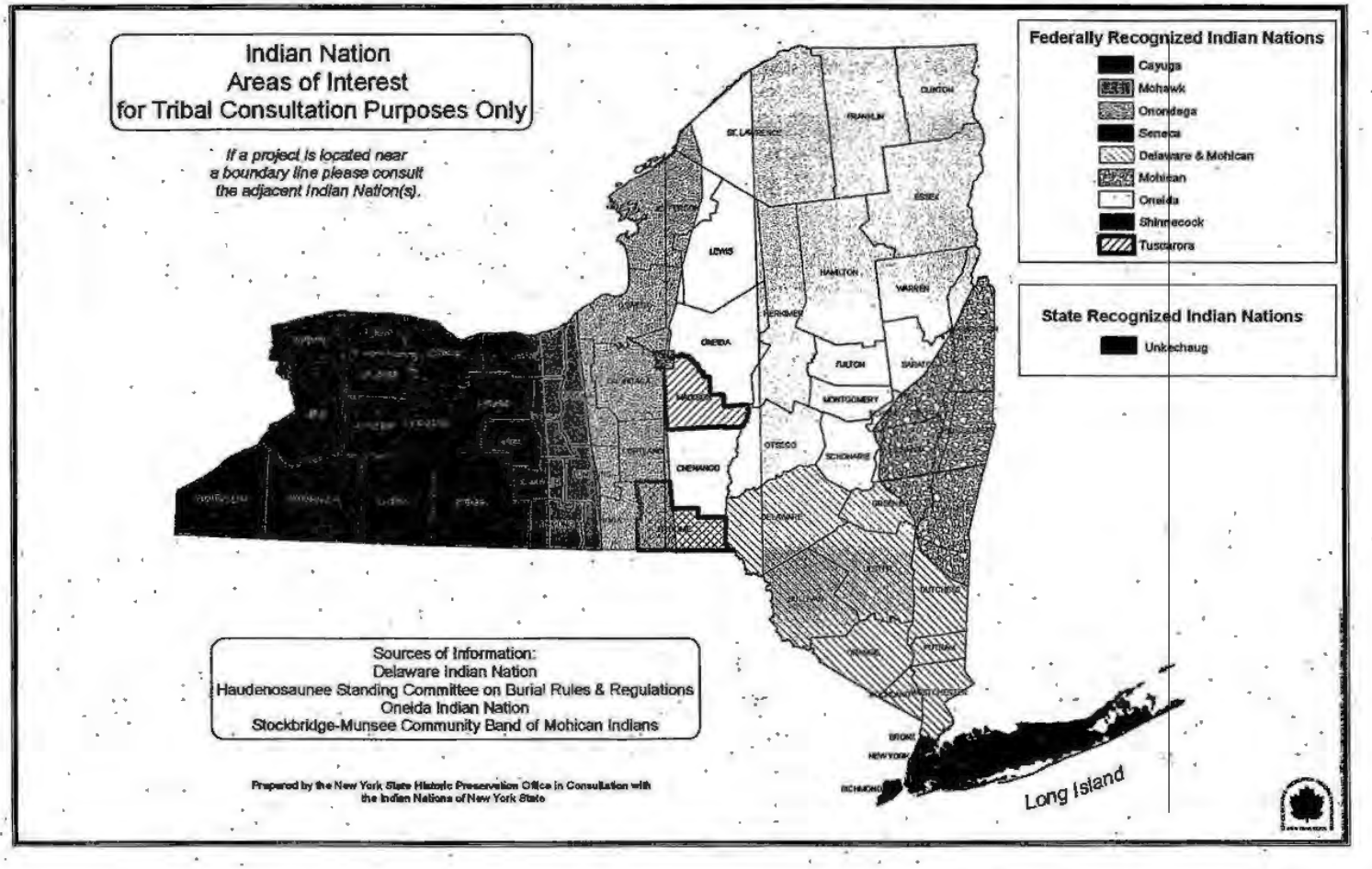
We look forward to ongoing consultation as the sale process continues. Please contact me at 518-237-8643 (ext 3287) or by email at elizabeth.martin@oprhp.state.ny.us should you have any questions. Refer to the project (PR) number above when corresponding about the project.

Sincerely,

Elizabeth Martin
Historic Sites Restoration Coordinator

Cc: Ian Rosenblum, Acting Chief Administrative Officer, USDHS, Science & Technology Directorate

Via email only


Indian Nation
Areas of Interest
for Tribal Consultation Purposes Only
If a project is located near a boundary line please consult the adjacent Indian Nation(s).
Federally Recognized Indian Nations
Cayuga
Mohawk
Onondaga
Seneca
Delaware & Mohican
Mohican
Oneida
Shinnecock
Tuscarora
State Recognized Indian Nations
Unkechaug
Sources of Information:
Delaware Indian Nation
Haudenosaunee Standing Committee on Burial Rules & Regulations
Oneida Indian Nation
Stockbridge-Munsee Community Band of Mohican Indians
Prepared by the New York State Historic Preservation Office in Consultation with the Indian Nations of New York State
Long Island

U.S. General Service Administration
Washington, DC 20405

U.S. Department of Homeland Security
Washington, DC 20528

August 26, 2010

Sherri Atcher, Environmental Analyst
New York State Department of Environmental Conservation
Division of Environmental Permits, Region 1
50 Circle Road
Stony Brook, NY 11790

Re: Response to NYSDEC Environmental Quality Comments
Plum Island Animal Disease Center - Plum Island, NY

The Department of Homeland Security (DHS) appreciates and acknowledges receipt of the comments in your Response to Request for Information letter dated April 30, 2010 which were sent to the General Services Administration (GSA) as part of the Plum Island Environmental Impact Statement (EIS) being conducted as part of the National Environmental Policy Act (NEPA) process. Our responses to those comments pertaining to environmental quality issues are provided below. Environmental quality issues and their resolution are not considered part of the NEPA process, and therefore we recommend that they be addressed separately. In that regard, we have addressed in this correspondence only those NYSDEC comments that are associated with Environmental Quality Programs. Responses to the remainder of the comments in the NYSDEC's April 30, 2010 letter will be addressed during the EIS process.

Following are the individual NYSDEC environmental quality comments followed by the DHS response:

NYSDEC Comment 1: Our Division of Environmental Remediation has been involved with the investigation of specific sites on the island suspected of containing regulated wastes, which identified Waste Management Areas (WMAs) and Areas of Potential Concern (AOPC's). The following WMAs and AOPC's which were known to have contained treated RMW were excavated, with a report generated in December 2007:

WMA 1
WMA 10/11*
WMA 13
AOPC 10*
AOPC 13
AOPC 6
WMA 6
WMA 4 AOPC 11

*The following comments are excerpted from the referenced report:

WMA 10/11: This area, known as Stony Fields, includes stone and gravel with some 10% RMW which could not be segregated. It was mentioned it would be prudent to install one or more monitoring wells between the site and PIADC's two existing well fields. These wells would serve to ensure that the stony waste repository or the low levels of residual contamination observed in the former landfill soils do not lead to future groundwater contamination. The wells could be sampled annually to ensure protection of the island's sole source potable aquifer.

AOPC 10: Low-level PCB exceedance observed in one 1999 groundwater sample might warrant consideration of a targeted sampling initiative to determine with certainty whether this compound is present in this environmental media. It is not known whether this target sampling was conducted.

The FIS for the sale of Plum Island must evaluate these potential source of contamination, describe any necessary remediation measures, and examine how potential adverse impacts from future disturbance.
Response: The December 2007 After Action Report describes the remediation measures completed for all the sites listed in the comment. The report provides the rationale for no further action at these sites, with the exception of the suggested additional actions at WMA 10/11 and AOPC 10 noted in the comment.

At WMA 10/11, two sentry groundwater monitoring wells (one for the deep supply well field, one for the shallow supply well field) will be installed. The sampling frequency for these wells will be annually. Location and depth of the proposed wells, and parameters to be monitored will be identified in a future work plan to be submitted to the NYSDEC.

At AOPC 10, soil and groundwater sampling will be conducted to assist in determining whether PCBs are present in the vicinity of the historical groundwater sample. The proposed investigation will be accomplished using samples obtained by direct push method (i.e., no monitoring wells). Details of the sampling program will be identified in a future work plan to be submitted to the NYSDEC.

NYSDEC Comment 2: Any landfills existing on the island which have not been completely remediated must be surveyed and a deed restriction placed on these locations.
Response: Existing landfills on the island which have not been completely remediated will be further characterized and an appropriate cap or soil cover installed. In addition, language in the property sale documents will reference the application of appropriate land use restrictions to be placed on these locations.

NYSDEC Comment 3: There were outstanding issues with regard to groundwater during the RCRA closure. The closure/certification addressed specific buildings, but did not include the groundwater. This issue must be addressed island-wide.
Response: The DHS is not aware of any outstanding issues with regard to groundwater during the completed RCRA closure. The attached NYSDEC-endorsed Certification of

RCRA Closure (*dated May 25, 2007*) documents that the RCRA sites have been closed in conformance with appropriate regulatory standards.

NYSDEC Comment 4: Permits issued to the facility include closure requirements for the specific areas under the permit. All closure activities must be completed prior to closure/transfer of the island.
Response: All permit requirements will be completed during decommissioning of the facility.

NYSDEC Comment 5: Building 257: A draft closure plan for the Building 257 and incinerator was provided in January 1996. To date, this building has not undergone any closure activities. All closure activities must be completed prior to closure/transfer of the island.
Response: PIADC is currently performing a Building Assessment and Feasibility Study for Building 257 to determine the current building condition and evaluate decontamination methods. Decontamination and building closure is expected to be completed prior to any transfer of ownership of the island. Details of the planned decontamination and closure of Building 257 will be submitted to the NYDEC within the next two years.

NYSDEC Unnumbered Comment: The Plum Island facility maintains a current, valid Major Oil Storage Facility License. This oil storage facility will have to be closed and properly decommissioned in conformance with all applicable regulations before the island is sold and redeveloped. It should also be noted that there is an on-going groundwater remediation project underway behind Building 101 associated with a fuel oil spill reported in 1995 and some other past fuel oil spills. While the petroleum product recovery continues, the effectiveness of the current remediation system has begun to decline significantly. The operator recently completed a supplemental subsurface investigation to determine an alternative remediation method to complete the clean up. This remedial action will have to be completed to DEC's satisfaction before the area can be redeveloped.
Response: This comment refers to an ongoing facility operating activity and does not pertain to NEPA. Operation of the oil storage facility and the associated cleanup is being and will continue to be conducted in accordance with the appropriate environmental mandates. The issues noted in the comment are currently being addressed outside of the EIS process.

NYSDEC Unnumbered Comment: The island's wastewater treatment plant is regulated by DEC pursuant to the State Pollutant Discharge Elimination System (SPDES) program. In order to be in compliance with the plant's SPDES permit and associated regulations, the current and future owner of the island must ensure that an appropriately trained and certified operator is present at the facility at all times, including during and after the sale of the island. Operation of the wastewater treatment plant may be suspended, and the plant placed in inactive service status, if the owner first requests and obtains the required approval from the Department.
Response: This comment refers to an ongoing facility operating activity and does not pertain to NEPA. Operation of the wastewater treatment plant is being and will continue to

be conducted in accordance with the appropriate environmental mandates, regardless of ownership. The issues noted in the comment will be addressed outside of the EIS process in an appropriate manner during and after the sale of the property.

NYSDEC Unnumbered Comment: Please also be advised that NYSDEC has established a policy which provides instructions to staff for reviewing an environmental impact statement when it includes a discussion of energy use or greenhouse gas (GHG) emissions. The policy provides guidance as to methods to assess and mitigate the impacts of energy use or GHG emissions when reviewing an EIS. Please see the attached web link to the DEC Policy and contact information for staff in NYSDEC's Central Office who can provide additional information on this issue.
Response: This comment will be addressed during the EIS process.

If you have any questions regarding the NEPA process, please contact John Dugan of the GSA at 617.565.5709 or john.dugan@gsa.gov

Sincerely,

31 Aug 2010

Dr. Teresa R. Pohlman, LEED AP
Director, Occupational Safety &
Environmental Programs
Office of the Chief Administrative Officer
Department of Homeland Security

Date

9/7/2010

Mr. John Kelly
Director, Property Disposal Division
Region 1
General Services Administration

Date

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

OCT 25 2012

Mr. Phil Youngberg
Environmental Manager
c/o Mr. John Dugan
U.S. General Services Administration
10 Causeway Street - Room 925
Boston, MA 02222

Dear Mr. Youngberg:

In accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the U.S. Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement (DEIS) for the Sale of Plum Island, New York. EPA Regions 1 and 2 collaborated on this review and provide comments below regarding impacts and issues that should be more fully addressed in the Final EIS (FEIS).

BACKGROUND:

The DEIS was prepared by the General Services Administration (GSA) and Department of Homeland Security (DHS) to describe the impacts associated with the planned government sale of the Plum Island Animal Disease Center (PIADC) on the 850-acre Plum Island in Long Island Sound, New York. The PIADC is currently operated by the DHS in cooperation with the U.S. Department of Agriculture (USDA). The sale of Plum Island is specifically mandated by The Consolidated Security, Disaster Assistance, and Continuing Appropriations Act of 2009. The DHS plans to move current operations on Plum Island to a new facility in Manhattan, Kansas; this action was addressed in a prior EIS.

Although GSA does not have specific authority over the future use of the property, its identification of existing resources and the potential impacts of possible uses is important for the public and land-use decision-makers to understand. After the sale, the GSA has estimated that approximately 195 acres of the island may be suitable for development.

EPA's June 2010 scoping comments on the project highlighted the 2006 joint designation by EPA, the Connecticut Department of Environmental Protection and the New York State Department of Environmental Conservation of Plum Island as one of thirty-three inaugural Long Island Sound Stewardship Areas. In the case of Plum Island, this designation was based on exemplary colonial waterbird habitat, including habitat for several federally threatened and endangered species. In addition, our scoping comments recommended that the EIS:

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- study options to permanently conserve and preserve undeveloped portions of Plum Island while also analyzing opportunities for balanced and appropriate public uses after the sale including preservation of public access rights from Orient Point;
- include a comprehensive evaluation of the ecological importance of Plum Island and an analysis of opportunities for balanced and appropriate public uses;
- evaluate potential contamination threats to public health and the environment; and
- include permanent protection of the entire undeveloped portion of the property as a development alternative, with existing developed areas sold for appropriate future development.

COMMENTS:

In response to EPA's scoping comments, we were pleased to see that the DEIS includes four property reuse options: adaptive reuse, low-density zoning, higher-density zoning, and conservation/preservation. Any reuse scenarios by future buyers should be well planned, environmentally responsible and in concert with a comprehensive land conservation/preservation plan developed in consultation with local, state and federal interests. In order to strengthen the message to potential buyers of the importance of preserving open space and valuable ecological resources on the island, EPA recommends that these areas be described in greater detail throughout the document. Moreover, the FEIS should recommend that these areas be designated for protection under the low and high-density zoning scenarios.

The DEIS discussion of the environmental impacts associated with future redevelopment of the island under the various redevelopment scenarios understates the potential environmental impacts of the sale by failing to provide sufficient detail necessary to illustrate the full range of potential impacts from both low- and high-density development. Throughout the "Affected Environment and Consequences" section, there are a variety of opportunities to augment the information in the DEIS such that it paints a more accurate picture of the potential impacts associated with development on the island. Additionally, a discussion of possible mitigation measures throughout the document, as they pertain to the environmental impacts associated development, should be included.

We believe the conservation option has the best potential to respect the rich ecological resources of Plum Island and recognize that there are a variety of management options to provide for conservation and environmental stewardship. Moreover, we believe that the purchase by a partnership of public and/or private organizations whose primary mission is conservation, offers the best opportunity to ensure that the island's unique environmental resources remain sustainable and available for the enjoyment of generations to come.

Specific comments by resource area follow.

Land Use and Visual Resources

The DEIS (page 3-5) states that under Reuse Option 2 (low-density zoning), "residential development would have a minor impact on the integrity of the existing landscape as the majority of the development would occur in the center of Plum Island. Development would be easily seen from the undeveloped portions of Plum Island and therefore represents a visual encroachment." The island has very few built

structures and the addition of 90 units, albeit in one concentrated location, has the potential to significantly impact the visual integrity of the existing landscape. EPA believes this impact should be described as "moderate" as opposed to "minor."

Air Quality

The DEIS (page 3-17) notes that Suffolk County is designated as a nonattainment area for ozone and $PM_{2.5}$. EPA recommends that GSA establish a mitigation plan that details measures that can be taken by developers to reduce and/or offset the potential air quality impacts associated with development. The FEIS should include this information to help inform the public as well as potential investors.

Water Resources

Section 3.7 evaluates the impacts of the reuse options on water resources. The DEIS notes that under the low-density zoning option there would be a two-fold increase in daily loading of biological oxygen demand (BOD) and total suspended solids (TSS), and that Nitrogen loading would also increase, both contributing to the impairment of the Long Island Sound. Under the high-density zoning option, there would be a sixteen-fold increase in TSS and BOD from current conditions. EPA recommends that the FEIS include detailed mitigation options that could reduce the impacts of development on surface water for the low-density and high-density development options.

Similarly, the discussions of stormwater impacts for both the low-density and high-density development options state that under best management practices and temporary runoff/erosion controls, impacts can be avoided or mitigated. It is also stated that "increased contaminant loadings to downstream water bodies would be addressed through the development of permanent stormwater controls." The FEIS should include detailed information on the nature of the impacts to the local environment that can be expected from low- and high-density development as well as the appropriate mitigation measures that could lessen the impacts from development to Long Island Sound.

The DEIS (page 3-53) states that impacts to fresh groundwater resources under Reuse Option 3 will be minor to moderate. It also states that assuming 2.59 persons reside in each of the 750 dwellings, there would be 1,943 people living on Plum Island during peak periods, which is 6.5 times the current population of 300. The DEIS also notes, "Considering the factor of 100 gallons per day of drinking water use per person, this would likely result in pumping of 194,000 gallons per day, approaching the upper range of the sustainable capacity of the aquifer. Previous studies have determined that the maximum sustainable pumping from the fresh groundwater lens is 150,000 to 200,000 gpd." The categorization that Reuse Option 3 would have a minor to moderate impact on groundwater resources seems to be inappropriate given this information. Reuse Option 3 may not be sustainable given the current capacity of the aquifer and thus should be categorized as moderate to severe (severe being that the aquifer cannot support the demand from Reuse Option 3). We also suggest the addition of potential conservation measures that could be implemented to maintain adequate water supply for high-density reuse option 3.

Biological Resources

There is no clear discussion of consultations for the Endangered Species Act (ESA) or the Marine Mammal Protection Act (MMPA) in the body of the DEIS. This is an important part of the sale that should be included in the document. This discussion should be initiated at the beginning of the "Biological Resources" section where the terms of potential impacts are described. Terms such as "negligible," "minor," "moderate" and "severe" should be defined, in part by how they relate to these two Acts. For example, "negligible" may be defined as, "Individual plants may occasionally be impacted, but measureable or perceptible changes in vegetation community size, integrity, or continuity would not occur. Terrestrial and aquatic wildlife and their habitats would not be impacted, or the impacts would be at or below the level of detection and would not be measurable or of perceptible consequence to wildlife populations. Negligible impacts would have a "No effect" determination for the Endangered Species Act and a comparable determination for the Marine Mammal Protection Act (MMPA)." This should carry through each of the impact terms with "severe" correlating with a "Likely to Adversely Affect Determination." Pages 3-76 through page 3-80 of the DEIS discuss the variety of listed species found on and around the island, but there is no discussion of any consultation that occurred under the ESA or MMPA. In addition to a lack of discussion regarding substantive compliance with these statutes, there was a subsequent lack of information regarding whether the presence of threatened species, endangered species, and marine mammals would affect the low- and high-impact density reuse options. We recommend that the FEIS include more information to explain how species and habitats would be protected.

Throughout Section 3.8.3.2, there is discussion of the impact that various reuse options could have on threatened and endangered species. For Reuse Option 1 (p3-81) the document states, "no changes to rare, threatened and endangered species, including critical habitats would be expected." Under Reuse Option 2 (p 3-84), the document states, "No adverse changes to habitats utilized by federally listed threatened and endangered species would occur." It is unclear from this section if this determination was made as part of a consultation with the Fish and Wildlife Service or if a "No Effect" determination was made. The possible impacts from construction, such as noise, night time lighting, habitat destruction, etc. to species such as small whorled pogonia, sea turtles, Indiana bat, piping plover, and other threatened and endangered species known to inhabit the island was not discussed, but should be included.

For Reuse Option 3 (p 3-86) the DEIS states that "No changes to terrestrial habitats utilized by federally listed threatened and endangered species would occur with redevelopment, with the exception of upland habitats that may have the potential to support small whorled pogonia." Reuse Option 3 has the greatest potential for impacts related to construction and overall scope and intensity of development. Specifically, Reuse Option 3 will impact the greatest amount of habitat for infrastructure development and will result in the greatest amount of habitat disruption due to human utilization of beach and water front area as well as impacts from biking, hiking and other recreational activities. Each of the passages mentioned here should have a comprehensive discussion of impacts to endangered species that would result from residential development (both during the construction phase and once residential units are inhabited) and specifically refetence the consultation for the sale of the island.

Waste Management

Section 3.12 discusses existing hazardous, toxic, or radiological waste (HTRW) contamination on the island. Most of this discussion is limited to issues pertaining to the Resource Conservation and Recovery

Act (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). The discussion of contamination as it relates to exotic animal disease, and potential lingering impacts from the existence of PIADC is lacking. The DEIS (page 3-142) states that there is a "management-imposed nothing leaves Plum Island" policy that was instituted at the outset of PIADC's establishment....The purpose of the policy was to ensure that waste removal processes would not be responsible for allowing biological agents under study to escape the confines of Plum Island." EPA believes a more detailed explanation of the clean-up process as it relates to the research facility and potential biological contamination is warranted. The FEIS should detail the specific components of the clean-up, what each component will achieve, and how the process will ensure the safety of future potential inhabitants of the island.

Additionally, the DEIS at page 3-75 states that, "As a standard safety procedure, measures to control the white-tailed deer population are conducted annually, though none have been found on Plum Island since 2004." It is our understanding that white-tailed deer have in the past, swum to the island from the mainland and have been culled as a safety measure to ensure that they do not transmit disease back to the mainland. The FEIS should explain at what point after the closure of the PIADC the risk of the spread of disease to large mammals would no longer be an issue of concern. The FEIS should also describe which clean-up measures will be utilized to eliminate any remaining pathogens.

Under the discussion of HTRW, the DEIS (page 3-148) states that one of the CERCLA sites "is an existing landfill (i.e., WMA 26) that was investigated during the CERCLA program and for which NYSDEC has requested that an institutional control such as a deed restriction be placed to prohibit residential development." We would like to see a discussion in the FEIS of the long-term potential health implications for future residents in the event of a low or high density development scenario related to access to this area for recreation or simply living in close proximity to contaminated sites. With a deed restriction, residents may still have access to this area for recreational purposes. The DEIS (page 3-148) states that, "DHS is currently completing the remaining CERCLA program closure and clean-up operations as part of its ongoing activities to achieve compliance with federal, state, and local regulatory standards" and that, "remediation areas on Plum Island located within a residential development area could inhibit development plans for areas at and near the ten CERCLA sites located in the Potential Development Parcels." The DEIS should provide an estimated timeline for the remaining clean-up actions.

On the whole, there is a lack of detailed information pertaining to contamination associated with the historic uses of the island, including military activities and biological research. Information such as the nature, location, volumes and concentrations of contaminants still to be remediated should be provided in the FEIS.

As a cooperating agency for this project, EPA staff remain available to the extent our resources allow to help GSA as it works to respond to issues raised in our comments. In addition, EPA is willing to continue to provide technical assistance and support to local, state, and federal agencies, as appropriate, after the conclusion of the NEPA process and sale of the island.

Based on our review of the DEIS, we have rated the DEIS "EC-2-Environmental Concerns-Insufficient Information" in accordance with EPA's national rating system, a description of which is enclosed with this letter.

Thank you for the opportunity to comment on the DEIS for the Sale of Plum Island. Our comments on the DEIS are intended to help the GSA provide useful information that will ultimately inform local, state and federal review and decision-making related to land use and impacts. Should you have any questions regarding the comments and concerns detailed in this letter, please feel free to contact Stephanie Lamster at 212-637-3465.

Sincerely,

Judith A. Enck
Regional Administrator
Region 2

H. Curtis Spalding
Regional Administrator
Region 1

Enclosure

SUMMARY OF RATING DEFINITIONS AND FOLLOW-UP ACTION
Environmental Impact of the Action

LO-Lack of Objections

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC-Environmental Concerns

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

EO-Environmental Objections

The EPA review has identified significant environmental impacts that must be avoided to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU-Environmentally Unsatisfactory

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of environmental quality, public health or welfare. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommend for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact Statement

Category 1-Adequate

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2-Insufficient Information

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

Category 3-Inadequate

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analysis, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

TOTAL P.02

United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
408 Atlantic Avenue – Room 142
Boston, Massachusetts 02110-3334

October 26, 2012

9043.1
ER 12/529

John Dugan
Office of Real Property Utilization and Disposal
Public Service Building
General Services Administration
Thomas P. O'Neill, Jr. Federal Building
10 Causeway Street, Room 1010
Boston, MA 02222

RE: COMMENTS
Draft Environmental Impact Statement
Public Sale, Plum Island Animal Disease Center
Long Island Sound, Suffolk County, New York

Dear Mr. Dugan:

The U.S. Department of the Interior (Department) has reviewed the Draft Environmental Impact Statement (DEIS) by the General Services Administration (GSA) and Department of Homeland Security (DHS) (hereafter referred to as Joint Lead Agencies) dated July 20, 2012, for the Public Sale of the Plum Island Animal Disease Center Suffolk County, NY. The following comments have been prepared by the Department's U.S. Fish & Wildlife Service (Service).

Pursuant to Section 1501.6(b)(3) of the National Environmental Policy Act of 1969, as amended (42 U.S.C.), and at the request of the Joint Lead Agencies by letter dated October 5, 2010, the Service is participating as a cooperating agency in the DEIS process. A Memorandum of Understanding (MOU) was agreed to and signed by the Joint Lead Agencies and the cooperating agencies, which also includes the U.S. Environmental Protection Agency (USEPA), on February 11, 2011. As a cooperating agency, the Service has assisted the Joint Lead Agencies by providing information on fish and wildlife resources in the project area, suggesting measures that might avoid or minimize impacts resulting from the implementation of the proposed alternatives, and reviewing the environmental analyses conducted by the Joint Lead Agencies. Throughout the process, the Service commented on the proposed sale of Plum Island in regard to its potential impacts to species protected under the Federal Endangered Species Act (ESA) of 1973, as amended (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and migratory birds protected under

the Migratory Bird Treaty Act (MBTA) of 1918, as amended (40 Stat. 755, as amended; 16 U.S.C. 703 et seq.). The Service also provided input pursuant to the Coastal Barrier Resources Act of 1982, as amended (Public Law 97-348).

The Service has coordinated with the Joint Lead Agencies in formal correspondence, emails, meetings, and teleconferences between June 2010 and July 2012. A coordination history, containing the dates of a number of events or correspondences that were exchanged during the development of the DEIS, is presented in Attachment A.

GENERAL COMMENTS

The Plum Island Animal Disease Center (PIADC) and its mainland supporting facilities are located in the Town of Southold, Suffolk County, New York. The Island is 840 acres (ac) in area and is situated 1.5 miles off the coast of Orient Point, New York. The facility was established in 1954 as a U.S. Department of Agriculture (USDA) research facility. In 2003, the property was transferred to the DHS, which currently oversees its safety and security while USDA continues to use PIADC for its research purposes.

The DEIS describes the sale of the Plum Island facility, including Plum Island and approximately 9.5 ac of land at Orient Point that contains several facilities. The Plum Island facility also includes a small parcel of land containing a substation located at the tip of Orient Point. The majority of buildings that comprise the PIADC are located on Plum Island, including a 55,000 square-foot (sq ft.) administrative building, a 190,500 sq ft. laboratory, and various support buildings. Plum Island is also improved with approximately 8 miles of road infrastructure and harbor facilities.

The DEIS includes two alternatives including the "No-Action Alternative" and the "Federal Government Action Alternative – Sale of the Property."

> No-Action Alternative: The No-Action alternative would include the decommissioning of Plum Island. The PIADC would still be held in Federal ownership, but under mothball status with reduced funding for maintenance purposes.
>
> Federal Government Action Alternative: The second alternative includes four reuse or redevelopment options including:
>
> 1) Reuse Option 1 – Adaptive Reuse of Existing Infrastructure. Under the adaptive reuse option, the existing buildings, infrastructure, and transportation assets would be adapted for other purposes and continue to function at current or similar levels.
>
> 2) Reuse Option 2 – Low-density Zoning (90 Residential Units). The low-density zoning option is based upon a land use and zoning scheme similar to that of neighboring Fishers Island, New York. This option would accommodate approximately 90 residential units, including the required support infrastructure.

3) Reuse Option 3 – High-density Zoning (750 Residential Units and Supporting Infrastructure. The high-density zoning option is based upon the highest density permitted by the Town's zoning regulations. This option would accommodate approximately 750 residential units and supporting infrastructure.

4) Reuse Option 4 – Conservation/Preservation. The primary function of the conservation/preservation option would be to protect, manage, and enhance the natural and cultural resources on the Property should the Property be purchased for conservation or preservation purposes.

SPECIFIC COMMENTS

Fish and Wildlife Resources

Ecological Importance of Plum Island

Throughout the development of the DEIS, the Service discussed with the Joint Lead Agencies the ecological importance of Plum Island to fish and wildlife resources, special habitat designations given to Plum Island by the State of New York (State) and the Service, the Long Island Sound Stewardship initiative which includes Plum Island, as well as our incomplete understanding of all the resources that utilize the Island due to a lack of surveys or environmental studies. These points are briefly summarized below.

(1) Plum Island provides habitat for both the Federally-listed piping plover (*Charadrius melodus*) (threatened) and roseate tern (*Sterna dougallii dougallii*) (endangered). Piping plovers breed on the southern beaches and roseate terns forage in nearshore waters and loaf on its shoreline. Plum Island is also two miles from the largest colony of roseate terns in New York at Great Gull Island. Both species are sensitive to human disturbance and loss of habitat due to development and human recreation. Development would likely result in direct impacts such as physical disturbance due to construction activities or adverse habitat modification. Adverse indirect effects of development would likely occur in the form of an increase in avian and mammalian predators (e.g., crows, gulls, blackbirds, feral cats, domestic cats, dogs, rats, etc.), human recreational disturbance, and indirect effects on habitat from shoreline management activities such as beach nourishment, revetment construction, groin construction, sand fencing, and beach grass planting.

(2) Plum Island and/or adjacent areas are identified as significant habitats by the New York State Department of State and the Service.

(3) Plum Island is included in Audubon New York's Important Bird Area known as Orient Point Complex. The Island is suspected to be an important breeding and migratory stopover site for many species of neotropical migrants and other avian species. One hundred and eighty-seven species of birds have been recorded on Plum Island by the North Fork Audubon Society (New York Natural Heritage Program 2012), 57 of which are designated as New York Species of Greatest Conservation Need (SGCN). Of the 187

species, 65 were documented as breeders on the Island, including 13 SGCN species. Construction activities, loss of forest habitat, conversion of natural habitat to lawns, introduction of predator species, and greater levels of human disturbance associated with commercial and residential development could significantly impact these species. Direct mortality of these species during development of the Island would be in violation of the MBTA.

(4) Plum Island is a Long Island Sound (LIS) Stewardship Site, being within the Plum, Little, and Great Gull Islands Stewardship Area. It is one of 33 Inaugural Stewardship Areas around LIS recognized by the LIS National Estuary Program Policy Committee for its significant ecological and recreational value.

(5) Nearly 25% of Plum Island is located within the Coastal Barrier Resources System (CBRS map-24). Inclusion in a CBRS area places restriction on Federal expenditures, particularly those that would facilitate intensified private sector development in storm prone areas. Any alternative that does not restrict or prohibit Federal expenditures in this zone would be in conflict with the Coastal Barrier Resources Act of 1981, as amended (96 Stat. 1653; 16 U.S.C. 3501 et seq).

