



**US Army Corps
of Engineers®**
New York District

**Environmental Assessment
Utilities Privatization Project
United States Army Garrison
West Point, Orange County, New York**

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ACRONYMS AND ABBREVIATIONS

CRM	Coastal Resources Manager
DHPW	Directorate of Housing and Public Works
DOD	Department of Defense
DRID	Defense Reform Initiative Directive
EA	Environmental Assessment
EO	Executive Order
FEMA	Federal Emergency Management Agency
FNSI	Finding of No Significant Impact
HVAQCR	Hudson Valley Air Quality Control Region
ICRMP	Integrated Cultural Resources Management Plan
INRMP	Integrated Natural Resources and Management Plan 2003-2007
KACH	Keller Army Community Hospital
KV	Kilovolts
mgd	million gallons per day
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHL	National Historic Landmark District
NHP	Natural Heritage Program
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NYSDEC	New York State Department of Environmental Conservation
NYSDOS	New York State Department of State
NYSECL	New York State Environmental Conservation Law
NYSHPO	New York State Historic Preservation Office
PA	Programmatic Agreement
PEM	Palustrine Emergent
PFO	Palustrine Forested
PIPC	Palisades Interstate Park Commission
psi	Pounds per square inch
PSS	Palustrine Scrub-shrub
RFFA	Reasonably Foreseeable Future Action
RFP	Request for Proposal
RIF	Reduction in Force
SSES	Sewer System Evaluation Survey
SPDES	State Pollution Discharge Elimination System
SWPPP	Storm Water Pollution Prevention Plan
TCP	Traditional Cultural Properties
USMA	United States Military Academy
USACE	United States Army Corps of Engineers
USDI	United States Department of the Interior
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service

1.0 INTRODUCTION

1.1 Background

The United States Military Academy (USMA) at West Point is a renowned and historic service academy that graduates and commissions over 900 officers each year. Since 1778, the United States Army has stationed soldiers and maintained structures at West Point, the longest continuously occupied U.S. Army Installation. The academy was established in 1802, with the mission to educate, train, and inspire the Corps of Cadets so that each graduate is a commissioned leader of character. This mission ensures that each graduate is committed to the values of duty, honor, country, and professional growth throughout a career as an officer of the U.S. Army, and a lifetime of selfless service to the nation.

The United States Army Garrison West Point (West Point) conducts base operations and mission support for USMA and its tenant activities. These operations contribute to the cadet developmental experience and provide services, property, and materials for those who live, work and play at West Point. Activities at West Point exist primarily to serve the needs of the Corps of Cadets. In that respect, West Point has many elements similar to those of a college campus, including classrooms, housing, laboratories, and recreation and athletic facilities. West Point is unique in that, along with its primary function of education and training, it also incorporates functions of a military base and contains a 2,500-acre (1,110-hectare) National Historic Landmark District (NHL). This historic aspect of West Point and its scenic surroundings attracts thousands of visitors each year.

Currently, there are approximately 8,500 residents at West Point including cadets, military personnel, and their dependents (family members). In addition to those residing on-post, there are approximately 2,800 civilians, 1,100 tenants (e.g., elementary school) and 400 commercial service providers (e.g., laundry, pest control) employed there.

1.2 Site Description

West Point is located 45 miles (72 kilometers) north of New York City, on the shores of the Hudson River in Orange and Putnam Counties, New York (Figure 1-1) and is approximately 16,000 acres (6,500 hectares) in size. The installation generally consists of three parts including: the main post, the outlying reservation, and Constitution Island that are shown on Figure 1-2. The main post is approximately 2,500 acres (1,110 hectares) and contains the majority of West Point's academic, residential and support facilities. The main post along with Constitution Island have been designated a NHL since 1960 as shown in Figure 1-3. The main post is bound by Route 9W to the west, Route 218 to the north, the Hudson River to the east, and the Village of Highland Falls to the south. The outlying reservation includes the West Point Ranges and Training areas that are located south and west of the main post and are mostly undeveloped, but include ordnance impact areas, two summer training camps, and a number of recreational lakes and reservoirs. Constitution Island, which is also part of the NHL, is located across the river in Putnam County; the island is used primarily by the Constitution Island Association for tours and for cadet outdoor recreation and training. West Point includes numerous buildings and facilities onsite such as college classrooms and library, an elementary school, barracks and family housing, cemetery with caretaker cottage and chapel, a waste transfer station, water treatment plants, waste water treatment plants, a fire department, recreational fields and facilities, stadiums, and a community club.

2.0 PROPOSED ACTION

2.1 Purpose and Need

On December 23, 1998, the Department of Defense (DOD) issued Defense Reform Initiative Directive (DRID) #49, which calls for the privatization of all Army-owned utility systems (i.e., electrical, natural gas, potable water, and wastewater) by September 30, 2003 except where privatization is uneconomical, or where unique security reasons require ownership by the DOD. Since then, the directive has been replaced with Revised Guidance for the Utilities Privatization Program dated October 9, 2002 that requires every Active Duty, Reserve, and Guard installation that is not designated for closure to conduct a privatization evaluation for each of its utility systems by September 30, 2005.

Privatization allows installation commanders to focus on core defense missions and functions by relieving them of activities that can be done more economically by others (DOD, 2002). Historically, military installations have been unable to upgrade and maintain reliable utility systems fully due to inadequate funding and competing installation management priorities (DOD, 2002). Utilities privatization is the preferred method for improving utility systems and services by allowing military installations to benefit from private sector financing and efficiencies (DOD, 2002). Privatization typically involves two transactions including (1) conveyance of the utility system or a part of the utility system to a municipal, private, regional, district, or cooperative utility company or other entity and (2) the simultaneous procurement of the utility distribution services from the new owner of the system for a long-term commitment of up to 50 years (10 U.S. Code 2688).

The proposed action is intended to divest West Point of the ownership of and responsibility for the operation and maintenance of the natural gas, electric, potable water, and wastewater utility systems. The initiative is referred to as “Privatization of Government-Owned Utility Systems.” Privatization would

transfer ownership; responsibility; management; investments; upgrades; plant replacement; and continued operation, maintenance and repair of this government-owned utility system to the private sector.

The proposed real estate transactions would include the transfer of the utility structures and equipment including; regulators, valves, treatment, storage and pumping facilities, existing distribution lines, meters and associated equipment throughout the installation which function to provide the utility service. The real estate (land) associated with the treatment and distribution systems are located on West Point and would not be transferred out of Federal ownership. In order to accomplish this, the Army would grant an easement along the existing distribution and treatment system.

The utility service function would not significantly change. Service would change from a government-owned and operated utility system to a privately-owned and operated utility system. Theoretically, this transfer would allow operation, maintenance, and repair of the utility systems to be performed more efficiently and effectively than currently done by West Point. West Point would be responsible for developing a government contract that would establish provisions and appropriate staffing (engineering and contracting) to ensure the private recipient of the utility systems provides reliable service and manages and operates in a manner consistent with the applicable Federal, State, and local regulations pertaining to health, safety, fire, and environmental requirements. In addition, the contract would require a level of service equivalent to the level that would be obtained if West Point were retaining the utility systems.

The private owner/operator (contractor) would be required to comply with all West Point, U.S. Army, and DOD regulations as well as other Federal, State, and local regulations and would be responsible for permitting, planning and coordinating with West Point organizations, in addition to paying any required fees/fines. West Point would be responsible for monitoring the contractor's execution of the contract,

which would include adhering to applicable regulations, while, the contractor would ultimately be responsible for environmental compliance.

2.2 Area Served

Utility systems or portions thereof within the entire reservation boundaries of West Point would be included in the Utilities Privatization. These areas include, but are not limited to, facilities in or served from the main post area, Camp Natural Bridge, Camp Buckner, South Post area, and the remote reservation areas, which include, but are not limited to, the Ranges and Training areas.

West Point utilities systems that would be involved in the transfer include the wastewater treatment and collection systems, the potable water treatment and distribution systems, the natural gas system, and the electrical distribution system. Telecommunications and stormwater systems are not included in the Utilities Privatization Project.

The wastewater treatment and collection system includes:

- Target Field Wastewater Treatment Facility and its collection system including seven lift stations and approximately 30-miles (48 kilometers) of pipeline. The seven lift stations include: South Dock pump station, Stony Lonesome pump station, Building 609 pump station, Building 627 pump station, Building 767 pump station, Howze Field pump station, Commissary Area pump station; and
- Camp Buckner Wastewater Treatment Plant and associated collection system including two pump stations and about 10 miles (16 kilometers) of associated pipelines.

The potable water treatment and distribution system includes:

- Lusk Water Plant;

- Stony Lonesome Plant;
- Camp Buckner Plant;
- Approximately 60-miles (97 kilometers) of distribution pipeline; and
- Twelve storage tanks.

The transfer would not include the water rights, watershed, or reservoirs that supply the water systems.

The natural gas system includes:

- Distribution lines;
- Meters; and
- Associated equipment.

The transfer would not include regulator stations owned by the commodity provider. It also does not include the main 6-inch and 10-inch lines that feed the 218 regulator station from Cornwall area.

The electrical distribution equipment includes:

- Primary and secondary overhead and underground electrical systems (including lines and poles);
- Distribution transformers;
- Regulators (regulates the voltage fed to other devices);
- Substation switchgear;
- Oil and air switchgear; and
- Switching cabinets.

Several lighting elements would not be part of the transfer of the electrical distribution system. These elements include street lighting; parking lot lights, general area lights, stadium and ball field lighting, tennis court lighting, basketball court lighting, security lights, obstruction lights, street and area lighting in installation housing, and perimeter lights.

2.3 Alternatives

Three alternatives for the Utilities Privatization Project have been generated. These alternatives include the No Action Alternative, the Transfer of Utility Systems Alternative (recommended alternative), and the Transfer of Utility Systems Less Historic Structures Only Alternative.

No Action Alternative

The No Action Alternative is used to serve as the benchmark against which changes or effects on environmental parameters associated with each of the project alternatives will be assessed. The No Action Alternative would keep all utility systems in-house with ownership, operation, maintenance, repair, management, and capital improvement as it currently is.

Transfer of Utility Systems Alternative (Recommended Alternative)

This alternative would transfer all facilities associated with the wastewater, potable water, natural gas, and electrical distribution systems as inventoried above. It includes the transfer of all operation, treatment and storage system components such as water supply storage facilities, and associated distribution system facilities. It also includes the transfer of utility services operation, regulatory compliance, maintenance, repair, and capital improvement. It includes the transfer of buildings and the easements to the property, but not the land. Since West Point would maintain ownership of the land, West Point would retain land-maintenance responsibility except for vegetation control around power lines, which would be transferred to the contractor.

Transfer of Utility Systems Less Historic Structures Only Alternative

This option is similar to the recommended alternative; however, this alternative would remove utility system facilities with a historical designation including the North Electric Substation (Building 715), Lusk Water Treatment Building (Building 726), water supply storage (Building 638), and an intake building at Lusk Reservoir (Building 728).

3.0 NATIONAL ENVIRONMENTAL PROTECTION ACT (NEPA) PROCESS

The *National Environmental Policy Act (NEPA) of 1969* requires Federal agencies to evaluate the effect of proposed actions on the environment, typically through the preparation of an initial Environmental Assessment (EA) document. As stated in 32 CFR Part 651, an EA is required when the proposed action:

- is not an emergency,
- is not exempt from (or an exception to NEPA),
- does not qualify as a categorical exclusion,
- is not adequately covered by existing NEPA analysis and documentation; and
- does not normally require an Environmental Impact Statement (EIS).

If impacts of the proposed action are found to be not significant, a Finding of No Significant Impact (FNSI) is prepared for the activity. On the other hand, if the identified effects are expected to be significant, a more detailed EIS must be prepared.

4.0 AFFECTED ENVIRONMENT

A baseline description of the environmental resources at West Point is provided in this section. More attention is given to those resources that have the most potential to be affected by the proposed action. The USMA Final Integrated Natural Resources Management Plan: 2003 through 2007 (INRMP) (USMA, 2002) is a comprehensive guide to all of the natural resources found within the West Point military installation and was used as a reference tool in documenting the existing state of natural resources onsite. Other major references used include the Integrated Cultural Resources Management Plan (ICRMP) (USMA, 2001), and Historic Landscape Management Plan for the U.S. Military Academy at West Point, New York (USACE, 2002).

4.1 Geology

Precambrian-age granite, diorite, gneiss and schist compose the majority of the crystalline bedrock underlying West Point (USMA, 1996, 2002). Granite is the most prevalent rock type in the bedrock and is typically medium grained, composed of quartz, feldspar and mica. Igneous rocks on the installation consist of plagioclase feldspar, hornblende, pyroxene and biotite mica and quartz (USMA, 1996). The metamorphic rocks of West Point exist in sequences composed of a hard layered, banded rock, gneiss, which is sometimes intruded by igneous rocks (Curran and Justis, 1970; Engineer Intelligence Study, 1958). Marble, quartzite, schist and amphibolite are other metamorphic rocks present in the Highlands area. The metamorphic rocks were deposited as marine sediments, volcanic ashes and volcanic rocks (Helenek, 1971; Jaffe and Jaffe, 1973; Offield, 1967).