(6) Many fish and wildlife populations on Plum Island have not been thoroughly inventoried. For instance, the importance of the Island to bat species and certain avian species such as owls is unknown at this time due to the restrictions on access to the Island that prevent nighttime surveys.

Endangered Species

As noted above and throughout the DEIS process, Plum Island has been documented by the Service, the New York State Department of Environmental Conservation, Audubon New York, and the North Fork Audubon Society as a breeding ground for the Federally-listed (threatened) and State-listed (endangered) piping plover. The Service is the lead surveyor for this species on this site and has received cooperation and assistance from DHS over the last several years on the annual piping plover surveys. The State-listed threatened common tern (*Sterna hirundo*) has also been documented by the Service using the Island for sheltering and feeding. The majority of these terns breed nearby on Great Gull Island, which supports one of the largest breeding colonies of the endangered roseate tern. The American oystercatcher (*Haematopus palliatus*) is also present on the Island. This species is currently listed in Massachusetts, Rhode Island, Connecticut, and New York as a state SGCN in the American Oystercatcher Conservation Action Plan for the U.S. Atlantic and Gulf coasts. The American oystercatcher is also listed as a species of high conservation concern in the U.S. Shorebird Conservation Plan.

Section 7(a)(2) of the ESA states that each Federal agency shall, in consultation with the Secretary, insure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat. In fulfilling these requirements, each agency is to use the best scientific and commercial data available. This section of the ESA sets out the consultation process, which is further implemented by regulation (50 CFR §402). Formal consultation

becomes necessary when: (1) the action agency requests consultation after determining the proposed action may affect listed species or critical habitat [however, if the Service concurs in writing that the proposed action is not likely to adversely affect any listed species or critical habitat (i.e., the effects are completely beneficial, insignificant, or discountable), then formal consultation is not required]; or (2) the Service, through informal consultation, does not concur with the action agency's finding that the proposed action is not likely to adversely affect the listed species or critical habitat. Under the ESA, "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or to attempt to engage in any such conduct. "Harm" is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavior patterns such as breeding, feeding, or sheltering. "Harass" is defined as actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering.

GSA has determined that Reuse Option 1 would result in no changes to threatened and endangered species or their habitats, except for those State-listed species such as northern harrier (*Circus cyaneus*) that may occur in the upland habitats. GSA has also found that Reuse Options 2 (90 residential units) and 3 (750 residential units and supporting infrastructure) would result in no changes to threatened and endangered species habitat. However, it is our opinion that indirect effects of residential development of these densities would likely create a measureable adverse impact to listed species resulting from human recreational disturbance and shoreline management actions.

In comments of March 16, 2012, on the preliminary DEIS, the Service did not concur with this determination based on its experience with other development projects around Long Island. Specifically, the Service noted that the renourishment of West Hampton Barrier Island by the U.S. Army Corps of Engineers (Corps) in 1997 and the subsequent redevelopment of the Village of West Hampton Dunes resulted in both direct and indirect impacts to the piping plover and seabeach amaranth (*Amaranthus pumilus*). During formal consultation pursuant to Section 7 of the ESA between the Service and the Corps, adverse effects leading to incidental take of listed species were anticipated and a biological assessment was prepared by the Corps. The types of direct and indirect impacts that would be expected to occur on Plum Island include impacts due to beach nourishment, docks and piers, human disturbance due to recreational activities, residential development, and fireworks. Human development may also result in the presence of free-roaming pets and feral animals such as cats and dogs in piping plover breeding habitat.

Therefore, it is the Service's recommendation that the FEIS indicate that residential development would be likely to adversely affect listed species and that formal Section 7 consultation would be necessary for any Federal action that is associated with either development option. This recommendation also applies to Reuse Option 1 (adaptive reuse) since the protections and restrictions that are currently in place (e.g., prohibitions on access to the southern beach areas) as a result of the operations of PIADC would not be in place after the Island leaves Federal ownership. 50 CFR §402 provides direction to Federal agencies on the content of this assessment.

In addition, the FEIS should note that take of listed species likely to result from projects undertaken by non-Federal landowners would require an incidental take permit pursuant to Section 10 (a)(1)(B) of the ESA in order to avoid potential violations of section 9 of the ESA and possible law enforcement action. An application for an incidental take permit must be accompanied by a Habitat Conservation Plan (HCP). The HCP would describe the anticipated effects of the proposed taking, how those impacts will be minimized or mitigated, and how the HCP is to be funded. HCPs can apply to both listed and non-listed species, including those that are candidates or have been proposed for listing.

Finally, the Service continues to recommend that the FEIS reference or include as an appendix the Service's beach recreational guidelines to protect piping plover entitled, "*Guidelines for Managing Recreational Activities in Piping Plover Breeding Habitat on The U.S. Atlantic Coast to Avoid Take Under Section 9 of the Endangered Species Act*," found at http://pipingplover.fws.gov. Other relevant documents found on the website include "*Cats and Dogs and Birds on the Beach - A Deadly Combination*" and "*Piping Plover, Atlantic Coast Population: 1996 Revised Recovery Plan*." These documents describe the recovery criteria and objectives, threats to the species from predators, and measures that should be taken to avoid take on recreational beaches.

Information for the roseate tern, including links to the Roseate Tern Recovery Plan, can be found at: http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B07O.

Migratory Birds

Plum Island is a significant migratory bird breeding and stopover area that could be adversely impacted by any development on the Island. This determination is supported by the New York Natural Heritage Program (2012), which identified 187 species of migratory birds on Plum Island, the majority of which are protected by the MBTA.

The impacts of redevelopment noted in the DEIS include habitat loss, fragmentation, displacement, changes in vegetation composition, and habitat conversion. The DEIS concludes that these would be negligible or minor effects when evaluated in terms of population size or species' range of occurrence. However, the proposed development alternatives would result in the loss of roughly 34% of the Island's forest habitat, a large percentage of which is classified as undisturbed forest by GSA, and a substantial portion of the existing areas characterized as old fields. This level of habitat coupled with the lack of detailed information on seasonal species' distribution and abundance, suggests that the development options will have more than a minor effect on wildlife species that utilize the Island. It is reasonable to anticipate that substantial reductions in population or local extirpations, as well as changes in species diversity, will likely occur as the land use patterns undergo a significant shift from their present state to a residential development over much of the Island. These effects will be compounded by other effects such as edge effects, impacts of roads, the introduction of non-native predators such as feral and domestic cats which can severely impact Island bird populations, and collisions with residential structures, none of which were addressed in the DEIS.

To mitigate for some of the impacts discussed above, the Service recommended throughout the development of the DEIS that the Joint Lead Agencies should explore, in the context of Reuse Options 1, 2, and 3, an alternative that looks at clustered development so as to reduce the footprint of either the low or high density development. This would enable the preservation of more than 640 acres of contiguous lands rather than the current alternative scenarios that result in fragmented and fringe habitats. Further, deed restrictions to protect contiguous forestland, old fields, and grasslands, as well as coastal areas is another option the Service recommended that DHS could consider prior to Plum Island leaving Federal ownership to maximize conservation potential of this important natural resource.

As migratory bird species are protected under the MBTA, the FEIS should discuss the implications for development actions on the Island in the context of the MBTA. The MBTA prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Service. The word "take" is defined as "to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to pursue, hunt, shoot, wound, kill, trap, capture, or collect." The unauthorized taking of birds is legally considered a "take" under the MBTA and is a violation of the law. Neither the MBTA nor its implementing regulations, 50 CFR Part 21, provide for permitting of "incidental take" of migratory birds that may be killed or injured by development projects. Under the provisions of the MBTA, the unauthorized take of migratory birds is a strict liability criminal offense that does not require knowledge or specific intent on the part of the offender. As such, even when engaged in an otherwise legal activity where the intent is not to kill or injure migratory birds, violations can occur if bird death or injury results.

Alternatives Discussion

Proactive Protection of Environmental Resources Through Deed Covenants and Restrictions

Section 7(a)(1) of the ESA directs Federal agencies to utilize their authorities to further the conservation of Federally-listed species. The Department of Homeland Security, as the Federal landholding agency, could place deed restrictions or conservation easements on the land that would pass with the conveyance of the title to the new owners to ensure long-term protection of listed species and their habitat. This would enable the Federal government to advance Federal environmental goals and policies in advance of transfer to non-Federal entities. In addition to conserving listed species, deed restrictions and conservation easements would streamline the Federal review of post transfer development activities and reduce economic costs associated with species and land conservation. Currently, the DEIS alternatives do not provide for any proactive Federal involvement in the protection of natural resources on the Island while it is still in Federal ownership. It would be beneficial for the DHS to explore this further, as many of the environmental impacts currently discussed in the DEIS could be avoided or minimized even further if this option was adopted.

Development of the deed restrictions or conservation easements would be undertaken in a strategic manner to maximize land and species conservation and should also be extended to protect migratory birds and their habitat as well as other sensitive fish and wildlife resources.

The Service recognizes that the DEIS does recommend establishing conservation areas or restoring habitat after the Island has left Federal ownership as means to offset potential adverse impacts to biological resources including listed species. Specifically, as stated on page 2-5,

> "Once Plum Island is sold, applicable zoning requirements would need to be met by the future owner. Currently, there are no deed restrictions or conservation easements associated with the Property, but deed restrictions and conservation easements could be incorporated after the sale. Potential deed restrictions may include additional setbacks from wetlands or shoreline areas used by protected species, subdivision restrictions, height restrictions on structures, and other related limitations on development. Any necessary restrictions would be based on sound science to protect wildlife and their habitats, water quality, or similar ecological attributes of the Property. Conservation easements that could restrict certain activities (e.g., recreational use or commercial activities that may disturb listed species) may also be considered."

However, we believe this would be most effective if it were undertaken prior to the Island leaving Federal ownership.

Benefits to Habitat Conservation from the No-Action Alternative

The No Action Alternative would likely result in continued protection of the natural resources of the Island through internal programs implemented by USDA and DHS as well as through partnerships with other Federal agencies such as the Service. Resource protection would also be provided through the continuation of security patrols in support of operations at PIADC. Such patrols have a positive indirect effect on natural resources by prohibiting unauthorized entry onto the Island and, therefore, into sensitive habitats. The FEIS should also state that as a result of the No Action Alternative, approximately 195 acres of forested and old field habitats would not be impacted from private development.

Reducing the Footprint of Reuse Options 1, 2, and 3

Any adaptive reuse plans should limit the footprint of the developable lands so that the estimated minimum of 640 acres, which could be preserved, would not be fragmented by development and associated roads and infrastructure. It is possible that this may be accomplished by reconfiguring the developable lands to concentrate development in already impacted areas. A key component of this re-evaluation or re-delineation of developable lands would be to revisit the designations and definitions for "impacted" versus "unimpacted" forest habitats, as this has had an important role in the development suitability analysis undertaken by GSA. Related to this, it would be beneficial to know the relative impact human encroachment and storm-induced processes have in the category of impacted forests. Further, since the distribution and abundance of the Island's biological resources have not been systematically surveyed and mapped, the FEIS should indicate the uncertainty surrounding its estimate of developable lands.

The Service recommends that the Joint Lead Agencies consider undertaking a new general suitability analysis for development using the following list of environment attributes in conjunction with those parameters already used in the DEIS:

(1) historic or existing areas that supported, or support, State and Federally-listed threatened and endangered species and species of special concern;
(2) significant breeding or migratory areas for avian species;
(3) habitats that may support bat species;
(4) coastal zones supporting marine mammals; and
(5) ecologically unique or significant habitats and rare plant occurrences.

Overall, if the current development alternatives that depict development throughout the Island are not re-evaluated to maximize the amount of contiguous habitat for conservation, there will likely be significant alteration of the landscape, resulting in major changes and reductions to the flora and fauna on the Island. The linkage and assumed contribution of Plum Island to regional flora and fauna populations cannot be understated and it is likely that any major changes to these populations could have significant ramifications on a regional scale.

Furthering Conservation through the Conservation/Preservation Option

In general, conservation plans referenced in the FEIS should include all undeveloped upland, grasslands, wetlands, and coastal habitats on Plum Island and be undertaken in a manner that involves multiple stakeholders, protects species and the habitats on which they depend. Areas to be included in the preservation alternative should be contiguous so as to limit the effects of development on sensitive species and lands. In addition, adequate habitat management controls should be incorporated and include, but not be limited to, grassland management, invasive species control, and endangered species protection (piping plovers breed on Plum Island, and roseate and common terns use the Island for loafing and forage in adjacent coastal waters). Preservation should also include any existing offshore coastal limits of Federal ownership to protect foraging and haul out areas for seals and avian species that use the rocky coastline of the Island.

The Service looks forward to continued involvement in the EIS process as a cooperating agency. If you have any questions please contact Steve Papa of the Long Island Field Office at (631) 286-0485.

Thank you for the opportunity to review and comment on this DEIS. Please contact me at (617) 223-8565 if I can be of further assistance.

Sincerely,

Andrew L. Raddant
Regional Environmental Officer

LITERATURE CITED

New York Natural Heritage Program. 2012. Biodiversity and Ecological Potential of Plum Island, New York. New York Natural Heritage Program, Albany, NY. 55 pp.

ATTACHMENT A

COORDINATION HISTORY

March 18, 2010: GSA published a notice of intent (NOI) to prepare an Environmental Impact Statement (EIS) for the sale of Plum Island on March 18, 2010, in the Federal Register.

June 16, 2010: The Service transmitted a letter to Joint Lead Agencies responding to the NOI. The Service provided recommendations to GSA to conduct detailed analyses of fish and wildlife resources including threatened and endangered species, recommended the evaluation of a conservation alternative, and provided information on environmental resources in the project area including marine mammals, marine turtles, avian species, finfish, and plants. We also discussed the ecological designations given to Plum Island and adjacent waters, and the proximity of Plum Island to the Service's National Wildlife Refuge lands in the Peconic Bay ecosystem. Finally, the Service supported comments made by the USEPA relative to habitat conservation and the alternatives analysis, and provided information on sensitive habitats and species on the Island.

October 19, 2010: The Service transmitted a letter to the GSA responding to its October 5, 2010, correspondence which requested Service review of a proposed MOU between the Joint Lead Agencies and the designated cooperating agencies. The draft MOU described the roles and responsibilities of all the involved agencies during the preparation of the DEIS and Final EIS. The Service provided input on the development of the MOU and discussed the provision in Section 540 of the Consolidated Security, Disaster Assistance, and Continuing Appropriations Act of 2009 (Public Law 110–329) that directs the sale of Plum Island subject to "such terms and conditions as necessary to protect government interests and meet program requirements," indicating that this language provided latitude to identify alternatives that would enable the Federal government to take steps to protect Federally-listed species, migratory birds, and their habitats that use Plum Island.

February 17, 2011: The Service and EPA agree to be cooperating agencies on the DEIS.

June 2011: The Service commented on the preliminary DEIS via electronic correspondence.

October 2011: The Service commented on the latest version of the Joint Lead Agencies' preliminary DEIS via electronic correspondence.

March 16, 2012: The Service transmits review comments to GSA on the final preliminary DEIS dated February 2012. The Service provided overall comments and recommendations pertaining to deed restrictions and covenants to protect listed species and migratory birds, endangered species conservation, lands available for development, and specific line-by-line comments on the document.

April 17, 2012: The Service receives correspondence from GSA dated April 17, 2012, declining Service recommendations to include discretionary deed restrictions for the protection of listed

species and migratory birds and their habitats while the property remains within Federal ownership. GSA indicates that such an action would be counter to Public Law 110-329, which directs GSA to sell Plum Island and use the proceeds of the sale to offset the construction costs of the new National Bio and Agro-Defense Facility in Manhattan, Kansas.

July 17, 2012: The Service receives correspondence from GSA providing a notice that the DEIS will be published in the Federal Register on July 20, 2012.

Bourdeau, Jonathan

From: John Dugan (1PZS) [john.dugan@gsa.gov]
Sent: Friday, October 26, 2012 5:06 PM
To: marguerite smith
Cc: phil.youngberg@gsa.gov; Randall King
Subject: Re: PLUM ISLAND: COMMENTS OF THE SHINNECOCK INDIAN NATION

Ms. Smith,

Thank you very much for your comments to the Draft EIS. Will will include this email in the official project record and we will be in touch regarding any future actions that may require further consultation with the Shinnecock Nation.

If you have any questions, please feel free to contact me.

John L. A. Dugan
Real Property Utilization & Disposal
U.S. General Services Administration
Thomas P. O'Neill Federal Building
10 Causeway Street, Room 1010
Boston, MA 02222
617.565.5709 - office
617.921.0431 - mobile
617.565.5720 - fax

On Fri, Oct 26, 2012 at 5:01 PM, marguerite smith <msmasesq@gmail.com> wrote:
The Shinnecock Indian Nation presents this COMMENT as a federally-recognized Indian Tribe, with current headquarters on the South Fork of the "East End" of Long Island. Plum Island is located within the ancestral travelways of our ancestors. We today are concerned that there be no disturbance of the resting places of our ancestors, and that all uses of this land and surrounding waters be handled with all legal requirements and due respect for the concerns of the Shinnecock Indians and neighboring Native people.

We seek, at every stage of exploration and planning as to the future of Plum Island, to receive all legally-mandated consultation and complete access to information about any past, presently-occurring or prospective findings as to environmentally unique and sensitive natural resources and valued cultural resources in and around Plum Island. If an inventory concerning cultural resources exists, please provide contact and access information. From the existing EIS, prepared in anticipation of offering Plum Island or sections thereof for transfer to other public or private entities, we do not know that there has been appropriate and state of the art study (archaeology or other disciplines) as to existence of human remains and cultural findings. If there is to be any further study on or around said property, the Nation expects to receive adequate notice and opportunity to participate.

We appreciated the opportunity to be heard and offer preliminary remarks at your recent hearing in Greenport NY, which was attended by the undersigned and others working on cultural resource preservation in our Nation.

You may direct all correspondence going forward to
Chairman Randy King, Shinnecock Indian Nation
P O OX 5006
Southampton NY 11969-5006

or to
Shinnecock Indian Nation
100 Church Street
SHINNECOCK INDIAN NATION COMMUNITY CENTER
via Southampton NY 11968

urther contact may also occur through:
Shinnecock Indian Nation, office of Tribal Trustees
(631)283-6143 x2
or
Communications Office
Director Beverly Jensen
bev@shinnecock.org

Thank you.

Marguerite A. Smith, Esq.
for Shinnecock Indian Nation
--
Marguerite A. Smith
Attorney at Law
msmasesq@gmail.com
(631) 848-4272
(631) 283-6143 x2 (SN Office)

This law office communication may contain CONFIDENTIAL &/or PRIVILEGED material. It is ONLY for addressees & their authorized agents. All others are warned to use only for notifying sender by reply e-mail & deleting/destroy message and any copies & attachments.

COUNTY OF SUFFOLK

Steven Bellone
SUFFOLK COUNTY EXECUTIVE

Department of
Economic Development and Planning

Joanne Minieri
Deputy County Executive and Commissioner

Division of Planning
and Environment

September 17, 2012

Mr. John Dugan
Office of Real Property Utilization & Disposal
U.S. General Services Administration
Thomas P. O'Neill Federal Building
10 Causeway Street, Room 1010
Boston, MA 62222

RE: DEIS for Public Sale of Plum Island, New York

Dear Mr. Dugan:

This is in response to the July 20, 2012 notice pertaining to the start of the public comment period on the issuance of the Draft Plum Island, New York Public Sale Environmental Impact Statement (July 13, 2012).

Suffolk County maintains that that research facility at Plum Island should remain open to continue its vital research, thereby retaining 200 jobs in Suffolk County. The replacement or expansion of the exiting animal disease center should occur at its current location.

Given the economic development and ecological importance of Plum Island and its relationship to Suffolk County, we will continue to track events pertaining to this matter of regional concern. Please consider this letter as a formal request to notify me about upcoming events, public participation schedules, document availability, and decisions concerning Plum Island.

Sincerely,

Sarah Lansdale, A.I.C.P.
Director

SL/DD/bd

cc: Jon Schneider, Deputy County Executive
Joanne Minieri, Deputy County Executive and Commissioner
Vanessa Pugh, Deputy Commissioner, Economic Development and Planning
DeWitt S. Davies, Chief Environmental Analyst, S.C. Div. of Planning & Environment
Lauretta R. Fischer, Principal Environmental Analyst, S.C. Div. of Planning & Environment

H. LEE DENNISON BLDG ■ 100 VETERANS MEMORIAL HWY, 4th Fl ■ P.O. BOX 6100 ■ HAUPPAUGE, NY 11788-0099 ■ (631) 853-5191

Bourdeau, Jonathan

From: John Dugan (1PZS) [john.dugan@gsa.gov]
Sent: Thursday, October 25, 2012 4:36 PM
To: Lanza, Heather
Cc: Gabrielle Sigel (1PZS); Phil Youngberg; John Kelly
Subject: Re: Town of Southold comments on the Draft EIS for the sale of Plum Island

Heather,

Thank you very much for your comments to the DEIS and for taking the time last week to attend the meeting. I will forward this on to AMEC and we will be sure to call if we need any clarifications from you and your staff.

If you have any questions, Gabrielle and I are available.

Thanks again.

John L. A. Dugan
Real Property Utilization & Disposal
U.S. General Services Administration
Thomas P. O'Neill Federal Building
10 Causeway Street, Room 1010
Boston, MA 02222
617.565.5709 - office
617.921.0431 - mobile
617.565.5720 - fax

On Thu, Oct 25, 2012 at 4:28 PM, Lanza, Heather <heather.lanza@town.southold.ny.us> wrote:

October 25, 2012

Mr. Phil Youngberg

U.S. General Services Administration

Re: Southold Town Review of the Draft EIS for the Sale of Plum Island

Dear Mr. Youngberg:

Thank you for the opportunity to review the Draft EIS for the Sale of Plum Island. We appreciate that the EIS document represents a large amount of work on the part of GSA and their consultants. We precede each comment below with the section or page number of the DEIS document for your reference where relevant.

In general the main concern we have with this Draft EIS is Reuse Option #3 which describes a 750 unit high-density residential development. This option is far from reasonable or likely and should be struck from this document. This alternative is not consistent with the Town's Comprehensive Plan, and not consistent with the zoning the Town is contemplating for Plum Island. This option also does not support the Town's goals with respect to Plum Island's future should it become privately owned. These goals were stated to the GSA in a letter in 2010 and included in the EIS. Below we provide additional rationale behind our request for Reuse Option #3 to be removed from the EIS, as well as pointing out a few other corrections.

Page 2-7

2.3.2

The third paragraph states that the Orient Point Facility is zoned Marine I, which is incorrect. The correct zoning is Marine II.

2.3.3

In this section the EIS characterizes the alternatives presented as "reasonable" and "the most likely potential land reuse options." The high density residential alternative (Reuse Option 3) is not only unlikely, there is no basis for presenting that scenario as reasonable in this document and it should be removed as an alternative. There is not a development pattern in Southold Town that predicates a high-density residential development at that scale. Such a development would not support or meet Town goals.

In comparison, Fishers Island, which is three times larger than Plum Island, has a current density of about one housing unit per 5 acres, with little opportunity to increase this density under current town zoning and other development controls in place. Robbins Island is half the size of Plum Island at about 455 acres, and is preserved by a conservation easement limiting development to a single home.

Additionally, nearby Orient Hamlet includes a total of 765 residential units at an overall density of about 5 acres per unit. The Reuse Option 3 of 750 units on Plum Island has an overall density of about one housing unit per one acre, or five times the density of the nearest existing community.

Further, the Town has a mandatory affordable housing requirement that would require 20% of the new housing units be designated as affordable. Under Reuse Option 3, building 750 units would require either building 150 affordable housing units on Plum Island, or paying into the Town's affordable housing fund at $215,000/unit (for a $32 million total buyout).

All of the above provide the rationale for finding this alternative unreasonable and unlikely and therefore, the Southold Town Board and Planning Board request that the alternative be removed.

Page 3-14

3.3.3.2.3 Potable Water Supply

The EIS points out that the high density residential Re-use Option 3 will stretch the limits of the sole source aquifer, and goes so far as to state that additional studies would be needed to figure out if there was enough water to support that level of development. Yet the EIS states that the impact to groundwater supplies will be "moderate" at worst for Option 3. Further, the Suffolk County Department of Health Services assigns 300 gallons per day of water usage to single family residential units, which at 750 units would exceed the "water budget" describe in the EIS for Plum Island. A development potentially capable of depleting the groundwater resource for potable water would seem to warrant being designated as having a "major" impact.

At the Orient Point facility there is no public water available, thus the density proposed would not be possible under any current Town zoning district due to bulk schedule requirements, providing another reason to strike this alternative from the EIS.

Page 3-25 Noise

Traffic causes long-term, widespread introduction of noise that would adversely affect nearby populations and may be overly disruptive to noise-sensitive populations. There are many homes along the main road to Plum Island's ferry dock, which would likely be the main route for travelers to the island. The traffic noise generated by Reuse Option 3 combined with the already existing traffic noise from the Cross Sound Ferry could have a major impact on the community, or at least "moderate" instead of the "minor" impact described in the EIS.

The impact from potential aviation noise (frequency and anticipated flight paths) is not addressed adequately.

Page 3-53 Groundwater

This section describing the adverse impact to groundwater from Reuse Option 3 identifies a moderate impact to groundwater resources where a major impact seems more likely given that the water usage for 750 homes at 300 gallons per day each (225,000 total gallons per day), would exceed the recommended water budget of 150,000 to 200,000 gallons per day for this sole source aquifer. The mitigation suggested seems inadequate to address the depletion of the groundwater.

Page 3-113 Recreation

Orient Beach State Park is a State Park, not a County Park as shown in the first paragraph.

Page 3-114 Fire Protection

The EIS describes the Southold Fire District instead of the Orient Fire District. This should be corrected.

Page 3-122 through 3-129

This page begins a discussion on potential property tax revenue from developing the island with residential units. The calculations are incorrect because they leave out the equalization rate and thus overestimate total property tax revenue. The EIS states the annual property tax revenue from a 90 unit development would be over $42 million, where the correct calculation is estimated at about $470,000.

The Reuse Option 3 property tax projections use the same incorrect formula, stating that property tax revenues will be around $352 million, where the correct calculation is estimated to be $4 million.

Because certain assumptions about the impact to the study area are made based on the inflated tax revenue estimated for Reuse options 2 and 3, this section should be reexamined. While there would be some property tax revenue where there wasn't any before, there will also be additional services required of the taxing districts, especially fire and emergency services, and police. Taking into account that the island can only be reached by boat or air, these services will be more expensive to provide to Plum Island than in other parts of the Town, and property taxes may not cover the entire cost. This would likely cause property taxes for existing residents to rise.

Page 3-140 Traffic

Traffic impacts are evaluated only as far as Level of Service. The EIS states that traffic will certainly increase with the high density zoning under Reuse Option #3, but does not identify this as a major or even moderate impact. That the high density option has the ability to decrease the Level of Service by an entire level should be considered significant in the small communities of Orient and East Marion.

Analyzing traffic issues solely from the perspective of Level of Service, which measures only the amount of time spent waiting to enter a roadway and volume to capacity ratios, leaves out important considerations, especially in rural areas such as Orient. Those analyses do not address the other effects increasing traffic has on an area's community character and quality of life. The construction phase alone would likely cause a large amount of noise as heavy trucks moved along the two-lane road through East Marion and Orient, where many residences are located on the main road. The EIS estimates that Reuse Option 3 will create an additional 5,625 average daily trips to the Orient roadway. While this number seems surprisingly large, given that trips off the island will be restricted by the availability of a ferry, Reuse Option #3 will undoubtedly produce significant traffic in Orient and East Marion. This together with the existing ferry traffic plaguing the Orient and East Marion communities appears to meet the level of a major impact.

Again, the characterization of the Reuse Option 3 as having insignificant and negligible impacts to the area is not acceptable, and this alternative should be removed entirely from the EIS document.

Thank you for your consideration of these comments. Please call with any questions.

Sincerely,

Heather Lanza, AICP

Town Planning Director

Southold Town Planning

53095 Route 25

P.O. Box 1179

Southold, New York 11971

Phone: (631)765-1938

E-mail: heather.lanza@town.southold.ny.us

New York State Department of Environmental Conservation
Division of Environmental Permits, Region 1
SUNY @ Stony Brook
50 Circle Road, Stony Brook, NY 11790-3409
Phone: (631) 444-0403 • **Fax:** (631) 444-0360
Website: www.dec.ny.gov

Joe Martens
Commissioner

September 18, 2012

Phil Youngberg, Environmental Manager
C/o John Dugan
Office of Real Property Utilization & Disposal
US General Services Administration (GSA)
Thomas P. O'Neill Federal Building
10 Causeway Street, Room 1010
Boston, MA 02222

RE: **Comments on the Draft Environmental Impact Statement (DEIS) for the Public Sale of Plum Island, New York**

Dear Mr. Youngberg:

Thank you for offering the Department of Environmental Conservation the opportunity to comment on the DEIS for the public sale of Plum Island. Our comments are as follows:

Wildlife-Related Issues

1. DEIS Page 3-1 Paragraph 4: The document clearly establishes that the island supports a number of federal and state listed species, including the piping plover, various tern species, and northern harrier, etc. It lists the piping plover (NY Endangered), common tern (NY Threatened) and the roseate tern (NY Endangered) as breeding on the island. Unfortunately, the DEIS makes no mention of New York's recently promulgated 6 NYCRR Part 182 - Endangered Species Incidental Take Permit regulations and the regulatory requirements these regulations establish for projects judged by DEC to result in a "take" of a listed species, as the term is defined in the regulation. In addition to the direct killing of the listed species, the definition of the term "take" also includes such indirect effects as the adverse modification of habitat or the interruption / disruption of activities essential to the species survival such as feeding, nesting, rearing of young, etc. Part 182 requires a site specific study of the species of concern and the development of a species management/ habitat conservation plan which clearly demonstrates that the project will result in a net conservation benefit to the species of concern. While an official determination cannot be made until a specific project is evaluated, it is highly likely that both the low density and high density residential development alternatives examined in the DEIS would be expected to have deleterious impacts to listed species and would require a Part 182 take permit. Impacts would be expected even if all of the construction work were timed to miss the nesting season. The large increase in human population that 90 or 750 new houses/units would bring, including human activity in the island's natural areas, dogs, house cats, off-road vehicles, etc. would reasonably be expected to result in significant adverse impacts to listed species. Even "Reuse Option 1 (Adaptive Reuse of Existing Infrastructure) makes a very tenuous assumption that the use of the property under private ownership would be sufficiently similar to the existing use as to result in no adverse impacts or even an improvement to the biological resources in the vicinity. Part 182 regulations should be described in the DEIS, and the evaluation of each of the development alternatives should include a description of how the project would be designed to meet the permit issuance standards of these regulations.

2. The DEIS did not discuss the use of Plum Island by seals. *The Biodiversity and Ecological Potential of Plum Island, New York, New York Natural Heritage Program* indicates that Plum Island is the largest seal haul-out site in New York and among the largest in southern New England (DiGiovanni Jr. et al. 2011). The potential impacts to seal populations should be assessed in the DEIS for each of the alternatives explored.

3. The same report also notes that Plum Island's position within the Atlantic Flyway may make it a valuable stopover for migrating birds. The fact that Plum Island is located on this very important migratory route for birds should be stated in the DEIS, and the document should assess the importance of Plum Island as resting, feeding and foraging habitat for migrating birds. It should also make note of the fact that certain types of post-sale development which may appear obvious and attractive to some, such as wind turbines, have the potential to impact large numbers of migrating avifauna.

4. The DEIS indicates that no herpetological surveys were conducted other than the vernal pool survey. More comprehensive surveys should be performed in order to reasonably inventory the herptiles which inhabit Plum Island and to assess the potential impacts to these species from each proposed alternative.

5. The Natural Heritage report also indicates that the Island may be an important stopover site for bats and that the abandoned bunkers and other structures may provide habitat for roosting bats as follows:

   Bats have become one of the greatest conservation concerns in the northeast U.S., with white-nose syndrome having devastated many cave-dwelling bat species (Blehert et al. 2009) and fatalities at wind turbines causing concern especially for migratory tree bats (Cryan and Brown 2007, Cryan and Barclay 2009). No surveys of bats have been conducted on Plum Island, yet there is potential for the island to be an important stopover and roosting location. While little information is available on bat use of islands in this region, bats are known to migrate along the coast and over the ocean and to stopover on islands (Cryan and Brown 2007, Boyden 2012, Hooton and Costello 2012). Further, the island's many abandoned military bunkers have the potential to provide habitat for roosting big brown bats (Eptesicus fuscus) and perhaps other species as well, as has been documented in other locations (e.g., Baranauskas 2001, Masinga et al. 2009).