The western edge of the reservation is partially underlain by limestone and undifferentiated conglomerates (USMA, 1994). Stockbridge limestone is a marble unit consisting of rock that varies in composition from almost pure calcium carbonate to almost pure calcium-magnesium carbonate, dolomite.

The cantonment area, which is bound by the Hudson River, is underlain by exposed bedrock and glacial alluvium (USMA, 1996).

4.2 Soils

According to the Orange County Soil Survey (Olsson, 1981), a total of 43 soil mapping units occur on West Point. The Hollis-Rock Outcrop Association is the dominant soil on West Point (Olsson, 1981). Soils in this association are steeply sloping, excessively drained and well-drained, medium-textured soils overlying crystalline bedrock, on mountainous uplands. The dominant soils on Constitution Island are part of the Hollis-Rock Outcrop, Charlton complex (Olsson, 1981). These are quickly draining soils that include fine sandy loams and gravelly sand loams. A 2-inch layer of humus overlies these soils.

4.3 Water Resources

West Point has both groundwater and surface water resources. The major uses of West Point's water resources are potable water supply, recreation, training, and aquatic habitat.

4.3.1 Groundwater Resources

Groundwater at West Point occurs in both an unconsolidated aquifer consisting of alluvial deposits and a consolidated bedrock aquifer (USMA, 2002). The deposits from the unconsolidated aquifer are the most prolific sources of groundwater on the installation, with average well yields around 40 gallons per minute (USMA, 1994). Groundwater also occurs in the upper weathered, jointed, and fracture sections of the bedrock that underlies the installation. Recharge to both aquifers is primarily from local precipitation and discharge occurs in lowland areas. A Sole Source Aquifer, as designated by the United States Environmental Protection Agency (USEPA), is an aquifer that supplies 50 percent or more of the drinking water for a given area where there are no reasonably available alternative sources should the aquifer become contaminated. Four Sole Source Aquifers have been designated by USEPA in upstate New York.

There are no Federally-designated Sole Source Aquifers located near the proposed project area. Additionally, there are no State-designated Primary or Principal Aquifers located in the vicinity of the project area (Stegville 1999).

4.3.2 Surface Water Resources

There are numerous surface water resources at West Point that consist of ponds, lakes, and reservoirs; streams and rivers and their associated floodplains; wetlands, and vernal pools. The drainage network at West Point is shown on Figure 4-1. Most potable water at West Point is supplied by these surface water sources (USMA, 2002). The majority of the surface waters found at West Point are classified as Class A by the New York State Department of Environmental Conservation (NYSDEC), according to Title 6 New York Codes, Rules, and Regulations Part 862. The water quality classifications of waters are as follows:

- **Class A** - waters are best used as a source of water supply for drinking, culinary, or food processing purposes; primary and secondary recreation; and fishing.
- **Class B** – waters are best used for primary and secondary recreation and fishing.
- **Class C** – waters are best used for fishing. Class C waters support fish propagation and survival.
- **Class D** – waters are best used for fishing. Class D waters support fish survival but not propagation.
- **(T)** – Waters that may support trout.
- **(TS)** – Waters that may support trout spawning.

Streams with a class designation of A, B, C(T), or C(TS) are protected by the State of New York and many activities within these waters would require a Protection of Water Permit from the NYSDEC.

4.3.2.1 Ponds, Lakes, and Reservoirs

There are 17 ponds and small lakes covering 565.7 acres (229 hectares) at West Point. Most of these lakes are man-made and are used for a variety of purposes such as source of water supply and drinking water, swimming, fishing, and wildlife usage. The waterbodies range in size from a few acres up to 149 acres (60 hectares), with Stilwell and Popolopen Lakes being the largest lentic (standing water) habitats at West Point at 121 acres (49 hectares) and 149 acres (60 hectares), respectively. Popolopen watershed is the largest watershed at West Point and contains many waterbodies including Beaver Pond, Bull Pond, Cranberry Pond, Lake Georgina, Long Pond, Mine Lake, Popolopen Lake, Round Pond, Stilwell Lake, Weyants Pond, and Wilkins Pond. Other lentic waterbodies at West Point include Dassori Pond, Lusk Reservoir, Delafield Pond, Cragston Lakes, and Lake Frederick.

4.3.2.2 Streams, Brooks, and Rivers

Numerous streams traverse West Point and the Hudson River borders West Point to the east, separating the main post from Constitution Island. Significant lotic (moving water) habitats at West Point are Popolopen and Highland Brooks, and the Hudson River (McMaster et al., 1984). Highland Brook is vitally important as it constitutes the potable water system for Highland Falls. A 20-inch raw water line runs from Popolopen Brook to Lusk Reservoir as a source for West Point's potable water supply. Further downstream, treated effluent from the Camp Buckner secondary wastewater treatment plant is discharged in Popolopen Brook in accordance with National Pollutant Discharge Elimination System (NPDES) permit NY0023213 (USMA, 2002). Other major streams include Crow's Nest Brook, Johnson Meadow Brook, Mineral Springs Brook, and Stony Lonesome Brook. These waterbodies are used for water supply, swimming, fishing, or by wildlife and fisheries. In addition, there are numerous small unnamed streams and brooks throughout West Point. Most, however, are small ephemeral streams that are not

managed for their recreational fishing resources. Some of the named streams include Cat Hollow Creek, Kinsley Farm Brook, Hemlock Brook, Deep Hollow Brook, Brooks Hollow Brook, Long Pond Creek, and Queensboro Brook (USMA, 2002).

Existing utility infrastructure (i.e. overhead and underground transmission lines) crosses a number of surface waters at West Point. The Table 4-1 summarizes utility crossings of major waterbodies at West Point. These utilities are likely to cross a number of ephemeral waters as well.

Table 4-1 Surface Water Crossings By Utility

Waterbody	Water Quality Classification	Sewer	Gas	Water	Electric
Main Post					
Crow’s Nest Brook	C	5	5	9	6
Sinclair Pond Brook	C	5	2	10	6
Kinsley Farm Brook	B	3	3	6	5
Delafied Pond Outlet	B	4	0	1	2
Stony Lonesome Brook	A(T)	0	0	0	5
Camp Buckner/Natural Bridge					
Tributaries to Popolopen Lake and Brook	A	5	N/A	1	2
Long Pond Creek	A	1	0	0	0
Unnamed tributary to Stilwell Lake	A	1	0	0	0

N/A- there are no gas lines at Camp Buckner/Natural Bridge

4.3.2.3 Floodplains

Floodplains are areas of low-level ground present along a river or stream channel. Floodplains are subject to periodic or infrequent inundation from elevated water levels in the stream/river due to rain or melting snow. Risk of flooding typically hinges on local topography, the frequency of precipitation events and the size of the watershed above the floodplain. Flood potential is evaluated by the Federal Emergency Management Agency (FEMA), which evaluates the floodplain for 100- and 500-year flood events. Federal, State, and local regulations often limit floodplain development to passive uses such as recreational and preservation activities in order to reduce the risks to human health and safety. Most of

West Point lies in Zone X, delineated as areas outside of the 500-year flood plain (Federal Emergency Management Agency [FEMA], 1987). However, FEMA has classified land adjacent to the banks of the Hudson River and along the portions of some of the creeks, lakes, and ponds at West Point as 100-year floodplain.

4.3.2.4 Wetlands

Wetlands are transitional habitats between aquatic and terrestrial ecosystems. They are an important natural system and habitat because of the diverse biologic and hydrologic functions they perform. These functions include water quality improvement, groundwater recharge and discharge, pollution mitigation, nutrient cycling, wildlife habitat provision, unique flora and fauna niche provision, stormwater attenuation and storage, sediment detention, and erosion protection.

There are approximately 310 wetlands covering approximately 1,010 acres (409 hectares) located throughout West Point in association with streams, ponds, depressions, and seeps. These wetlands are depicted on Figure 4-2. In 1993, the USACE-New York District, conducted an inventory of wetlands on West Point. The inventory, which consisted of determinations conducted in accordance with the *1987 Corps of Engineers Wetland Delineation Manual* and the approximation of wetland boundaries and United States Fish and Wildlife Service (USFWS) classification based on field observations, mapped and characterized 146 distinct wetlands on West Point (USACE, 1993). These wetlands were predominately palustrine forested (PFO) (USACE, 1993), but palustrine emergent (PEM), and palustrine scrub-shrub (PSS) wetlands are also present (USACE, 1993). Most of the wetlands on West Point are small with areas of less than five acres (two hectares); a few exceed 15 acres (six hectares) and the largest is about 72 acres (29 hectares) (USACE, 1993). Subsequent to the USACE survey, West Point identified 164 wetlands in addition to those documented by the USACE.

According to the USACE Inventory (1993), wetlands found at West Point are typically very similar to one another with respect to both vegetation and habitat compositions. The most common overstory species found in the forested wetlands include red maple (*Acer rubrum*), and yellow birch (*Betula lutea*). Common understory species include highbush blueberry (*Vaccinium corymbosum*), lowbush blueberry (*Vaccinium angustifolium*), sweet pepperbush (*Clethra alnifolia*), steeplebush (*Spirea tomentosa*), and meadowsweet (*Spirea alba*). Dominant species occurring in the herbaceous layer of scrub-shrub communities include sedges (*Carex* sp.), rushes (*Juncus* sp.), and smartweed (*Polygonum* sp.). Ferns are also found in association with West Point's wetlands including New York fern (*Thelypteris noveboracensis*), marsh fern (*Thelypteris palustris*), lady's fern (*Athyrium* sp.), and cinnamon fern (*Osmunda cinnamomea*). A significant acreage of the emergent wetlands is also dominated by common reed (*Phragmites australis*) and narrow leaved cattail (*Typha angustifolia*).

The USMA INRMP contains a documented list of all wetland areas; including classification and acreage, observed on West Point grounds.

Existing utility infrastructure (i.e. overhead and underground transmission lines) crosses several wetlands at West Point. On the main post, wetlands associated with Stony Lonesome Brook are crossed three times by the electric utility system. On the outlying reservation, wetlands associated with tributaries to Popolopen Lake are traversed three times by electric utilities infrastructure and one time by the sewer system.

4.3.2.5 Vernal Pools

Vernal pools are temporary bodies of freshwater that provide vital habitat for many vertebrate and invertebrate wildlife species such as mole salamanders (*Ambystoma* sp.) and the wood frog (*Rana sylvatica*), which depend on vernal pools for their survival and breeding exclusively. However, as temporary bodies of water, they do not support fish populations.

A comprehensive survey of vernal pools at West Point was conducted (Barbour, 1998) using the criteria established in the Commonwealth of Massachusetts' *Guidelines for Certification of Vernal Pool Habitat* (Colburn, 1993), as New York State does not currently have an established procedure in place. The results of the survey identified a total of 99 vernal pools located throughout West Point. The USMA INRMP contains a documented list of all vernal pools and their location as observed on West Point grounds. The vernal pools are shown on Figure 4-2.

None of the vernal pools at West Point are traversed by the gas, water, sewer or electric utility systems.

4.4 Vegetation Communities and Special Natural Areas

4.4.1 Vegetation Communities

Twenty-eight Natural Heritage ecological community types occur at West Point. The largely undeveloped and forested Hudson Highlands are characterized as being predominately vegetated by the Appalachian oak-hickory association with secondary occurrences of central hardwoods, transition hardwoods, and northern hardwoods. Oaks are the most common trees throughout the reservation reflecting the rocky and well-drained qualities of the soil. Other forest types such as those dominated by sugar maple or red maple are secondary. Crests and ridges are very dry and burn frequently from man-made fires resulting primarily from military training activities. Most of the West Point landscape is forested, but many crests have few trees and support only woodlands, savannas, or grasslands. The vegetation communities on the reservation have been classified into four categories including open uplands, barrens and woodlands, forested uplands, and cultural categories (Kakerback, 1995; Reschke, 1990).

4.4.2 Special Natural Areas

West Point has identified 12 sites that are to be specially managed because of their ecological or geological significance, unique geological structure, and/or aesthetic and educational value to the

reservation. These are shown on Figure 4-3. The sites identified to be specially managed occur throughout the reservation and include a variety of features such as all of Constitution Island, wetlands/stream segments, timber rattlesnake den area, forests, ridges, and a mountain top, among others. The Special Natural Areas range in size from several acres up to 177 acres (72 hectares) (i.e. Constitution Island). With exception for a short segment of natural gas pipeline in the Crow's Nest Special Natural Area, there are no utility crossings in the Special Natural Areas.

4.5 Wildlife, Fisheries, and Habitat

4.5.1 Wildlife

Various field surveys, checklists, and programs have been implemented in an on-going effort to develop long-term census information and determine the extent of biodiversity found on the reservation. The USMA INRMP contains a documented species list of all wildlife observed on West Point grounds including mammals, birds, reptiles and amphibians, fish, invertebrates, and invasive species.

Forty-eight species of mammals have been observed and/or documented on West Point (NEA, 2003a). Two hundred forty-nine species of birds have been observed on or near West Point (USMA, 2002) and of these, 110 species have been identified as breeding on the installation, with another 10 non-breeders considered as winter residents (USMA, 2002). Twenty-two species of reptiles (NEA, 2003a) and 18 species of amphibians have been documented on West Point, with six others believed to be present, but not yet confirmed (USMA, 2002). Nearly 450 species of invertebrates (e.g., dragonflies, moths, mollusks) were cataloged (USMA, 2002).

4.5.2 Fisheries

Thirty-eight fish species have been documented at West Point (NEA, 2003a). Trout (Salmonids) are either stocked or are native to a number of the freshwater streams and ponds located onsite. In 2001, West Point stocked a total of 7,140 trout at Bull Pond, Round Pond, Lusk Reservoir, Popolopen Brook,

Highland Brook and Queensboro Brook. Healthy populations of bass (*Micropterus* spp.), panfish (*Pomoxis* spp.), and catfish (Ictalurids) also exist. Other species that can be caught in West Point waters include, but are not limited to, eels (Anguillids), suckers (Catostomids), chubs and dace (Cyprinids), perch (Percids) and walleye (*Stizostadion vitreum*). West Point has implemented a fisheries management program for the streams, lakes, ponds, and reservoirs at West Point which is designed to enhance the fishing opportunities while promoting sustainable populations of the species most suitable for each water body (USMA, 2002).

4.5.3 Threatened, Endangered and Rare Species

Pursuant to AR 200-3 and the Endangered Species Act of 1973, a survey of threatened and endangered fauna and flora was conducted by the Biological Survey Unit of the New York State Museum (1993). The survey concluded that no Federally-listed species were permanent residents of or breed on West Point. The survey also found that suitable habitat exists at West Point for the Indiana bat (*Myotis sodalists*) (Federally-endangered) and peregrine falcon (*Falco peregrinus*) (Federally-threatened) (USMA, 2002). The golden eagle (*Aquila chrysaetos*), red-shouldered hawk (*Buteo lineatus*), and osprey (*Pandion haliaetus*) are all State-listed and were observed during the survey, but are not considered residents. The timber rattlesnake (*Crotalus horridus*) is the only State-listed species noted to be a permanent resident of West Point (USMA 1998).

Letters were sent to the USFWS and the NYSDEC Natural Heritage Program (NHP) on February 5, 2003, requesting any information or concerns regarding potential impacts of the proposed activities on significant biological resources. The USFWS indicates that Federally-threatened and State-endangered bog turtle (*Clemmys muhlenbergii*) and bald eagle (*Haliaeetus leucocephalus*) are known to occur at the Academy. However, based on follow-up correspondence from Mr. James Beemer in a letter dated May 6, 2004, the USFWS submitted a new response dated July 15, 2004, stating that there are no known records

of the bog turtle for West Point, but that bald eagles and potential bog turtle habitat are known to occur at West Point. The West Point's Natural Resources Branch has conducted surveys for bog turtles in possible habitats and has never located any; some of these surveys were conducted with assistance from NYSDEC. To date, no bog turtle records, historical or recent, have been recorded on properties that are under the current management authority of West Point. With the exception of these two species, and occasional transient individuals, no other Federally-listed or proposed endangered or threatened species under USFWS jurisdiction are known to exist in the project impact area. Additionally, no habitat in the project impact area is currently designated or proposed "critical habitat" in accordance with the provisions of the Endangered Species Act (Stilwell, 2003). The NYSDEC NHP reported that West Point is adjacent to a designated Significant Coastal Fish and Wildlife Habitat. This habitat is part of New York State's Coastal Management Program (CMP) (Ketcham, 2003). Refer to Appendix A for copies of the USFWS and NYSDEC NHP response letters.

To ensure compliance with applicable endangered species regulations, West Point has coordinated with the NYSDEC and USFWS to develop a programmatic *Endangered Species Management Plan for the Bald Eagle* (Beemer, 2001 and Beemer, 2003). The bald eagle is a Federally-listed threatened and State-listed endangered species and is a frequent winter visitor. The programmatic management plan requires that West Point consult informally and formally with USFWS pursuant to Section 7 of the Endangered Species Act, and the NYSDEC pursuant to the New York State's Environmental Conservation Law (NYSECL), regarding any West Point construction activity that may disrupt bald eagle activity at West Point.

Also, to ensure compliance with applicable endangered species regulations, West Point has coordinated with the National Marine Fisheries Service (NMFS) and NYSDEC to develop a programmatic *Endangered Species Management Plan for the Shortnose Sturgeon* (Beemer 1997). The shortnose

sturgeon (*Acipenser brevirostrum*) is a Federally-listed and State-listed endangered species and is known to occur in the Hudson River which flows along the west bank of West Point reservation. This portion of the Hudson River does not provide spawning or important wintering areas for the shortnose sturgeon (Beemer 1997). The programmatic management plan requires that West Point consult informally and formally with NMFS pursuant to Section 7 of the Endangered Species Act, and the NYSDEC pursuant to the NYSECL, regarding any activities in the Hudson River.

An inventory of rare plants on West Point was conducted during 1994 and 1995 and again in 2000 (Barbour, 2001). Currently there are 62 special status rare plant species monitored at West Point; 25 of which are NYS-listed endangered or threatened.

4.6 Coastal Resources

West Point lies within the New York State Coastal Management Program (CMP) designated coastal zone, associated with the Hudson River and Hudson River Valley. In addition, as part of the coastal zone, it has been designated as a Scenic Area of Statewide Significance (SASS). The coastal zone boundaries and scenic area subunits are shown on Figure 4-4. The designation of a site as a SASS depends on the quality of its design in relationship to the coastal landscape, its uniqueness in the region, its accessibility to the public, and its recognition in terms of the public's appreciation for the resource. Per the CMP, significant impacts to sites with a SASS designation must be avoided.

Pursuant to 15 CFR Part 930.33(a), West Point is required to make a determination regarding the effects, if any, of the proposed activities on the land and water uses and natural resources of New York's coastal zone. In addition, pursuant to 15 CFR Part 930.34(b), if West Point determines that the proposed activities will have no effect on the land and water uses and natural resources of New York's coastal zone, West Point is required to notify the NYSDOS at least 90 days before final project approval.

4.7 Land Use

Although West Point does not have specific zoning regulations or guidelines, the existing land uses are consistent with uses identified in the *USMA Master Plan for the Year 2007* (USMA, 2002). For planning purposes, West Point lands have been divided into four land use zones (Figure 4-5) based on functional categories which reflect the missions (Galloway, 1988). The land use zones are as follows: Cadet – for academic, intramural athletic, billeting and parading; Cadet Support – intercollegiate athletic field and some cadet support facilities; Community Support Zone – includes housing, commercial, and service support to staff and faculty, non-West Point military personnel, and military retirees; and Recreational, Industrial, Field Training – building and storage area support for industrial operation, field training areas, recreation area, and open space.

4.8 Visual Resources

West Point is located within the Hudson Highlands Scenic Area of Statewide Significance. This designation is reserved for those areas that are of high visual quality, unique in the region, visually and/or publicly accessible, and have public recognition. In addition, portions of West Point are registered as a NHL that embodies a historic visual landscape. The portion of West Point identified as a landmark includes Constitution Island and the main post area, which is bound to the east by the Hudson River, to the west by Routes 218/9W, to the north by Route 218, and to the south by the southern boundary of West Point within the Town of Highlands. This visual landscape within the main post is important because of its natural vistas, including Constitution Island and Crow’s Nest; its numerous historic structures; and its particularly prominent academic “military gothic” buildings (Adams 1997).

The majority of the campus area involves cultural and historic resources that contribute to the critical view shed. The critical view sheds from the Hudson River, surrounding areas, and from West Point are integral parts of West Point as a cultural and historic resource. Important view points from which West

Point is highly visible include Routes 218 and 9W (both New York State Scenic Highways), Black Rock Forest, Storm King State Park, Hudson River, Boscobel Plantation, Garrison, Cold Spring, and other sites on the East Bank of the Hudson River.

4.9 Cultural Resources

West Point is of outstanding importance to the history of the Nation. This importance is reflected by the designation of the main post and Constitution Island as a NHL. The current NHL boundaries were established in 1960. In addition to this designation, there are a large number of individually significant architectural, archaeological, and historic landscape components that have been identified on West Point, both inside and outside the NHL. There is also the potential for the identification of additional components in areas not yet surveyed. The management of cultural resources at West Point is the responsibility of the Coastal Resources Manager (CRM). Detailed information on cultural resources is available from the CRM.

4.9.1 Existing Cultural Resource Information and Guidance

The main source of guidance on the procedures to be followed for managing cultural resources is United States Military Academy, West Point, Integrated Cultural Resources Management Plan (ICRMP), prepared by Geo-Marine, Inc. 2001. This document provides detailed information on the cultural resources at West Point and procedures for fulfilling the legal and regulatory responsibilities pertaining thereto. The framework provided by the ICRMP should be used in the development of specific procedures related to the privatization. Cultural resources at West Point as described in ICRMP are summarized in Table 4-2 and described below.

Table 4-2 Summary of Cultural Resources at West Point

Resource Type	Total	NRHP	NRHP Eligible	UD*	Comments
Architectural**	508	1	484	23	362 of 484 contribute to NHL
Historic Landscape	17	0	17	?	Contribute to NHL; additional sites likely
Archaeological	127	0	127	?	Additional sites likely
Traditional Cultural Property	0	0	0	0	Awaiting tribal consultation
Totals	652	1	628	23	

Source: ICRMP 2001

*UD = NRHP status undetermined

**Architectural includes Monuments and Bridges

?= Complete survey has not been performed

Architectural resources include such structures as officer’s and enlisted men’s quarters, barracks, hospitals, chapels, gymnasiums, cavalry stables, dams, bridges, monuments, railroad buildings, kilns, and iron furnaces. Approximately 26 of these eligible or potentially eligible architectural structures are associated with the utility systems and would potentially be part of the utilities transfer. Historic landscape resources include the 17 identified historic landscapes and range from athletic fields to gardens and woods to housing areas. Archaeological resources include the 65 eligible sites that are associated with the Revolutionary War, and the development of the Military Academy and the Queensboro ironworks. Unevaluated sites include prehistoric locations of various types, early historic settlement sites, and industrial sites.

The ICRMP notes that there are properties on West Point that have not been surveyed and, therefore, there is potential for additional eligible cultural resources to be identified, including traditional cultural properties (TCP’s) of importance to Federally-recognized Native American Tribes or elements of the

utility infrastructure in excess of 50 years old. Because the inventory of cultural resources at West Point is incomplete, the procedures in this EA include provisions for dealing with and evaluating previously unidentified cultural resources affected by planned undertakings, and with unanticipated discoveries made during the implementation of undertakings.

4.9.2 History of West Point Utility Systems

Portions of the utility systems are historically significant, with some being constructed as early as the 1800's as described below. According to the ICRMP (2001), there are 26 structures that may be included in the utility systems transfer that are eligible or potentially eligible for listing on the NRHP. A brief historical description of each utility system including a table of its potentially eligible structures is provided in the following subsections. A detailed historical description of the natural gas and potable water/wastewater systems is provided in Appendix B.

4.9.2.1 Electrical

The electric system dates back to as early as 1867. There are 15 structures associated with the electrical distribution system that would be included in the utilities transfer. Of these, only one, the North substation, is eligible for listing on the NRHP and is considered a contributing element to the NHL. The electric distribution system is mostly underground cable and is primarily less than 15 years old. All overhead electrical poles on the main post date from 1975 to the present. All electrical poles located off-post are dated from between 1952 and 1995, with several poles along Route 293 being the oldest. Table 4-3 lists the structures at West Point associated with the electrical distribution system.