   Inventory surveys of bats should be conducted on Plum Island, and the potential impacts to these species from each proposed alternative should be addressed in the DEIS.

6. The DEIS should be revised to include a detailed description of how the animal disease laboratory research operation will be safely concluded and the facility closed. The DEIS should describe the measures which will be taken to eliminate, relocate or destroy all stocks of disease causing organisms and infected animals, and ensure that unintended or overlooked "reservoirs" of pathogens will not be left behind in things like laboratory incubators, plumbing, filter media, air handling systems, the wastewater treatment facility and any septic systems, animal cages / holding areas, carcass incinerators, etc. A list should be provided of the disease causing organisms studied at the facility which could infect the wild animal (and human) populations of the island, including ungulates such as deer, rodents and birds. The requirement of a post closure wildlife monitoring program should be considered for Plum Island, the Gull Islands and the Orient area to detect the presence of PIADC pathogens in local wild populations. This comment / issue is also of great importance to public health and perhaps belongs in its own section of the DEIS.

<u>Tidal Wetland Development Restrictions</u>

7. Section 3, Page 3-1 notes that the DEC administered Tidal Wetlands Land Use Regulations and Freshwater Wetlands Permit Requirements Regulations (6 NYCRR Parts 661 & 663, respectively) apply on portions of the island. The Tidal Wetlands Land Use Regulations, which include minimum lot size requirements for new houses in sewered and unsewered areas, a fairly complicated definition of the term "principal building" which dictates allowable floor area in certain types of buildings such as hotels, setback requirements from the wetland boundary and the requirement for the treatment of new runoff, will clearly play a significant role in determining what can be developed on the island. As such, a much more detailed explanation of the applicable development restrictions in Part 661 should be provided in the DEIS as well as a description of how they might affect the development of the island under the proposed alternate scenarios.

Coastal Processes/Erosion Issues

8. Section 3.7 of the DEIS describes the water resources of the project area, including tidal characteristics, flood plains, etc., while Section 3.6 covers soils and geology, including the morphology of the island. The two residential development concepts (low density and high density) described propose a significant amount of development along the northern portion of the island landward of the bluff. The document should be revised to include a more detailed description of the coastal processes which are affecting the island and a discussion of how development of the island may be impacted by these coastal processes. In particular, there should be recognition that the island's northern shoreline bluffs erode to supply a source of sand for the beach. There should also be a related discussion of induced or cumulative impacts which may occur in this bluff / beach system if significant development is authorized landward of the bluff. It is very likely that the owners of homes built along the north shore of the island will propose to protect their property when they notice the natural erosion of the bluff. This will lead to proposals to construct shoreline hardening structures such as bulkheading, stone revetments, etc. The potential impact of these shoreline hardening structures on the north shore beach and bluff system should be recognized as an induced or cumulative impact in the document.

Thank you for soliciting our comments on the DEIS. For all the habitat and species reasons outlined in the Draft EIS for Plum Island, the Department will be sending a separate letter to GSA outlining our interest in seeing Plum Island protected. If I can be of further assistance, please feel free to contact me at 631-444-0403 or slaicher@gw.dec.state.ny.us.

Very truly yours,

Sherri Aicher
Environmental Analyst 2

cc: Kathleen Moser - NYSDEC Assistant Commissioner for Natural Resources
Peter A. Scully - NYSDEC Regional Director
Michelle Gibbons - NYSDEC Regional Wildlife Manager
file

New York State Office of Parks,
Recreation and Historic Preservation

Division for Historic Preservation • Peebles Island, PO Box 189, Waterford, New York 12188-0189

518-237-8643

www.nysparks.com

Andrew M. Cuomo
Governor

Rose Harvey
Commissioner

October 5, 2012

John. L.A. Dugan
Real Property Utilization Disposal Division
U.S. General Services Administration
10 Causeway Street, Room 925
Boston, MA 02222

Re: Public Sale of Plum Island
Orient Point, Suffolk County
10PR02105

Dear Mr. Dugan:

Thank you for informing us of the availability of the electronic version of the DEIS for the Public Sale of Plum Island. We have reviewed the document and appreciate having the opportunity to comment in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the National Environmental Policy Act and/or the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8).

We note that while the Cultural Resources Chapter in the DEIS mentions the Fort Terry complex as an eligible property it does not give the specific details that the SHPO provided to GSA on 26 September 2011 in our determination of National Register eligibility for the Fort Terry Historic District. Included in our DOE was a map showing the boundaries of the eligible district. As stated in the DOE, it is the opinion of the SHPO that the historic resources and the intact setting associated with former military installation of Fort Terry are eligible for the National Register under Criterion A in the area of military history as a significant seacoast defense installation and Criterion C in the area of military architecture and design for its collection of fortification structures, post buildings, and landscape elements. Batteries Floyd and Eldridge and Shelter Search Lights 13 and 14, which are listed in the DEIS, are just four of approximately 60 contributing structures within the boundaries of the eligible district. We have attached a copy of our DOE so that it can be included in your final report.

We are not familiar with the two Orient Point Support Facility sites. We ask that you provide us with photographs of any above-ground structures over 50 years of age that are located within and immediately adjacent to these properties.

We have previously recommended that, should the sale go forward, a historic preservation covenant should be attached to the deed which identifies the historic and cultural resources as defined by Ms. Howe's September 26, 2011, Determination of Eligibility as well as those resources previously identified, e.g., the

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Plum Island Light. It appears that the GSA and DHS concur; such a covenant protecting the resources is one of the mitigation measures identified in the DEIS. Transfer without such a covenant would constitute an Adverse Effect. Please remember the grounds and landscaping of the Fort are a significant feature.

The SHPO has a number of concerns about the proposed alternatives (both action and non-action). For the record, even with a "No-Action" or "mothball" alternative, it is the responsibility of the federal government agency to protect its historic resources. The N-A alternative would require the GSA and the DHS to stabilize and repair the historic buildings at Fort Terry pursuant to the Section 110(a)(2) of the NHPA. Reuse Option 1, the adaptive reuse of the existing buildings and infrastructure, is an acceptable approach. The minimal development suggested in Reuse Option 2 is acceptable only if it is strictly coupled with the rehabilitation and reuse of the existing buildings; known archaeological and historic resources must be strictly protected. High-density development identified as Reuse Option 3 is not acceptable as there is a high probability that historic and cultural resources could be negatively impacted (particularly the landscape elements). Reuse Option 4, is also acceptable, but should include some protection for the historic buildings so they do not deteriorate by neglect.

Our office would also like to suggest the inclusion or mention of state and federal programs such as the historic preservation tax credit which are available to developers for rehabilitation of historic buildings that meet the Secretary of the Interior's Standards for Rehabilitation.

With regard to the archaeological Sensitivity model used to prepared Figure 3.9-1, referenced as "Archaeological Resources Predictive Model –PIADC MACTEC Engineering and Consulting Inc. February 2011)", we can find no record that this model has ever been submitted to or reviewed by the SHPO and therefore we can not concur with its recommendations at this time. Until this model has been reviewed and accepted we would recommend that all areas of the Island which have not been subjected to previous substantial disturbance should be considered highly sensitive for prehistoric archaeological resources. We do concur with the recommendation that any property sale should include a covenant that requires the future owner to consult with SHPO and take appropriate actions regarding archaeological potential prior to any construction activities commencing.

While correspondence from our agency to GSA dating prior to our determination of eligibility was included in Appendix C subsequent correspondence was not. We have included copies of those letters so they, too, can be included in the final report.

We look forward to working with your office as the DEIS is developed. Should you have any questions, please contact our office, 518-237-8643. Kathleen Howe should be contacted if there are questions related to the property's National Register eligibility, Doug Mackey for archaeology, and Elizabeth Martin for technical/architectural questions.

Sincerely,

Elizabeth Martin

Elizabeth Martin, Associate AIA
Historic Sites Restoration Coordinator

Enclosures (Correspondence and DOE dated September 26, 2011)

Via email only

New York State Office of Parks,
Recreation and Historic Preservation
Historic Preservation Field Services Bureau • Peebles Island, PO Box 189, Waterford, New York 12188-0189
518-237-8643
www.nysparks.com

Andrew M. Cuomo
Governor

Rose Harvey
Commissioner

September 26, 2011

Mr. John L.A. Dugan
Real Property Utilization & Disposal Division
U.S. General Services Administration
10 Causeway Street, Room 925
Boston, MA 02222

Re: GSA
Sale of Plum Island
Orient Point, Suffolk County
10PR02105

Dear Mr. Dugan:

Thank you for sending us the electronic copy of the six-volume 1998 *Plum Island Historic Resources Survey* prepared by Robert J. Hefner, Historic Preservation Consultant. We appreciate the opportunity to review and comment on the findings and recommendations of this report which provide an in-depth analysis of the historic resources on Plum Island. Our review of the multi-volume report combined with our site visit last spring has provided us with the chance to offer a more comprehensive view of the island under Section 106 of the National Historic Preservation Act of 1966.

Based on our review we concur with the findings of the report that the buildings associated with Fort Terry meet the criteria for listing to the National Register as a historic district. The attached "Resource Evaluation" explains the National Register criteria that Fort Terry meets and includes a district map indicating the boundaries which exclude the western end of Plum Island.

As we noted in our letter of May 10, 2011, the New York SHPO would like to work with the GSA and DHS to establish a preservation plan to preserve and protect Fort Terry's historic resources. Elizabeth Martin and I look forward to continuing consultation including preservation planning, marketing, and re-use strategies as you plan for the sale of Plum Island.

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Please contact me at 518-237-8643, extension 3266 or by email at kathy.howe@oprhp.state.ny.us with any questions you may have. Refer to the project (PR) number above when corresponding about the project.

Sincerely,

Kathleen A. Howe

Kathleen A. Howe
Survey and Evaluation Coordinator

Enclosure

cc: Gabrielle Sigel, GSA
Dana S. Bouley, DHS

Via emails only

Andrew M. Cuomo
Governor

Rose Harvey
Commissioner

New York State Office of Parks,
Recreation and Historic Preservation
Historic Preservation Field Services Bureau • Peebles Island, PO Box 189, Waterford, New York 12188-0189
518-237-8643
www.nysparks.com

RESOURCE EVALUATION

DATE: September 26, 2011 | STAFF: Kathy Howe
PROPERTY: Fort Terry Historic District | MCD: Southold
ADDRESS: Plum Island | COUNTY: Suffolk
PROJECT REF: 10PR02105 | USN: 10310.001192

I. ☐ Property is individually listed on SR/NR:
name of listing:
☐ Property is a contributing component of a SR/NR district:
name of district:

II. ☒ Property meets eligibility criteria.
☐ Property contributes to a district which appears to meet eligibility criteria.
Pre SRB: ☐ Post SRB: ☐ SRB date

Criteria for Inclusion in the National Register:

A. ☒ Associated with events that have made a significant contribution to the broad patterns of our history;
B. ☐ Associated with the lives of persons significant in our past;
C. ☒ Embodies the distinctive characteristics of a type, period or method of construction; or represents the work of a master; or possess high artistic values; or represents a significant and distinguishable entity whose components may lack individual distinction;
D. ☐ Have yielded, or may be likely to yield information important in prehistory or history.

STATEMENT OF SIGNIFICANCE:

The SHPO concurs with the evaluation of the Fort Terry resources in the 1998 *Historic Resources Survey, Plum Island, New York, Volume 1* prepared by Robert Hefner for the USDA.

The historic resources on Plum Island associated with Fort Terry represent the property type **Defenses of the Eastern Entrance to Long Island Sound Fort, 1897-1948.** The historic resources and their intact setting are eligible for the National Register of Historic Places as the Fort Terry Historic District with the boundaries of the district encompassing all of the land historically associated with Fort Terry with the exception of the lighthouse reservation and the concentrations of Plum Island Animal Disease Center (PIADC) era buildings at Plum Island Harbor and in the vicinity of Building No. 101 which represent a different historical context and era from that of the Fort. The boundaries of the eligible Fort Terry are delineated on the attached map. At the time of the 1998 survey there were a total of 60 properties associated with Fort Terry including batteries, submarine mining facilities, fire control structures, searchlights, a power plant, and post buildings.

(The survey also noted that there are 34 buildings and structures on Plum Island built between 1952 and 1995 by the PIADC which represent a different context from the Fort; most of these are grouped at the west end of the

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island where there are few historic Fort Terry resources. Many of the PIADC-era buildings are located outside the boundaries of the eligible Fort Terry Historic District.[1] PIADC-era buildings and structures that fall within the boundaries of the Fort Terry Historic District do not contribute to the district because they represent a separate context from that of the military installation. The non-contributing PIADC-era buildings in the district include Buildings 15, 21, 22, 24, 26, 59, 61, 91, 92, 93, 94, 256, 258, 259, transformer house to building no. 257, salt water pump house, and tank farm.)

Fort Terry meets NR Criterion A in the area of military history as a significant seacoast defense installation and Criterion C in the of military architecture and design for its collection of fortification structures, post buildings in the cantonment area, and landscape elements such as tree-lined roads and the parade grounds. The period of significance for the district is 1897 to 1948 when the Fort Terry was deactivated.

The SHPO concurs with the following evaluation from the Hefner survey report[2]:

> The Fort Terry resources are significant for illustrating the Defenses of the Eastern Entrance to Long Island Sound from 1897 to 1948, which is the entire historical period of this seacoast defense system. The Defenses of the Eastern Entrance to Long Island Sound were recognized in 1906 as one of six "Defenses of First Importance" on the east coast and in 1940 were still considered by the Army to protect "the most strategical area in the continental United States."
>
> Fort Terry was an important component of the Eastern Defenses of the Long Island Sound system with the principal role of defending the deep water channel into Gardiner's Bay, Gardiner's Bay itself, and Plum Gut, a deep water channel from Gardiner's Bay into Long Island Sound.
>
> The Fort Terry resources are particularly significant for illustrating the Endicott and Taft Period in the history of American seacoast fortifications. From 1898 to 1916 Fort Terry developed its greatest defensive capabilities. Forty-two of the sixty intact Fort Terry resources date from that era and together illustrate a complete seacoast defense system as set forth in the 1885 "Endicott Board Report" and in the 1906 "Taft Board Report." These Fort Terry resources represent a full range of batteries, submarine mining facilities, fire control structures, shelters for searchlights and power houses. The intact setting conveys the historic relationships between these components.
>
> The Fort Terry resources are architecturally significant for representing important types of fortification structures of the Endicott and Taft Period. These resources illustrate the design and construction methods of the following types of fortifications: batteries for five different caliber armament; mining casemate; combined torpedo storehouse and cable tanks; fire control observing station; fire control plotting room; fire control booth room; fire control switchboard room; fire control radio station; and shelter for searchlight. These resources also illustrate the building methods and technology of that period, especially the evolution of concrete and steel construction used in the batteries.
>
> The twelve extant Fort Terry post buildings of the Endicott and Taft Periods also represent different types, most of which also illustrate a national standard.
>
> The Fort Terry resources are also significant for illustrating the evolution in seacoast fortification during the World War I Era with construction of bombproof shelters and anti-aircraft batteries in response to the new threat of aviation bombardment and the new trajectories of naval gunfire. The Fort Terry resources also recall the Harbor Defenses of Long Island Sound during the World War II era with nine fortifications of that era.

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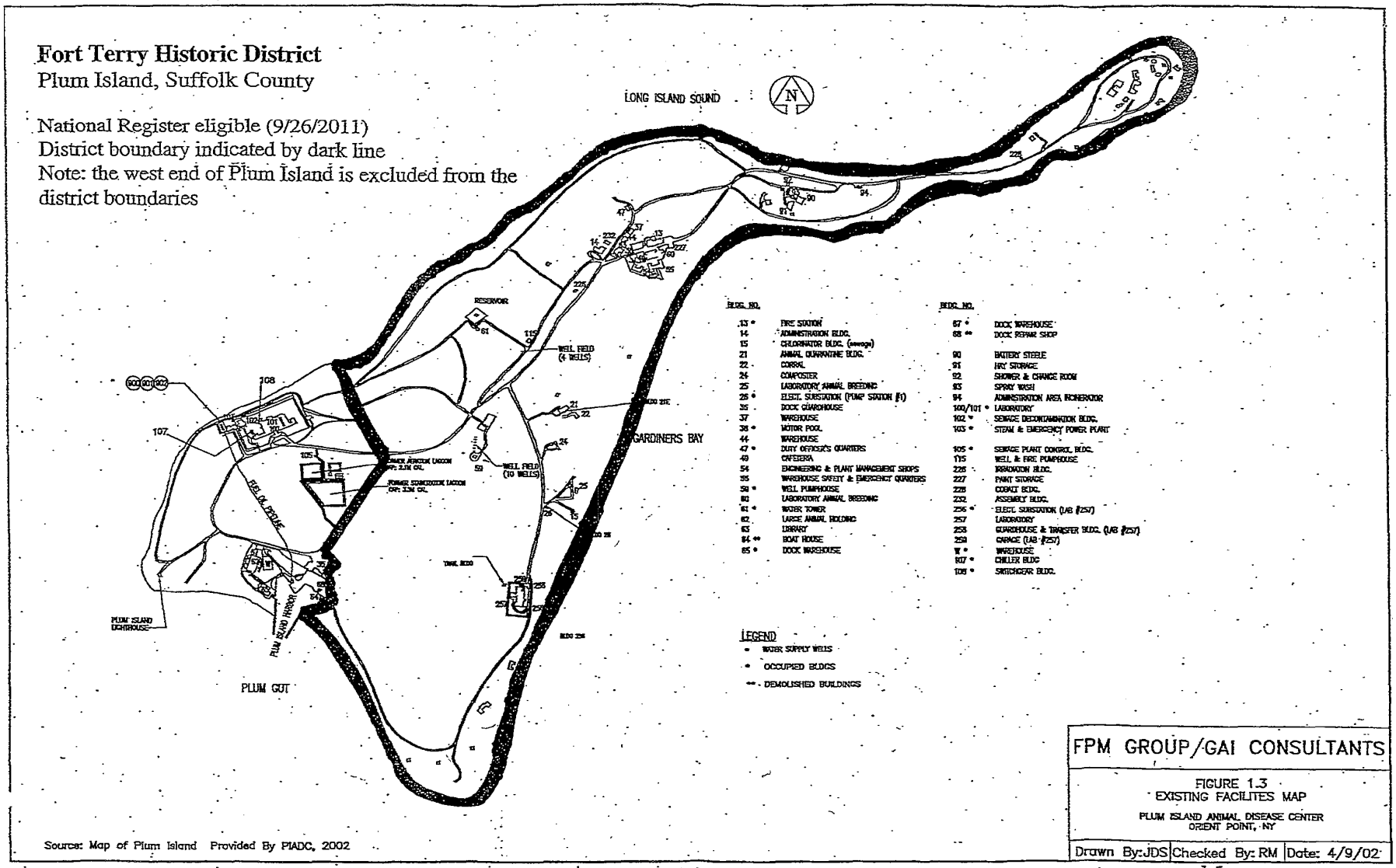
[1] The following PIADC-era buildings and structures fall outside the boundaries of the NR-eligible Fort Terry Historic District: Buildings 35, 62, 65, 66, 67, 69, 100, 101, 102, 103, 105, 106, 107, 108, and the Technical Warehouse.

[2] Robert J. Hefner, *Historic Resources Survey Plum Island, New York, Volume 1.* (Prepared for the United States Department of Agriculture, Agricultural Research Services, Plum Island Animal Disease Center, Plum Island, New York, June 1998), pp. 66-68.



Source: Map of Plum Island Provided By PIADC, 2002

New York State Office of Parks,
Recreation and Historic Preservation

Andrew M. Cuomo
Governor

Rose Harvey
Commissioner

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May 10, 2011

Mr. John Dugan
General Services Administration (GSA)
10 Causeway Street, Room 925
Boston, MA 02222

Re: GSA
Sale of Plum Island
Orient Point, Suffolk County
10PR02105

Dear Mr. Dugan:

It was a pleasure meeting with you, Gabrielle Sigel and the many others from the Department of Homeland Security (DHS) and the United Stated Department of Agriculture (USDA) during our visit to Plum Island. Kathy Howe, Dan McEneny and I understand the intricacies of arranging our visit and appreciate your efforts. We especially appreciate the in-depth knowledge of the buildings and sites related to us by the Facilities Team.

As you are aware the transfer of Plum Island should be classified by your agency as a reviewable action under §106 of the National Historic Preservation Act. As GSA and DHS begin plans to consider the sale of Plum Island, it will be important to identify what properties on the island are eligible for the National Register (§800.4, 36CFR Part 800). Kathy Howe, our Survey and Evaluation Coordinator, notes that while our office has reviewed several isolated projects on Plum Island through the years we have not, to date, taken a comprehensive view of the island.

We learned from our recent site visit and meeting that in 1998, the USDA commissioned an intensive-level historic resources survey of Plum Island, which was prepared by architectural historian Robert Hefner. The six-volume survey provides a historic overview of both Fort Terry and the Plum Island Lighthouse (NR-listed). The survey identified and documented 64 historic properties (buildings, structures, sites, and objects). In an effort to assist our office in fulfilling our responsibilities under §106 we respectfully request a copy of the complete Hefner report (either hard copies or on CD) so we may conduct a thorough review and evaluation of these historic resources and offer an opinion of National Register eligibility for those properties that appear to meet the NR criteria.

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Having not reviewed the Hefner reports fully, we do not know if it contains a comparison of Fort Terry to other surviving Spanish-American War and World War I era fortifications in the New York coastal area. It would certainly be useful to have some documentation that places Fort Terry within this context. Any documentation that GSA and DHS can provide in this regard would be most helpful in our evaluation.

Having toured the Fort Terry environs and examined primarily the exterior of the buildings, the New York State Historic Preservation Office (SHPO) has concerns about the present condition of the buildings at the federal facility and their deferred maintenance. Section 110 (a)(1) of the National Historic Preservation Act of 1966 states, "The heads of all Federal agencies shall assume responsibility for the preservation of historic properties which are owned or controlled by such agency." Neglect of a property, as defined in 36 CFR 800.5(a)(2)(iv), "which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property…" is considered an adverse effect. We understand that the Plum Island facility is a large responsibility, especially protecting buildings that are not used on a regular basis; however, they represent a significant period in the history of the United States and should be protected. As these buildings and structures are located within New York State, the New York SHPO strongly encourages GSA and DHS and other involved/interested agencies to immediately stabilize and protect the remaining Fort Terry buildings.

We look forward to continuing consultation with you in the near future both on the preparation of the National Register nomination, the preservation plan, and continuing the Section 106 review for the sale of Plum Island. Please contact me at 518-237-8643 (ext 3287) or by email at elizabeth.martin@oprhp.state.ny.us should you have any questions. Refer to the project (PR) number above when corresponding about the project.

Sincerely,

Elizabeth Martin

Elizabeth Martin
Historic Sites Restoration Coordinator

Cc: Gabrielle Sigel, GSA
Ian Rosenblum, DHS
Dana S. Bouley, DHS

Via email only

Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employer

October 9, 2012

Phil Youngberg
General Services Administration
10 Causeway Street, Room 925
Boston, Massachusetts 02222

Dear Mr. Youngberg:

The Connecticut Department of Energy & Environmental Protection (DEEP) has reviewed the Environmental Impact Statement (EIS) prepared for the sale of the Plum Island Animal Disease Center located on Plum Island, New York. The following comments are submitted for your consideration.

The EIS assessment of biological resources of Plum Island is based on site surveys conducted in 2010 and a review of data available at that time. The New York Natural Heritage Program completed a report in May 2012, *Biodiversity and Ecological Potential of Plum Island, New York.* This study documents the historical and current known biodiversity of the island, with detailed information on natural communities and plant and animal species. These include 187 avian species (57 of which are Species of Greatest Conservation Need) and 14 extant populations of rare plants, one of the highest concentrations in the state. The surrounding marine environment, rated as highly productive with greater numbers of marine fish than in most other sites in the mid-Atlantic, is also documented. The study identifies needs for additional inventories and recommends potential management practices to enhance the biodiversity value of the island. The information in this comprehensive study should be carefully evaluated in future planning for sale and reuse of the island.

In scoping comments, Connecticut suggested that the disposal of Plum Island be conducted in a fashion that allows for acquisition of portions of the island with the greatest conservation value via separate transactions. While simply selling the entire island in one transaction to a single entity would be expeditious from an administrative perspective, such a sale would limit the pool of potential purchasers and price the island out of the reach of entities who would want to acquire portions of it for conservation purposes. The EIS does preliminarily delineate development parcels; these areas could be sold for that purpose, with the significant natural areas, such as beaches, dunes and wetlands, sold separately.

The EIS did not evaluate this type of strategy that would serve to mitigate the impacts to the extraordinary natural resources of the island that could result from a single outright sale and subsequent development. The unique biological and natural resources of Plum Island exist, in large part, due to the historical federal use of the island that precluded civilian development for over a century.

The EIS posits that federal agencies cannot restrict sale of the property beyond the requirements of a solid or hazardous waste cleanup remedy instituted by federal or state law. Citations to laws or regulations that impose these requirements on federal agencies are not provided. Any additional restrictions, such as conservation easements, would occur only after the property has left federal ownership, and would be the result of effects of state or local laws. DEEP encourages continued exploration of creative methods to preserve the natural resources of the island through the disposal process. Multiple sales could accomplish much the same effect as development restrictions and yet comply with the mandate for sale specified in Section 540 of the Consolidated Security, Disaster Assistance and Continuing Appropriations Act.

Another concern noted during scoping was the need to develop a transition plan to identify and mitigate the potential impact to the habitat and biota of Long Island Sound that could result from removal of hazardous wastes and biological agents from the island after the closure of the Animal Disease Center. Although the EIS does not explicitly discuss this matter, it does indicate that such a transition would not occur until the Manhattan, Kansas facility is completed, which is presently scheduled for 2019. Preparation of a transition plan should consider the previously expressed concerns about potential impacts to Long Island Sound during removal and shipping of these materials.

As stated in a letter dated March 31, 2010, the sale of Plum Island is considered by the Office of Long Island Sound Programs (OLISP) to be a federal activity subject to Federal Consistency Review under Section 307(c)(1) of the Coastal Zone Management Act of 1972, as amended, Subpart C of Code of Federal Regulations (CFR) Part 930, and Section II Part VII(c) of the State of Connecticut Coastal Management Program and Final Environmental Impact Statement. Connecticut's Federal Consistency List, approved by the National Oceanic and Atmospheric Administration's Office of Ocean and Coastal Resource Management (NOAA-OCRM) on July 16, 2010, lists the disposal of land by the GSA as subject to Federal consistency review. Although the disposal of Plum Island would take place within the coastal zone of New York State, the reasonably foreseeable effects of such disposal on Connecticut's coastal resources and uses, many of which are shared with New York, indicate that consistency with Connecticut's coastal program will be required, in accordance with Subpart I of CFR part 930 and CFR section 930.54.

The EIS notes that "the impacts of conveyance that affect the Connecticut coastal zone will be analyzed for consistency, to the maximum extent practicable, with the policies of the CCMA." In order to initiate the consistency review, the GSA must prepare and submit to OLISP a Federal Consistency Determination identifying reasonably foreseeable direct and/or indirect effects on Connecticut's coastal resources and uses. Connecticut's coastal resources and uses are enumerated in the CCMA, Section 22a-90 to 22a-112 of the Connecticut General Statutes (CGS). The consistency application form is available on-line at: OLISP Permits.

The CCMA contains a number of policies pertinent to disposal of Plum Island. The following policies, in particular, from the CCMA would apply to the proposed action.

- **Adverse Impacts Policy** prohibits: Degrading water quality through the significant introduction into either coastal waters or groundwater supplies of suspended solids, nutrients, toxics, heavy metals or pathogens. [CGS section 22a-93(15)(A)]

- **Coastal Resource Policies** declare that: "the pollution of the waters of the state is inimical to the public health, safety and welfare of the inhabitants of the state, is a public nuisance and is harmful to wildlife, fish and aquatic life" [CGS section 22a-422, as referenced by CGS section 22a-92(a)(2)] and require the management of "estuarine embayments so as to insure that coastal uses proceed in a manner that assures sustained biological productivity, the maintenance of healthy marine populations" [CGS section 22a-92(c)(2)(A)].

- **Coastal Use Policies** require minimization of "the risk of oil and chemical spills at port facilities" [CGS section 22a-92(b)(1)(C)], as well as "safe and sanitary disposal of toxic or hazardous wastes" [CGS 22a-220(a)].

- **Coastal Use Policies** also require "highest priority and preference to water-dependent uses and facilities in shorefront areas" [CGS section22a-92(b)(1)(A)]. The ferry service that transports laboratory staff between Plum Island and Old Saybrook, Connecticut is a water-dependent marine commercial use that will be affected by the proposed transfer. In addition, if security restrictions are lifted, Plum Island is likely to become a popular destination for recreational boaters and fishers from Connecticut.

The CCMA also includes definitions of **adverse impacts on future water-dependent development opportunities and activities** which include: locating a non-water-dependent use at a site that (i) is physically suited for a water-dependent use for which there is a reasonable demand, or (ii) has been identified for a water-dependent use in the plan of development of the municipality or the zoning regulations; replacement of a water-dependent use with a non-water-dependent use; or siting of a non-water-dependent use which would substantially reduce or inhibit existing public access to marine or tidal waters [CGS section 22a-93(17)].

Thank you for the opportunity to review the proposed sale of Plum Island. If there are any questions concerning these comments please contact me at david.fox@ct.gov or 860-424-4111.

Sincerely,

David J. Fox

David J. Fox
Senior Environmental Analyst

cc: David Blatt, DEEP/OLISP
Robert Hannon, DEEP/OPPD
Brian Thompson, DEEP/OLISP

UNITED STATES GENERAL SERVICES ADMINISTRATION AND DEPARTMENT OF HOMELAND SECURITY

PUBLIC SALE OF PLUM ISLAND, NEW YORK	: :	DRAFT ENVIRONMENTAL IMPACT STATEMENT PROCESS October 26, 2012

COMMENTS OF THE ATTORNEY GENERAL OF THE STATE OF CONNECTICUT

George Jepsen, Attorney General of the State of Connecticut, hereby files the following comments with the General Services Administration and the Department of Homeland Security in response to the July 2012 Draft Environmental Impact Statement (DEIS) for the sale of Plum Island, New York.

SUMMARY

The DEIS is deficient and should be revised. The DEIS recommends the sale of Plum Island by the federal government without a thorough review and careful evaluation of the impacts of a sale and subsequent development on the environment, without exploring whether that sale is actually required by applicable law, without exploring all reasonable or the most harmful potential development scenarios, and without analyzing or recommending sufficient conservation measures in the event of a sale to ensure the present and future protection of this vital area.

The DEIS analyzes four hypothetical reuses for Plum Island upon a sale. The hypothetical reuses do not thoroughly explore the environmental impacts of the reuse scenarios, and the DEIS fails to recognize other potential and more detrimental development scenarios and

their impacts on the environment. Unless the worst case development scenario is examined thoroughly, it is impossible to know the environmental consequences of a sale.

In recommending a sale of the Island, the DEIS does not evaluate and explore the availability of measures that could mitigate environmental impacts nor does it recommend that a sale be conditioned on a level of preservation. There are numerous conservation tools available to the federal government that permit a sale of some or all portions of the Island while preventing the probable resulting environmental consequences that an unrestricted sale could have, yet the DEIS fails to address them. Instead, it recommends a sale assuming, that some conservation will occur, without any assurance that assumption is accurate.

The deficiencies in the DEIS are magnified by Plum Island's environmental importance and the natural resources at stake. Plum Island is unique in its pristine environment and its location. Its ecological resources are invaluable not only on their own, but also because of their inextricable relationship to Long Island Sound, one of Connecticut's most significant natural resources.

The DEIS should be fully reconsidered because the deficiencies in the DEIS affect the core analysis and call into question the entire document.