Table 4-3 Electrical Distribution System Facilities

Building No.	Current Building Name	Date of Construction	Original Use	NRHP and NHL Status*
715	North substation	1867	Small arms pyro magazine	Eligible; contributing
821	Distribution vault	1928-1977	Distribution vault	Ineligible; noncontributing
823	Distribution vault	Unknown	Distribution vault	Ineligible; noncontributing
824	Distribution vault	Unknown	Distribution vault	Ineligible; noncontributing
825	Distribution vault	Unknown	Distribution vault	Ineligible; noncontributing
826	Distribution vault	1947	Distribution vault	Ineligible; noncontributing
828	Distribution vault	1945	Distribution vault	Ineligible; noncontributing
830	Distribution vault	1952	Distribution vault	Ineligible; noncontributing
832	South switch station	1960	Switch station	Ineligible; noncontributing
834	Distribution vault	Unknown	Distribution vault	Ineligible; noncontributing
835	Delfield substation	1967	Substation	Ineligible; noncontributing
836	Distribution vault	Unknown	Distribution vault	Ineligible; noncontributing
838	Distribution vault	Unknown	Distribution vault	Ineligible; noncontributing
840	Distribution vault	Unknown	Distribution vault	Ineligible; noncontributing
	Substation D-Arvin Gym	2001	Substation	Ineligible; noncontributing

*Properties identified as contributing to NHL reflect recommendations made in Prior et al. 2001
 Source: Daniel D. O'Brien 2003b; ICRMP, 2001

4.9.2.2 Natural Gas

West Point natural gas system was first established in 1857 and occupied a one-story building situated in the vicinity of the current Building 639 (Cubbison, 2002). At the time, the natural gas system included 57 street lamps with illuminating power of 17 candles and provided gas illumination to all public buildings and officer's quarters. It is believed that the original natural gas system was in operation between 1857 and 1931. The original system was demolished and replaced by a power plant (Building 604) and six-inch natural gas line that provided natural gas service between Central Hudson Gas and Electric



Corporation (Central Hudson) and West Point. Building 639 was built at the location of the original natural gas works in 1937. A memorandum prepared by D. Cubbison and dated June 17, 2002 describing the history of the natural gas system at West Point is provided in Appendix B. No portions of the existing gas utility system that would be included in the utilities transfer are eligible or potentially eligible elements for listing on the NRHP; nor are there any elements of this system that contribute or potentially contribute to the NHL designation.

4.9.2.3 Potable Water

In 1879, West Point constructed its first potable water system. Delafield Pond and Reservoir, Lusk Reservoir, and Round Pond were part of the early system. According to the Department of West Point Special Order No. 90, dated July 1, 1879, the Round Pond and adjacent watershed was purchased by the U.S. Government on January 20, 1879. Various rights-of-way and deed issues were resolved between this date and May 1882. At that time, West Point initiated construction of a water pipeline from Round Pond to Delafield Pond, West Point (West Point Special Collections and Archives 1879 – 1882). Various documentation in the project file noted that the water system from Round Pond to West Point was to consist of a buried water pipe or water main. The Quartermasters Office, of West Point, prepared a description of West Point installation in 1889 that included the following information on the ensuing Round Pond water system:

“A mountain pond known as ‘Round Pond’ distant from the post four miles and 112 yards; capacity 48,000,000 gallons; height above parade ground 868 feet; quality of water fair; area of pond about 11 acres and drains 30 acres of adjoining surface...22,404 feet of six-inch cast iron main to Delafield Reservoir.”

A detailed description of the historic background of the potable water system at West Point is provided in Appendix B.

The original potable water system has been significantly augmented over the years and currently includes numerous ponds/reservoirs, dams, treatment plants, pump stations, storage tanks, and pipelines. In all, there are 36 structures associated with the potable water system that may be affected by the utility transfer. Of these, four are eligible for listing on the NRHP and are contributing elements to West Point’s designation as a NHL. These include a water supply storage tank (Building 638) constructed in 1907, Lusk water treatment plant (Building 726) that was constructed in 1932, a small building at the intake from Lusk Reservoir into the water plant (Building 728) that was constructed in 1898. There are also seven structures that are both potentially eligible for listing on the NRHP and are potentially contributing to West Point’s designation as a NHL. An additional 15 structures are potentially eligible for listing on NRHP but are either noncontributing to the NHL or a determination of their status has not been made. Table 4-4 describes the structures associated with the potable water system that may be affected by the utilities transfer.

Table 4-4 Water Distribution System Facilities

Building No.	Current Building Name	Date of Construction	Original Use	NRHP and NHL Status
636	General storage tank (underground)	1898	Filter bed	Potentially eligible; potentially contributing
638	Water supply storage 1st level	1907	Water house	Eligible; contributing
640	General storage tank 1st level	1898	Water house	Potentially eligible; potentially contributing
672	Pressure reducing valve	1945	Water pump	Ineligible; noncontributing
676	General storage tank 4th level 500,000 gal	1952	Elevated water storage tank	Ineligible; noncontributing
678	General storage tank 3rd level, 500,000 gal	1942	Elevated water storage tank	Ineligible; noncontributing
712	Elevated water storage tank, 3rd level FT Putnam 300,000 gal	1932	Elevated water storage tank	Potentially eligible; potentially contributing

Building No.	Current Building Name	Date of Construction	Original Use	NRHP and NHL Status
726	Lusk water treatment plant	1932	Water treatment plant	Eligible; contributing
728	Small building at intake from Lusk Reservoir into the water treatment plant	1898	Valve house	Eligible; contributing
730	Elevated water storage tank	1943	Elevated water storage tank	Potentially eligible; potentially contributing
731	Water pump	1936	Water pump	Potentially eligible; potentially contributing
773	Elevated water storage tank, interjacent 500,00 gal	1936	Elevated water storage tank	Potentially eligible; potentially contributing
775	Elevated water storage tank, 2nd level 500,000 gal	1936	Elevated water storage tank	Potentially eligible; potentially contributing
1210	Stony Lonesome plant	1973	Treatment plant	Ineligible
1724	Camp Buckner plant	1994	Treatment plant	Ineligible
1209	Ground storage tank	1969	Ground storage tank	Ineligible
1310	Long Pond Pump Station	1973	Pump station	Ineligible
1344	Valve house, Round pond	1889	Valve house	Potentially eligible
1349	Valve house, Round pond	1889	Valve house	Potentially eligible
1355	Pump house Bonneville Cabin pump house	1950	Pump house	Potentially eligible
1366	Pump house, Round pond	1934**	Pump house	Potentially eligible
1531	Elevated water storage tank	1942	Water storage	Ineligible
1610	Pump station	1973	Water pump station	Ineligible
910	Water pump station	1971	Water pump station	Ineligible; noncontributing
1981	Valve house	1942	Valve house	Potentially eligible
641	Dam	1895	Dam	Potentially eligible
739	Dam	1890	Dam	Potentially eligible
1529	Lake Popolopen dam	Acquired 1943	Dike or dam	Potentially eligible
1667	Stillwell dam	Acquired 1948	Dam	Potentially eligible
1668	Mine Lake dam	Acquired 1940	Dam	Potentially eligible
1983	Queensboro dam intake system	1942	Dam	Potentially eligible
1984	Queensboro dam	1912	Dam	Potentially eligible

Building No.	Current Building Name	Date of Construction	Original Use	NRHP and NHL Status
1801	Spring well	Unknown	Spring well	Potentially eligible

*Properties identified as contributing to NHL reflect recommendations made in Prior et al. 2001

**Listed as built in 1934 in August 2000 Comprehensive Building List, built in 1961 according to 1988 PCI Study.

Source: Daniel D. O'Brien, 2003b; ICRMP, 2001

4.9.2.4 Wastewater Systems

There are four structures associated with the wastewater distribution system that may be affected by the utilities transfer. None of these structures are eligible for listing on the NRHP nor are they contributing elements to West Point's NHL designation. Table 4-5 provides descriptive information for the four structures.

Table 4-5 Wastewater Distribution System Facilities

Building No.	Current Building Name	Date of Construction	Original Use	NRHP and NHL Status
847	Sewage pump station	1956	Sewage treatment plant	Ineligible; noncontributing
849	Target Hill treatment plant – includes several facilities	1956, 1975	Sewage treatment plant	Ineligible; noncontributing
1542	Buckner treatment plant – includes several facilities	1947, 1973	Sewage treatment plant	Ineligible
1600	Sewage pump station	1947	Sewage pump station	Ineligible

*Properties identified as contributing to NHL reflect recommendations made in Prior et al. 2001

Daniel D. O'Brien, 2003b; ICRMP, 2001

4.10 Socioeconomics

Socioeconomics are defined as the basic attributes and resources associated with the human environment, particularly population and economic activity. Socioeconomic data at county, State and national levels permits characterization of baseline conditions in the context of regional, State and national trends.

4.10.1 Population

Currently, there are approximately 8,500 residents at West Point. Military personnel make up the majority of the residents, with about 6,000 people, while their family members comprise the rest of the residents. In addition to those residing on-post, there are approximately 2,800 civilians, 1,100 tenants (e.g., elementary school) and 400 commercial service providers (e.g., laundry, pest control) employed there. The demographics of USMA changes annually. However, minorities typically make up approximately 15-20 percent of the Corps of Cadets (USMA Admissions, 2004).

West Point is a census defined place. According to 2000 census data [U.S. Department of Commerce (USDOC), USDOC 2000a], the population density at West Point is 293.4 per square mile. The racial makeup of West Point is 82.31% White, 9.09% African American, 6.56% Hispanic or Latino, 0.50% Native American, 3.35% Asian, 0.15% Pacific Islander, 1.64% from other races, and 2.96% from two or more races.

The majority of West Point is located in Orange County in the Newburgh-Middletown Standard Metropolitan Statistical Area. The most developed portions of Orange County include the cities of Newburgh and Middletown, located north and west of West Point, respectively. The areas immediately surrounding West Point are relatively rural in nature and not densely populated. Based on the 2000 Census, the total population in Orange County is 341,367, which is an 11% increase over the 1990 census (USDOC 1990, 2000b). The population density for the county was 418 persons per square mile (USDOC, 2000c). In 2000, 83.7% of the county's population was White, 11.6% were of Hispanic or

Latino origin, 8.1% was Black African American, and all other racial groups combined totaled 8.2% of the population (USDOC, 2000c).

4.10.2 Economy and Employment

As of 2003 there were approximately 5,700 people employed at West Point, of which about 3,000 are civilians and about 2,700 are military personnel. The per capita income at West Point is \$13,158 (USDOC 2000a). The median income for a household at West Point is \$56,516, and the median income for a family is \$56,364. Two percent of the population and 2% of families are below the poverty line. The three largest employment sectors at West Point include Management/Professional occupations (60%), Sales/Office occupations (21%), and Service occupations (13%).

In Orange County, all industry sectors experienced growth in earning from 1990 to 2000 (USDOC, 2000b). Employment also increased in all industry sectors between 1990 and 2000, with the exception of farming, manufacturing, and mining (USDOC, 2000b). In 2000, services, government, retail trade, and manufacturing were the four largest employers in Orange County, with West Point being the largest (USDOC, 2000b). The unemployment rate decreased from 4.3% in 1990 to 3.3% in 2000, which was lower than the entire State's unemployment rate of 4.6% (NYSDOL, 2002). Although Orange County's median per capita personal income (PCPI) increased by 37.8% between 1990 and 2000, it is still below the State and national levels, at \$21,957 (USDOC, 2000b).

4.10.3 Community Services

West Point provides quality of life and community services for those who reside on post or are employed by West Point. These services include childcare facilities, chapels, recreational facilities, community club, fire department, and security services. Children of military personnel that reside on post are eligible to attend the West Point Elementary and Middle Schools. West Point also provides athletic and physical recreational opportunities for cadets, such as football, baseball, swimming and golf.

4.10.4 Tax Revenues

West Point is a Federally-owned facility, and as such, no Federal, State, or local property tax revenue is generated by this facility. However, civilian and military personnel employed at or visiting West Point contribute to State and local sales tax revenue on goods and services purchased in the Town of Highlands, and adjacent municipalities.

4.10.5 Transportation and Traffic Circulation

West Point is accessible primarily from U.S. Route 9W and New York State Routes 218 and 293. These roads are currently used to access West Point for academic services, sporting events, and miscellaneous activities. Metro North provides passenger rail service on the east bank of the Hudson River. The nearest stations are located at Peekskill, Garrison, Cold Spring, and Beacon. Conrail's Port Jervis Line also provides rail service near West Point while freight service is provided along its West Shore Line.

Roadways on the installation are maintained by the Directorate of Housing and Public Works (DHPW) and traffic is controlled by the Military Police (USMA, 2002). The roads on the main post are hard-surfaced, consist of a double spine layout, and were developed in response to the topography of the land in addition to the historic and scenic nature of the area. Traffic circulates throughout UMSA by a curving continuous roadway consisting of Mills Road and Washington Road. This roadway runs from Thayer Gate in the southwest portion of the main post to Washington Gate in the northern part of the main post (USMA, 2002). In the outlying reservation, Route 9W is the major divided highway that runs about 3.5 miles through West Point. There are also about 16 miles of paved secondary routes including State Route 293, which is the major east to west road traversing the reservation. In addition, there is approximately 60 miles of unimproved roads that provide access to all of the training areas and ranges (USMA, 2002).

4.11 Air Quality

West Point is located in the southern portion of the Hudson Valley Air Quality Control Region (HVAQCR) (USMA, 1980a, 1980b). USEPA and NYSDEC have classified southern Orange County as an attainment area for all but one National Ambient Air Quality Standards (NAAQS) criteria pollutants including carbon monoxide, nitrogen dioxide, total suspended particulates and sulfur dioxide, and is classified as a non-attainment area for ozone (Ralston, personal communication, 1997; USMA, 1980a, 1980b). Sources of stationary air pollution emissions at West Point include eight stationary combustion units consisting of five dual-fired (natural gas with oil back-up) units and three oil-fired units; a restricted burn site; and nuclear, biological, and chemical training activities. Mobile sources of air pollution emissions at West Point include vehicular traffic from light-duty gasoline powered trucks and automobiles, heavy duty diesel powered vehicles, and air craft (USMA, 2002).

West Point is a major source for NO_x and its NO_x emissions from combustion sources tightly regulated through its Title V air permit. Mitigation measures to control NO_x emissions is accomplished through a cap or limit by restricting hours of operation for generators and annual fuel consumption limits for selected boilers. The large boilers at the CPP are restricted by monitoring for opacity and NO_x emissions on an hourly basis. The ability to comply with these limits was made possible by switching from #5 fuel oil to natural gas.

4.12 Noise

The primary sources of noise originating from West Point are helicopter missions and firing exercises. Helicopter noise levels are 67.7 dB at the Lake Frederick Drop Zone, which is slightly above noise guidelines (65dB). This drop zone is located in an area remote from main post but close to a golf course and housing area on the western side of the reservation. In terms of firing noise, sound exposure contours for artillery training have been developed. These contours lie almost entirely within boundaries of West

Point. Surrounding areas where sound exposure contours may extend beyond the site's boundaries are characterized as being rural with an extremely low population density (USMA, 2002). Other sources of noise at West Point include vehicular traffic from passenger vehicles, railroad and boat traffic on the Hudson River.

4.13 Utility Infrastructure

4.13.1 Telecommunications

Telecommunication services at West Point include telephone, fire alarm, security, and cable television services. Telephone service is provided by Verizon, but all infrastructure is owned by the Army. Fiber optic cables connect many of the main post buildings and provide telephone, fire alarm, and security services. Cable television is provided by a local cable company. The telecommunications systems are not part of the utilities transfer.

4.13.2 Electrical

West Point's electric distribution system consists of primary and secondary overhead and underground distribution lines, transformers, regulators, substation switchgear, oil and air switchgear, and switching cabinets. The local utility company, Orange and Rockland Utilities, enters the main post at two locations (Substation A and Wilson Gate) with 34.5 kilovolts (KV) that get transformed to 13.8 and 4.16 KV, respectively. Orange and Rockland Utilities also supply the South Post, Camp Buckner, Camp Natural Bridge, Round Pond Recreational Facility, several ranges, and Morgan Farm. Central Hudson Gas & Electric Company provides power to Constitution Island and Lake Fredrick. The vast majority of West Point's electrical distribution system is underground including about 132 miles (212 kilometers) of cable, most of which is less than 15 years old. There are several overhead feeders throughout the installation. All overhead electrical poles on the main post have been installed since 1975; those off-post are dated

between 1952 and 1995. Circuit protection is provided by a combination of relays, circuit breakers, vacuum circuit breakers, fused line cutouts, and oil switches.

4.13.3 Natural Gas

West Point's natural gas distribution system consists of high pressure, medium pressure, and low pressure lines regulated through the gas commodity provider's stations and some individual regulators at housing locations in the vicinity of Band Quarters and Stony Lonesome I and II. Overall, there are about 200 individual regulators and 13 centralized regulator stations. There is an estimated 4.5 miles (seven kilometers) of high pressure steel lines ranging in size from four to eight inches maintained at 60 pounds per square inch (psi) or 120 psi, with most constructed since 1989. An additional 4,350 feet (1,326 meters) of high-pressure 6-inch steel gas line was constructed in 2002 to complete a looped system and about 500 feet (152 meters) of six-inch steel was added for future service to the Holleder Center, but not put in service. Also, a new 10-inch steel high pressure line that will be maintained at 120 psi was constructed in the last year and should go online in early 2004. In addition, there is an estimated 5.5 miles (nine kilometers) of medium pressure cast iron and plastic lines ranging in size from three-quarters to four inches maintained at 15-20 psi. In 2002, an additional 300 feet (91 meters) of plastic line was added to connect the new Fire Station near Stony Lonesome II. Also, there is an estimated 16 miles (26 kilometers) of low pressure steel and plastic lines ranging in size from three-quarters to eight inches maintained at 0.5 psi. Most of the piping has been installed in the last 20 years using plastic pipe and smaller quantities of other plastic pipe. The system also includes appropriate valves, cathodic protection, water traps, and manholes for servicing. The average annual repairs mainly consist of damage to utility lines from excavation. The gas lines are mainly restricted to narrow corridors with many being located near other utility lines.

4.13.4 Potable Water

Potable water is supplied to West Point from a well at Round Pond and from water treatment plants at West Point. There are three such plants including the Lusk Water Plant, Stony Lonesome Plant, and Camp Buckner Plant. These plants are supplied from lakes and reservoirs within West Point watershed including Popolopen Lake [500 million gallons (MG)], Stillwell Lake (720 MG), Mine Lake (64 MG), Long Pond (250MG), and Lusk Reservoir (78 MG). West Point's total usable volume of water is 850 MG; however, the safe yield of the entire system under peak circumstances is 5.2 MGD. The average daily water use at West Point is 2.3 MGD and can peak to around five MGD during summer months.

There are five separate water districts at West Point as shown in Figure 4-6. The Lusk Plant supplies districts one, two, and three and the Stony Plant supplies four and five. If necessary, water can be moved between districts through a system of pumps and pressure reducing stations. Camp Buckner Plant is a stand-alone system that services only Camp Buckner and Camp Natural Bridge; it is not winterized and is only operated seasonally from April through October.

The Lusk Water Plant was constructed in 1932; it has a capacity of 2.8 MGD. Water for this plant is supplied by a 20-inch gravity pipeline that originates at Popolopen Brook and flows approximately 6.5 miles (10 kilometers) to Lusk Reservoir, which is located at the plant. The Stony Lonesome Plant was constructed in 1970 with a two MGD capacity. The water supply for this plant is pumped from Long Pond through a 20-inch line that is about five miles (eight kilometers) in length. The Camp Buckner Plant was constructed in 1994 with a 0.3 MGD capacity. It also draws its water from Popolopen Lake.

The Lusk, Stony, and Camp Buckner Plants utilize pre-chlorination, flocculation, sedimentation, rapid sand filtration and post-chlorination prior to delivering water into the distribution system. In addition, the Lusk and Stony plants use gas chlorination, polyaluminum chloride, sodium carbonate, and fluoride in their treatment process, and the Camp Buckner Plant uses sodium hypochlorite, polyaluminum chloride

and sodium carbonate in its treatment process. Both the Stony Lonesome and Camp Buckner Plants are fully automated except for the backwash function, and the Lusk Plant is semiautomatic. All three plants have auxiliary generators in the event of loss of power.

The distribution systems for the water plants consist of approximately 60 miles (97 kilometers) of pipe ranging in diameter from 1-24 inches. Materials used for the mains include cast iron, steel, ductile iron, plastic, and transite. There are 12 storage tanks among the three systems, with storage capacities from 175,000 gallons to 2.2 million gallons. Eight of the tanks are made of concrete and the other four are steel.

In addition, West Point has a license agreement with the Palisades Interstate Park Commission (PIPC) to provide unlimited quantities of raw water to West Point except during summer months when only 300,000 GPD is authorized (USMA, 1998).

4.13.5 Wastewater

Two wastewater treatment systems serve West Point including Target Field Wastewater Treatment Plant and the Camp Buckner Wastewater Treatment Plant. The Target Field Wastewater Treatment plant serves most of West Point, operates year round, and is rated at 2.06 MGD. It has a SPDES permit (No. NY-0023761) to discharge into the Hudson River and relies on an auxiliary generator for power during power outages. The collection system for Target Field Wastewater Treatment Plant consists of seven lift stations and approximately 30 miles (48 kilometers) of clay, cast iron, PVC and concrete pipelines varying in size from four to 28 inches. There are approximately 834 wastewater manholes. Wastewater enters the plant at two locations bringing wastewater from the north and south ends of the Post.

On July 9, 2004, West Point was issued a Consent Order (File No. R3-20040426-43) (Appendix D) by the NYDEC for violations to its SPDES permit involving Target Hill Wastewater Treatment Plant.

Specifically West Point was in violation of Environmental Conservation Law Sections 17-0803, which prohibits discharge of pollutants to waters of the State in a manner other than described in the SPDES permit. Numerous discharge violations are cited in the Consent Order. Compliance with the Consent Order requires West Point to do the following:

- Submit a repair schedule providing intermediate dates derived from the approvable Sewer System Evaluation Survey (SSES) by July 15, 2004;
- Complete all inflow and infiltration and SSES work by September 1, 2005;
- Complete a pilot plant study of plant biological process by June 1, 2006;
- Complete a study of plant biological process by June 1, 2007; and
- Submit a repair schedule derived from the biological study including biological study repair schedule by November 1, 2007.

The Camp Buckner Wastewater Treatment Plant services both Camp Buckner and Camp Natural Bridge on a seasonal basis, approximately six months a year. It is a 0.25 MGD extended aeration activated sludge plant. It has a SPDES permit to discharge into Popolopen Creek. The collection system for Camp Buckner Wastewater Treatment Plant is comprised of two pump stations and approximately 5.8 miles (nine kilometers) of clay, cast iron, PVC and concrete pipe trunk lines that vary in size from six to 10 inches. The treatment plant consists of five different buildings or structures.

Additionally, wastewater generated at the Visitor's Center is discharged into the Highland Falls sanitary sewer system and is treated at Highlands Falls Treatment Plant rather than at West Point.

West Point conducted a sewer system evaluation survey, which involved field investigations to identify leaks or openings into the closed sewer system. Actions are being taken to repair faults in the sewer lines or design engineered solutions.

4.14 Hazardous Materials and Wastes

There are no USEPA-designated hazardous waste sites at West Point (USEPA, 1999). No lethal chemical-biological agents have been manufactured, stored, or used on West Point (USMA, 1984). PCBs above regulated limits have been remediated from West Point (Cubbison, 2003a). There are partial current inventories of asbestos containing materials (ACM) or lead-based paint (LBP) for parts of the utility systems at West Point.

Solid waste generated at West Point, including municipal refuse and is hauled by a contractor to West Point-owned, contractor-operated transfer station on the installation. The solid waste is sorted at the transfer station and anything that can be recycled is done so at a recycling center that is adjacent to the transfer station. Dewatered sludge from the sewage treatment facilities is transported directly to a permitted landfill of the solid waste contractor's choice. Remaining solid waste is then hauled to an approved state-permitted landfill facility.

5.0 ENVIRONMENTAL CONSEQUENCES

As part of the NEPA process, the proposed activity must be evaluated to determine if it would significantly affect the environment. Effects can be classified as beneficial or adverse, direct or indirect, long term or short term, and significant or not. According to USDOA (2002), effects are significant if they violate existing pollution standards; cause water, air, noise, soil, or underground pollution; impair visibility for substantial periods of any day; cause interference with the reasonable peaceful enjoyment of property or use of property; create an interference with visual or auditory amenities; limit multiple use management programs for an area; cause danger to the health, safety or welfare of human life; or cause irreparable harm to animal or plant life in an area.

In this section, the potential for impacts to the affected environment at West Point are analyzed for the three proposed alternatives. For resources where there is potential for significant adverse impacts to result, mitigation measures have been developed to offset the impact to below significant levels. Table 5-1 summarizes the potential environmental consequences of the Utilities Privatization Project by alternative.

In general, the simple act of privatization would have no impact to most environmental resources at West Point. A process would be enacted that would position West Point in a role of oversight over the contractor. The contractor would be responsible for adhering to all Federal, State, county, and local regulations including obtaining all necessary regulatory approvals/permits for all actions (operations, maintenance, replacements, upgrades, etc.) associated with the utilities system as well undergoing the appropriate level of NEPA review. In addition, as part of the process, the contractor would also be required to develop a work plan for any significant proposed work to the utilities including but not limited to vegetation clearing or modification/construction of new structures and submit to West Point for review and approval.

Prior to the transfer, West Point would develop a contract with the contractor that clearly outlines the stipulations of the utilities transfer including the requirement of a work plan, and the responsibility of the contractor for regulatory approvals/compliance and for maintenance, operation, and repair of the utility systems. West Point would be responsible for ensuring the contractor meets the requirements of the contract, including adhering to applicable regulations, obtaining necessary permits, and undergoing the appropriate level of NEPA review. The contractor would ultimately be responsible for compliance with the appropriate environmental regulations.