BACKGROUND

1. Plum Island

Plum Island is located in Long Island Sound, twelve (12) miles off the Connecticut shoreline. (DEIS, at 3-3.) One of the striking characteristics of Plum Island is its lack of development by virtue of its historic uses as a military facility and, later, as home to the Plum Island Animal Disease Center. Of its approximately 840 acres, roughly 664 acres remain

undeveloped, including 96 acres of freshwater wetlands, 101 acres of beach/dune systems and 196 acres of relatively undisturbed upland forests. (DEIS, at 3-3.) Currently, "[t]here is less than 15 acres of impervious surface on Plum Island, including buildings and roads." (DEIS, at 3-37.)

The beach and dune communities on Plum Island are recognized by the State of New York as "marine dune habitat," and ranked as "significant habitat," meaning that the state considers this habitat type to have high ecological and conservation value. (DEIS, at 3-61.) These areas also include breeding grounds for several protected avian species, including the endangered piping plover, the threatened northern harrier, and the osprey (a species of special concern). One rare plant species, the sea beach knotweed, is also known to occur in this area. (DEIS, at 3-61.) Plum Island has also been designated as an "Important Bird Area" by Audubon New York. (DEIS, at 3-68.)

Aquatic resources associated with Plum Island include fish, abundant surf clams, marine sea turtles (which are a federally listed species under the Endangered Species Act), and whales and dolphins. (DEIS, at 3-68.) Plum Island and its coastal waters also provide year round habitat to harbor seals, gray seals, and harp seals. *Id.* As a result, the New York State Division of Coastal Resources has designated Plum Gut, the open water area between Plum Island and Orient Point on Long Island, as "Significant Coastal Fish and Wildlife Habitat," recognizing Plum Gut as an important recreational and commercial fishing resource and also as an important habitat for marine mammals and sea turtles. (DEIS, at 3-68.)

Recognizing its "exemplary" ecological significance, the United States Environmental Protection Agency, New York State Department of Environmental Conservation and Connecticut Department of Environmental Protection (now the Department of Energy and

Environmental Protection) designated Plum Island as one of the Long Island Sound Stewardship Areas through the Long Island Sound Stewardship Initiative in 2006. (DEIS, App. C, USEPA comment letter dated June 2, 2010, at C-85.) The federal government took another step towards supporting the preservation and enhancement of Long Island Sound with the passage of the Long Island Sound Stewardship Act in 2006. Public Law 109-359.

The Plum Island Light Station, which is listed on the National Register of Historic Places, is also located on the Island. (DEIS, at 3-3.) Additionally, there are other potentially significant historical and/or archaeological resources that have been identified on Plum Island. (DEIS, at 3-90.)

2. Long Island Sound

Long Island Sound is Connecticut's largest and most valuable natural resource. Between New York and Connecticut, the Sound's coastline stretches more than 600 miles. *Long Island Sound – By the Numbers*, http://longislandsoundstudy.net/about-the-sound/by-the-numbers/. The Sound is home to more than 120 species of finfish and countless varieties of birds and other animals. *Id.*; (DEIS, App. C, U.S. Department of the Interior, USFWS comment letter dated June 16, 2010, at C-92 – C-96). The Sound is one of the region's largest estuaries with an area of 1320 square miles, where

> [t]he tidal, sheltered waters . . . support unique communities of plants and animals. Estuarine environments are among the most diverse and productive on earth, creating more organic matter each year than comparably-sized areas of forest, grassland, or agricultural land. . . . Birds, mammals, fish, and other wildlife depend on estuarine habitats as places to live, feed and reproduce. Numerous marine organisms, including most commercially valuable fish and shellfish species, depend on the estuaries at some point during their development.

Comprehensive Assessment and Report Part II, Task Force on Long Island Sound, June 3, 2003 ("Task Force Report"), Section 2.1, p. 7.

In addition to its ecological significance and its contributions to our quality of life, the Sound creates considerable economic value for the Connecticut-New York region. This value is derived principally through fishing, shellfishing, boating and other commercial and recreational activities. Commercial and recreational fishing has been valued at $1 billion each year. Task Force Report, Section 2.1, p. 17. The total of all direct and indirect economic use of the Sound generates approximately $5.5 billion annually. Task Force Report, Section 2.1, p. 24. This resource, however, has been devastated by pollution, overdevelopment and poor planning. *See* Task Force Report, Section 2.1, pp. 11 – 13. Associated with overdevelopment along the shoreline has been a steady increase in pollution which has damaged the Sound. Consequently, protecting Plum Island and its surroundings, one of the last undeveloped vestiges in a heavily impacted but critically important natural resource, is an important Connecticut interest.

While severely threatened by centuries of human activities, industrial pollution, and overfishing, the Sound remains "an 'essential fish habitat' (EFH), defined as being necessary for fish spawning, breeding, feeding, or growth to maturity, for a variety of fish species." Connecticut Siting Council Findings of Fact, Dckt No. 197, *TransEnergie Application for Certificate of Environmental Compatibility and Public Need*, March 28, 2001, ¶ 86 ("CSC Findings of Fact"); *See also* Task Force Report, Section 2.1, pp. 16 - 18. In fact, "Long Island Sound is an environment used by Kemps ridley, Loggerhead, Green, and Leatherback marine turtles [which species] are listed as State or Federal Endangered or Threatened Species, according to Connecticut DEP and NOAA National Marine Fisheries Service." CSC Findings of Fact, ¶ 83. This fact is of obvious importance even beyond the confines of the Sound because "[m]ore than 70 percent of [overall marine] commercial fish stocks are now considered fully exploited, overfished or collapsed. Sea birds and mammals are endangered. And a growing

number of marine species are reaching the precariously low levels where extinction is considered a real possibility." William J. Broad and Andrew C. Revkin, *Has the Sea Given Up Its Bounty?,* New York Times, July 29, 2003.

3. Interests of the State of Connecticut

Connecticut's interests are directly affected by the recommended action. The State of Connecticut has long had an interest in protecting its coastal resources. As early as 1786, the legislature of Connecticut recognized the importance of protecting the resources of the Long Island Sound and enacted legislation to regulate shellfishing in order to preserve oyster and clam beds from damage to the ecosystem that even then was beginning. (Connecticut Statutes, rev. 1786, p. 78.)

More recently, the Connecticut legislature has been very clear – the health of the overall ecosystem of the Long Island Sound is critical to the State and unchecked development and poorly-sited infrastructure are unacceptable.

> The General Assembly finds that the growing population and expanding economy of the state have had a profound impact on the life-sustaining natural environment. The air, water, land and other natural resources, taken for granted since the settlement of the state, are now recognized as finite and precious. . . . Therefore the General Assembly hereby declares that the policy of the state of Connecticut is to conserve, improve and protect its natural resources and environment and to control air, land and water pollution in order to enhance the health, safety and welfare of the people of the state.

Conn. Gen. Stat. § 22a-1.

Further, the Connecticut legislature has expressly defined the policy of the state to be protective of Long Island Sound, such as the following legislative findings:

> (1) The waters of Long Island Sound and its coastal resources . . . form an integrated estuarine ecosystem which is both unique and fragile;
>
> (2) Development of Connecticut's coastal area has been extensive and has had a significant impact on the Long Island Sound and its coastal resources;

. . .

(5) The coastal area is rich in a variety of natural, economic, recreational, cultural and aesthetic resources, but the full realization of their value can be achieved only by encouraging further development in suitable areas and by protecting those areas unsuited to development;

. . .

(7) Unplanned population growth and economic development in the coastal area have caused the loss of living marine resources, wildlife and nutrient-rich areas, and have endangered other vital ecological systems and scarce resources.

Conn. Gen. Stat. § 22a-91.

The state has supported its policies with action. Vast sums of public money have been spent to improve municipal waste treatment facilities and reduce pollution and runoff. Significant amounts of taxpayer dollars have been invested in the state's shellfish industry. Over the last three decades, Connecticut has made a significant commitment to protecting and restoring the Sound. Millions and millions of dollars have been invested in communities throughout its watershed to address pollution concerns and protect the tidal wetlands along its shore.

The State of Connecticut therefore has a direct and immediate interest in the marine environment that is impacted by any decisions related to the fate of Plum Island. Impacts to the Sound do not stop at state borders. "As custodian for half of Long Island Sound, Connecticut has an obligation to continue to protect and preserve this irreplaceable resource." Task Force Report, Section 2.1, p. 8.

COMMENTS

The hypothetical development scenarios which may result from an unrestricted sale of Plum Island present troubling unknowns and the potential for incalculable and unacceptable

detrimental impact to Plum Island as well as to Long Island Sound. The fundamental goal of an evaluation under the National Environmental Policy Act, or NEPA, is to require responsible government agencies involved with a particular project to undertake a careful and thorough analysis of the need for that project or action and its environmental impacts before committing to proceeding with the project or action. As the Tenth Circuit Court of Appeals has held:

> The purpose of NEPA is to require agencies to consider environmentally significant aspects of a proposed action, and, in so doing, let the public know that the agency's decision making process includes environmental concerns. *Baltimore Gas & Elec. Co. v. Natural Resources Defense Council*, 462 U.S. 87, 97, 76 L. Ed. 2d 437, 103 S. Ct. 2246 (1983); *Sierra Club v. United States Dep't of Energy*, 287 F.3d 1256, 1262 (10th Cir. 2002).

Utahns For Better Transportation v. United States Dep't of Transportation, 305 F.3d 1152, 1162 (10th Cir. 2002).

The District of Columbia Circuit Court has explained the fundamental goal of an environmental evaluation under the National Environmental Policy Act, or NEPA:

> . . . "NEPA was intended to ensure that decisions about federal actions would be made only after responsible decision-makers had fully adverted to the environmental consequences of the actions, and had decided that the public benefits flowing from the actions outweighed their environmental costs." *Jones v. District of Columbia Redevelopment Land Agency*, 162 U.S. App. D.C. 366, 499 F.2d 502, 512 (D.C.Cir. 1974) . . .

Illinois Commerce Comm'n v. Interstate Commerce Comm'n, 848 F.2d 1246, 1259 (D.C. Cir. 1988). Here, the failure to conduct a complete examination of the nature of the legal directive from Congress and of the likely consequences of development, even as a result of moderate development activities on Plum Island, denies the government and the public the ability to properly determine whether the public benefits of the proposed sale would outweigh its true environmental costs.

1. The DEIS Fails to Analyze the Actual Requirements of Public Law 110-329

The DEIS fails to explore the parameters and intent of Public Law 110-329, Section 540, in which Congress indicates that any liquidation of Plum Island would be limited to a sale of "real and related personal property . . . which support Plum Island operations" and that any such sale be "subject to such terms and conditions as necessary to protect government interests." There is no explanation of how the DEIS arrives at its conclusion that the entirety of Plum Island is subject to sale. (DEIS, at ES-1.) Rather, this directive could be interpreted to subject only a more limited footprint to government sale, and the DEIS must consider and analyze that possibility and its consequences. Also, while the controlling statute specifically requires that any sale be subject to "terms and conditions necessary to protect government interests," the DEIS makes no attempt to identify and analyze those interests. In fact, it is readily apparent that those interests must include protection of the Plum Island and Long Island ecosystems, including wildlife habitat, water and air quality, and the public trust interests in the entire Sound. Further, the DEIS fails to adequately analyze the availability and best use of all potentially available conservation tools to preserve the Island's recognized natural resources, further ignoring the statutory directive to consider "such terms and conditions as necessary to protect government interests."

2. The DEIS Fails to Examine More Environmentally Destructive Uses of Plum Island as a Result of a Sale

By confining itself to the bounds of four artificially discrete re-use options, the DEIS ignores the potential for far more detrimental and compounded environmental impacts which may result from a combination of the four hypothetical re-uses. The DEIS repeatedly states that its analysis of potential re-use options is entirely "speculative" since the federal government will

have no control over the nature and extent of future development once it sells the property. (DEIS, at 2-3, 2-7) Accordingly, there is no reasonable basis to conclude that the most intensive development studied is the most intensive development possible. More intensive development of the Island from a combination of the four hypothetical uses would have even greater impacts on the environment, yet this possibility was not explored. The most intensive development scenario studied by the DEIS, the high development scenario of Re-Use Option 3, would result in 195 acres (approximately 23% of the Island) being developed, yet it is impossible to speculate that that is the outer limit of possible development scenarios. A much greater disturbance should have been studied to examine the worst case development scenario.

Even under Re-Use Option 3, the DEIS recognizes that the environmental impacts would be significant. There would be an increased amount of waste water discharge to Long Island Sound, together with an increase in total loading of Biochemical Oxygen Demand (BOD) and associated nutrients to Long Island Sound. (DEIS, at 3-52.) The DEIS notes that, "[a]lthough this represents a small impact relative to the total daily loading of Long Island Sound, it will increase the [dissolved oxygen] impairment of the Sound and cause pronounced local reductions in [dissolved oxygen] near the [waste water treatment plant] discharge." (DEIS, at 3-52.) These impacts can have potentially serious consequences for marine life in the Long Island Sound. *See* Fact Sheet, *How Low Dissolved Oxygen Conditions Affect Marine Life in Long Island Sound*, Long Island Sound Study, http://longislandsoundstudy.net/2010/03/how-low-dissolved-oxygen-conditions-affect-marine-life-in-long-island-sound/.

This level of mixed development in Re-Use Option 3 would also impact upland forests, which provide natural filtration and water storage capacity, leading to increased water flow to downstream receiving waters, including wetlands and ponds located on the Island, and increase

impervious surface area from a mere 15 to 74 acres. (DEIS, at 3-52.) The DEIS notes that, under this development scenario, "depending upon the degree of development and the available land for stormwater treatment, the probability of discharging poorly treated stormwater to Long Island Sound, especially during periods of heavy rainfall, increases with the amount of impervious surface and associated runoff." (DEIS, at 3-53.) Surely, greater development of the Island will have greater impacts and evaluation of those impacts must be a part of an adequate EIS.

3. The DEIS Should Have More Fully Examined the Identified Hypothetical Development Scenarios

The DEIS did not carefully and thoroughly examine the limits on development that it recognized were essential to protecting the environment in the event of a sale and to its recommendation to sell the Island. The more conservative of the two residential development re-use options (Re-Use Option 2) presented in the DEIS, which contemplates up to ninety (90) single family residential units to be developed on 195 acres of Plum Island, could result in the development of an estimated 147 acres (or 34%) of the forested uplands on the Island. (DEIS, at 3-5.) Although the DEIS adds that the balance of Plum Island "would be set aside for conservation purposes," (DEIS, at 3-5), there is no indication of whether or how that would happen.

Although one of the re-use options identified under the Action alternative contemplates use limited to "Conservation/Preservation," there is no substantive discussion or analysis of any type of deed restriction or conservation easement that would be utilized to ensure the Island's preservation in its natural state. The DEIS does make cursory and scattered references to various development limitations that may be imposed, but it does so unsatisfactorily, without delving beyond vague generalities. It fails to evaluate enforceable deed restrictions, for example,

preventing any further development beyond the existing footprint of the laboratory and administrative buildings, while protecting the undisturbed portions of the Island through conservation easements. There is simply too much at stake – rare and endangered wildlife, precious open space and undisturbed upland forests, and pristine visual and aesthetic qualities – to ignore a detailed discussion about whether the assumptions in the DEIS about future conservation measures are justified and how they would be achieved.

The DEIS also fails to explore a coordination of efforts with federal partners to capitalize on opportunities to preserve Plum Island. The United States Fish and Wildlife Service (USFWS), provides grants for land acquisition and preservation as part of its endangered species program. On August 14, 2012, the USFWS announced more than $33 million in grants to support land acquisition and conservation planning for endangered species. As stated by Secretary of the Interior Ken Salazar, not only does such a commitment benefit imperiled species, but "improving the health of our land and water will also help the people, communities and economies that depend on these resources." It would be unreasonable for the federal government to spend millions of dollars funding the acquisition of private property for conservation purposes on the one hand, while leaving the pristine natural habitat of Plum Island, *currently owned and controlled by the federal government*, to the whims of private market forces.

The DEIS also fails to examine the impact of greater utility needs for development. Although the DEIS did not anticipate additional utility connections for the scenarios examined, because the scenarios studies are speculative and not exhaustive, there is no assurance that existing utility service is adequate to serve all reasonably likely development needs. There is no reasonable basis to conclude that future development will not require more utility service. The

DEIS should have studied the impact of additional utility projects (whether electrical, telecommunications, water, waste, or otherwise) on the development scenarios in the hypothetical. Utility service impact together with the existing disruption to the sea floor and water quality of the Sound would be intolerably detrimental. The Sound has been repeatedly and heavily impacted by a never-ending succession of utility lines which, considered together, occupy a very significant portion of the seafloor. Each of these projects causes a loss of habitat. This loss of habitat is enormous in sum, and of great importance. Not only would future development of Plum Island permanently alter significant areas of natural habitat, it would also pose the threat of even greater damage going forward.

Further, although the DEIS anticipates the preparation of an "invasive species/wildlife management plan" along with the development scenarios outlined that would, among other things, "support formal designation of areas of Plum Island for conservation and preservation where these species are currently and/or potentially could occur on Plum Island," (DEIS, at 3-81 – 3-82), the DEIS fails to identify the person or entity charged with preparing such a plan, under what legal authority the plan would be required, the person or entity responsible for designating certain areas of the Island for conservation purposes, and under what legal authority such a designation would be made. These are the types of critical details that the DEIS has not addressed but must analyze and explore before recommending the conveyance of Plum Island out of federal ownership. The DEIS does not simply evaluate this vital information inadequately; it fails to cover it at all. This failure, along with all of the others, means that the DEIS cannot meet its fundamental purpose as required by NEPA.

CONCLUSION

The resources of Long Island Sound should be protected against unnecessary pollution or disturbance that may result from the unrestricted sale of Plum Island. Potential development impacts could harm marine resources in the Sound including, but not limited to, commercial and recreational finfishing and shellfishing, water quality, plant resources, marine mammals, and waterfowl and migratory birds. Plum Island, by virtue of its limited development over the past century and a half, has blossomed into a kind of nature's laboratory – permitting us a glimpse into environmental and ecological forces in their undisturbed state, and fostering natural habitat for a number of threatened and/or endangered species. It would be a tragedy to squander this opportunity to preserve Plum Island in its relatively natural state for generations to come, and to help facilitate continued preservation efforts in support of Long Island Sound. Absent a complete and candid evaluation of what the applicable statute actually requires and exploration of all possible scenarios and their related impacts, it is impossible to use the DEIS as a guidance document in making important decisions about the future of the Island and of Long Island Sound. The DEIS should be revised to account for the deficiencies identified in these comments.

Respectfully submitted,

George Jepsen
Attorney General, State of Connecticut

Dated: October 26, 2012

STATE OF NEW YORK
DEPARTMENT OF STATE
ONE COMMERCE PLAZA
99 WASHINGTON AVENUE
ALBANY, NY 12231-0001

ANDREW M. CUOMO
GOVERNOR

CESAR A. PERALES
SECRETARY OF STATE

October 26, 2012

Mr. Phil Youngberg
C/O Mr. John Dugan of
U.S. General Services Administration
10 Causeway Street, Room 925
Boston, Massachusetts 02222

Re: U.S. General Services Administration
Anticipated Sale of Plum Island
Town of Southold, Suffolk County

Dear Mr. Youngberg:

On January 16, 2009 the U.S. Department of Homeland Security made a determination through a Record of Decision that the research and laboratory work performed on Plum Island, NY were to be relocated to a different U.S. location.[1] In order to advance the process of the sale of Plum Island and fulfill the National Environmental Protection Act (NEPA) requirements for the federal agency action, the U.S. General Services Administration (GSA) published a Notice of Availability of the Draft EIS (DEIS) in the Federal Register on July 20, 2012. GSA will accept written and oral comments until October 26, 2012.

New York State has a federally approved Coastal Management Program (CMP) pursuant to the Coastal Zone Management Act (16 U.S.C. § 1451 et seq.).[2] The Department of State (DOS) is the New York State agency responsible for the administration of New York State's CMP. As part of the program approval process and procedures (15 C.F.R. Part 923), New York State included in its CMP a list of lands "owned, leased, held in trust or whose use is otherwise subject solely to the discretion of the Federal Government, its officers or agents" that are to be excluded from the state coastal zone boundary (15 C.F.R. § 923.33(a)).[3] The federal land that is the subject of this draft environmental impact statement (DEIS), Plum Island and the Plum Island Terminal, is listed as excluded federal lands in the CMP.[4]

[1] In 2008, the United States Congress enacted (Public Law 110-329) directed that if the Department of Homeland Security (DHS) determined that the research and laboratory work performed on Plum Island were to be located elsewhere then the General Services Administration (GSA) was directed to sell all real and personal property related to operations at Plum Island.

[2] In September 1982, the National Oceanic and Atmospheric Administration Division of Ocean and Coastal Resource Management (OCRM) approved New York's CMP.

[3] "To meet this requirement, the program must describe, list or map lands or types of lands owned, leased, held in trust or otherwise used solely by Federal agencies". 15 C.F.R. § 923.33(a).

[4] See New York State Coastal Management Plan, Final Environmental Impact Statement [September 1982]; Appendix D, p. 1. Excluded federal lands (including lands underwater) includes Plum Island (840 acres) and Plum Island Terminal (9.5 acres) held by the U.S. Department of Agriculture.

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The inclusion of the excluded federal land list in a state program does not remove the obligation from the federal agency to comply with federal consistency provisions.[5] In fact, disposal of federal property by the U.S. General Services Administration (GSA), is a direct federal action that is listed in the New York State Coastal Management Program (CMP)[6] as an activity that will have reasonably foreseeable coastal effects and as such, the sale of Plum Island is subject to the consistency provisions found at 15 C.F.R. Part 930 Subpart C. Furthermore, if the sale of Plum Island and Orient Point is to a non-federal entity, then the land will no longer be classified as "excluded federal land" but rather property that would be included in the New York state coastal zone boundary. A change in land classification and use will require a coastal consistency determination from GSA to ensure that the addition of previously excluded federal lands to the state coastal zone boundary is consistent with the 13 Long Island Sound coastal policies.[7]

Pursuant to 15 C.F.R. § 930.36 (b) (1), the GSA should provide DOS with a consistency determination at the earliest practicable time during the planning of the anticipated sale and a final determination no later than 90 days prior to the final approval of the sale. Please note that pursuant to 15 C.F.R. § 930.37, the GSA's federal consistency obligations under CZMA are independent of those required under the National Environmental Policy Act (NEPA) and while NEPA documentation may be used as a vehicle for a consistency determination and providing necessary and additional data, the submission of an environmental document prepared pursuant to NEPA does not necessarily satisfy the requirements of the CZMA and its implementing regulations. Therefore, if the GSA is planning on using NEPA documentation as a vehicle for a consistency determination, early coordination with DOS is essential to ensure a complete document.

DOS has reviewed the DEIS issued for the Plum Island disposal project and offers the following comments.

1. In the introductory sections of the DEIS, GSA states that "the Joint Lead Agencies will comply with required federal laws that may ultimately necessitate restricting the Property in some other manner ..., but the Joint Lead Agencies cannot restrict the Property beyond the requirements of such laws. Any additional restrictions that may be placed on the Property would occur only after the Property has left federal ownership, and would be the result of effects of state or local laws. ..... GSA has no ability to determine whether and to what extent local laws and regulations, including, without limitation, those of the Code of the Town of Southold, would allow for and ultimately provide for the approval of any specific site plan..... Currently, there are no deed restrictions or conservation easements associated with the Property, but deed restrictions and conservation easements could be incorporated after the sale." DOS would like DHS, as the property owner, to consider placing restrictions, easements, or covenants on prior to sale of the property to a private owner, if that action would result in an additional public benefit before or after the sale.

2. The DEIS notes that for most of the environmental factors being assessed for impacts, and the impacts on existing uses, the action or alternative will be assessed for federal consistency. In addition, if GSA includes its consistency determination or negative determination in the Final EIS, it should be included as a separate section in the Final EIS within the document and adheres to all CZMA time requirements.

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[5] See 16 U.S.C. § 1456 and 15 C.F.R. Part 930. If "Federal actions on these excluded federal lands have spillover impacts that may affect an land or water use or natural resource of the coastal zone within the purview of a state's management program" than federal consistency will be required.

[6] Table 2, Listed Federal Activities, 15 C.F.R. Part 930 Subpart C, New York State Coastal Management Program and Final Environmental Impact Statement, 2006 Routine Program Change.

[7] See New York State Executive Law, Article 42, § 923. The Long Island Sound Coastal Management Program (LIS CMP) was added to the NYS CMP in 1999 . The LIS CMP contains 13 coastal policies specific to Long Island Sound, in comparison to the 44 state coastal policies that are used for federal consistency determinations and certifications.

3. The effects on New York's coastal resources and uses from the sale of the property are only discussed for impacts to water quality, although effects potentially exist for many of the other coastal policies. Please provide a thorough analysis in the consistency determination of the impacts of the sale on all affected New York State coastal policies. Where discussion of coastal impacts is found in separate sections of the FEIS, a summary or reference to findings should be consolidated in a coastal impacts section.

4. According to GSA, sale of Plum Island and its facilities will not occur before 2021, at the earliest. While there is uncertainty of federal funding available for the transfer of the current facility and its operations and functions to another U.S. location, there could perhaps be even further delays in the sale. Please provide an explanation for how this time lapse will be accounted for in the FEIS and how the data and information on environmental and land and water use impacts will remain accurate and applicable to inform future coastal consistency decision-making.

5. Could the island be deeded to another federal agency for management of the land and facilities? Could the island be sold to a state agency or not-for-profit for a nominal fee, as was the case with Governor's Island?

Thank you for your anticipated cooperation and forthcoming consistency determination. If you have any questions regarding the consistency provisions found at 15 CFR Part 930 Subpart C or the New York State Coastal Management Program, please contact me at 518-474-6000 (email: Jeffrey.Zappieri@dos.ny.gov).

Sincerely,

Fred J. Anders, for

Jeffrey Zappieri
Supervisor, Consistency Review Unit
Division of Coastal Resources

Bourdeau, Jonathan

From: John Dugan (1PZS) [john.dugan@gsa.gov]
Sent: Monday, September 17, 2012 3:52 PM
To: Murrell, Glenn (DOT)
Cc: phil.youngberg@gsa.gov
Subject: Re: DEIS for Public Sale of Plum Island

Categories: Red Category

Mr. Murrell,

Thank you very much for your comment. We will be sure to include this in the official project record.

If you have any questions, please feel free to contact me at the information below.

John L. A. Dugan
Real Property Utilization & Disposal
U.S. General Services Administration
Thomas P. O'Neill Federal Building
10 Causeway Street
Boston, MA 02222
617.565.5709 - office
617.921.0431 - mobile
617.565.5720 - fax

On Mon, Sep 17, 2012 at 11:08 AM, Murrell, Glenn (DOT) <Glenn.Murrell@dot.ny.gov> wrote:

Dear Mr. Dugan,

As a follow-up to my e-mail of August 8th, we have reviewed the subject document and offer the following:

- Future reuse of the property, once it leaves federal ownership, will result in increased density on Plum Island and generate additional vehicle trips derived from the ferry . It is our understanding that we will have an opportunity to review the appropriate document prepared for the future reuse. That document will need to study the impacts on state owned/maintained roadways including NY 25 and I495.

Thank you for providing us with the opportunity to review this document.

Glenn

Glenn R. Murrell, P.E.

Acting Regional Planning & Program Manager, Region 10

New York State Department of Transportation

State Office Building

250 Veterans Memorial Highway

Hauppauge, N.Y. 11788

(631) 952-6108

From: Murrell, Glenn (DOT)
Sent: Wednesday, August 08, 2012 8:45 AM
To: john.dugan@gsa.gov
Subject: DEIS for Public Sale of Plum Island

Dear Mr. Dugan,

The New York State Department of Transportation is in receipt of your agency's letter regarding the availability of an electronic copy of the subject DEIS for review. We will provide any comments resulting from our review prior to the September 18, 2012 deadline.

Thank you for providing us with the opportunity to review this document.

Glenn

Glenn R. Murrell, P.E.

Acting Regional Planning & Program Manager, Region 10

New York State Department of Transportation

State Office Building

250 Veterans Memorial Highway

Hauppauge, N.Y. 11788

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APPENDIX D

TRAFFIC CALCULATIONS AND ASSUMPTIONS

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Traffic analysis performed for the draft EIS considered four reuse options: adaptive reuse, low-density zoning, high-density zoning, and conservation/preservation. For the final EIS, there has been modification of the four reuse options initially considered so that the EIS could more appropriately analyze potential impacts that could result from the Property's reuse after its sale. The final version of the EIS now considers three reuse options: adaptive reuse, development (with a range of residential density scenarios) and conservation/ preservation.

Traffic analysis for draft EIS considered the low-density zoning option to include a total of 90 residential units on the island and the high-density zoning option to include a total of 750 residential units on the island.

The modified development option considers a comparable density scenario, with a total of 168 residential units on the island, and a maximum density scenario, with a maximum of 500 residential units on the island. Updated traffic calculations for AM Peak, PM Peak, and ADT are as follows:

Development of 168 units:		Avg. Vehicle Trip Ends vs. Dwelling Units			Avg. Vehicle Trip Ends		
Trip Generation Code	Land Use	AM PEAK	PM PEAK	Daily	AM PEAK	PM PEAK	Daily
270	Re sidential PUD	0.51	0.62	7.50	86	104	1,260

Development of 500 units:		Avg. Vehicle Trip Ends vs. Dwelling Units			Avg. Vehicle Trip Ends		
Trip Generation Code	Land Use	AM PEAK	PM PEAK	Daily	AM PEAK	PM PEAK	Daily
270	Re sidential PUD	0.51	0.62	7.50	255	310	3,750

Level of Service (LOS) analysis of the draft EIS high-density zoning option with 750 dwelling units yielded the projection that in year 2025 LOS E, generally considered unacceptable for planning purposes, would result from the high-density zoning option for one of the analyzed roads: NY25 from RT 144 to CR48 NB and SB. The comparable 2025 LOS projection for the No Action scenario was LOS D. For all other roads included in assessment, analysis of high-density zoning option yielded projection that year 2025 LOS would not exceed D. Comparable year 2025 LOS projections for No Action scenario do not exceed LOS C.

Final EIS development option maximum density scenario of 500 units equates to two-thirds of the 750 units in the draft EIS high-density zoning option. For the NY25 from RT 144 to CR48 road segment, the volume to capacity (v/c) ratio is calculated to be 0.46 for NB and 0.45 for SB. The v/c threshold between LOS D and LOS E is 0.43. Due to the small delta between the projected v/c ratios the 0.43 threshold, and consideration that the aggressive base traffic growth rate of 2.9% per year was applied to all projections, it is estimated that the reduction of units by two-thirds (from 750 to 500) would result in the year 2025 LOS being in the range of D, the same range as the projected LOS for 2025 No Action scenario. Similar assumptions are made regarding the other segments of NY25 resulting in overall conclusion that 2025 traffic will remain within generally acceptable LOS.

Plum Island is located off the eastern point of Long Island, New York. To get to the Employer’s facilities, employees take either a 20-minute ferry boat ride from Orient Point, Long Island, or a 45-minute ride from Old Saybrook, Connecticut. The Employer furnishes the transportation from both locations.

From PIADC website, there are about 60 research professionals on island. They all rely on ferry on and off the island. That counts for 60 inbound trips and 60 outbound trips per day. Assuming facility security and maintain person as 30, that is another 30 inbound trips and 30 outbound trips daily. In addition, visitors and delivery trucks could be estimated as another 40 inbound trips and 40 outbound trips per day. Finally, ferry operation will count for 5 inbound trips and 5 outbound trips

In total, under existing conditions, there are 135 inbound trips in the morning and 135 outbound trips in the afternoon. The total trips are 270 ADT.

Under No Action Alternate, Facilty will be not in use any more but still need securtiy and maintain personnel on island on regular base. Assuming 20 in total for security guard, maintain and ferry operation persons, the new daily trips will be 20 inbounds in the monring and 20 outbounds in the afternoon. The total trips are 40 ADT

Traffic Assignment Assumptions

Assumption #1:

Among all traffic generated by Plum Island under existing conditions, no action option, adaptive reuse option, and conservation/preservation option, 95-100% are through ferry transport on/off the island.

Among all traffic generated by Plum Island under low-density zoning and high-density zoning 60% are through ferry transport on/off the island; 40% are internal traffic within the island.