Table 5-1 Potential Environmental Consequences * of Utilities Privatization Project

	Geology	Soils	Ground Water	Surface Water	Vegetation	Wildlife	T/E Species	Coastal Resources	Land Use	Visual Resources	Historic	Archaeological	Population /employment	Community Services	Taxes and Revenues	Traffic Circulation/parking	Air Quality	Noise	Utility Infrastructure	Hazardous Materials and Waste	Health and Safety	Environmental Justice	Overall Evaluation	
No Transfer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Transfer (Proposed Action)																								
Natural Gas	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Wastewater	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Potable Water	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
Electric	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
Transfer w/o Historic Structures																								
Natural Gas	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Wastewater	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Potable Water	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	2
Electric	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	2

Note: 0=No impact; 1=Minor or Indirect impact; 2=Moderate impact; 3=Significant impact

* Mitigation measures have been developed to offset potentially moderate or significant environmental consequences to below the significance level.

5.1 Geology

No Action Alternative

Under the No Action Alternative, all utility systems would be kept in-house with ownership, operation, maintenance, management, and capital improvement as it currently is. As such, there would be no additional impacts incurred.

Transfer of Total Utility Systems Alternative (Recommended Alternative)

The activities, as proposed, would not modify the geology of West Point. Therefore, no significant impacts to geology are expected.

Transfer of Utility Systems Less Historic Structures Only Alternative

Impacts to geology under this alternative would be similar to those of the recommended alternative. The activities, as proposed, would not modify the geology of West Point.

5.2 Soils

No Action Alternative

Under the No Action Alternative, all utility systems would be kept in-house with ownership, operation, maintenance, repair, management, and capital improvement as it currently is. As such, there would be no additional impacts incurred.

Transfer of Total Utility Systems Alternative (Recommended Alternative)

The activities, as proposed, would not modify the soils of West Point. Therefore, no significant impacts to soils are expected.

Transfer of Utility Systems Less Historic Structures Only Alternative

Impacts to soils under this alternative would be similar to those of the recommended alternative.

5.3 Water Resources

No Action Alternative

Under the No Action Alternative, all utility systems would be kept in-house with ownership, operation, maintenance, repair, management, and capital improvement as it currently is. As such, there would be no additional impacts incurred.

Transfer of Utility Systems Alternative (Recommended Alternative)

The activities, as proposed, would not modify the water resources of West Point. The contractor would not be allowed to sell or divert any of West Point's water resources to others without approval from West Point. The contract would have conditions that address how any transfer of West Point's water resources to others would be handled including approvals that would be required. The contractor would be responsible for obtaining required permits such as Protection of Waters from NYDEC or Section 404 permit from the Corps of Engineers, prior to future activities (i.e. "maintenance and repair") in regulated waters. Therefore, no significant impacts to water resources would occur.

Transfer of Utility Systems Less Historic Structures Only Alternative

Impacts to water resources under this alternative would be similar to those of the recommended alternative.

5.4 Vegetation Communities and Special Natural Areas

No Action Alternative

Under the No Action Alternative, all utility systems would be kept in-house with ownership, operation, maintenance, management, and capital improvement as it currently is. As such, there would be no additional impacts incurred.

Transfer of Utility Systems Alternative (Recommended Alternative)

The activities, as proposed, would not modify the vegetation communities or Special Natural Areas at West Point. Therefore, no additional impacts would be incurred.

Transfer of Utility Systems Less Historic Structures Only Alternative

Impacts to vegetation communities and Special Natural Areas under this alternative would be similar to those of the recommended alternative.

5.5 Wildlife, Fisheries, and Habitat

No Action Alternative

Under the No Action Alternative, all utility systems would be kept in-house with ownership, operation, maintenance, management, and capital improvement as it currently is. As such, there would be no additional impacts incurred.

Transfer of Utility Systems Alternative (Recommended Alternative)

The activities, as proposed, would not modify or affect any wildlife or fisheries species, or their habitats, including threatened or endangered species. A Class I bog turtle survey would need to be performed along any utility right-of-way that intersects potential bog turtle habitat, prior to construction of new improvements or maintenance, excepting an emergency situation, as defined by NYSDEC. Potential bog turtle habitat includes wetlands and streams; the INRMP (USMA 2002) provides a detailed inventory of wetlands and streams at West Point. West Point would perform the bog turtle surveys but would need notification of proposed activities from the contractor with sufficient lead time to perform the survey during the appropriate season (May 15 – September 30). Privatizing the utilities would not cause additional impacts to wildlife, fisheries, or their habitats.

Transfer of Utility Systems Less Historic Structures Only Alternative

Impacts to wildlife, fisheries, and habitat under this alternative would be similar to those of the recommended alternative. Sufficient lead time for a bog turtle survey would also be required under this alternative.

5.6 Coastal Resources

No Action Alternative

Under the No Action Alternative, all utility systems would be kept in-house with ownership, operation, maintenance, management, and capital improvement as it currently is. As such, there would be no additional impacts incurred.

Transfer of Utility Systems Alternative (Recommended Alternative)

The activities, as proposed, would not affect any coastal resources at West Point including its status as a SASS. Therefore, no additional impacts to coastal resources would be incurred.

Transfer of Utility Systems Less Historic Structures Only Alternative

Impacts to coastal resources under this alternative would be the similar to those of the recommended alternative.

5.7 Land Use

No Action Alternative

Under the No Action Alternative, all utility systems would be kept in-house with ownership, operation, maintenance, management, and capital improvement as it currently is. As such, there would be no additional impacts incurred.

Transfer of Utility Systems Alternative (Recommended Alternative)

The activities, as proposed, would not modify land use at West Point. Therefore, there would be no additional impacts incurred.

Transfer of Utility Systems Less Historic Structures Only Alternative

Impacts to land use under this alternative would be similar to those of the recommended alternative.

5.8 Visual Resources

No Action Alternative

Under the No Action Alternative, all utility systems would be kept in-house with ownership, operation, maintenance, management, and capital improvement as it currently is. As such, there would be no additional impacts incurred.

Transfer of Utility Systems Alternative (Recommended Alternative)

The activities, as proposed, would not affect any visual resources at West Point; therefore, no additional impacts would be incurred.

Transfer of Utility Systems Less Historic Structures Only Alternative

Impacts to visual resources under this alternative would be similar to those of the recommended alternative.

5.9 Cultural Resources

Under the NHPA of 1966 (as amended, 16 U.S.C. 470 et seq.), Federal agencies responsible for carrying out, funding, authorizing, or having oversight of undertakings are required to ensure that cultural resources are properly considered in the planning stage of such undertakings. The spirit of the NHPA is that cultural resources should be conserved whenever possible. Section 110 of

the NHPA requires agencies to establish a program to locate, inventory, and nominate to the NRHP cultural resources under the agency's control. Additionally, Federal agencies are to ensure that historic properties potentially eligible for the NRHP are not demolished, altered, allowed to deteriorate, or be inadvertently transferred or sold.

The process by which cultural resources are considered during the planning of undertakings, as required by Section 106 of the NHPA, is set out in Federal Regulation 36 CFR Part 800. This regulation provides for the identification of significant historic properties, the assessment of the effect of the undertaking, and actions to be taken if the effects are adverse. It also requires consultation between the Federal agency, other Federal and State agencies, interested parties and the public.

These regulations pertain only to Federal agencies. Property under private ownership does not follow the same rules. The transfer of ownership or lease of a Federally-owned historic property to a nonfederal entity would constitute an adverse effect. To avoid an adverse impact to a historic property the Federal agency will include stipulations in any transfer agreement that will require the owner to follow Section 106 and Section 110 of the NHPA.

No Action Alternative

Under the No Action Alternative, all utility systems would be kept in-house with ownership, operation, maintenance, management, and capital improvement as it currently is. As such, there would be no additional impacts incurred.

Transfer of Utility Systems Alternative (Recommended Alternative)

There is the potential for indirect adverse impacts to cultural resources at West Point as a result of the recommended alternative as historic structures associated with the electric and water utilities

would be transferred to a private contractor. The ICRMP (USMA 2001) provides details on historic properties and sensitive areas currently known throughout West Point. Contractors working in or near historic structures such as Target Point and Buffalo Soldier Field must exercise special caution to ensure impacts to historic resources do not occur.

West Point has consulted with the New York State Historic Preservation Office (NYSHPO) to develop a Programmatic Agreement (PA) that outlines stipulations of the utility transfer that would protect the cultural resources at West Point. This process is a coordinated effort to reduce environmental risk while privatizing and includes requirements for both West Point and the private contractor. The PA stipulations require:

- The request for proposal (RFP) and contract for the four utility systems proposed for privatization shall provide information on West Point historic properties. This information will include a list of properties that contribute to West Point NHL, and a list of properties individually eligible for the NRHP. This list of historic properties shall include structures, monuments, inscriptions, plaques, landscapes, viewsheds, and other historic properties as identified by the National Historic Preservation Act (NHPA) and implementing regulations, including AR 200-4, Cultural Resources Management.
- West Point shall ensure that the RFP and proposal evaluation shall include evaluation factors that focus on the treatment of historic properties, and compliance with historic preservation considerations, by the contractor/lessee. West Point shall ensure that the West Point Cultural Resources Manager is available to review all proposal documents on matters related to historic properties, and West Point shall ensure that such considerations are taken into account in any contract or lease negotiations and/or award.
- Structures identified as being particularly significant (e.g., Electrical Vault Building 715, historic ammunition magazine) will be specifically designated in the contract, lease and conveyance documents, and said documents will require that the operation,

maintenance and repairs of these structures will be performed in a manner that is sensitive and attentive to their historic significance.

- The contract/lease or conveyance documents shall require the contractor to conform to the standards and guidelines for the treatment of historic properties established by the Secretary of the Interior as Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings (1992) for all historic properties identified in Stipulation #1 above.
- Any alteration, modification, changes, or similar treatment for all historic properties identified in Stipulation #1 above would require that review be performed in accordance with Section 106 of the NHPA (as amended) and implementing regulations; the NEPA (as amended) and implementing regulations; and applicable laws and regulations governing the Hudson Valley and Hudson River Coastal Management Zone. The contractor/lessee is responsible for notifying West Point in a timely manner that such activities are planned or proposed. West Point is responsible for the performance of all regulatory reviews for such an undertaking.
- No new vegetation clearance (e.g. cutting trees, removing limbs, clearing brush) is authorized, without reviews being performed in accordance with Section 106 of the NHPA (as amended) and implementing regulations; the NEPA (as amended) and implementing regulations; and applicable laws and regulations governing the Hudson Valley and Hudson River Coastal Management Zone. The contractor/lessee is responsible for notifying West Point in a timely manner that such activities are planned or proposed. West Point is responsible for the performance of all regulatory reviews for such an undertaking.
- Any installation of new external equipment (any equipment that protrudes outside of an existing structure) would require review in accordance with Section 106 of the NHPA (as amended) and implementing regulations; the NEPA (as amended) and implementing regulations; and applicable laws and regulations governing the Hudson Valley and Hudson River Coastal Management Zone. The contractor/lessee is responsible for

notifying West Point in a timely manner that such activities are planned or proposed. West Point is responsible for the performance of all regulatory reviews for such an undertaking.

- All areas of ground disturbance and/or excavation would require review in accordance with Section 106 of the NHPA (as amended) and implementing regulations; the NEPA (as amended) and implementing regulations; and applicable laws and regulations governing the Hudson Valley and Hudson River Coastal Management Zone. The contractor/lessee is responsible for notifying West Point in a timely manner that such activities are planned or proposed. West Point is responsible for the performance of all regulatory reviews for such an undertaking.
- The contractor/lessee would be required to provide an annual written report documenting maintenance, repair, alteration, upgrades, or changes to any historic properties identified in Stipulation #1 above that has been performed over the previous year. West Point will provide a copy of this report to the NYSHPO for their review.
- The contractor/lessee would prepare and implement an annual work plan providing for the appropriate maintenance, repair, and upkeep of historic properties identified in Stipulation #1 above scheduled to be performed over the subsequent year. West Point will provide a copy of this plan to the NYSHPO for their review and comment.
- The contractor/lessee would prepare an Emergency Response Plan in accordance with 36 CFR 800.12, which must be reviewed and approved by West Point Cultural Resources Manager and NEPA Coordinator, and reviewed by the New York SHPO, to address emergency responses in the event of tree or wind damage, catastrophic equipment failure, accidents, natural or manmade incidents or disasters, fire, flood, etc. The Emergency Response Plan will provide for the treatment of historic properties in the event of a designated emergency. The Emergency Response Plan would also provide for the timely notification of the NYSHPO that the provisions of this plan have been implemented.

- The contractor/lessee would be required to comply with the provisions of DHPW Standard Operating Procedure 16-1 in the event of the unexpected discovery of archaeological or historic artifacts or resources.
- The Contract/Lease must contain written, verifiable, sustainable, and legally and contractually enforceable requirements for compliance with the stipulations of this Programmatic Agreement. The West Point Cultural Resources Manager will assist the West Point Contracting Officer with monitoring the contractor/lessee performance under the contract. The Contracting Officer will assess these needs pursuant to the Federal Acquisition Regulations. The contract will specify conditions under which the contractor/lessee would forfeit money for non-compliance with contract provisions. The contract shall specify necessary and sufficient conditions for contract performance.
- West Point shall include provisions in the contract that provide for West Point cultural resources review and approval of any successor, sub-contractors, agent or designee, to insure that the stipulations of the PA are met or exceeded.
- These stipulations shall apply to all employees, sub-contractors, agents, or designees of the contractor/lessee.

Since it is the responsibility of West Point to include a list of properties that contribute to West Point NHL and a list of properties individually eligible for the NRHP in the RFP and contract, all structures that would be transferred must be evaluated for historic eligibility prior to development of the RFP and contract. As long as the stipulations of the PA are followed, the activities, as proposed, would not modify any cultural resources found at West Point and no significant impacts to such resources would be incurred.

Transfer of Utility Systems Less Historic Structures Only Alternative

Under this alternative, the historic structures would stay in direct control of West Point. As such, no additional conditions in the contract/lease conveyance agreement would be required, other

than indicating the location of any historic properties. West Point must conduct an evaluation of the historic eligibility of all structures associated with the transfer so that all historic structures have been identified in the RFP and contract, and so that historic structures are not inadvertently transferred if this alternative is selected.

As stated in the requirements set forth in the PA, the transfer agreement would specify the requirement that the private utility must adhere to the NHPA, set up a process for West Point to review project plans, and require the private contractor to conduct a cultural resources survey when work cannot be done within an existing footprint or right-of-way. In addition, the contractor would be required to undertake the appropriate level of NEPA review. This PA process is a coordinated effort to reduce environmental risk while privatizing and includes requirements for both West Point and the contractor. As long as the stipulations of the PA are followed, the activities, as proposed, would not modify the existing cultural resources of West Point. As such, no adverse environmental impacts to cultural resources are expected.

5.10 Socioeconomics

5.10.1 Population and Employment

No Action Alternative

Under the No Action Alternative, all utility systems would be kept in-house with ownership, operation, maintenance, management, and capital improvement as it currently is. As such, there would be no additional impacts incurred.

Transfer of Utility Systems Alternative (Recommended Alternative)

No significant adverse impacts would occur as a result of the recommend alternative. There is potential for beneficial impacts at West Point associated with reducing operating costs of the utility systems. There is also the potential for impacts to the current employees at West Point

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whose jobs could be transferred out of government service to a private contractor. Although the exact number of jobs that could be lost at West Point is presently unknown, these lost government jobs may be replaced with employment with the privatization contractor. All appropriate Reduction in Force (RIF) procedures would be followed according to current regulation, if any government employees were to lose their jobs.

Transfer of Utility Systems Less Historic Structures Only Alternative

Impacts to population and employment under this alternative would be similar to those of the recommended alternative

5.10.2 Community Services

No Action Alternative

Under the No Action Alternative, all utility systems would be kept in-house with ownership, operation, maintenance, management, and capital improvement as it currently is. As such, there would be no additional impacts incurred.

Transfer of Utility Systems Alternative (Recommended Alternative)

The activities, as proposed, would not modify the community resources of West Point. Additionally, community demographics are not anticipated to change. Changes in socioeconomic diversity, economic diversity, and age distribution are not anticipated with any of the proposed alternatives either. Therefore, no potential environmental impacts to community resources are expected.

Transfer of Utility Systems Less Historic Structures Only Alternative

Impacts to community services under this alternative would be similar to those of the recommended alternative.

5.10.3 Taxes and Revenues

No Action Alternative

Under the No Action Alternative, all utility systems would be kept in-house with ownership, operation, maintenance, management, and capital improvement as it currently is. As such, there would be no additional impacts incurred.

Transfer of Utility Systems Alternative (Recommended Alternative)

Under this alternative, there is the potential for beneficial effects both to the government and to the local community. Privatization of any of the utility systems requires that the contractor's proposal must be economical. A 50-year net present-value analysis would be performed to compare the cost of the government to retain ownership of each utility system versus the private contractor. The private contractor's proposal must be less than the government analysis in order for the particular utility system to be privatized. Therefore, a utility system that is privatized could represent a savings to the government. Furthermore, unlike West Point, a Federal governmental entity, the private contractor would be subject to local and State taxes for supplies and services acquired from the surrounding communities thus increasing the local tax/revenue base.

Transfer of Utility Systems Less Historic Structures Only Alternative

Benefits to taxes and revenues under this alternative would be similar to those of the recommended alternative, although, the degree of savings to the government would be less if only a portion of the utility system was transferred.

5.10.4 Transportation and Traffic Circulation

No Action Alternative

Under the No Action Alternative, all utility systems would be kept in-house with ownership, operation, maintenance, management, and capital improvement as it currently is. As such, there would be no additional impacts incurred.

Transfer of Utility Systems Alternative (Recommended Alternative)

The activities as proposed would not modify transportation or traffic circulation at West Point; therefore, no additional impacts to transportation / traffic circulation are anticipated.

Transfer of Utility Systems Less Historic Structures Only Alternative

Impacts to transportation and traffic circulation under this alternative would be similar to those of the recommended alternative.

5.11 Air Quality

No Action Alternative

Under the No Action Alternative, all utility systems would be kept in-house with ownership, operation, maintenance, management, and capital improvement as it currently is. As such, there would be no additional impacts incurred.

Transfer of Utility Systems Alternative (Recommended Alternative)

The activities as proposed would not impact the air quality or resources at West Point. Since West Point is in a non-attainment zone for priority pollutants (NO_x and VOC) and to comply with its Title V air permit, West Point must perform a general conformity review of all construction projects to determine if the pollutants during and after construction fall within statutory limits. Therefore, prior to any utility construction project, the contractor must submit pertinent information to West Point so that this determination can be made. The contractor should submit

information in the first review phase of the project to ensure adequate time for the determination. West Point would need the following types of information.

- Estimates of the kinds of heavy equipment (tractors, backhoes, rollers, etc.) to be used in the project including construction vehicles, asphalt laying, painting/staining, etc;
- Time and duration of construction activities including clearing, striping, grading, excavation, backfilling, etc;
- Numbers of workers that would be commuting to/from the site; and
- Quantity (tons) and type of asphalt (hot-mix, cutback or emulsion) to be applied.

No significant impacts to air quality are anticipated.

Transfer of Utility Systems Less Historic Structures Only Alternative

Impacts to air quality under this alternative would be similar to those of the recommended alternative.

5.12 Noise

No Action Alternative

Under the No Action Alternative, all utility systems would be kept in-house with ownership, operation, maintenance, management, and capital improvement as it currently is. As such, there would be no additional impacts incurred.

Transfer of Utility Systems Alternative (Recommended Alternative)

The activities, as proposed, would not cause additional impacts to environmental noise quality at West Point.

Transfer of Utility Systems Less Historic Structures Only Alternative

Impacts to noise under this alternative would be similar to those of the recommended alternative.

5.13 Utility Infrastructure

No Action Alternative

Under the No Action Alternative, all utility systems would be kept in-house with ownership, operation, maintenance, management, and capital improvement as it currently is. As such, there would be no additional impacts incurred.

Transfer of Utility Systems Alternative (Recommended Alternative)

Under this alternative, there are expected to be beneficial impacts to the utility infrastructure at West Point. Privatization allows installation commanders to focus on core defense missions and functions by relieving them of activities that can be done more efficiently and effectively by others (DOD, 2002). Historically, military installations have been unable to upgrade and maintain reliable utility systems fully due to inadequate funding and competing installation management priorities (DOD, 2002). Utilities privatization is the preferred method for improving utility systems and services by allowing military installations to benefit from private sector financing and efficiencies (DOD, 2002). As part of the privatization project, ownership, operational control, regulatory compliance, maintenance, capital improvement and repair of the systems would be transferred to a private contractor. West Point would be responsible for developing a government contract that would establish provisions and appropriate staffing (engineering and contracting) to ensure the private recipient of the utility systems provides reliable service and manages and operates in a manner consistent with the applicable Federal, State, and local regulations pertaining to health, safety, fire, and environmental requirements. In addition, the contract would require a level of service equivalent to the level that would be obtained if West Point were retaining the utility systems. The contractor would be required to

comply with all West Point, U.S. Army, and DOD regulations as well as other Federal, State, and local regulations and would be responsible for permitting, planning and coordinating with West Point organizations. West Point would be responsible for monitoring the contractor's execution of the contract, which would include adhering to applicable regulations, while, the contractor would ultimately be responsible for environmental compliance. There would be no negative impacts to the utility infrastructure from the proposed action; rather beneficial impacts are possible.

Transfer of Utility Systems Less Historic Structures Only Alternative

Under this alternative, there are expected to be beneficial impacts to the utility infrastructure at West Point; however, these benefits are not expected to be as great compared to the recommended alternative, where complete utility systems would be privatized rather than just portions (i.e. less historic structures). For the utility systems that would not be wholly transferred (water, wastewater, electrical), there is the potential for limited increases in efficiency and potential for disruption of utility service as West Point would maintain control of the historic structures including responsibility for their maintenance, operation, and repair. Separate ownership and oversight of the utilities could lead to disruptions in the utility system if maintenance/repair activities were not coordinated between the two operators, especially if a portion of the utility needed to be taken off-line for repairs/maintenance. To prevent such impacts, West Point would develop a process for communication/coordination for operation, maintenance, and repair of the three utilities affected by this alternative to ensure seamless coordination between itself and the contractor. A description of the coordination process would be included in the government contract. Overall, there are expected to be positive impacts to the utility systems as the majority of each system would be transferred to the private sector, which is believed to have better financing options and efficiency than West Point.

5.14 Hazardous Materials and Waste

No Action Alternative

Under the No Action Alternative, all utility systems would be kept in-house with ownership, operation, maintenance, management, and capital improvement as it currently is. As such, there would be no additional impacts incurred.

Transfer of Utility Systems Alternative (Recommended Alternative)

The simple act of privatization would not impact materials and wastes at West Point. ACM and LBP have not been fully inventoried at West Point and these substances may occur in the facilities/structures to be transferred. The contractor would be required to ensure employees who may disturb ACM or LBP are properly trained and any work is conducted in accordance with applicable OSHA and USEPA regulations. Where required, a treatment or remediation plan would need to be developed and implemented to ensure negative impacts do not occur. The contractor would be responsible for future remediations of LBP, ACM, and PCBs. Since PCBs above regulated limits have already been remediated post-wide, there are no potential concerns associated with PCBs. Any other hazardous materials in the systems to be transferred would be addressed in the environmental documents that are prepared for the specific transfer of each system. Cleanups of other hazardous materials would be the responsibility of the government (if proven to be pre-existent to the transfer).

In addition, the contractor would be responsible for disposing of their municipal and hazardous wastes. As long as the inventories are performed, appropriate remediation efforts taken, and applicable regulations are followed, no environmental impacts are anticipated.

Transfer of Utility Systems Less Historic Structures Only Alternative

Impacts to materials and waste under this alternative would be similar to those of the recommended alternative.

5.15 Environmental Justice

On February 11, 1994, President Clinton issued EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. The purpose of this EO is to ensure the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Consideration of environmental justice concerns includes race, ethnicity, and the poverty status of populations in the vicinity of where a proposed action would occur. Such information aids in evaluating whether a proposed action would render any of the groups targeted for protection vulnerable.

No Action Alternative

Under the No Action Alternative, all utility systems would be kept in-house with ownership, operation, maintenance, management, and capital improvement as it currently is. As such, there would be no additional impacts incurred.

Transfer of Utility Systems Alternative (Recommended Alternative)

There would be no impacts relating to Environmental Justice if all of the utilities systems were privatized. Since the nature of the activity consists of the change in ownership of an existing operational utility system, rather than expansion of the system or construction/operation of a new facility, there would be no changes in environmental or health effects to the community surrounding the activity. Also, since the privatization affects the entire West Point, no differential treatment to portions of the post would occur. The proposed action would not cause

disproportionate environmental effects to low income or minority populations. Therefore no significant effects would occur as a result of the recommended alternative.

Transfer of Utility Systems Less Historic Structures Only Alternative

Impacts to Environmental Justice under this alternative would be similar to those of the recommended alternative.

5.16 Health and Safety

No Action Alternative

Under the No Action Alternative, all utility systems would be kept in-house with ownership, operational, maintenance, management, and capital improvement as it currently is. As such, there would be no additional impacts incurred.

Transfer of Utility Systems Alternative (Recommended Alternative)

Under this alternative, the adequacy of medical facilities and personnel, quality of medical care, adequacy of protection against crime, adequacy of emergency protection, and differences in access to institutional protection would not significantly change. Safety regulations and policies would remain in place and crime protection would continue to be provided.

The contractor would be responsible for emergency operation of the utility systems during catastrophic events and would be required to provide safety planning, risk management and concern for customers and workers health, similar to what is currently in place. The new contractor would have its own standard operating procedures for emergency response situations that would be carefully reviewed by West Point. This would minimize new impacts to public safety and health.