Assumption #2:

Among all traffic on and off Plum Island through ferry, 50% from/to Orient Point, New York; 50% from/to Old Saybrook, Connecticut.

Examples of potential reuse options for Plum Island include a private sector laboratory, an academic research facility, or a business complex with a commercial component for Island tourists, among others. Adaptive reuse will use the existing facility so that every option will have same gross floor area. Private sector laboratory and aacademic research facility have similar land use feature as existing PIADC, coded as 760 per ITE Trip Generation 7th Edition Volume 3. While business complex has a relatively different land use feature.

ITE Trip Generation 7th Edition Volume 3.

Trip Generation Code	Land Use	Average Vehicle Trip Ends vs 1000 Sq. Feet Gross Floor Area			Trip Generation Ratio		
		AM PEAK	PM PEAK	Daily	AM PEAK	PM PEAK	Daily
760	Research and Development Center	1.24	1.08	8.11	1.15	1.19	1.57
770	Business Park	1.43	1.29	12.76			

Therefore, adaptive reuse under business park option will generate 1.57 times trips per day comparing the existing PIADC facility. The total trips will be 270x1.57 = 424 ADT.

Development calculations for this option feature residential densities at less than one unit per 2 acres. Based on the availability of approximately 195 acres of unrestricted land and a residential density of approximately 1 unit per 2 acres, this option could accommodate approximately 90 residential units, including the required support infrastructure.

ITE Trip Generation 7th Edition Volume 2.

Trip Generation Code	Land Use	Average Vehicle Trip Ends vs Dwelling Units			Average Vehile Trip Ends		
		AM PEAK	PM PEAK	Daily	AM PEAK	PM PEAK	Daily
270	Residential Planned unit Development (PUD)	0.51	0.62	7.50	46	56	675

Therefore, low-density zoing option will generate a total trip of 675 ADT.

Development calculations for this option are based upon resort residential densities with up to four units per acre. Based on the availability of approximately 195 acres of unrestricted land and a residential density of approximately 4 units per acre, this option could yield approximately 750 residential units, including the required support infrastructure.

ITE Trip Generation 7th Edition Volume 2.

Trip Generation Code	Land Use	Average Vehicle Trip Ends vs Dwelling Units			Average Vehile Trip Ends		
		AM PEAK	PM PEAK	Daily	AM PEAK	PM PEAK	Daily
270	Residential Planned Unit Development (PUD)	0.51	0.62	7.50	383	465	5625

Therefore, high-density zoing option will generate a total trip of 5625 ADT.

Under this option, existing facilities on this Island may be removed, existing trasnportation servies terminated, and no active or passive public visitaion or recreation facilites would be created, and general public access would be limited. Occational trips would be limited to required maintenance and/or security activities. This Conservation/Preservation option will approximately generate 5 trips daily.

Map

AADT

- 0 - 2000
- 2001 - 5000
- 5001 - 15000
- 15001 - 50000
- 50001 - 300000

Road Name	NY DOT #	From	To	Direction	AADT					
					Existing 2008	2025 No Action	2025 Adaptive Reuse	2025 Low-density Zoning	2025 High-density Zoning	2025 Conservation-Preservation
NY 25	#070052	RT 114	CR 48	2-way	7479	11960	12141	12142	13627	11945
NY 25	#070296	CR 48	Narrow River Rd	2-way	4179	6595	6776	6777	8262	6580
NY 25	#070295	Narrow River Rd	Orient Pt End 25	2-way	3631	5704	5885	5886	7371	5689
900C	#070940	Orient Park Rd	NY 25	2-way	220	358	378	378	526	358
Plum Island Typ. 2-lane Rd		Within Island		2-way	14	2	21	270	2250	0

Road Name	NY DOT #	From	To	Direction	Peak Hour VPH					
					Existing 2008	2025 No Action	2025 Adaptive Reuse	2025 Low-density Zoning	2025 High-density Zoning	2025 Conservation-Preservation
NY 25	#070052	RT 114	CR 48	NB	378	580	611	587	709	571
NY 25	#070052	RT 114	CR 48	SB	368	564	595	570	693	555
NY 25	#070296	CR 48	Narrow River Rd	EB	206	300	331	307	430	292
NY 25	#070296	CR 48	Narrow River Rd	WB	205	299	330	305	428	290
NY 25	#070295	Narrow River Rd	Orient Pt End 25	EB	195	282	313	289	412	274
NY 25	#070295	Narrow River Rd	Orient Pt End 25	WB	173	247	278	253	376	238
900C	#070940	Orient Park Rd	NY 25	NB	15	24	28	26	38	24
900C	#070940	Orient Park Rd	NY 25	SB	15	24	28	26	38	24
Plum Island Typ. 2-lane Rd		Within Island		One-way	4	2	10	20	169	1

Road Name	NY DOT #	From	To	Direction	Volume to Capacity Ratio v/c					
					Existing 2008	2025 No Action	2025 Adaptive Reuse	2025 Low-density Zoning	2025 High-density Zoning	2025 Conservation-Preservation
NY 25	#070052	RT 114	CR 48	NB	0.25	0.38	0.40	0.38	0.46	0.37
NY 25	#070052	RT 114	CR 48	SB	0.24	0.37	0.39	0.37	0.45	0.36
NY 25	#070296	CR 48	Narrow River Rd	EB	0.15	0.22	0.24	0.22	0.31	0.21
NY 25	#070296	CR 48	Narrow River Rd	WB	0.15	0.22	0.24	0.22	0.31	0.21
NY 25	#070295	Narrow River Rd	Orient Pt End 25	EB	0.14	0.21	0.23	0.21	0.30	0.20
NY 25	#070295	Narrow River Rd	Orient Pt End 25	WB	0.13	0.18	0.20	0.18	0.27	0.17
900C	#070940	Orient Park Rd	NY 25	NB	0.01	0.02	0.02	0.02	0.03	0.02
900C	#070940	Orient Park Rd	NY 25	SB	0.01	0.02	0.02	0.02	0.03	0.02
Plum Island Typ. 2-lane Rd		Within Island		One-way	0.00	0.00	0.01	0.01	0.12	0.00

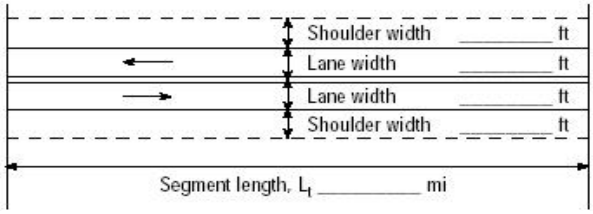
Road Name	NY DOT #	From	To	Direction	Level of Service (LOS)					
					Existing 2008	2025 No Action	2025 Adaptive Reuse	2025 Low-density Zoning	2025 High-density Zoning	2025 Conservation-Preservation
NY 25	#070052	RT 114	CR 48	NB	C	D	D	D	E	D
NY 25	#070052	RT 114	CR 48	SB	C	D	D	D	E	D
NY 25	#070296	CR 48	Narrow River Rd	EB	C	C	C	C	D	C
NY 25	#070296	CR 48	Narrow River Rd	WB	C	C	C	C	D	C
NY 25	#070295	Narrow River Rd	Orient Pt End 25	EB	C	C	C	C	D	C
NY 25	#070295	Narrow River Rd	Orient Pt End 25	WB	B	C	C	C	C	C
900C	#070940	Orient Park Rd	NY 25	NB	A	A	A	A	A	A
900C	#070940	Orient Park Rd	NY 25	SB	A	A	A	A	A	A
Plum Island Typ. 2-lane Rd		Within Island		One-way	A	A	A	A	B	A

Level of Service	V/C Ratio
A	0.03
B	0.13
C	0.28
D	0.43
E	0.90
F	-

DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	MACTEC	Highway / Direction of Travel	900C NB
Agency or Company	MACTEC	From/To	SH 1902 ORIENT PARK RD - NY25
Date Performed	8/4/2010	Jurisdiction	NYDOT STA 070940
Analysis Time Period	AADT	Analysis Year	2008

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.90%

No-passing zone 100

% Trucks and Buses , P_T 19 %

% Recreational vehicles, P_R 4%

Access points/ mi 25

Analysis direction vol., V_d 15veh/h

Opposing direction vol., V_o 15veh/h

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 20-9 or 20-15)	1.7	1.7
Passenger-car equivalents for RVs, E_R (Exhibit 20-9 or 20-17)	1.0	1.0
Heavy-vehicle adjustment factor,f_{HV} f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.883	0.883
Grade adjustment factor [1], f_G (Exhibit 20-7 or 20-13)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV}*f_G)$	19	19

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed[3], S_{FM}	mi/h	Base free-flow speed[3], $BFFS_{FM}$	45.0 mi/h
Observed volume[3], V_f	veh/h	Adj. for lane width and shoulder width,[3] f_{LS}(Exh 20-5)	0.0 mi/h
Free-flow speed, FFS_d $FFS=S_{FM}+0.00776(V_f/f_{HV})$	38.8 mi/h	Adj. for access points[3], f_A (Exhibit 20-5)	6.3 mi/h
Adjustment for no-passing zones, f_{np} (Exhibit 20-19)	2.4 mi/h	Free-flow speed, FFS_d ($FSS=BFFS-f_{LS}-f_A$)	38.8 mi/h
		Average travel speed, ATS $ATS=FFS-0.00776v_p-f_{np}$	36.1 mi/h

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 20-10 or 20-16)	1.1	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10 or 20-16)	1.0	1.0
Heavy-vehicle adjustment factor, f_{HV} f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.981	0.981
Grade adjustment factor[1], f_G (Exhibit 20-8 or 20-14)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV}*f_G)$	17	17
Base percent time-spent-following[4], BPTSF(%) $BPTSF=100(1-e^{av_d^b})$	8.3	
Adj. for no-passing zone, f_{np}(%) (Exhibit. 20-20)	41.6	
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{np}$	49.9	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 or 20-4)	B
Volume to capacity ratio v/c $v/c=V_p/1{,}700$	0.01
Peak 15-min veh-miles of travel,VMT_{15} (veh- mi)$VMT_{15}=0.25L_t(V/PHF)$	4
Peak-hour vehicle-miles of travel, VMT_{60}(veh- mi) $VMT_{60}=V*L_t$	15
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	0.1

Notes

1.If the highway is extended segment (level) or rolling terrain, f_G=1.0 2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only. 4. Exhibit 20-21 provides factors a and b.
5. Use alternative Equation 20-14 if some trucks operate at crawl speeds on a specific downgrade.

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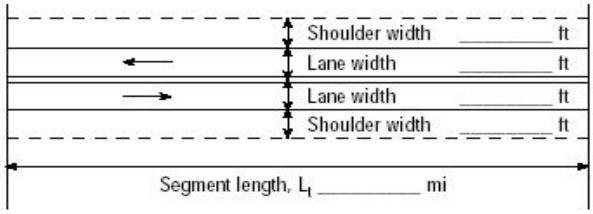
DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	MACTEC	Highway / Direction of Travel	900C NB
Agency or Company	MACTEC	From/To	SH 1902 ORIENT PARK RD - NY25
Date Performed	8/4/2010	Jurisdiction	NYDOT STA 070940
Analysis Time Period	AADT	Analysis Year	2025

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.90%

No-passing zone 100

% Trucks and Buses , P_T 19 %

% Recreational vehicles, P_R 4%

Access points/ mi 25

Analysis direction vol., V_d 25veh/h

Opposing direction vol., V_o 25veh/h

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 20-9 or 20-15)	1.7	1.7
Passenger-car equivalents for RVs, E_R (Exhibit 20-9 or 20-17)	1.0	1.0
Heavy-vehicle adjustment factor,f_{HV} f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.883	0.883
Grade adjustment factor [1], f_G (Exhibit 20-7 or 20-13)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV}*f_G)$	31	31

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed[3], S_{FM}	mi/h	Base free-flow speed[3], $BFFS_{FM}$	45.0 mi/h
Observed volume[3], V_f	veh/h	Adj. for lane width and shoulder width,[3] f_{LS}(Exh 20-5)	0.0 mi/h
Free-flow speed, FFS_d $FFS=S_{FM}+0.00776(V_f/f_{HV})$	38.8 mi/h	Adj. for access points[3], f_A (Exhibit 20-5)	6.3 mi/h
Adjustment for no-passing zones, f_{np} (Exhibit 20-19)	2.4 mi/h	Free-flow speed, FFS_d ($FSS=BFFS-f_{LS}-f_A$)	38.8 mi/h
		Average travel speed, ATS $ATS=FFS-0.00776v_p-f_{np}$	35.9 mi/h

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 20-10 or 20-16)	1.1	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10 or 20-16)	1.0	1.0
Heavy-vehicle adjustment factor, f_{HV} f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.981	0.981
Grade adjustment factor[1], f_G (Exhibit 20-8 or 20-14)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV}*f_G)$	28	28
Base percent time-spent-following[4], BPTSF(%) $BPTSF=100(1-e^{av_d^b})$	11.3	
Adj. for no-passing zone, f_{np}(%) (Exhibit. 20-20)	41.6	
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{np}$	52.9	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 or 20-4)	B
Volume to capacity ratio v/c $v/c=V_p/1{,}700$	0.02
Peak 15-min veh-miles of travel,VMT_{15} (veh- mi)$VMT_{15}=0.25L_t(V/PHF)$	7
Peak-hour vehicle-miles of travel, VMT_{60}(veh- mi) $VMT_{60}=V*L_t$	25
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	0.2

Notes

1.If the highway is extended segment (level) or rolling terrain, f_G=1.0 2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only. 4. Exhibit 20-21 provides factors a and b.
5. Use alternative Equation 20-14 if some trucks operate at crawl speeds on a specific downgrade.

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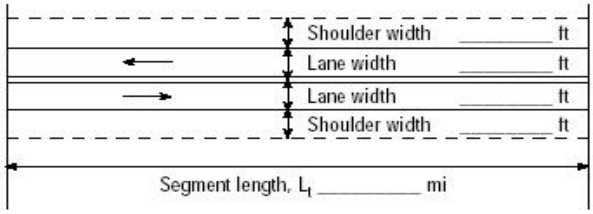
DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	MACTEC	Highway / Direction of Travel	900C SB
Agency or Company	MACTEC	From/To	SH 1902 ORIENT PARK RD - NY25
Date Performed	8/4/2010	Jurisdiction	NYDOT STA 070940
Analysis Time Period	AADT	Analysis Year	2008

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.90%

No-passing zone 100

% Trucks and Buses , P_T 19 %

% Recreational vehicles, P_R 4%

Access points/ mi 25

Analysis direction vol., V_d 15veh/h

Opposing direction vol., V_o 15veh/h

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 20-9 or 20-15)	1.7	1.7
Passenger-car equivalents for RVs, E_R (Exhibit 20-9 or 20-17)	1.0	1.0
Heavy-vehicle adjustment factor,f_{HV} f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.883	0.883
Grade adjustment factor [1], f_G (Exhibit 20-7 or 20-13)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV}*f_G)$	19	19

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed[3], S_{FM}	mi/h	Base free-flow speed[3], $BFFS_{FM}$	45.0 mi/h
Observed volume[3], V_f	veh/h	Adj. for lane width and shoulder width,[3] f_{LS}(Exh 20-5)	0.0 mi/h
Free-flow speed, FFS_d $FFS=S_{FM}+0.00776(V_f/f_{HV})$	38.8 mi/h	Adj. for access points[3], f_A (Exhibit 20-5)	6.3 mi/h
Adjustment for no-passing zones, f_{np} (Exhibit 20-19)	2.4 mi/h	Free-flow speed, FFS_d ($FSS=BFFS-f_{LS}-f_A$)	38.8 mi/h
		Average travel speed, ATS $ATS=FFS-0.00776v_p-f_{np}$	36.1 mi/h

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 20-10 or 20-16)	1.1	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10 or 20-16)	1.0	1.0
Heavy-vehicle adjustment factor, f_{HV} f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.981	0.981
Grade adjustment factor[1], f_G (Exhibit 20-8 or 20-14)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV}*f_G)$	17	17
Base percent time-spent-following[4], BPTSF(%) $BPTSF=100(1-e^{av_d^b})$	8.3	
Adj. for no-passing zone, f_{np}(%) (Exhibit. 20-20)	41.6	
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{np}$	49.9	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 or 20-4)	B
Volume to capacity ratio v/c $v/c=V_p/1{,}700$	0.01
Peak 15-min veh-miles of travel,VMT_{15} (veh- mi)$VMT_{15}=0.25L_t(V/PHF)$	4
Peak-hour vehicle-miles of travel, VMT_{60}(veh- mi) $VMT_{60}=V*L_t$	15
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	0.1

Notes

1.If the highway is extended segment (level) or rolling terrain, f_G=1.0 2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only. 4. Exhibit 20-21 provides factors a and b.
5. Use alternative Equation 20-14 if some trucks operate at crawl speeds on a specific downgrade.

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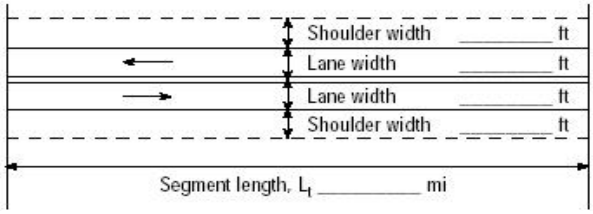
DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	MACTEC	Highway / Direction of Travel	900C SB
Agency or Company	MACTEC	From/To	SH 1902 ORIENT PARK RD - NY25
Date Performed	8/4/2010	Jurisdiction	NYDOT STA 070940
Analysis Time Period	AADT	Analysis Year	2025

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.90%

No-passing zone 100

% Trucks and Buses , P_T 19 %

% Recreational vehicles, P_R 4%

Access points/ mi 25

Analysis direction vol., V_d 25veh/h

Opposing direction vol., V_o 25veh/h

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 20-9 or 20-15)	1.7	1.7
Passenger-car equivalents for RVs, E_R (Exhibit 20-9 or 20-17)	1.0	1.0
Heavy-vehicle adjustment factor,f_{HV} f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.883	0.883
Grade adjustment factor [1], f_G (Exhibit 20-7 or 20-13)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV}*f_G)$	31	31

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed[3], S_{FM}	mi/h	Base free-flow speed[3], $BFFS_{FM}$	45.0 mi/h
Observed volume[3], V_f	veh/h	Adj. for lane width and shoulder width,[3] f_{LS}(Exh 20-5)	0.0 mi/h
Free-flow speed, FFS_d $FFS=S_{FM}+0.00776(V_f/f_{HV})$	38.8 mi/h	Adj. for access points[3], f_A (Exhibit 20-5)	6.3 mi/h
Adjustment for no-passing zones, f_{np} (Exhibit 20-19)	2.4 mi/h	Free-flow speed, FFS_d ($FSS=BFFS-f_{LS}-f_A$)	38.8 mi/h
		Average travel speed, ATS $ATS=FFS-0.00776v_p-f_{np}$	35.9 mi/h

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 20-10 or 20-16)	1.1	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10 or 20-16)	1.0	1.0
Heavy-vehicle adjustment factor, f_{HV} f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.981	0.981
Grade adjustment factor[1], f_G (Exhibit 20-8 or 20-14)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV}*f_G)$	28	28
Base percent time-spent-following[4], BPTSF(%) $BPTSF=100(1-e^{av_d^b})$	11.3	
Adj. for no-passing zone, f_{np}(%) (Exhibit. 20-20)	41.6	
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{np}$	52.9	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 or 20-4)	B
Volume to capacity ratio v/c $v/c=V_p/1{,}700$	0.02
Peak 15-min veh-miles of travel,VMT_{15} (veh- mi)$VMT_{15}=0.25L_t(V/PHF)$	7
Peak-hour vehicle-miles of travel, VMT_{60}(veh- mi) $VMT_{60}=V*L_t$	25
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	0.2

Notes

1.If the highway is extended segment (level) or rolling terrain, f_G=1.0 2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only. 4. Exhibit 20-21 provides factors a and b.
5. Use alternative Equation 20-14 if some trucks operate at crawl speeds on a specific downgrade.

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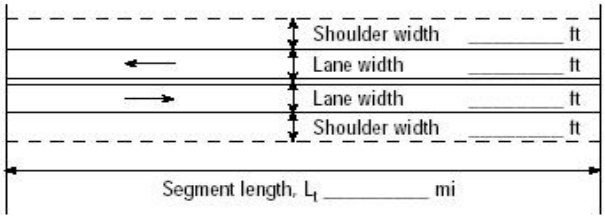
DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	MACTEC	Highway / Direction of Travel	NY 25 NB
Agency or Company	MACTEC	From/To	RT 114 --> CR 48
Date Performed	8/4/2010	Jurisdiction	NYDOT STA 070052
Analysis Time Period	AADT	Analysis Year	2008

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92%

No-passing zone 100

% Trucks and Buses , P_T 23 %

% Recreational vehicles, P_R 4%

Access points/ mi 30

Analysis direction vol., V_d 378veh/h

Opposing direction vol., V_o 368veh/h

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 20-9 or 20-15)	1.2	1.2
Passenger-car equivalents for RVs, E_R (Exhibit 20-9 or 20-17)	1.0	1.0
Heavy-vehicle adjustment factor,f_{HV} f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.956	0.956
Grade adjustment factor [1], f_G (Exhibit 20-7 or 20-13)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV}*f_G)$	430	418

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed[3], S_{FM}	mi/h	Base free-flow speed[3], $BFFS_{FM}$	50.0 mi/h
Observed volume[3], V_f	veh/h	Adj. for lane width and shoulder width,[3] f_{LS}(Exh 20-5)	0.0 mi/h
Free-flow speed, FFS_d $FFS=S_{FM}+0.00776(V_f/f_{HV})$	42.5 mi/h	Adj. for access points[3], f_A (Exhibit 20-5)	7.5 mi/h
Adjustment for no-passing zones, f_{np} (Exhibit 20-19)	2.6 mi/h	Free-flow speed, FFS_d ($FSS=BFFS-f_{LS}-f_A$)	42.5 mi/h
		Average travel speed, ATS $ATS=FFS-0.00776v_p-f_{np}$	33.3 mi/h

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 20-10 or 20-16)	1.1	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10 or 20-16)	1.0	1.0
Heavy-vehicle adjustment factor, f_{HV} f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.978	0.978
Grade adjustment factor[1], f_G (Exhibit 20-8 or 20-14)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV}*f_G)$	420	409
Base percent time-spent-following[4], BPTSF(%) $BPTSF=100(1-e^{av_d^b})$	64.8	
Adj. for no-passing zone, f_{np}(%) (Exhibit. 20-20)	26.0	
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{np}$	90.8	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 or 20-4)	E
Volume to capacity ratio v/c $v/c=V_p/1{,}700$	0.25
Peak 15-min veh-miles of travel,VMT_{15} (veh- mi)$VMT_{15}= 0.25L_t(V/PHF)$	205
Peak-hour vehicle-miles of travel, VMT_{60}(veh- mi) $VMT_{60}=V*L_t$	756
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}= VMT_{15}/ATS$	6.2

Notes

1.If the highway is extended segment (level) or rolling terrain, f_G=1.0 2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only. 4. Exhibit 20-21 provides factors a and b.
5. Use alternative Equation 20-14 if some trucks operate at crawl speeds on a specific downgrade.

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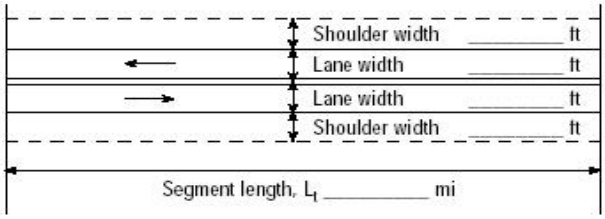
DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	MACTEC	Highway / Direction of Travel	NY 25 NB
Agency or Company	MACTEC	From/To	RT 114 --> CR 48
Date Performed	8/4/2010	Jurisdiction	NYDOT STA 070052
Analysis Time Period	AADT	Analysis Year	2025

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92%

No-passing zone 100

% Trucks and Buses , P_T 23 %

% Recreational vehicles, P_R 4%

Access points/ mi 30

Analysis direction vol., V_d 615veh/h

Opposing direction vol., V_o 598veh/h

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 20-9 or 20-15)	1.1	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-9 or 20-17)	1.0	1.0
Heavy-vehicle adjustment factor,f_{HV} f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.978	0.978
Grade adjustment factor [1], f_G (Exhibit 20-7 or 20-13)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV}*f_G)$	684	665

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed[3], S_{FM}	mi/h	Base free-flow speed[3], $BFFS_{FM}$	50.0 mi/h
Observed volume[3], V_f	veh/h	Adj. for lane width and shoulder width,[3] f_{LS}(Exh 20-5)	0.0 mi/h
Free-flow speed, FFS_d $FFS=S_{FM}+0.00776(V_f/f_{HV})$	42.5 mi/h	Adj. for access points[3], f_A (Exhibit 20-5)	7.5 mi/h
Adjustment for no-passing zones, f_{np} (Exhibit 20-19)	1.6 mi/h	Free-flow speed, FFS_d ($FSS=BFFS-f_{LS}-f_A$)	42.5 mi/h
		Average travel speed, ATS $ATS=FFS-0.00776v_p-f_{np}$	30.4 mi/h

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 20-10 or 20-16)	1.0	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 20-10 or 20-16)	1.0	1.0
Heavy-vehicle adjustment factor, f_{HV} f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	1.000	1.000
Grade adjustment factor[1], f_G (Exhibit 20-8 or 20-14)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV}*f_G)$	668	650
Base percent time-spent-following[4], BPTSF(%) $BPTSF=100(1-e^{av_d^b})$	79.1	
Adj. for no-passing zone, f_{np}(%) (Exhibit. 20-20)	16.0	
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{np}$	95.0	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 or 20-4)	E
Volume to capacity ratio v/c $v/c=V_p/1{,}700$	0.40
Peak 15-min veh-miles of travel,VMT_{15} (veh- mi)$VMT_{15}= 0.25L_t(V/PHF)$	334
Peak-hour vehicle-miles of travel, VMT_{60}(veh- mi) $VMT_{60}=V*L_t$	1230
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}= VMT_{15}/ATS$	11.0

Notes

1.If the highway is extended segment (level) or rolling terrain, f_G=1.0 2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only. 4. Exhibit 20-21 provides factors a and b.
5. Use alternative Equation 20-14 if some trucks operate at crawl speeds on a specific downgrade.

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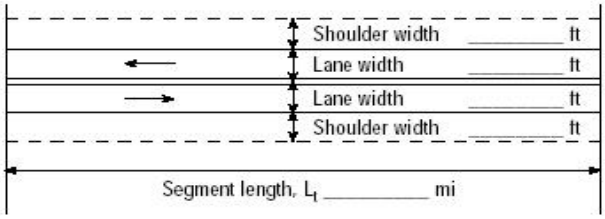
DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	MACTEC	Highway / Direction of Travel	NY 25 SB
Agency or Company	MACTEC	From/To	RT 114 --> CR 48
Date Performed	8/4/2010	Jurisdiction	NYDOT STA 070052
Analysis Time Period	AADT	Analysis Year	2008

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92%

No-passing zone 100

% Trucks and Buses , P_T 19 %

% Recreational vehicles, P_R 4%

Access points/ mi 30

Analysis direction vol., V_d 368veh/h

Opposing direction vol., V_o 378veh/h

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 20-9 or 20-15)	1.2	1.2
Passenger-car equivalents for RVs, E_R (Exhibit 20-9 or 20-17)	1.0	1.0
Heavy-vehicle adjustment factor,f_{HV} f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.963	0.963
Grade adjustment factor [1], f_G (Exhibit 20-7 or 20-13)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV}*f_G)$	415	426

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed[3], S_{FM}	mi/h	Base free-flow speed[3], $BFFS_{FM}$	50.0 mi/h
Observed volume[3], V_f	veh/h	Adj. for lane width and shoulder width,[3] f_{LS}(Exh 20-5)	0.0 mi/h
Free-flow speed, FFS_d $FFS=S_{FM}+0.00776(V_f/f_{HV})$	42.5 mi/h	Adj. for access points[3], f_A (Exhibit 20-5)	7.5 mi/h
Adjustment for no-passing zones, f_{np} (Exhibit 20-19)	2.6 mi/h	Free-flow speed, FFS_d ($FSS=BFFS-f_{LS}-f_A$)	42.5 mi/h
		Average travel speed, ATS $ATS=FFS-0.00776v_p-f_{np}$	33.4 mi/h

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 20-10 or 20-16)	1.1	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10 or 20-16)	1.0	1.0
Heavy-vehicle adjustment factor, f_{HV} f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.981	0.981
Grade adjustment factor[1], f_G (Exhibit 20-8 or 20-14)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV}*f_G)$	408	419
Base percent time-spent-following[4], BPTSF(%) $BPTSF=100(1-e^{av_d^b})$	64.9	
Adj. for no-passing zone, f_{np}(%) (Exhibit. 20-20)	25.6	
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{np}$	90.5	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 or 20-4)	E
Volume to capacity ratio v/c $v/c=V_p/1{,}700$	0.24
Peak 15-min veh-miles of travel,VMT_{15} (veh- mi)$VMT_{15}= 0.25L_t(V/PHF)$	200
Peak-hour vehicle-miles of travel, VMT_{60}(veh- mi) $VMT_{60}=V*L_t$	736
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}= VMT_{15}/ATS$	6.0

Notes

1.If the highway is extended segment (level) or rolling terrain, f_G=1.0 2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only. 4. Exhibit 20-21 provides factors a and b.
5. Use alternative Equation 20-14 if some trucks operate at crawl speeds on a specific downgrade.

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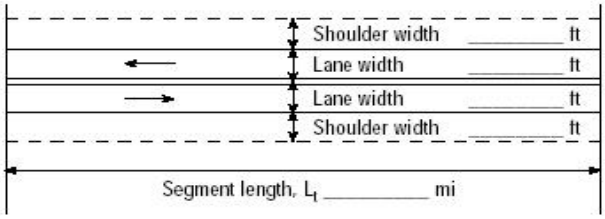
DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	MACTEC	Highway / Direction of Travel	NY 25 SB
Agency or Company	MACTEC	From/To	RT 114 --> CR 48
Date Performed	8/4/2010	Jurisdiction	NYDOT STA 070052
Analysis Time Period	AADT	Analysis Year	2025

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92%

No-passing zone 100

% Trucks and Buses , P_T 19 %

% Recreational vehicles, P_R 4%

Access points/ mi 30

Analysis direction vol., V_d 598veh/h

Opposing direction vol., V_o 615veh/h

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 20-9 or 20-15)	1.1	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-9 or 20-17)	1.0	1.0
Heavy-vehicle adjustment factor,f_{HV} f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.981	0.981
Grade adjustment factor [1], f_G (Exhibit 20-7 or 20-13)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV}*f_G)$	662	681

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed[3], S_{FM}	mi/h	Base free-flow speed[3], $BFFS_{FM}$	50.0 mi/h
Observed volume[3], V_f	veh/h	Adj. for lane width and shoulder width,[3] f_{LS}(Exh 20-5)	0.0 mi/h
Free-flow speed, FFS_d $FFS=S_{FM}+0.00776(V_f/f_{HV})$	42.5 mi/h	Adj. for access points[3], f_A (Exhibit 20-5)	7.5 mi/h
Adjustment for no-passing zones, f_{np} (Exhibit 20-19)	1.6 mi/h	Free-flow speed, FFS_d ($FSS=BFFS-f_{LS}-f_A$)	42.5 mi/h
		Average travel speed, ATS $ATS=FFS-0.00776v_p-f_{np}$	30.5 mi/h

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 20-10 or 20-16)	1.0	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 20-10 or 20-16)	1.0	1.0
Heavy-vehicle adjustment factor, f_{HV} f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	1.000	1.000
Grade adjustment factor[1], f_G (Exhibit 20-8 or 20-14)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV}*f_G)$	650	668
Base percent time-spent-following[4], BPTSF(%) $BPTSF=100(1-e^{av_d^b})$	79.3	
Adj. for no-passing zone, f_{np}(%) (Exhibit. 20-20)	15.4	
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{np}$	94.6	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 or 20-4)	E
Volume to capacity ratio v/c $v/c=V_p/1{,}700$	0.39
Peak 15-min veh-miles of travel,VMT_{15} (veh- mi)$VMT_{15}= 0.25L_t(V/PHF)$	325
Peak-hour vehicle-miles of travel, VMT_{60}(veh- mi) $VMT_{60}=V*L_t$	1196
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}= VMT_{15}/ATS$	10.6

Notes

1.If the highway is extended segment (level) or rolling terrain, f_G=1.0 2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only. 4. Exhibit 20-21 provides factors a and b.
5. Use alternative Equation 20-14 if some trucks operate at crawl speeds on a specific downgrade.

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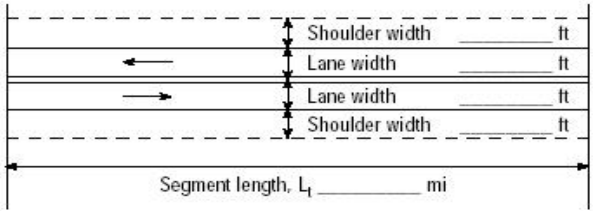
DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	MACTEC	Highway / Direction of Travel	NY 25 EB
Agency or Company	MACTEC	From/To	NARROW RIVER RD-ORIENT PT END
Date Performed	8/4/2010	Jurisdiction	NYDOT STA 070295
Analysis Time Period	AADT	Analysis Year	2008

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92%

No-passing zone 100

% Trucks and Buses , P_T 20 %

% Recreational vehicles, P_R 4%

Access points/ mi 25

Analysis direction vol., V_d 195veh/h

Opposing direction vol., V_o 173veh/h

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 20-9 or 20-15)	1.7	1.7
Passenger-car equivalents for RVs, E_R (Exhibit 20-9 or 20-17)	1.0	1.0
Heavy-vehicle adjustment factor,f_{HV} f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.877	0.877
Grade adjustment factor [1], f_G (Exhibit 20-7 or 20-13)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV}*f_G)$	242	214

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed[3], S_{FM}	mi/h	Base free-flow speed[3], $BFFS_{FM}$	60.0 mi/h
Observed volume[3], V_f	veh/h	Adj. for lane width and shoulder width,[3] f_{LS}(Exh 20-5)	0.0 mi/h
Free-flow speed, FFS_d $FFS=S_{FM}+0.00776(V_f/f_{HV})$	53.8 mi/h	Adj. for access points[3], f_A (Exhibit 20-5)	6.3 mi/h
Adjustment for no-passing zones, f_{np} (Exhibit 20-19)	4.0 mi/h	Free-flow speed, FFS_d ($FSS=BFFS-f_{LS}-f_A$)	53.8 mi/h
		Average travel speed, ATS $ATS=FFS-0.00776v_p-f_{np}$	46.2 mi/h

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 20-10 or 20-16)	1.1	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10 or 20-16)	1.0	1.0
Heavy-vehicle adjustment factor, f_{HV} f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.980	0.980
Grade adjustment factor[1], f_G (Exhibit 20-8 or 20-14)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV}*f_G)$	216	192
Base percent time-spent-following[4], BPTSF(%) $BPTSF=100(1-e^{av_d^b})$	37.6	
Adj. for no-passing zone, f_{np}(%) (Exhibit. 20-20)	35.7	
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{np}$	73.2	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 or 20-4)	D
Volume to capacity ratio v/c $v/c=V_p/1{,}700$	0.14
Peak 15-min veh-miles of travel,VMT_{15} (veh- mi)$VMT_{15}=0.25L_t(V/PHF)$	106
Peak-hour vehicle-miles of travel, VMT_{60}(veh- mi) $VMT_{60}=V*L_t$	390
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	2.3

Notes

1.If the highway is extended segment (level) or rolling terrain, f_G=1.0 2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only. 4. Exhibit 20-21 provides factors a and b.
5. Use alternative Equation 20-14 if some trucks operate at crawl speeds on a specific downgrade.

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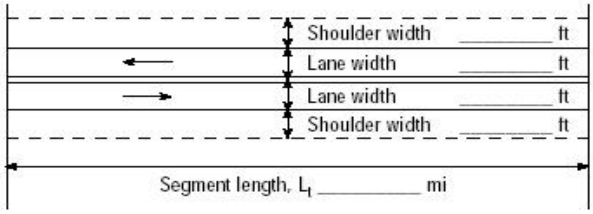
DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	MACTEC	Highway / Direction of Travel	NY 25 EB
Agency or Company	MACTEC	From/To	NARROW RIVER RD-ORIENT PT END
Date Performed	8/4/2010	Jurisdiction	NYDOT STA 070295
Analysis Time Period	AADT	Analysis Year	2025

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92%

No-passing zone 100

% Trucks and Buses , P_T 20 %

% Recreational vehicles, P_R 4%

Access points/ mi 25

Analysis direction vol., V_d 317veh/h

Opposing direction vol., V_o 281veh/h

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 20-9 or 20-15)	1.2	1.2
Passenger-car equivalents for RVs, E_R (Exhibit 20-9 or 20-17)	1.0	1.0
Heavy-vehicle adjustment factor,f_{HV} f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.962	0.962
Grade adjustment factor [1], f_G (Exhibit 20-7 or 20-13)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV}*f_G)$	358	318

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed[3], S_{FM}	mi/h	Base free-flow speed[3], $BFFS_{FM}$	60.0 mi/h
Observed volume[3], V_f	veh/h	Adj. for lane width and shoulder width,[3] f_{LS}(Exh 20-5)	0.0 mi/h
Free-flow speed, FFS_d $FFS=S_{FM}+0.00776(V_f/f_{HV})$	53.8 mi/h	Adj. for access points[3], f_A (Exhibit 20-5)	6.3 mi/h
Adjustment for no-passing zones, f_{np} (Exhibit 20-19)	3.3 mi/h	Free-flow speed, FFS_d ($FSS=BFFS-f_{LS}-f_A$)	53.8 mi/h
		Average travel speed, ATS $ATS=FFS-0.00776v_p-f_{np}$	45.2 mi/h

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 20-10 or 20-16)	1.1	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10 or 20-16)	1.0	1.0
Heavy-vehicle adjustment factor, f_{HV} f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.980	0.980
Grade adjustment factor[1], f_G (Exhibit 20-8 or 20-14)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV}*f_G)$	351	312
Base percent time-spent-following[4], BPTSF(%) $BPTSF=100(1-e^{av_d^b})$	63.8	
Adj. for no-passing zone, f_{np}(%) (Exhibit. 20-20)	27.8	
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{np}$	91.5	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 or 20-4)	E
Volume to capacity ratio v/c $v/c=V_p/1{,}700$	0.21
Peak 15-min veh-miles of travel,VMT_{15} (veh- mi)$VMT_{15}=0.25L_t(V/PHF)$	172
Peak-hour vehicle-miles of travel, VMT_{60}(veh- mi) $VMT_{60}=V*L_t$	634
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	3.8

Notes

1.If the highway is extended segment (level) or rolling terrain, f_G=1.0 2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only. 4. Exhibit 20-21 provides factors a and b.
5. Use alternative Equation 20-14 if some trucks operate at crawl speeds on a specific downgrade.

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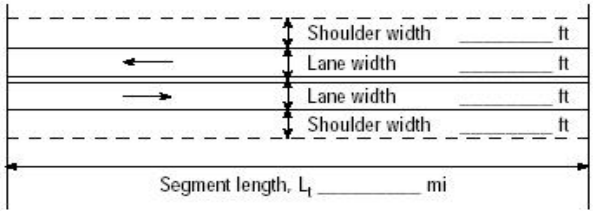
DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	MACTEC	Highway / Direction of Travel	NY 25 WB
Agency or Company	MACTEC	From/To	NARROW RIVER RD-ORIENT PT END
Date Performed	8/4/2010	Jurisdiction	NYDOT STA 070295
Analysis Time Period	AADT	Analysis Year	2008

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92%

No-passing zone 100

% Trucks and Buses , P_T 21 %

% Recreational vehicles, P_R 4%

Access points/ mi 25

Analysis direction vol., V_d 173veh/h

Opposing direction vol., V_o 195veh/h

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 20-9 or 20-15)	1.7	1.7
Passenger-car equivalents for RVs, E_R (Exhibit 20-9 or 20-17)	1.0	1.0
Heavy-vehicle adjustment factor,f_{HV} f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.872	0.872
Grade adjustment factor [1], f_G (Exhibit 20-7 or 20-13)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV}*f_G)$	216	243

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed[3], S_{FM}	mi/h	Base free-flow speed[3], $BFFS_{FM}$	60.0 mi/h
Observed volume[3], V_f	veh/h	Adj. for lane width and shoulder width,[3] f_{LS}(Exh 20-5)	0.0 mi/h
Free-flow speed, FFS_d $FFS=S_{FM}+0.00776(V_f/f_{HV})$	53.8 mi/h	Adj. for access points[3], f_A (Exhibit 20-5)	6.3 mi/h
Adjustment for no-passing zones, f_{np} (Exhibit 20-19)	3.8 mi/h	Free-flow speed, FFS_d ($FSS=BFFS-f_{LS}-f_A$)	53.8 mi/h
		Average travel speed, ATS $ATS=FFS-0.00776v_p-f_{np}$	46.4 mi/h

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 20-10 or 20-16)	1.1	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10 or 20-16)	1.0	1.0
Heavy-vehicle adjustment factor, f_{HV} f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.979	0.979
Grade adjustment factor[1], f_G (Exhibit 20-8 or 20-14)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV}*f_G)$	192	216
Base percent time-spent-following[4], BPTSF(%) $BPTSF=100(1-e^{av_d^b})$	40.0	
Adj. for no-passing zone, f_{np}(%) (Exhibit. 20-20)	34.8	
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{np}$	74.8	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 or 20-4)	D
Volume to capacity ratio v/c $v/c=V_p/1{,}700$	0.13
Peak 15-min veh-miles of travel,VMT_{15} (veh- mi)$VMT_{15}=0.25L_t(V/PHF)$	94
Peak-hour vehicle-miles of travel, VMT_{60}(veh- mi) $VMT_{60}=V*L_t$	346
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	2.0

Notes

1.If the highway is extended segment (level) or rolling terrain, f_G=1.0 2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only. 4. Exhibit 20-21 provides factors a and b.
5. Use alternative Equation 20-14 if some trucks operate at crawl speeds on a specific downgrade.

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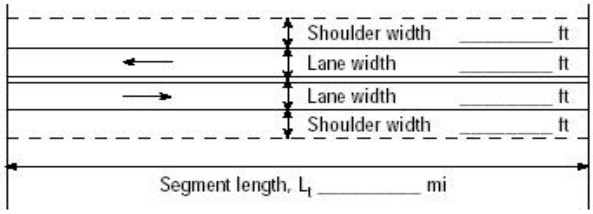
DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	MACTEC	Highway / Direction of Travel	NY 25 WB
Agency or Company	MACTEC	From/To	NARROW RIVER RD-ORIENT PT END
Date Performed	8/4/2010	Jurisdiction	NYDOT STA 070295
Analysis Time Period	AADT	Analysis Year	2025

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92%

No-passing zone 100

% Trucks and Buses , P_T 21 %

% Recreational vehicles, P_R 4%

Access points/ mi 25

Analysis direction vol., V_d 281veh/h

Opposing direction vol., V_o 317veh/h

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 20-9 or 20-15)	1.2	1.2
Passenger-car equivalents for RVs, E_R (Exhibit 20-9 or 20-17)	1.0	1.0
Heavy-vehicle adjustment factor,f_{HV} f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.960	0.960
Grade adjustment factor [1], f_G (Exhibit 20-7 or 20-13)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV}*f_G)$	318	359

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed[3], S_{FM}	mi/h	Base free-flow speed[3], $BFFS_{FM}$	60.0 mi/h
Observed volume[3], V_f	veh/h	Adj. for lane width and shoulder width,[3] f_{LS}(Exh 20-5)	0.0 mi/h
Free-flow speed, FFS_d $FFS=S_{FM}+0.00776(V_f/f_{HV})$	53.8 mi/h	Adj. for access points[3], f_A (Exhibit 20-5)	6.3 mi/h
Adjustment for no-passing zones, f_{np} (Exhibit 20-19)	3.0 mi/h	Free-flow speed, FFS_d ($FSS=BFFS-f_{LS}-f_A$)	53.8 mi/h
		Average travel speed, ATS $ATS=FFS-0.00776v_p-f_{np}$	45.5 mi/h

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 20-10 or 20-16)	1.1	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10 or 20-16)	1.0	1.0
Heavy-vehicle adjustment factor, f_{HV} f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.979	0.979
Grade adjustment factor[1], f_G (Exhibit 20-8 or 20-14)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV}*f_G)$	312	352
Base percent time-spent-following[4], BPTSF(%) $BPTSF=100(1-e^{av_d^b})$	61.1	
Adj. for no-passing zone, f_{np}(%) (Exhibit. 20-20)	24.9	
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{np}$	85.9	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 or 20-4)	E
Volume to capacity ratio v/c $v/c=V_p/1{,}700$	0.19
Peak 15-min veh-miles of travel,VMT_{15} (veh- mi)$VMT_{15}=0.25L_t(V/PHF)$	153
Peak-hour vehicle-miles of travel, VMT_{60}(veh- mi) $VMT_{60}=V*L_t$	562
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}=VMT_{15}/ATS$	3.4

Notes

1.If the highway is extended segment (level) or rolling terrain, f_G=1.0 2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only. 4. Exhibit 20-21 provides factors a and b.
5. Use alternative Equation 20-14 if some trucks operate at crawl speeds on a specific downgrade.

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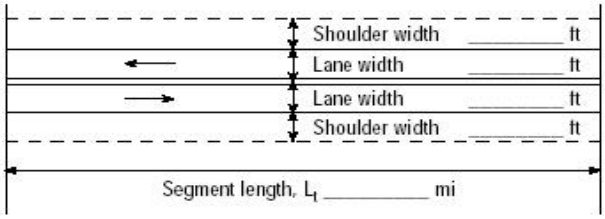
DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		***Site Information***	
Analyst	MACTEC	Highway / Direction of Travel	NY 25 EB
Agency or Company	MACTEC	From/To	CR 48- NARROW RIVER RD
Date Performed	8/4/2010	Jurisdiction	NYDOT STA 070296
Analysis Time Period	AADT	Analysis Year	2008

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92%

No-passing zone 100

% Trucks and Buses , P_T 20 %

% Recreational vehicles, P_R 4%

Access points/ mi 25

Analysis direction vol., V_d 206veh/h

Opposing direction vol., V_o 205veh/h

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 20-9 or 20-15)	1.7	1.7
Passenger-car equivalents for RVs, E_R (Exhibit 20-9 or 20-17)	1.0	1.0
Heavy-vehicle adjustment factor,f_{HV} f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.877	0.877
Grade adjustment factor [1], f_G (Exhibit 20-7 or 20-13)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV}*f_G)$	255	254

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed[3], S_{FM}	mi/h	Base free-flow speed[3], $BFFS_{FM}$	60.0 mi/h
Observed volume[3], V_f	veh/h	Adj. for lane width and shoulder width,[3] f_{LS}(Exh 20-5)	0.0 mi/h
Free-flow speed, FFS_d $FFS=S_{FM}+0.00776(V_f/f_{HV})$	53.8 mi/h	Adj. for access points[3], f_A (Exhibit 20-5)	6.3 mi/h
Adjustment for no-passing zones, f_{np} (Exhibit 20-19)	3.7 mi/h	Free-flow speed, FFS_d ($FSS=BFFS-f_{LS}-f_A$)	53.8 mi/h
		Average travel speed, ATS $ATS=FFS-0.00776v_p-f_{np}$	46.1 mi/h

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 20-10 or 20-16)	1.1	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10 or 20-16)	1.0	1.0
Heavy-vehicle adjustment factor, f_{HV} f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.980	0.980
Grade adjustment factor[1], f_G (Exhibit 20-8 or 20-14)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV}*f_G)$	228	227
Base percent time-spent-following[4], BPTSF(%) $BPTSF=100(1-e^{av_d^b})$	46.2	
Adj. for no-passing zone, f_{np}(%) (Exhibit. 20-20)	34.0	
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{np}$	80.2	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 or 20-4)	D
Volume to capacity ratio v/c $v/c=V_p/1{,}700$	0.15
Peak 15-min veh-miles of travel,VMT_{15} (veh- mi)$VMT_{15}= 0.25L_t(V/PHF)$	112
Peak-hour vehicle-miles of travel, VMT_{60}(veh- mi) $VMT_{60}=V*L_t$	412
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}= VMT_{15}/ATS$	2.4

Notes

1.If the highway is extended segment (level) or rolling terrain, f_G=1.0 2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only. 4. Exhibit 20-21 provides factors a and b.
5. Use alternative Equation 20-14 if some trucks operate at crawl speeds on a specific downgrade.

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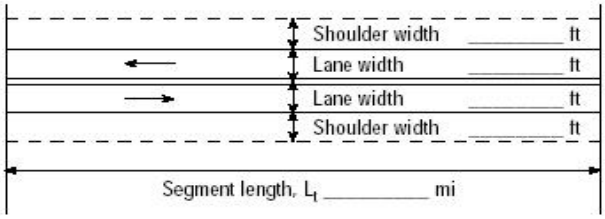
DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	MACTEC	Highway / Direction of Travel	NY 25 EB
Agency or Company	MACTEC	From/To	CR 48- NARROW RIVER RD
Date Performed	8/4/2010	Jurisdiction	NYDOT STA 070296
Analysis Time Period	AADT	Analysis Year	2025

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92%

No-passing zone 100

% Trucks and Buses , P_T 20 %

% Recreational vehicles, P_R 4%

Access points/ mi 25

Analysis direction vol., V_d 335veh/h

Opposing direction vol., V_o 333veh/h

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 20-9 or 20-15)	1.2	1.2
Passenger-car equivalents for RVs, E_R (Exhibit 20-9 or 20-17)	1.0	1.0
Heavy-vehicle adjustment factor,f_{HV} f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.962	0.962
Grade adjustment factor [1], f_G (Exhibit 20-7 or 20-13)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV}*f_G)$	379	376

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed[3], S_{FM}	mi/h	Base free-flow speed[3], $BFFS_{FM}$	60.0 mi/h
Observed volume[3], V_f	veh/h	Adj. for lane width and shoulder width,[3] f_{LS}(Exh 20-5)	0.0 mi/h
Free-flow speed, FFS_d $FFS=S_{FM}+0.00776(V_f/f_{HV})$	53.8 mi/h	Adj. for access points[3], f_A (Exhibit 20-5)	6.3 mi/h
Adjustment for no-passing zones, f_{np} (Exhibit 20-19)	2.9 mi/h	Free-flow speed, FFS_d ($FSS=BFFS-f_{LS}-f_A$)	53.8 mi/h
		Average travel speed, ATS $ATS=FFS-0.00776v_p-f_{np}$	45.0 mi/h

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 20-10 or 20-16)	1.1	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10 or 20-16)	1.0	1.0
Heavy-vehicle adjustment factor, f_{HV} f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.980	0.980
Grade adjustment factor[1], f_G (Exhibit 20-8 or 20-14)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV}*f_G)$	371	369
Base percent time-spent-following[4], BPTSF(%) $BPTSF=100(1-e^{av_d^b})$	63.8	
Adj. for no-passing zone, f_{np}(%) (Exhibit. 20-20)	23.6	
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{np}$	87.4	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 or 20-4)	E
Volume to capacity ratio v/c $v/c=V_p/1{,}700$	0.22
Peak 15-min veh-miles of travel,VMT_{15} (veh- mi)$VMT_{15}= 0.25L_t(V/PHF)$	182
Peak-hour vehicle-miles of travel, VMT_{60}(veh- mi) $VMT_{60}=V*L_t$	670
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}= VMT_{15}/ATS$	4.0

Notes

1.If the highway is extended segment (level) or rolling terrain, f_G=1.0 2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only. 4. Exhibit 20-21 provides factors a and b.
5. Use alternative Equation 20-14 if some trucks operate at crawl speeds on a specific downgrade.

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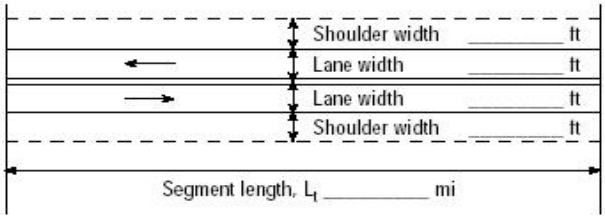
DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	MACTEC	Highway / Direction of Travel	NY 25 WB
Agency or Company	MACTEC	From/To	CR 48- NARROW RIVER RD
Date Performed	8/4/2010	Jurisdiction	NYDOT STA 070296
Analysis Time Period	AADT	Analysis Year	2008

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92%

No-passing zone 100

% Trucks and Buses , P_T 21 %

% Recreational vehicles, P_R 4%

Access points/ mi 25

Analysis direction vol., V_d 205veh/h

Opposing direction vol., V_o 206veh/h

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 20-9 or 20-15)	1.7	1.7
Passenger-car equivalents for RVs, E_R (Exhibit 20-9 or 20-17)	1.0	1.0
Heavy-vehicle adjustment factor,f_{HV} f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.872	0.872
Grade adjustment factor [1], f_G (Exhibit 20-7 or 20-13)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV}*f_G)$	256	257

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed[3], S_{FM}	mi/h	Base free-flow speed[3], $BFFS_{FM}$	60.0 mi/h
Observed volume[3], V_f	veh/h	Adj. for lane width and shoulder width,[3] f_{LS}(Exh 20-5)	0.0 mi/h
Free-flow speed, FFS_d $FFS=S_{FM}+0.00776(V_f/f_{HV})$	53.8 mi/h	Adj. for access points[3], f_A (Exhibit 20-5)	6.3 mi/h
Adjustment for no-passing zones, f_{np} (Exhibit 20-19)	3.7 mi/h	Free-flow speed, FFS_d ($FSS=BFFS-f_{LS}-f_A$)	53.8 mi/h
		Average travel speed, ATS $ATS=FFS-0.00776v_p-f_{np}$	46.1 mi/h

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 20-10 or 20-16)	1.1	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10 or 20-16)	1.0	1.0
Heavy-vehicle adjustment factor, f_{HV} f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.979	0.979
Grade adjustment factor[1], f_G (Exhibit 20-8 or 20-14)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV}*f_G)$	228	229
Base percent time-spent-following[4], BPTSF(%) $BPTSF=100(1-e^{av_d^b})$	46.6	
Adj. for no-passing zone, f_{np}(%) (Exhibit. 20-20)	33.8	
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{np}$	80.4	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 or 20-4)	D
Volume to capacity ratio v/c $v/c=V_p/1{,}700$	0.15
Peak 15-min veh-miles of travel,VMT_{15} (veh- mi)$VMT_{15}= 0.25L_t(V/PHF)$	111
Peak-hour vehicle-miles of travel, VMT_{60}(veh- mi) $VMT_{60}=V*L_t$	410
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}= VMT_{15}/ATS$	2.4

Notes

1.If the highway is extended segment (level) or rolling terrain, f_G=1.0 2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only. 4. Exhibit 20-21 provides factors a and b.
5. Use alternative Equation 20-14 if some trucks operate at crawl speeds on a specific downgrade.

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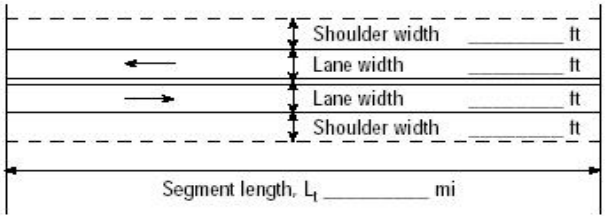
DIRECTIONAL TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	MACTEC	Highway / Direction of Travel	NY 25 WB
Agency or Company	MACTEC	From/To	CR 48- NARROW RIVER RD
Date Performed	8/4/2010	Jurisdiction	NYDOT STA 070296
Analysis Time Period	AADT	Analysis Year	2025

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Grade Length mi Up/down

Peak-hour factor, PHF 0.92%

No-passing zone 100

% Trucks and Buses , P_T 21 %

% Recreational vehicles, P_R 4%

Access points/ mi 25

Analysis direction vol., V_d 333veh/h

Opposing direction vol., V_o 335veh/h

Average Travel Speed

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T (Exhibit 20-9 or 20-15)	1.2	1.2
Passenger-car equivalents for RVs, E_R (Exhibit 20-9 or 20-17)	1.0	1.0
Heavy-vehicle adjustment factor,f_{HV} f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.960	0.960
Grade adjustment factor [1], f_G (Exhibit 20-7 or 20-13)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV}*f_G)$	377	379

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed[3], S_{FM}	mi/h	Base free-flow speed[3], $BFFS_{FM}$	60.0 mi/h
Observed volume[3], V_f	veh/h	Adj. for lane width and shoulder width,[3] f_{LS}(Exh 20-5)	0.0 mi/h
Free-flow speed, FFS_d $FFS=S_{FM}+0.00776(V_f/f_{HV})$	53.8 mi/h	Adj. for access points[3], f_A (Exhibit 20-5)	6.3 mi/h
Adjustment for no-passing zones, f_{np} (Exhibit 20-19)	2.9 mi/h	Free-flow speed, FFS_d ($FSS=BFFS-f_{LS}-f_A$)	53.8 mi/h
		Average travel speed, ATS $ATS=FFS-0.00776v_p-f_{np}$	45.0 mi/h

Percent Time-Spent-Following

	Analysis Direction (d)	Opposing Direction (o)
Passenger-car equivalents for trucks, E_T(Exhibit 20-10 or 20-16)	1.1	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10 or 20-16)	1.0	1.0
Heavy-vehicle adjustment factor, f_{HV} f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.979	0.979
Grade adjustment factor[1], f_G (Exhibit 20-8 or 20-14)	1.00	1.00
Directional flow rate[2], v_i(pc/h) $v_i=V_i/(PHF*f_{HV}*f_G)$	370	372
Base percent time-spent-following[4], BPTSF(%) $BPTSF=100(1-e^{av_d^b})$	63.6	
Adj. for no-passing zone, f_{np}(%) (Exhibit. 20-20)	23.4	
Percent time-spent-following, PTSF(%) $PTSF=BPTSF+f_{np}$	87.0	

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 or 20-4)	E
Volume to capacity ratio v/c $v/c=V_p/1{,}700$	0.22
Peak 15-min veh-miles of travel,VMT_{15} (veh- mi)$VMT_{15}= 0.25L_t(V/PHF)$	181
Peak-hour vehicle-miles of travel, VMT_{60}(veh- mi) $VMT_{60}=V*L_t$	666
Peak 15-min total travel time, TT_{15}(veh-h) $TT_{15}= VMT_{15}/ATS$	4.0

Notes

1.If the highway is extended segment (level) or rolling terrain, f_G=1.0 2. If v_i(v_d or v_o) >=1,700 pc/h, terminate analysis--the LOS is F.
3. For the analysis direction only. 4. Exhibit 20-21 provides factors a and b.
5. Use alternative Equation 20-14 if some trucks operate at crawl speeds on a specific downgrade.

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APPENDIX E

SUMMARY OF THE CURRENT REGULATORY STATUS OF EACH OF THE 49 CERCLA SITES

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APPENDIX E

CERCLA SITE SUMMARY TABLE

Site Designation	Environmental Site Activities Conducted	Regulatory Status	Actions Remaining to be Taken	Related Documentation
WMA 2	Site Investigation 1999	NFA determination was made at May 8, 2001 regulatory meeting.	None	PIADC CERCLA Program Report, ENTECH, Inc. September 2002.
WMA 5	Site Investigation 1999	NFA determination was made at May 8, 2001 regulatory meeting.	None	PIADC CERCLA Program Report, ENTECH, Inc. September 2002.
WMA 14	Site Investigation 1999	NFA determination was made at May 8, 2001 regulatory meeting.	None	PIADC CERCLA Program Report, ENTECH, Inc. September 2002.
WMA 17	Site Investigation 1999	NFA determination was made at May 8, 2001 regulatory meeting.	None	PIADC CERCLA Program Report, ENTECH, Inc. September 2002.
WMA 19	Site Investigation 1999	NFA determination was made at May 8, 2001 regulatory meeting.	None	PIADC CERCLA Program Report, ENTECH, Inc. September 2002.
WMA 20	Site Investigation 1999	NFA determination was made at May 8, 2001 regulatory meeting.	None	PIADC CERCLA Program Report, ENTECH, Inc. September 2002.
WMA 22	Site Investigation 1999	NFA determination was made at May 8, 2001 regulatory meeting.	None	PIADC CERCLA Program Report, ENTECH, Inc. September 2002.
WMA 28	Site Investigation 1999	NFA determination was made at May 8, 2001 regulatory meeting.	None	PIADC CERCLA Program Report, ENTECH, Inc. September 2002.
AOPC 1	Site Investigation 1999	NFA determination was made at May 8, 2001 regulatory meeting.	None	PIADC CERCLA Program Report, ENTECH, Inc. September 2002.
AOPC 2	Site Investigation 1999	NFA determination was made at May 8, 2001 regulatory meeting.	None	PIADC CERCLA Program Report, ENTECH, Inc. September 2002.
AOPC 3	Site Investigation 1999	NFA determination was made at May 8, 2001 regulatory meeting.	None	PIADC CERCLA Program Report, ENTECH, Inc. September 2002.
AOPC 7	Site Investigation 1999	NFA determination was made at May 8, 2001 regulatory meeting.	None	PIADC CERCLA Program Report, ENTECH, Inc. September 2002.

Site Designation	Environmental Site Activities Conducted	Regulatory Status	Actions Remaining to be Taken	Related Documentation
AOPC 9	Site Investigation 1999	NFA determination was made at May 8, 2001 regulatory meeting.	None	PIADC CERCLA Program Report, ENTECH, Inc. September 2002.
AOPC 12	Site Investigation 1999	NFA determination was made at May 8, 2001 regulatory meeting.	None	PIADC CERCLA Program Report, ENTECH, Inc. September 2002.
AOPC 16	Site Investigation 1999	NFA determination was made at May 8, 2001 regulatory meeting.	None	PIADC CERCLA Program Report, ENTECH, Inc. September 2002.
Fort Terry Batteries: Battery Bradford Battery Daliba Battery Dimmick Battery Eldridge Battery Floyd Battery Greble Battery Kelly Battery Steele Battery Stoneman Battery 217	Site Investigation 1999	NFA determination was made at May 8, 2001 regulatory meeting.	None	PIADC CERCLA Program Report, ENTECH, Inc. September 2002.
WMA 1	Site Investigation 1999 Excavation and off-site disposal of regulated medical waste was completed in 2000.	Direction is provided by NYSDEC in its April 30, 2010, letter.	None	PIADC CERCLA Program Report, ENTECH, Inc. September 2002. After Action Report: Investigation-By-Excavation of Treated Regulated Medical Waste Landfills, BMT Entech, Inc. December 2007.
WMA 4/AOPC 11	Site Investigation 1999 Excavation and off-site disposal of treated regulated medical waste was completed in 2006/2007.	Direction is provided by NYSDEC in its April 30, 2010, letter.	None	PIADC CERCLA Program Report, ENTECH, Inc. September 2002. After Action Report: Investigation-By-Excavation of Treated Regulated Medical Waste Landfills, BMT Entech, Inc. December 2007.

Site Designation	Environmental Site Activities Conducted	Regulatory Status	Actions Remaining to be Taken	Related Documentation
WMA 6	Site Investigation 1999 Excavation and off-site disposal of regulated medical waste was completed in 2007.	Direction is provided by NYSDEC in its April 30, 2010, letter.	None	PIADC CERCLA Program Report, ENTECH, Inc. September 2002. After Action Report: Investigation-By-Excavation of Treated Regulated Medical Waste Landfills, BMT Entech, Inc. December 2007.
WMA 7/8	Site Investigation 1999	Direction is provided by NYSDEC in its April 30, 2010, letter.	Landfill survey and land use restriction	PIADC CERCLA Program Report, ENTECH, Inc. September 2002.
WMA 10/11	Site Investigation 1999 Excavation and off-site disposal of regulated medical waste was completed in 2000/2001.	Direction is provided by NYSDEC in its April 30, 2010, letter.	Install sentry groundwater monitoring wells between the site and PIADC's two existing well fields	PIADC CERCLA Program Report, ENTECH, Inc. September 2002. After Action Report: Investigation-By-Excavation of Treated Regulated Medical Waste Landfills, BMT Entech, Inc. December 2007.
WMA 13	Site Investigation 1999 Excavation and off-site disposal of regulated medical waste was completed in 2001.	Direction is provided by NYSDEC in its April 30, 2010, letter.	None	PIADC CERCLA Program Report, ENTECH, Inc. September 2002. After Action Report: Investigation-By-Excavation of Treated Regulated Medical Waste Landfills, BMT Entech, Inc. December 2007.
WMA 15	Site Investigation 1999	Direction is provided by NYSDEC in its April 30, 2010, letter.	Landfill survey and land use restriction	PIADC CERCLA Program Report, ENTECH, Inc. September 2002.
WMA 16	Site Investigation 1999	Direction is provided by NYSDEC in its April 30, 2010, letter.	Landfill survey and land use restriction	PIADC CERCLA Program Report, ENTECH, Inc. September 2002.
WMA 24	Site Investigation 1999	Direction is provided by NYSDEC in its April 30, 2010, letter.	Landfill survey and land use restriction	PIADC CERCLA Program Report, ENTECH, Inc. September 2002.
WMA 26/27	Site Investigation 1999	Direction is provided by NYSDEC in its April 30, 2010, letter.	Landfill survey and land use restriction	PIADC CERCLA Program Report, ENTECH, Inc. September 2002.

Site Designation	Environmental Site Activities Conducted	Regulatory Status	Actions Remaining to be Taken	Related Documentation
AOPC 4	Site Investigation 1999	Based on information received in the September 30, 2010 letter from NYSDEC, AOPC 4 has been addressed to the satisfaction of NYSDEC	None	PIADC CERCLA Program Report, ENTECH, Inc. September 2002.
AOPC 5	Site Investigation 1999 Soil cover was completed in 2006.	NFA determination made in AAR Report.	None	PIADC CERCLA Program Report, ENTECH, Inc. September 2002. After Action Report: Investigation and Remedial Actions at Area of Potential Concern (AOPC) 5 and 8. September 2007.
AOPC 6	Site Investigation 1999 Excavation and off-site disposal of treated regulated medical waste was completed in 2006.	Direction is provided by NYSDEC in its April 30, 2010, letter.	None	PIADC CERCLA Program Report, ENTECH, Inc. September 2002. After Action Report: Investigation-By-Excavation of Treated Regulated Medical Waste Landfills, BMT Entech, Inc. December 2007.
AOPC 8	Site Investigation 1999 Test pitting was completed in July 2005 with no evidence of solid waste disposal.	NFA determination made in AAR Report.	None	PIADC CERCLA Program Report, ENTECH, Inc. September 2002. After Action Report: Investigation and Remedial Actions at Area of Potential Concern (AOPC) 5 and 8. September 2007.

Site Designation	Environmental Site Activities Conducted	Regulatory Status	Actions Remaining to be Taken	Related Documentation
AOPC 10	Site Investigation 1999 Excavation and off-site disposal of regulated medical waste was completed in 2000.	Direction is provided by NYSDEC in its April 30, 2010, letter.	Soil and groundwater sampling will be conducted to assist in determining whether PCBs are present near the 1999 groundwater sample.	PIADC CERCLA Program Report, ENTECH, Inc. September 2002. After Action Report: Investigation-By-Excavation of Treated Regulated Medical Waste Landfills, BMT Entech, Inc. December 2007.
AOPC 13	Site Investigation 1999 Excavation and off-site disposal of treated regulated medical waste was completed in 2000.	Direction is provided by NYSDEC in its April 30, 2010, letter.	None	PIADC CERCLA Program Report, ENTECH, Inc. September 2002. After Action Report: Investigation-By-Excavation of Treated Regulated Medical. Waste Landfills, BMT Entech, Inc. December 2007.
AOPC 14	Site Investigation 1999	Based on information received in the September 30, 2010 letter from NYSDEC, AOPC 14 has been addressed to the satisfaction of NYSDEC	None	PIADC CERCLA Program Report, ENTECH, Inc. September 2002.
Bomb-Proof Switchroom	Site Investigation 1999	Based on information received in the September 30, 2010 letter from NYSDEC, the Bomb-Proof Switchroom has been addressed to the satisfaction of NYSDEC	None	PIADC CERCLA Program Report, ENTECH, Inc. September 2002.

Site Designation	Environmental Site Activities Conducted	Regulatory Status	Actions Remaining to be Taken	Related Documentation
Mining Casemate	Site Investigation 1999	Based on information received in the September 30, 2010 letter from NYSDEC, the Mining Casemate has been addressed to the satisfaction of NYSDEC	None	PIADC CERCLA Program Report, ENTECH, Inc. September 2002.
Searchlight No. 11	Site Investigation 1999	Based on information received in the September 30, 2010 letter from NYSDEC, the Searchlight No. 11 has been addressed to the satisfaction of NYSDEC	None	PIADC CERCLA Program Report, ENTECH, Inc. September 2002.

APPENDIX F

NOTICE OF THREATENED OR ENDANGERED SPECIES

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NOTICE OF THREATENED OR ENDANGERED SPECIES

Grantee is placed on notice that on Plum Island, New York (Property), that is being conveyed with this quitclaim deed, there are a number of federally listed threatened or endangered wildlife and plant species protected by the Federal Endangered Species Act (16 U.S.C. Sec. 1531, et seq.) (ESA). In particular, based on information provided by the U.S. Fish and Wildlife Service (FWS) to GSA, such listed species on the Property include:

- Piping Plover (Charadrius melodus)
- Roseate Tern (Sterna dougallii dougallii)
- Sandplain Gerardia (Agalinis acuta)
- Seabeach Amaranth (Amaranthus pumilus)
- Small Whorled Pogonia (Isotria medeoloides)

Ultimately, it will be Grantee's obligation to satisfy the requirements of the ESA and its implementing regulations. Upon conveyance of the Property to Grantee, Grantee should take steps necessary to satisfy both federal and state laws and regulations protecting listed species. Thus Grantee is advised, prior to disturbing the Property in such a way as to potentially bring harm to whatever listed species are present on the Property, to consult with the FWS to ensure that no inadvertent damage is inflicted upon these threatened or endangered species.

Grantee is also placed on notice that a number of species present on the Property are listed as threatened or endangered under State of New York law and implementing regulations. Thus, as a matter of compliance, Grantee is equally urged to coordinate property development projects with State regulators as well to ensure no violation of state standards. In particular, threatened or endangered species listed by the State of New York on the Property include:

- Piping Plover (Charadrius melodus)
- Roseate Tern (Sterna dougallii dougallii)
- Common Loon (Gavia immer)
- Northern Harrier (Circus cyaneus)
- Red Shouldered Hawk (Buteo lineatus)
- Cooper’s Hawk (Accipiter cooperii)
- Sharp-shinned Hawk (A. striatus)
- Northern Goshawk (A. gentilis)
- Peregrine Falcon (Falco pererinus)

NOTICE OF THREATENED OR ENDANGERED MARINE MAMMALS

Grantee is placed on notice that on Plum Island, New York (Property), that is being conveyed with this quitclaim deed, there are a number of federally listed threatened or endangered species likely to be present in waters surrounding the Property, protected by the Marine Mammal Protection Act (MMPA) of 1972, as amended. In particular, based on information provided by the National Marine Fisheries Service (NMFS) to GSA, such listed species on the Property include:

- Shortnose Sturgeon (Acipenser brevirostrum)
- Atlantic Hawksbill Sea Turtle (Eretmochelys imbricate)
- Green Sea Turtle (Chelonia mydas)
- Atlantic (Kemp's) Ridley Sea Turtle (Lepidochelys kempii)
- Leatherback Sea Turtle (Dermochelys coriacea)
- Loggerhead Sea Turtle (Caretta caretta)
- Atlantic sturgeon (Acipenser oxyrinchus oxyrinchus) - candidate species

Several species of marine mammals are common residents or occasional visitors to the waters off of New York including gray seals, harbor seals, and harbor porpoise. All marine mammals receive protection under the MMPA. The MMPA prohibits, with certain exceptions, the take of marine mammals in U.S. waters and by U.S. citizens on the high seas, and the importation of marine mammals and marine mammal products into the NMFS may issue permits under MMPA Section 104 (16 U.S.C. 1374) to persons that authorize the taking of specific species of marine mammals. Several marine mammals are likely to occur in the project area. The potential for effects to marine mammals depends on the proposed use of the property. Additional information regarding the MMPA permitting process may be obtained from NMFS' Office of Protected Resources Permits, Conservation, & Education Division (301-713-2289). Information on the MMPA permitting process can also be found online at: https://apps.nmfs.noaa.gov/ouestionnaire/questionnaire.cfm."

APPENDIX G

NOTICE OF THREATENED OR ENDANGERED MARINE MAMMALS

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NOTICE OF THREATENED OR ENDANGERED MARINE MAMMALS

Grantee is placed on notice that on Plum Island, New York (Property), that is being conveyed with this quitclaim deed, there are a number of federally listed threatened or endangered species likely to be present in waters surrounding the Property, protected by the Marine Mammal Protection Act (MMPA) of 1972, as amended. In particular, based on information provided by the National Marine Fisheries Service (NMFS) to GSA, such listed species on the Property include:

- Shortnose Sturgeon (Acipenser brevirostrum)
- Atlantic Hawksbill Sea Turtle (Eretmochelys imbricate)
- Green Sea Turtle (Chelonia mydas)
- Atlantic (Kemp's) Ridley Sea Turtle (Lepidochelys kempii)
- Leatherback Sea Turtle (Dermochelys coriacea)
- Loggerhead Sea Turtle (Caretta caretta)
- Atlantic sturgeon (Acipenser oxyrinchus oxyrinchus) - candidate species

Several species of marine mammals are common residents or occasional visitors to the waters off of New York including gray seals, harbor seals, and harbor porpoise. All marine mammals receive protection under the MMPA. The MMPA prohibits, with certain exceptions, the take of marine mammals in U.S. waters and by U.S. citizens on the high seas, and the importation of marine mammals and marine mammal products into the NMFS may issue permits under MMPA Section 104 (16 U.S.C. 1374) to persons that authorize the taking of specific species of marine mammals. Several marine mammals are likely to occur in the project area. The potential for effects to marine mammals depends on the proposed use of the property. Additional information regarding the MMPA permitting process may be obtained from NMFS' Office of Protected Resources Permits, Conservation, & Education Division (301-713-2289). Information on the MMPA permitting process can also be found online at: https://apps.nmfs.noaa.gov/ouestionnaire/questionnaire.cfm."

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APPENDIX H

COMMENT SUMMARY MATRICES

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DRAFT EIS PUBLIC COMMENTS AND RESPONSES

A total of 119 Draft EIS comments were received prior to, during, and following the Draft EIS public meetings that were held on October 17 and October 18, 2012. Comments were received by GSA either as spoken public comments during the meetings, as completed comment cards submitted at the meetings, via email, or through the U.S. Postal Service. Multiple comment cards or emails were received stating the same comment in some cases.

Organized by topic, summaries of the Draft EIS comments and responses to the comments are provided on the following pages. Prefixes to the comment number indicate the origin of the comment as follows:

C – Citizen
CO – Conservation Organization
F – Federal Government
L – Local Government
O – Other Organization
S – State Government

Air Quality - Draft EIS Comment Summary

Comment No.(s)	Comment Summary	Comment Response
CO-09	Asserts that DEIS fails to adequately analyze air quality impacts under each reuse option.	The affected environment, including air quality, is addressed in the DEIS in association with each reuse option. The development scenario reuse option has been updated, and the FEIS includes appropriate revisions with regards to air quality findings.
F-02 (USEPA)	Recommends that GSA establish a mitigation plan detailing measures that can be taken to reduce and/or offset potential air quality impacts, and include this information in the FEIS.	The potential reuse options do not warrant further analysis with regards to air quality as they are not proposed outcomes of the action. Because the Joint Lead Agencies have no authority to regulate future land uses under the Action Alternative, a precise statement of the specific land use-related environmental and socioeconomic effects that could result from reuse would be largely speculative. When the Property leaves federal ownership, proposed uses would be subject to applicable federal, local, and state environmental protection requirements and land use regulations.

Alternatives - Draft EIS Comment Summary

Comment No.(s)	Comment Summary	Comment Response
C-01, C-03-10, C-18-19, C21, C-24-26, C-30, C-33, C-35-37, C-39, C-41-43, C-45-50, C52, C-54-56, C-59-60, C-62-63, C69, C-71, CO-01-02, CO-05, CO-08, CO-10-11, CO-15, CO-23, O-01, S-07, S-10	Prefer an alternative that results in permanent preservation of Plum Island by means of continued Public ownership (Federal, State of NY or other) as a National Park or Wildlife Refuge property for nature preservation, critical habitat conservation, wildlife preserve; no residential or commercial development.	GSA/DHS's role under the Consolidated Security, Disaster Assistance and Continuing Appropriations Act of 2009 is to "sell through public sale all real and related personal property and transportation assets which support Plum Island operations." The No Action scenario of no sale is considered in the DEIS, but is not an option. The EIS includes an analysis of a Conservation/Preservation use as a potential reuse option under the Action Alternative.
C-09, C-17, C-19, C-24-26, C-28, C-30-32, C-35-36, C-38, C-51, C-53, CO-01, CO-04, CO-06-08, CO-11, CO-24, O-02, S-03, S-07-08, F-03	Recommend applying conditions and/or deed restrictions on sale of Plum Island to protect natural resources, or dividing the island into parcels to sell some for conservation and other for development/adaptive reuse.	The purpose of this EIS is not to recommend future reuse, but to study potential environmental impacts of the sale of Plum Island. After the transfer of title out of federal ownership, future reuse of the Property will be subject to review and approval under the New York State Environmental Quality Review (SEQR) as prescribed by New York Codes Rules and Regulations. The end result of SEQR review of specific project(s) proposed for Plum Island would include legally binding mitigation enforced at the State or local level. GSA and DHS believe that the SEQR requirements will be effective in protecting natural resources.
C-13, C-24-27, C-30-31, C-36, C-40, C-42, C-51, C-53-55, CO-04, S-04	Request providing access to Plum Island for low-impact/passive public recreation use.	The purpose of this EIS is not to recommend future reuse or to restrict or permit public access/use, but to study potential environmental impacts of the sale of Plum Island.
C-14, C-18	Request consideration of cumulative impacts of Plum Island sale with respect to Great Gull Island, eastern Long Island Sound, etc.	Cumulative and indirect impacts are discussed under relevant sections where applicable.
C-19, C-23, C-29, C-57, C-67, F-02, L-03	Prefer an alternative that maintains the current research facility on Plum Island, or a similar research operation in existing facilities.	The proposed action is mandated by the U.S. Congress in Section 540 of the Consolidated Security, Disaster Assistance and Continuing Appropriations Act of 2009; U.S. Public Law 110-329. The relocation of the DHS research mission is addressed in the NBAF FEIS and is outside the scope of this EIS. The Adaptive Reuse Option addresses similar research operations.
C-44, C-66, C-72	Prefer an alternative that makes use of Plum Island for alternative energy production.	The purpose of this EIS is not to recommend future reuse or to restrict or permit public access/use, but to study potential environmental impacts of the sale of Plum Island.

CO-03, CO-22, F-02	States that only two options, adaptive reuse or conservation/preservation, are consistent with established federal policy.	Federal policy regarding the sale of Plum Island was established by Congress in directing the sale. GSA and DHS's approach to consider multiple scenarios complies with NEPA by considering reasonable scenarios, and the associated impact analysis is appropriate and sufficient based on the uncertainty of future land reuse.
CO-03, CO-22, F-02	Request adding potential positive impacts to the DEIS discussion about the conservation/preservation option.	GSA and DHS have considered suggested additional potential positive impacts for inclusion in the discussion.
CO-08, F-01-02	States that the DEIS has inconsistent description of acreage available for development, and areas to be protected from development by means of local, state and federal regulations should be clarified.	The total area available for development has been updated for consistency. Additionally, the jurisdictional boundaries have been delineated.
L-02	Statement that reuse option #3 is not reasonable or likely and should be removed from the DEIS.	GSA and DHS acknowledge the validity of this comment and have amended the FEIS to include a consolidated development option. The development option in the FEIS is based on comments provided by the Town of Southold, and calculations have been made based on anticipated zoning and the physical constraints of the island's freshwater aquifer.
F-03	Indirect effects of residential development described in options would likely create measureable adverse impacts to listed species resulting from human recreational disturbance and shoreline management actions. The FEIS should indicate that residential development would be likely to adversely affect listed species and that formal Section 7 consultation would be necessary.	GSA and DHS will include a notice in the conveyance documents that indentifies protected and endangered species. Grantee will be put on notice that it must satisfy the requirements of Section 10 of the Endangered Species Act. A copy of the draft notice is included in the Biological Resources section of the FEIS.
F-03	Requests consideration of an additional alternative/option scenario that includes residential development clustered in such a way as to minimize impact on presently undeveloped areas with wildlife habitat.	The residential alternatives were combined into a single development alternative within the potentially developable area on the island, which includes consideration of wildlife habitat. The single Development Alternative reflects a reduction of density. Implementation of a zoning scheme that promotes cluster development is the prerogative of the Town of Southold.
F-03	Asserts that the No Action Alternative would likely result in continued protection of the natural resources of the Island, and suggests that the FEIS should state that as a result of the No Action Alternative, approximately 195 acres of forested and old field habitats would not be impacted from private development.	Additional analysis of the No Action Alternative was performed to include such additional statement(s) regarding habitat conservation; however, the No Action Alternative is not a viable option for GSA/DHS.

Biological Resources - Draft EIS Comment Summary

Comment No.(s)	Comment Summary	Comment Response
C-20, C-23, C-25, C-27-28, C-31, C-35, C-37, C-45, C-48-49, C-51-53, C-56-57, C-71, CO-01, CO-04, CO-06-10, CO-20, CO-23-24, F-03, F-05, S-01	Plum Island contains unique, critical habitat for wildlife, especially endangered bird species, and is recognized as having national significance for migratory birds. The meaning and significance of Important Bird Areas is not conveyed in the DEIS. Development on Plum Island would damage habitats for endangered or threatened species; conversely an ecologically-sensitive approach to the future of the island could help to restore ecological diversity.	The presence of rare, threatened and endangered species has been assessed to the level of detail necessary to understand the potential effects of the sale of the property. Assessment has been performed to meet requirements of GSA guidance documents including the "National Environmental Policy Act (NEPA) Desk Guide" (GSA, 1999) and "Environmental Framework for Real Property Disposal" (GSA, 2008). After the transfer of title out of federal ownership, future reuse of the Property will be subject to review and approval under the New York State Environmental Quality Review (SEQR) as prescribed by New York Codes Rules and Regulations. The end result of SEQR review of specific project(s) proposed for Plum Island would include legally binding mitigation enforced at the State or local level. GSA and DHS believe that the SEQR requirements will be effective in protecting natural resources.
C-24, C-28, C-35, C-56, CO-03, CO-06, CO-08, CO-09-10, CO-12, CO-15-16, CO-19, CO-22, CO-24, S-03	The DEIS is insufficient/inadequate with regards to information about the ecosystem and species that rely on the island. A full four-season biological inventory of Plum Island is needed. The New York Natural Heritage Program study compiled a comprehensive inventory of Plum Island that should be considered, but it is still inadequate.	The Final EIS includes a notice that will be placed in future conveyance documents indicating that it is incumbent upon the grantee to satisfy the requirements of relevant federal, state, and local laws and regulations regarding the protection of natural resources. Because the sale of the Property will not occur for a number of years, the Joint Lead Agencies may have to supplement the EIS when the timing of sale becomes clearer. At the time of any such supplemental EIS, the Joint Lead Agencies will be able to re-examine what further work should be done to bring it up to date to ensure that the federal government meet our responsibilities, including the government's responsibility to properly identify to potential buyers the presence of protected flora and fauna, migratory birds, and marine mammals, and their habitat. In addition, GSA and DHS believe that the New York State Environmental Quality Review (SEQR) as prescribed by New York Codes Rules and Regulations will be effective in protecting natural resources.

C-31, C-48-49, C-51, C-53, C-61, C-71, CO-04, CO-06, CO-08, CO-24, S-01	The DEIS needs to recognize that Plum Island is the most significant seal haul-out in southern New England due to its particular biogeography with rocky shorelines. Concerned that increased human activity will cause seals to relocate.	Additional details regarding potential impacts from the proposed alternatives to harbor seals and gray seals that are known to haul-out in the vicinity of Plum Island and occur in the waters off of Plum Island have been incorporated into the FEIS. The FEIS now states that "Plum Island is perhaps the largest winter harbor seal (Phoca vitulina) haul-out site in New York and one of the largest of such sites in southern New England (NYNHP, 2012). In addition, gray seals (Halichoerus grypus) have been observed on or in the vicinity of Plum Island". In addition, GSA and DHS believe that the New York State Environmental Quality Review (SEQR) as prescribed by New York Codes Rules and Regulations will be effective in protecting these natural resources.
CO-05, CO-09, CO-13, CO-17	Plum Island, Great Gull and Little Gull form a string of islands and are home to endangered and threatened species. The Long Island Sound Study includes these islands in its Stewardship Area program, and NY State has identified them as significant.	The GSA and DHS understand that Plum Island along with Great Gull and Little Gull Islands have been identified as areas with significant biological, scientific, and recreational value and are recognized "Stewardship Areas".
CO-06, CO-10	The New York National Heritage Program report and other additional information on biological diversity provided to GSA and DHS should be fully integrated into the EIS.	This information, provided after publication of the DEIS, has been reviewed and incorporated into the FEIS.
C-28, C-35, CO-08	The number of bird species referenced in the DEIS is out of date, and the DEIS does not properly attribute bird surveys to Audubon New York.	The GSA and DHS have incorporated the most recent bird surveys available for Plum Island in the FEIS.
CO-09	The DEIS fails to adequately consider the government interest in the protection of designated essential fish habitat.	The FEIS includes an evaluation of the proposed reuse alternatives and the potential affects they may have on essential fish habitat.
F-02	There is no clear discussion of the consultations for the Endangered Species Act (ESA) or the Marine Mammal Protection Act (MMPA) in the body of the DEIS. This is an important factor for the sale of the island, and should be addressed in the EIS. The FEIS should include more information to explain how species and habitats would be protected in the low- and high-density reuse options.	The FEIS documents the conversations between GSA/DHS and FWS/NOAA as it relates to ESA/MMPA. The appendix to the FEIS includes all correspondence between GSA/DHS and other agencies. Grantee will be put on notice that it must satisfy the requirements of federal and state laws and regulations protecting listed species, such as Section 10 of the Endangered Species Act and the Marine Mammal Protection Act. A copy of the draft notice is included in the Biological Resources section of the FEIS. In addition, GSA and DHS believe that the New York State Environmental Quality Review (SEQR) as prescribed by New York Codes Rules and Regulations will be effective in protecting natural resources.

S-01, F-03	DEIS makes no mention of the recent 6 NYCRR Part 182 - Endangered Species Incidental Take Permit regulations, which broaden the definition of the term "take" to include indirect effects including adverse modification of habitat. Also, pursuant to Section 10 (a)(1)(B) of the ESA, in order to avoid potential violations of section 9 of the ESA and possible law enforcement action an application for an incidental take permit must be accompanied by a Habitat Conservation Plan (HCP). As migratory bird species are protected under the MBTA, the FEIS should discuss the implications for development actions on the Island in the context of the MBTA. The MBTA prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Service.	The FEIS includes a discussion of 6 NYCRR Part 182 Endangered Species Incidental Take Permit regulations. Grantee will be put on notice that it must satisfy the requirements of federal and state laws and regulations protecting listed species, such as Section 10 of the Endangered Species Act and the Migratory Birds Treaty Act. A copy of the draft notice is included in the Biological Resources section of the FEIS. In addition, GSA and DHS believe that the New York State Environmental Quality Review (SEQR) as prescribed by New York Codes Rules and Regulations will be effective in protecting natural resources.
S-01	The DEIS should address the potential for Plum Island to serve as a stopover for bats, and address potential impacts from each option.	The FEIS acknowledges that the potential reuse alternatives may adversely impact bats or bat habitat, and that appropriate protective measures and/or consultation with the appropriate agencies may be necessary as the property is developed by future owners. In addition, GSA and DHS believe that the New York State Environmental Quality Review (SEQR) as prescribed by New York Codes Rules and Regulations will be effective in protecting natural resources.
F-03	The FEIS should include reference to recognized beach recreational guidelines to protect endangered species.	The FEIS includes a discussion of beach recreation guidelines pertaining to the protection of rare, threatened, and endangered species.
F-03	Indirect effects of residential development described in options would likely create measureable adverse impacts to listed species resulting from human recreational disturbance and shoreline management actions. The FEIS should indicate that residential development would be likely to adversely affect listed species and that formal Section 7 consultation would be necessary.	The FEIS acknowledges that residential development may adversely affect listed species. Grantee will be put on notice that it must satisfy the requirements of federal and state laws and regulations protecting listed species, such as Section 10 of the Endangered Species Act. A copy of the draft notice is included in the Biological Resources section of the FEIS.

F-03	Conservation plans referenced in the FEIS should include all undeveloped upland, grasslands, wetlands, and coastal habitats on Plum Island and be undertaken in a manner that involves multiple stakeholders, protects species and the habitats on which they depend. Areas to be included in the preservation alternative should be contiguous so as to limit the effects of development on sensitive species and lands.	GSA/DHS agree that this is a good recommendation on the content of a conservation plan. However, the Grantee will be put on notice that it must satisfy the requirements of federal, state and local laws and regulations protecting listed species, such as requirement for conservation plans under the Endangered Species Act. A copy of the draft notice is included in the Biological Resources section of the FEIS.

Hazardous Waste - Draft EIS Comment Summary

Comment No.(s)	Comment Summary	Comment Response
CO-09-10, CO-12, CO-22-23, F-02	The DEIS fails to provide adequate information about site contamination from hazardous waste, and fails to identify necessary remediation. It should further discuss the process, schedule, needs and/or benefits of completing cleanup of the 24 hazardous waste sites.	DHS will continue ongoing activities regarding environmental investigation and cleanup to the satisfaction of the appropriate regulatory agencies. The federal government has an obligation under CERCLA to protect human health and the environment by certifying the environmental condition of the Property prior to transfer of title.
C-14, CO-21	Request for information about current soil contamination.	DHS will continue ongoing activities regarding environmental investigation and cleanup to the satisfaction of the appropriate regulatory agencies. The final reports will be made available to the public. The federal government has an obligation under CERCLA to protect human health and the environmental by certifying the environmental condition of the Property prior to transfer of title.
F-02, S-01	The DEIS discussion of contamination as pertains to PIADC is lacking, and the FEIS should detail the specific components of the research facility clean-up process with regards to potential biological contamination.	DHS will continue to exercise bio-safety and bio-security protocols on Plum Island up through their departure. Appropriate biological cleanup requirements will be determined at the time that DHS decommissions the lab.
S-03	A transition plan from PIADC to NBAF is needed.	DHS will be preparing a transition plan.

Historic and Archaeological - Draft EIS Comment Summary

Comment No.(s)	Comment Summary	Comment Response
S-02, C-27, C-31, C-48, C-49, C-51, C-53, C-62, CO-18	In the opinion of SHPO, the contributing structures listed in the DEIS (Batteries Floyd and Eldridge, Shelter Search Lights 13 and 14) are only four of the approximately 60 contributing structures within the boundaries of the eligible district.	GSA and DHS are currently developing a National Register nomination package which will be forwarded to the NYSHPO in compliance with Section 110 of the NHPA.
S-02	Please provide information about the two Orient Point Support Facility sites, including photographs of any above-ground structures over 50 years of age that are located within and immediately adjacent.	GSA and DHS are currently developing a National Register nomination package which will be forwarded to the NYSHPO in compliance with Section 110 of the NHPA for resources associated with Fort Terry. The PIADC and Orient Point support facility sites will be evaluated separately.
S-02	A covenant to protect historic and cultural resources is mentioned in the DEIS as a mitigation measure. A historic preservation covenant should be attached to the deed upon sale, and the grounds and landscaping of the Fort are also significant features.	Prior to conveyance, GSA and DHS will consult with the NYSHPO to develop the appropriate historic preservation covenant for the Property.
S-02, C-68	Concern is expressed about the proposed alternatives with regards to protection of historic resources. Residential use is not in keeping with the history of the island.	The Town of Southold is considering zoning for the Property that would take effect once the Property leaves federal ownership. When the Property leaves federal ownership, proposed uses would be subject to other applicable federal, local, and state environmental protection requirements and land use regulations.
S-02	SHPO requests inclusion or mention of state and federal programs available to developers for rehabilitation of historic buildings.	Information regarding state and federal programs available to developers for rehabilitation of historic buildings will be included in marketing material in support of the sale of the property.
S-02	SHPO has not reviewed the Archeological Resources Predictive Model-PIADC MACTEC Engineering and Consulting Inc. February 2011 to allow concurrence with its recommendations.	The Predictive Model was only prepared to inform the environmental impact analysis process and was not intended to define further archeological survey. The Predictive Model has been provided to the NYSHPO.
S-02	Correspondance from SHPO to GSA was not included in Appendix C and is provided for inclusion in the FEIS.	The FEIS includes all correspondence between the NYSHPO and GSA/DHS.
C-40, C-51, C-53	Requests that public access be provided to Fort Terry and the lighthouse.	The level of public access will depend upon the future ownership and management of the island.

F-04, CO-11	States Shinnecock Tribe concern about archeology that may have been conducted in the past, and requests that EIS include a more complete assessment of all resources, including cultural resources, and appropriate level of consultation with Shinnecock Nation.	GSA/DHS are not aware of any prior archeological investigations of the property. Additional coordination with the Shinnecock Nation will be completed by GSA/DHS.
CO-11	Assertion that archeology has not been assessed to an adequate level in the DEIS and that prior to finalization of EIS there should be additional assessment, including fieldwork.	GSA/DHS are not aware of any prior archeological investigations of the property. However, the sale of the property will not directly impact archeological resources. Upon sale of the property, GSA and DHS anticipate the need to include covenants to protect cultural resources in the transfer of the property. Because there is no evidence of significant resources, additional assessments will not be conducted. Upon conveyance of the Property out of federal ownership, it will be the responsibility of the future owner to comply with relevant federal, state, and local laws and regulations concerning the identification of archeological resources.

Land Use - Draft EIS Comment Summary

Comment No.(s)	Comment Summary	Comment Response
C-23, C-61	Concern about the vulnerability of the island to natural disasters.	Severe weather is discussed in Section 3.4.2 of the FEIS, and seismic hazards are discussed in FEIS Section 3.6.2.
C-58, C-69F-06, L-03	Important for the Town of Southold to appropriately address land use planning and zoning, including regulations to protect wetlands.	GSA and DHS agree that the Town of Southold has jurisdiction over zoning and land use regulations. The Town of Southold is considering zoning for the Property that would take effect once the Property leaves federal ownership. When the Property leaves federal ownership, proposed uses would be subject to applicable federal, local, and state environmental protection requirements and land use regulations.
C-50, CO-17	Land use change to residential use would impact community and wildlife with traffic.	Impacts from vehicle traffic are discussed in FEIS Section 3.8.
C-65, C-69, F-05, CO-23	Preferred land use approach is preservation/conservation.	The purpose of this EIS is not to recommend future reuse , but to study potential environmental impacts of the sale of Plum Island.
L-02	Clarification that the Orient Point Facility is zoned Marine II - requires correction to Section 2.3.2.	The FEIS has been updated to include this information.

Socioeconomics - Draft EIS Comment Summary

Comment No.(s)	Comment Summary	Comment Response
S-05, O-03, C-64, C-68	Concern that DEIS does not adequately assess impacts due to requirement for additional infrastructure and services to support either alternative scenario that includes residential development on the island.	The purpose of this EIS is to study potential environmental impacts of the sale of Plum Island. The assessment of impacts that is included in the FEIS is based on potential development scenarios and takes into account the essential infrastructure improvements that would be involved.
L-02, L-03	The DEIS has greatly exaggerated calculations/estimates for the amount of annual property tax revenue that the Town of Southold would realize from reuse option 2 or 3.	The FEIS includes revised calculations/estimates of annual property tax revenue based on clarification provided by the Town of Southold.
C-70, L-02, O-03, S-09	Concern about the DEIS finding that traffic impacts from reuse option 2 or 3 would be minor.	The FEIS now characterizes impacts associated with traffic as -3 (Moderate Impact) for the development reuse option under the Action Alternative.
CO-15, CO-19	Assertion that conservation use of the island would have local fiscal benefit.	The purpose of this EIS is not to recommend future reuse, but to study potential environmental impacts of the sale of Plum Island.
L-02	Clarifications on Page 3-113 (Orient Beach State Park is a State Park, not County Park), and on Page 3-114 (should be Orient Fire District instead of Southold Fire District).	The FEIS reflects this clarification.

Water Resources - Draft EIS Comment Summary

Comment No.(s)	Comment Summary	Comment Response
C-31, C-33, C-41, C-50-51, C-53-54, CO-03-04, F-02	Water quality concern about development impacts on Long Island Sound surface water quality and associated impacts on the estuary. The FEIS should include detailed information about potential impacts of low- and high-density development options on water quality, and mitigation options to reduce development impacts on surface water quality.	GSA and DHS acknowledge the validity of this comment and have amended the FEIS to include a consolidated development option. The development option in the FEIS is based on comments provided by the Town of Southold, and calculations have been made based on anticipated zoning and the physical constraints of the island's freshwater aquifer.
C-15, S-01	Rising water levels due to climate change and the impacts of tidal characteristics on potential development should be addressed in the EIS. The EIS should include a more detailed description of the coastal processes affecting the island and a discussion of how development on the island might be impacted, with related discussion of induced or cumulative impacts to the bluff /beach system if development were to occur.	The level of analysis in the DEIS pertaining to climate change is adequate for the action being studied.
C-27, C-34, F-02, L-02-03, C	Development options would place demand on the groundwater resources of the island, and draw down the aquifer, threatening wetlands and wildlife. The groundwater data/descriptions in the DEIS are questioned, along with the finding in the DEIS that the adverse impact of Option 3 on groundwater would be moderate (suggests that major impact finding would be more appropriate).	The potential reuse options under the Action Alternative are modified and are now within projected sustainable aquifer yields for Plum Island. GSA/DHS believe that these preliminary calculations are adequate for the action. Future development at Plum Island may require evaluation of water resources to assure adequacy for the proposed uses.

CO-06, CO-24	The DEIS does not discuss potential impacts of development options on the island's 60-acre wetland due to additional demand on the aquifer for residential water use.	GSA and DHS acknowledge the validity of this comment and have amended the FEIS to include a consolidated development option. The development option in the FEIS is based on comments provided by the Town of Southold, and calculations have been made based on anticipated zoning and the physical constraints of the island's freshwater aquifer. The potential reuse options under the Action Alternative are modified and are now within projected sustainable aquifer yields for Plum Island. Future development at Plum Island may require evaluation of water resources to assure no adverse impact to existing wetlands.
O-03	Questions the DEIS statement that only "minor" mitigation is needed to deal with waste water issues for Options 2 or 3, and states that no explanation is given for determination that minor mitigation would solve the issue.	The FEIS includes more detailed explanations of rationale/justification for potential mitigation.
S-01	Requests that a more detailed explanation of the applicable development restrictions in 6 NYCRR Parts 661 and 663 be included in the DEIS, as well as description of how these regulations might affect development as described in alternate scenarios.	The FEIS includes information about applicability of 6 NYCRR Parts 661 and 663, as appropriate.
S-03, S-08	Requests a thorough analysis in the consistency determination of the impacts of the sale on all affected NY State coastal policies, as well as consideration of reasonably forseeable direct and/or indirect affects on CT coastal resources and uses.	The FEIS addresses NY and CT coastal resource protection policies, as appropriate.

Visual Resources - Draft EIS Comment Summary

Comment No.(s)	Comment Summary	Comment Response
F-02, O-03	Questions DEIS findings that visual impact of development scenarios would be minor with regards to addition of 90 units (EPA believes this should be moderate) and moderate with regards to the development of 750 units (suggestion this should be major).	The potential reuse options under the Action Alternative have been updated in the FEIS. The FEIS now characterizes impacts associated with visual resources as -3 (Moderate Impact) for the development option under the Action Alternative.

Process - Draft EIS Comment Summary

Comment No.(s)	Comment Summary	Comment Response
C-05, C-11, C-13, C-16, C-20, C-22, C-24-25, C-30-31, C-34, C-36, C-50-52, C-69, C-72, CO-03, CO-06, CO-08-09, CO-11, CO-14, CO-24, F-06, L-01, S-05, S-08	Opposes sale of Plum Island, stating that sale is bad for the local community/economy, that significant investments that have been made to improve Federal facilities on the island will be wasted if the island is sold, that GSA is not mandated to sell the whole island, and questioning whether the Federal Government can sell the facility given the undetermined status of NBAF.	GSA/DHS is mandated under the Consolidated Security, Disaster Assistance and Continuing Appropriations Act of 2009 is to "sell through public sale all real and related personal property and transportation assets which support Plum Island operations."
C-23-26, C-30, C-36, C-39-41, C-60, C-64, CO-08, C)-09, CO-12, CO-17, CO-19, CO-21-23, F-05, S-05-06, S-08	States that the Federal Government has an interest in the island through the Endangered Species Act and urges Federal Agency partnerships to maintain island in Federal ownership, or to ensure sale to an entity/partnership on condition of conservation use.	See above.
C-31, C-53, CO-01, CO-04, CO-07, CO-09	States concern that the DEIS does not state a preferred alternative, as required per NEPA, or that GSA does not take a position on the best use of the island.	The Consolidated Security, Disaster Assistance and Continuing Appropriations Act of 2009 directs the sale of the property and thus GSA/DHS do not advocate any specific reuse.
C-27, C-70, C-71, CO-07, CO-12, CO-20, CO-22, F-02, O-03, S-03, CO-21, C-68, C-25	Asserts that DEIS does not adequately assess environmental conditions, describe reasonable alternatives, or assess potential impacts per NEPA requirements.	GSA/DHS have prepared the DEIS in accordance with NEPA regulations, policies, and practices.
CO-11	Encourages GSA to reach out directly to congressional representatives and involved agencies to obtain clarity of direction and purpose before finalizing EIS.	GSA/DHS have reviewed all DEIS comments received from congressional representatives and involved agencies, and will continue outreach as appropriate.

F-03	Recommends that development alternatives in DEIS be reevaluated, and that a new general suitability analysis be added to the DEIS by considering: (1) historic or existing areas that supported, or support, State and Federally-listed threatened and endangered species and species of special concern; (2) significant breeding or migratory areas for avian species; (3) habitats that may support bat species; (4) coastal zones supporting marine mammals; and (5) ecologically unique or significant habitats and rare plant occurrences.	The potential reuse options under the Action Alternative have been updated in the FEIS. The Final EIS includes a notice that will be placed in future conveyance documents indicating that it is incumbent upon the grantee to satisfy the requirements of relevant federal, state, and local laws and regulations regarding the protection of threatened and endangered species. Because the sale of the Property will not occur for a number of years, the Joint Lead Agencies may have to supplement the EIS when the timing of sale becomes clearer. At the time of any such supplemental EIS, the Joint Lead Agencies will be able to re-examine what further work should be done to bring it up to date to ensure that the federal government meet our responsibilities, including the government's responsibility to properly identify to potential buyers the presence of protected flora and fauna, migratory birds, and marine mammals and their habitat.

Other Comments - Draft EIS Comment Summary

Comment No.(s)	Comment Summary	Comment Response
O-03	The changes discussed in the optional scenarios are dramatic, and the DEIS finding that there would be no major impact resulting from high density option is inappropriate, as the described approximately 750 homes would double the population of the Orient Point area.	The potential reuse options under the Action Alternative have been updated in the FEIS reflecting a reduced maximum density. The corresponding impacts have been adjusted in the impact table.
C-25, C-52, C-54, F 02	Development on Plum Island would be counter to sound fiscal policy and a detriment to the environment of Long Island Sound. Conservation should be the outcome.	The Consolidated Security, Disaster Assistance and Continuing Appropriations Act of 2009 directs the sale of the property and thus GSA/DHS do not advocate any specific reuse.
CO-03	The USFWS letter dated October 19, 2012 should be included in the EIS, along with discussion of the points that it raises.	The FEIS includes the USFWS letter of October 19, 2012.

4 PUBLIC COMMENTS AND RESPONSES

A total of 42 comments were received during the two scoping meetings:

- comment cards were returned with 6 comments,
- 27 comments were expressed verbally by 22 speakers,
- 4 documents were submitted with 9 comments.

An additional 102 comments were received by the GSA either prior to or following the scoping meetings via email or through the U.S. Postal Service.

Responses to the public comments are provided on the following pages. Prefixes to the comment number indicate the origin of the comment as follows:

C – Citizen
CO – Conservation Organization
F – Federal Government
L – Local Government
O – Other Organization
S – State Government

4.1 AIR QUALITY

Comment No.(s)	Comment Summary	Comment Response
F-7 (USEPA)	Requests that the DEIS includes air quality impacts under varying land use options.	The affected environment, including air quality, will be addressed in the DEIS under a series of reasonably foreseeable land use options.

4.2 BIOLOGICAL RESOURCES

Comment No.(s)	Comment Summary	Comment Response
C-16, C-18	Long Island Sound Study Policy Committee Resolution: The resolution concerns the inclusion of 33 stewardship areas into the Long Island Sound Stewardship Initiative. Long Island Sound Stewardship Initiative, 2006 Stewardship Atlas: Plum Island is identified in the atlas as having ecological significance for the island's colonial water bird habitat.	We appreciate that the commenter has identified this atlas and we will use it to inform our understanding of those aspects of the human environment that may be effected by the anticipated sale of the island. We will present our understanding as a description of the affected environment in the draft environmental impact statement.
CO-9, CO-22, F-7 (USEPA), F-11 (USFWS) L-6 (Suffolk Co) O-10, S-34 (Governor Rell)	Concern expressed regarding impacts to habitat for protected species, in accordance with the provisions of ESA §4(b), 16 U.S.C.A. §1533(b) (2010), and other marine and terrestrial species.	
F-2 (NOAA), F-11(USFWS)	The comment notes that there are a number of federally listed species that occur in the area at least seasonally: birds, sea turtles, whales, and fish.	The affected environment, including protected species and biological resources, will be addressed in the DEIS under a series of reasonably foreseeable land use options.

Comment No.(s)	Comment Summary	Comment Response
S-10 (NYSDEC)	The comment notes that the property was historically and is currently home to four NY State protected bird species.	The affected environment, including protected species and biological resources, will be addressed in the DEIS under a series of reasonably foreseeable land use options.
S-17 (NYSDEC)	The comment questions how closure and presumed dismantling potentially affect natural resources.	
CO-1, CO-15, CO-18, CO-24, CO-27, CO-31, CO-33, F-6 (USEPA), F-11(USFWS)	The comments collectively request that the DEIS be extended to conduct a comprehensive ecological assessment of the property, such as a year-long study.	GSA and DHS are coordinating with USEPA and USFWS to determine the nature and extent of ecological assessments that may be needed to understand the potential effects of the sale of the property. The result of the coordination and the nature of the assessments will be presented in the draft environmental impact statement.
O-2	The comment requests that a needs assessment be conducted for rare, threatened, and endangered species.	GSA and DHS are assessing the presence of rare, threatened, and endangered species to understand the potential effects of the sale of the property. This assessment is also being performed to meet USFWS requirements. The results of the assessment will be presented in the draft environmental impact statement.
S-32 (Governor Rell)	The comment asks that bird nesting sites be surveyed so that they will not be disturbed during transitional activities.	GSA and DHS are assessing the presence of migratory bird species to understand the potential effects of the sale of the property. This assessment is also being performed to meet USFWS requirements. The results of the assessment will be presented in the draft environmental impact statement.

4.3 HAZARDOUS WASTE

Comment No.(s)	Comment Summary	Comment Response
S-27 (Governor Rell), CO-7	The comment expresses concern with remediation of hazardous waste and any unknown contamination.	The NYSDEC-endorsed Certification of RCRA Closure documents that RCRA sites at PIADC have been closed in conformance with appropriate regulatory standards. In addition, PIADC has been conducting extensive cleanup activities within the framework of other NY State led regulatory programs (e.g., UST, CERCLA). Activities within these programs are expected to continue independent from the EIS process.
CO-26	The comments requests a comprehensive assessment of toxic and hazardous contamination as well as potential health threats associated with the existing disease research facility.	The affected environment, including hazardous materials, will be addressed in the DEIS under a series of reasonably foreseeable land use options. Ongoing cleanup activities being conducted under regulatory review will be noted.
CO-32	The comment requests that the DEIS include a review of impacts from hazardous materials under various development scenarios.	
S-29 (Governor Rell), C-12	The comment expressed concern about the past military use of the property, the historic armed services activities, and any pollution from the supposed activities, such as unexploded ordnance (UXO) and other military contamination on the property.	The Army Corps of Engineers Archives Search Report, dated September 2006, which evaluates potential for presence of ordnance and explosive waste/chemical warfare materials (OEW/CWM) at PIADC, found no documentation that would indicate that munitions were buried on the island; none of the employees on the island have ever discovered any type of ordnance.

Comment No.(s)	Comment Summary	Comment Response
S-22 (Governor Rell)	The comment recommends preparation of a transition plan that describes the identification, transport, security, and disposal of any hazardous materials from the property.	DHS is committed to having an open and transparent process regarding the development of the Transition Plan with key stakeholders such as the State of Connecticut and concur that having dialogue and consultation with the neighboring states is critical to the success of the transition. We are in the process of identifying strategic meeting points to inform key stakeholders and receive input regarding transition plans. Periodic updates will be provided on the NBAF website at http://www.dhs.gov/nbaf. DHS has already begun developing the Plum Island to NBAF transition plan, which includes the disposal of hazardous materials, safe and secure transport of biological select agents and toxins (BSAT) and other bioagents; packaging and transport will be done as regulated by the CDC and USDA APHIS select agent program ("Interstate Transportation of Etiologic Agents" regulation) and the USDOT regulations governing hazardous materials transport. When planning the route(s) for moving the BSAT and other biological pathogens has been determined, State and Federal agencies will be included in the development of the route planning and coordination activities from Plum Island to Manhattan, KS.
L-5 (Mr. Ghosio), L-10 (Mr. Romaine)	The commenters ask that remediation is conducted properly to ensure environmental and public safety.	Comment noted. Remediation activities would be conducted in accordance with federal, state, and local regulations.
S-28 (Governor Rell)	The comment expressed concern with infectious residue and the potential infection of future visitors and wildlife on the property.	DHS will continue to exercise biosafety and biosurety protocols on Plum Island up through their departure. All current and prior lab spaces will be decommissioned and decontaminated in accordance with all applicable regulations. DHS is committed to perform all necessary compliance actions associated with the future of Plum Island in a transparent, public manner.
S-2 (NYSDEC)	The comment notes that WMAs and AOPCs excavations have outstanding concerns. Outstanding issues with groundwater during the RCRA closure.	Independent from the NEPA/EIS process, the GSA and DHS will continue its ongoing activities regarding environmental investigation and cleanup to the satisfaction of the appropriate regulatory agencies.

Comment No.(s)	Comment Summary	Comment Response
S-4 (NYSDEC)	All landfills that have not been completely remediated must be surveyed, and a deed restriction placed on the location.	Independent from the NEPA/EIS process, the GSA and DHS will continue its ongoing activities regarding environmental investigation and cleanup to the satisfaction of the appropriate regulatory agencies.
S-5 (NYSDEC)	Permits issued for the facility include closure requirements for specific areas. All closures must be completed before land transfer.	Closure requirements will be identified during the development of the tactical level Transition Plan. Actions to meet permit closure requirements will be performed in accordance with permit requirements and the Transition Plan.

4.4 HISTORIC AND ARCHAEOLOGICAL RESOURCES

Comment No.(s)	Comment Summary	Comment Response
C-21	The commenter wishes that some of Fort Terry be restored.	Though neither GSA nor DHS has the authority to regulate future land uses, the future use of the property will be subject to Federal, state, and local laws. The historic and cultural resources of Plum Island will be considered as part of the DEIS.
O-8	The commenter wishes the lighthouse to be relighted according to a Town of Southold resolution, requests that the Federal government transfer the lighthouse and the surrounding 5 acres to the town, and that the lighthouse be designated on the historic registry.	
O-3	The commenter expressed concern about the preservation of Fort Terry and the Plum Island Lighthouse.	The affected environment, including historical and cultural resources, will be addressed in the DEIS. GSA and DHS are currently working with the New York State Office of Parks, Recreation and Historic Preservation to determine the best path forward to protect structures eligible for listing on the National Register of Historic Places.
L-5 (Mr. Ghosio)	The commenter wishes to know the historic uses and ownership of the property.	

Comment No.(s)	Comment Summary	Comment Response
S-19 (NYSHPO)	The commenter notes that the Light Station on Plum Island is listed in the NY State Register of Historic Places and (3) additional Structures are eligible for listing.	The affected environment, including historical and cultural resources, will be addressed in the DEIS. GSA and DHS are currently working with the New York State Office of Parks, Recreation and Historic Preservation to determine the best path forward to protect structures eligible for listing on the National Register of Historic Places.
F-4 (Delaware Nation)	The comment indicates that the Lenape people are noted as being aboriginal to the project area.	Comment noted.
F-1 (Stockbridge-Munsee HPO)	The comment indicates that Plum Island is "out of area" for the Stockbridge-Munsee Tribe.	Comment noted.
O-10	The commenter requests a full study of the historic, cultural and archeological significance of the property.	A predictive model is being prepared for the DEIS to identify areas where potentially significant archaeological deposits may be present. If areas are identified that may contain significant deposits, NYSHPO or any appropriate Tribal Historic Preservation Offices will be consulted.
S-20 (NYSHPO)	The commenter notes that it is does not appear that a review for significant archeological deposits has been addressed.	

4.5 INFRASTRUCTURE

Comment No.(s)	Comment Summary	Comment Response
L-12 (Mr. Romaine)	The commenter wishes to know what fixed assets will remain on the property for the sale.	The affected environment, including property infrastructure, will be explained in the DEIS.

4.6 LAND USE

Comment No.(s)	Comment Summary	Comment Response
C-13, C-21, C-26, C-27, C-28, C-29, C-30, C-31, CO-3, C-11, CO-4, CO-10, CO-12, CO-13, CO-23, CO-34, L-3 (Mr. Peace), O-1, O-9, S-24 (Cong. Bishop)	The commenter wishes that undeveloped portions or the entire property be preserved in whole or part under a designation, such as a preserve, a U.S. National Park, or a National Wildlife Refuge.	The proposed action is mandated by an act of the U.S. Congress. Though neither GSA nor DHS has the authority to regulate future land uses, the future use of the property will be subject to Federal, state, and local laws.
C-30, C-34, CO-4, CO-25, F-8 (EPA)	The commenter requests the reserving of some form of public access rights from the associated Orient Point property.	Though neither GSA nor DHS has the authority to regulate future land uses, the future use of the property will be subject to Federal, state, and local laws.
C-14	The commenter wishes to know if all the land on Plum Island is buildable.	
C-29, CO-10	The commenter wishes that Plum Island retain restricted, or no public access.	
CO-2, C-5, CO-16, CO-17, CO-28, O-9	The commenter prefers the alternative for an adaptive re-use sale of Plum Island that allows for the re-development and re-use of the developed portion of the island, while assuring the permanent conservation protection and appropriate public use for the undeveloped portion of the island.	Alternatives will be addressed in the DEIS under a series of reasonably foreseeable land use options.
S-3 (NYSDEC), S-18 (NYSDEC)	The commenter requests that an alternative of full potential build-out be included in the DEIS, as well as additional alternatives for various preservation scenarios.	
CO-11, O-9, CO-23	The commenter wishes that the non-action alternative be included	

Comment No.(s)	Comment Summary	Comment Response
L-3 (Mr. Peace), C-24, L-4 (Mr. Nyce), C-28, C-23, C-32, CO-14, S-24 (Cong. Bishop), O-9	The commenters are opposed to the closing of the facility and the sale of the island, and wish that the facility remains on Plum Island.	The proposed action is mandated by the U.S. Congress in Section 540 of the Consolidated Security, Disaster Assistance, and Continuing Appropriations Act of 2009; United States Public Law 110-329. Though neither GSA nor DHS has the authority to regulate future land uses, the future use of the property will be subject to Federal, state, and local laws. The facility relocation is addressed in the National Bio and Agro-Defense Facility FEIS and is outside of the scope of this DEIS.
O-5	The commenter expressed concern with the future property disposition, given the water and wastewater facilities, and the lack of zoning.	GSA is mandated to sell the property through a public sale. Though neither GSA nor DHS has the authority to regulate future land uses, the future use of the property will be subject to Federal, state, and local laws.
C-4	The commenter expressed concern with the sale of Plum Island, and parties who might be interested in purchasing the island.	
C-1, C-3, C-14, C-24, C-33, CO-35, O-9	The commenters wish for the utilization of the island for renewable energy, such as wind, solar or tidal energy production.	Though neither GSA nor DHS has the authority to regulate future land uses, the future use of the property will be subject to Federal, state, and local laws. Alternatives will be addressed in the DEIS under a series of reasonably foreseeable land use options.
O-9	The commenter wishes that Plum Island be used as a facility to replenish fish to the area.	
C-25	The commenter wishes that the Plum Island facilities be converted into a federal prison.	
C-30	The commenter wishes that Plum Island act as a military training facility and serves as a border security station.	
C-34, O-9	The commenters wish that the Plum Island facilities be converted into marine resort, or a Federal marine park.	
S-36 (Governor Rell)	The commenter asks that the property be sold in unit parcels rather than a single sale, and wishes that portions of the property remain unsold.	The property will be sold as one asset with three components: 1) 840-acre Plum Island; 2) 9.5 acre Orient Point support facility; and 3) Personal property including transportation assets.

Comment No.(s)	Comment Summary	Comment Response
S-37 (Governor Rell)	The commenter requests that conservation easements be developed for appropriate species.	Conservation easements are a potential consideration for land use management but may not be the appropriate measure for protection of threatened and endangered species that may occur on the property. USEPA and USFWS, as Cooperating Agencies, will provide input during the NEPA process with respect to any appropriate mitigation measures. Any reuse or development that would occur after the sale would be subject to Federal, state, and local regulations.
C-14, CO-6	The commenters expressed concern about the lack of zoning for the island, and questions if the town be able to establish zoning prior to the sale.	The Town of Southold is evaluating existing Plum Island information to assist in devising appropriate zoning for the island. Beginning in early 2010, GSA and DHS have held a number of meetings with officials from the Town of Southold, including the Planning Department, regarding the sale of Plum Island. The Town of Southold has also been on a number of tours of the island to help them in their evaluation. The Town of Southold Planning Board has expressed an interest in balancing a research mission, to protect existing jobs, with conservation of the natural environment when it begins to develop its zoning for the property. While the town can establish the zoning for the island, it cannot enforce zoning until after the sale; the property is not subject to zoning until after it is conveyed out of federal ownership.

4.7 SOCIOECONOMICS

Comment No.(s)	Comment Summary	Comment Response
L-2 (Mr. Peace), S-23 (Cong. Bishop)	The commenters expressed concern with the economic cost of moving the current facility from Plum Island to Kansas.	The relocation of the facility is outside the scope of this DEIS. The facility relocation was addressed in the National Bio and Agro-Defense Facility FEIS.
C-19, L-2 (Mr. Peace), L-9 (Mr. Isles)	The commenters expressed concern about the job loss to the area and the impacts to the local economy.	The affected environment, including socioeconomic issues, will be addressed in the DEIS, however please see the Environmental Impact Statement prepared for the NBAF for additional information concerning job loss as a result of the closure of Plum Island Animal Disease Center.

4.8 TRAFFIC AND TRANSPORTATION

Comment No.(s)	Comment Summary	Comment Response
O-10, O-11	The commenters expressed concern about traffic and the future potential strains on the transportation infrastructure of the area.	Transportation and the associated infrastructure will be considered as part of the DEIS.
S-13 (NYSDEC)	The comment requests an analysis of transportation: ferries, cars, bridges, and activities associated with the ferries, i.e. dredging.	

4.9 WASTE MANAGEMENT

Comment No.(s)	Comment Summary	Comment Response
S-26 (Governor Rell)	The comment expressed concern about the lack of information regarding the disease agents, vaccines, regulated medical waste (RMW), and other waste currently stored, buried, and used on the island. Requests a Transition Plan be developed to deal with property transition and the cleanup of these wastes, and include: methods for identification of these agents and vaccines, a comprehensive assessment of the environmental condition of the island with clean-up strategies, options for disposal of the potential wastes (also including potential military wastes), and consideration of methods and routes for transport of wastes to disposal site.	GSA and DHS recognize that a transition plan will be developed prior to the transition of the property.
S-30 (Governor Rell)	The comment requests that the transportation of any contamination and demolition debris be outlined in the DEIS, including the final destination and routing information.	

4.10 WATER RESOURCES

Comment No.(s)	Comment Summary	Comment Response
S-8 (NYSDEC)	The comment recommends that the facility maintain SPDES compliance by continued use of a certified wastewater treatment plant operator during all transfer activities.	This comment refers to an ongoing facility operating activity and does not pertain to NEPA. Operation of the wastewater treatment plant is being and will continue to be conducted in accordance with the appropriate environmental mandates, regardless of ownership. The issues noted in the comment will be addressed outside of the EIS process in an appropriate manner during and after the sale of the property.

Comment No.(s)	Comment Summary	Comment Response
C-15, CO-30	The commenters request an assessment of the carrying capacity of groundwater on the island.	Supporting infrastructure and water resources, will be addressed in the DEIS.
C-17	Goals and Targets of the 2003 Long Island Sound Agreement: The document states eight (8) goals and target areas for the agreement.	Comment noted.
C-20	The commenter questions the wetlands and their size on the property.	Wetlands and floodplains will be addressed in the DEIS.
S-12 (NYSDEC)	The comment requests an analysis of water quality issues related to the potential development.	The affected environment, including water resources, will be addressed in the DEIS under a series of reasonably foreseeable land use options.
L-8 (Mr. Isles), S-23 (Governor Rell), F-7 (USEPA), CO-32, CO-30, O-10	The comment requests that alternatives address the impacts to ground and surface water quality.	
S-11 (NYSDEC)	The comment recommends that future land use actions be consistent with NY coastal polices, including the approved Local Waterfront Revitalization Plan (LWRP).	The Coastal Zone Management Act (16 U.S.C. § 1431 et seq.) requires Federal agencies proposing activities to ensure consistency (to the maximum extent practicable) with the enforceable policies of approved State coastal management programs. The CZM policies will be addressed in the DEIS.
S-35 (Governor Rell), S-1 (CTDEP)	The commenters request a Federal Consistency Determination with respect to the Connecticut Coastal Management Act (CCMA) be considered in the DEIS.	
S-7 (NYSDEC)	The comment requests that groundwater remediation behind building 101 be completed to DEC's satisfaction before the area can be developed.	This comment refers to an ongoing facility operating activity and does not pertain to NEPA. Operation of the oil storage facility and the associated cleanup is being and will continue to be conducted in accordance with the appropriate environmental mandates.
S-14 (NYSDEC)	The comment requests an analysis of how potential new transportation and energy infrastructure would affect the use of the surrounding waters.	The affected environment, including water resources, will be addressed in the DEIS under a series of reasonably foreseeable land use options.

4.11 INFORMATION REQUESTS

Comment No.(s)	Comment Summary	Comment Response
CO-5	The commenter wishes to know the schedule for the sale following the FEIS.	Schedule to be developed.
O-4, O-10	The commenters are interested in the costs and protocols involved in the decommissioning of Plum Island and the associated mainland docks.	GSA and DHS recognize that a transition plan would be developed prior to the transition of the property.
O-10	The commenter requests a list of the diseases studied at the current facility.	In the PIADC biosafety level (BSL)-3 labs and animal rooms, research studies are conducted on Foot and Mouth Disease (FMD) virus, classical swine fever virus, African swine fever virus, and vesicular stomatitis virus.
S-21 (NYSDEC)	The commenter requests a draft scope for the DEIS.	Comment has been addressed.
C-6	The commenter asks that the GSA briefings be posted to the website.	Comment has been addressed.
C-7	The commenter asks for additional information regarding the sale of Plum Island.	Comment has been addressed.
C-22	The commenter wishes to know the progress and background information on the new Kansas facility.	Comment has been addressed.

4.12 PROJECT CONSULTATION

Comment No.(s)	Comment Summary	Comment Response
F-3 (Delaware Nation)	The comment states that the Nation looks forward to being a consulting party.	Comment noted.
S-21 (NYSHPO)	The comment requests that NYSHPO be consulted on any federal action regarding Plum Island.	Comment noted. GSA is coordinating with NYSHPO for cultural resources related to Plum Island.

Comment No.(s)	Comment Summary	Comment Response
S-25 (NYSDOT)	A member of the NYSDOT attended the May 20, 2010 Public Scoping Meeting in Greenport, NY. The NYSDOT looks forward to continued involvement as the project moves forward.	Comment noted.
F-5 (USFWS)	The commenter requests an extension is granted to the USFWS for comments during the public scoping period.	Comment addressed. Extension was granted from June 2, 2010 to June 16, 2010.
L-7 (Mr. Isles)	The commenter requests a meeting with GSA to discuss the sale of Plum Island and the potential ramifications.	Comments noted. GSA will coordinate with the relevant agencies through appropriate measures.
F-10 (USFWS)	USFWS offer the opportunity to serve as a cooperating agency.	
F-9 (USEPA)	EPA offers the opportunity to serve as a cooperating agency.	
CO-19	The commenter requests that GSA invites cooperating agencies in this EIS process: the Environmental Protection Agency (both Region I and II), the USFWF and the New York Department of Environmental Protection and the Connecticut Department of Environmental Protection.	
CO-20	The commenter asks the GSA to confer with the Secretary of Interior and select an alternative that meets both the spirit and letter of the federal Endangered Species Act.	

4.13 PROCESS

Comment No.(s)	Comment Summary	Comment Response
C-2	The commenter expressed concern with the rumors of Plum Island's past, and asks that these rumors be deflated with transparency during the decommissioning to assure the locals.	Comment noted.
L-1 (Mr. Bredemeyer)	The commenter poses a question regarding the process to submit written comments and questions for the scoping meeting, and the written comment submission period following the meeting.	Comment has been addressed.
C-8	The commenter expressed concern with the governmental process and oversight of the Plum Island decommissioning and sale.	Comment noted.
C-9	Mr. George requests personal calls to discuss the Plum Island process.	Comment Noted.

4.14 OTHER COMMENTS

Comment No.(s)	Comment Summary	Comment Response
S-23 (Cong. Bishop), C-2, C-32, S-28 (Governor Rell)	The comments expressed concern with security, and the impacts of potential outbreak events.	GSA and DHS recognize that a transition plan would be developed prior to the transition of the property.
CO-8	The commenter questions the use of public and private funds for the purchase of the island.	GSA is mandated to sell the property through a public sale. Though neither GSA nor DHS has the authority to regulate future land uses, the future use of the property will be subject to Federal, state, and local laws.
S-6 (NYSDEC)	The comment states that a draft closure plan was issued for Building 257 in 1996. To date, the building has not undergone closure.	DHS will address closure in the appropriate manner prior to the sale of Plum Island.

Comment No.(s)	Comment Summary	Comment Response
S-9 (NYSDEC)	The comment requests the consideration, and assessment of energy use and greenhouse gases under the alternative scenarios in the DEIS.	This comment will be addressed during the EIS process.
S-15 (NYSDEC)	The comment requests an analysis of energy demands, and impacts created by new energy infrastructure under the varying build scenarios.	Comment noted.
S-16 (NYSDEC)	The comment questions how sea level rise will be addressed in the DEIS.	Comment noted.
CO-21	The comment states that Plum Island's designation as a LIS Stewardship Site Demonstrates a Governmental Interest in the conservation of its undeveloped natural resources.	Comment noted.
CO-29	The comment requests an economic analysis of the benefits of wildlife-related tourism and recreation to the local economy versus other potential uses for the property.	Economic analysis unrelated to the sale of Plum Island is outside the scope of the DEIS.
L-11 (Mr. Romaine)	The commenter questions why the GSA has not discussed planning and zoning issues with the Town of Southold, NY.	GSA has had the subject discussions noted in the comment. The outcome of these discussions will be noted in the FEIS.