Similar to West Point personnel, contractors at West Point would receive emergency medical treatment at Keller Army Community Hospital (KACH) on base, but would have to go off-post for all other medical treatments. This is not a change as the civilian West Point personnel also have the same restrictions for medical treatment. Overall, no significant effects to public health and safety are expected to occur from the proposed action.

Transfer of Utility Systems Less Historic Structures Only Alternative

Impacts to health and safety under this alternative would be similar to those of the recommended alternative.

6.0 PAST, PRESENT, AND REASONABLY FORESEEABLE FUTURE ACTIONS

There are a large number of other projects (74) that have recently been completed, are in progress, or are Reasonably Foreseeable Future Actions (RFFAs) planned at West Point that may influence, or be influenced by the utilities privatization. These projects are summarized in Table 6-1. The types of projects include demolition, renovation/rehabilitation, maintenance, and new construction projects. The vast majority of these projects entail new construction, while only a few projects would result in demolition or giving away excess land. In general, the new construction projects will require increasing utility demand, while demolition/excess projects would involve reducing the demand on the utility systems. Individually, each action is not considered to have a significant impact; however, taken cumulatively, they could present a significant impact to the utilities systems at West Point.

Table 6-1. Past, Present, and Reasonably Foreseeable Future Actions

PROJECT	TIME-FRAME	PROJECT TYPE	LOCATION	UTILITIES					RESOURCES									
				Electric	Water	Sewer	Gas	Telecommunication	Earth	Water	Biological	Coastal	Land Use	Cultural	Socioeconomics	Air Quality	Traffic/Parking	Hazardous Waste
Install Lighting - Various Locations	On-going	Street-Sidewalks	Post-wide	✓				.	1	1	1	1	0	2	0	0	2	0
ODIA Housing-Worth Place	Current	Residential Construction	Worth Place	✓	✓	✓	✓	✓	2	1	1	1	2	2	1	1	1	0
Sprinklers in Family Housing	Current	Residential Construction	Various		✓			.	0	0	0	0	0	1	1	0	0	1
Replace Interior Lighting-Post-Wide	On-going	Maintenance	Post-wide	✓				.	0	0	0	0	0	1	1	1	0	1
Golf Course Fire Protection Water Tank	Current	Construction	West Point Golf Course		✓			.	1	1	1	1	1	1	0	1	0	0
Construction/Renovation at Round Pond	2003	Construction/Renovation	Round Pond	✓	✓	✓		.	1	1	1	0	2	1	1	1	0	0
Gas Line- Lusk Dam to AOG	2002	Construction	Lusk Reservoir				✓	.	1	1	1	1	1	1	0	1	2	0
Women's Softball Field	2003	Construction	North Athletic Field	✓	✓			.	1	1	1	2	0	2	0	0	0	0
Skeet & Trap Lodge	2002	Construction	Range 10	✓				✓	1	1	1	0	2	1	0	1	0	0
Waterline Patrick Trail to Licht	2002	Construction	Patrick Trail		✓			.	2	1	1	2	2	3	0	1	1	0
Pershing Center Upgrade	2002	Renovation	South Post	✓	✓	✓		.	1	1	1	1	1	1	1	1	1	0
South Dock Pump Station	2002	Renovation	South Dock			✓		.	0	0	0	1	0	1	0	1	1	0
Indoor Marksmanship Range	2001	Rehabilitation	Bldg 665, Tower Road	✓	✓	✓	✓	✓	0	0	0	1	0	2	0	2	0	2
North Athletic Field Lights	1999	Construction	North Athletic Field	✓				.	0	0	0	3	0	3	0	0	0	0



PROJECT	TIME-FRAME	PROJECT TYPE	LOCATION	UTILITIES					RESOURCES										
				Electric	Water	Sewer	Gas	Telecommunication	Earth	Water	Biological	Coastal	Land Use	Cultural	Socioeconomics	Air Quality	Traffic/Parking	Hazardous Waste	
Tate Rink Dehumidification	2001	Rehabilitation	Holleder Center		✓	✓		.	0	0	0	0	0	0	0	0	2	0	0
CCTV Surveillance System	2002	Construction	Central Cadet Area	✓				✓	0	0	1	2	0	3	0	1	1	1	
Howze Field Lights	Current	Replacement	Howze Field	✓				.	1	1	1	2	0	2	0	1	0	0	
6-inch Waterline to Bldg 500	2001	Construction	Gray Ghost Field		✓			.	2	1	1	1	0	1	0	1	1	0	
Malek Tennis Center	2002	Construction/ Rehabilitation	The Plain	✓				.	1	1	1	2	0	2	0	1	0	0	
Fire House on Route 293	2001	Renovation	Range Control, NY293	✓				✓	1	2	1	0	1	2	1	1	1	0	
TMP Sprinkler System	Current	Construction	Motor Pool		✓			.	1	1	0	1	0	1	0	1	1	1	
OPS Bldg-Area K	2004	Construction	Area K, NY 293	✓				✓	1	1	1	0	1	1	1	0	0	0	
Golf Course Maintenance Complex	Current	Construction	West Point Golf Course	✓				✓	3	2	2	1	3	2	1	1	2	0	
Emergency Operations Center	Proposed	Renovation	Bldg 621	✓				✓	1	0	0	1	1	2	1	1	0	1	
Waterline at New Brick	Current	Construction	New Brick Area		✓			.	1	1	1	1	1	2	1	1	2	0	
Transfer Station Upgrade	On-going	Construction/ Renovation	Transfer Station, NY 293	✓				.	1	2	1	0	2	1	2	2	1	2	
Lichtenberg Tennis Center	2001	Construction	Michie Stadium Area	✓	✓	✓		✓	2	2	2	2	3	2	2	1	1	0	
Gross Olympic Center	2002	Construction	Michie Stadium Area	✓	✓	✓		✓	2	2	2	2	3	2	2	1	1	0	
Arvin Cadet Physical Development Center	Current	Construction/ Demolition	Adjacent to the Plain	✓	✓	✓	✓	✓	1	1	1	2	0	3	2	1	3	2	
Golf Course Cart Storage Building	2003	Construction	West Point Golf	✓				.	2	3	2	1	2	2	2	1	1	0	

PROJECT	TIME-FRAME	PROJECT TYPE	LOCATION	UTILITIES					RESOURCES									
				Electric	Water	Sewer	Gas	Telecommunication	Earth	Water	Biological	Coastal	Land Use	Cultural	Socioeconomics	Air Quality	Traffic/Parking	Hazardous Waste
Gray Ghost Reconstruction	1998	Demolition/Construction	Gray Ghost Area	✓	✓	✓	✓	.	3	2	2	1	1	1	3	2	3	2
Bldg 1848 Rehabilitation	2002	Rehabilitation	Lake Frederick	✓				.	0	0	0	0	0	3	1	1	0	2
Gas Transmission Line	2003	Construction	Crows Nest Mountain				✓	.	3	3	3	3	1	3	3	1	2	0
I3 MP	Current	Construction	Post-wide - Ranges					✓	2	2	2	2	2	2	2	1	2	0
Camp Buckner and Camp Natural Bridge Upgrades	Proposed	Renovation	Camps Buckner & Natural Bridge	✓	✓	✓		✓	1	1	1	0	1	2	1	1	0	1
Bldg 693 Rehab	Proposed	Rehabilitation	Washington Road	✓	✓	✓	✓	✓	0	0	0	1	0	3	2	1	0	2
Baseball Batting Facility	2004	Construction	Bldg 675-A, Pitcher Road	✓	✓		✓	.	1	1	0	1	2	2	1	1	0	0
Ski Slope Lighting Upgrade	2002	Renovation	Ski Slope	✓				.	1	1	1	2	0	1	2	0	0	0
Ski Slope Snow Making Upgrade	2002	Renovation	Ski Slope		✓			.	1	1	1	1	0	1	2	0	0	0
Target Hill WWTF Upgrade	Current	Renovation	Target Hill Field			✓		.	0	0	0	1	0	0	2	1	0	1
West Point Elementary School Classroom Addition	Current	Construction	West Point School Complex	✓	✓	✓	✓	✓	2	2	1	1	2	2	2	1	1	1
West Point Elementary School Parking Lot	2004	Construction	West Point School Complex	✓				.	3	3	3	1	3	3	2	1	2	0
Jefferson Memorial Library	Proposed	Construction	The Plain	✓	✓	✓	✓	✓	3	1	1	3	3	3	2	2	1	0
Science Building Upgrade	Proposed	Renovation	Cadet Area	✓	✓	✓	✓	✓	0	0	0	1	0	3	2	1	0	2
New Cadet Barracks	Proposed	Construction	Cadet Area	✓	✓	✓	✓	✓	3	1	1	2	1	2	2	1	1	0

PROJECT	TIME-FRAME	PROJECT TYPE	LOCATION	UTILITIES					RESOURCES									
				Electric	Water	Sewer	Gas	Telecommunication	Earth	Water	Biological	Coastal	Land Use	Cultural	Socioeconomics	Air Quality	Traffic/Parking	Hazardous Waste
Parking Garages (Multiple)	Proposed	Construction	Various	✓	✓	✓	✓	✓	3	2	1	2	3	2	2	2	2	0
Community Activities Center	Proposed	Construction	Old PX Area	✓	✓	✓	✓	✓	2	1	1	1	2	2	2	1	2	0
Building Demolitions (720, 801, 759, etc.)	2003	Demolition	Old PX, Worth Place	✓	✓	✓	✓	✓	1	1	0	1	2	2	1	2	1	2
Main Fire Station Upgrade	Proposed	Construction	Washington Road	✓	✓	✓	✓	✓	1	1	0	1	0	2	2	1	1	2
Perimeter Security Fence and Gates	Proposed	Construction	Main Post Perimeter Gates	✓				✓	2	2	3	2	2	3	1	1	1	1
Stony Lonesome Water Tank	Proposed	Construction	Top of Ski Slope		✓			.	2	1	1	2	2	2	1	1	0	0
New Ammunition Supply Point	Proposed	Construction	Area B	✓				✓	3	3	3	0	3	3	2	2	2	0
KACH Expansion	Proposed	Construction	Keller Hospital	✓	✓	✓	✓	✓	2	1	1	1	2	3	2	2	2	2
Indoor Practice Facility	Proposed	Construction	Howze Field	✓	✓	✓	✓	✓	3	2	1	2	3	3	2	1	1	1
Rugby Center	Proposed	Construction	Target Hill Field	✓	✓	✓	✓	✓	3	2	1	3	1	2	1	1	2	0
Interior Renovation- Thayer Hotel Annex	Proposed	Renovation	Thayer Gate	✓	✓	✓	✓	✓	0	0	0	0	0	1	2	1	0	2
Stew Army Subpost	1999	Excess	Stewart Army Subpost	✓	✓	✓	✓	✓	0	0	0	0	0	0	2	0	0	0
Highland Falls Extended Lease Use	Proposed	Excess	Areas D2 & E1						0	0	0	0	0	0	3	0	0	0
Golf Course Maintenance Building	Proposed	Excess	Adjacent to US Mint	✓					1	1	0	1	2	1	2	0	1	3
TOTAL				59	46	37	28	39										

Note: 0=No Impact; 1=Minor or Indirect impact; 2=Moderate impact; 3=Significant impact

Note: Potential moderate and significant impacts have been or will be mitigated to below the significance level.



7.0 CUMULATIVE IMPACTS

Cumulative environmental impacts are the result of a proposed action being added to effects of other past, present and reasonably foreseeable future actions, regardless of the agency or person responsible for such actions. The analysis contained in this section examines the privatization of four Army-owned utility systems (electrical, natural gas, potable water, and wastewater) in combination with the projects addressed in Section 6.0 (Past, Present and Reasonably Foreseeable Future Actions). Table 7-1 summarizes the potential cumulative impacts by resource.

Table 7-1 Potential Cumulative Environmental Consequences

ALTERNATIVES	Earth		Water		Biological			Coastal Resources	Land Use	Visual Resources	Cultural		Socio-economics				Air Quality	Noise	Utility Infrastructure	Hazardous Materials and Waste	Health and Safety	Environmental Justice	Irreversible /Irretrievable Commitment of Resources	Overall Evaluation
	Geology	Soils	Ground Water	Surface Water	Vegetation	Wildlife	T/E Species				Historic	Archaeological	Population /employment	Community Services	Taxes and Revenues	Traffic Circulation/parking								
No Build	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	22	
Total Transfer (Proposed Action)	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	0	1	23	
Less Historic Structures	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	0	1	23	

Note: 0=No Impact; 1=Minor or Indirect impact; 2=Moderate impact; 3=Significant impact

Note: Potential moderate and significant impacts have been or will be mitigated to below the significance level.



7.1 Geology/Soils

The Utilities Privatization project would not cause any additional impacts to the geology or soils at West Point. Implementation of past, present and reasonably foreseeable future actions would have minor impacts on soils from erosion and sedimentation due to construction and demolition activities. Each project has been or will be individually mitigated, using site-specific erosion control measures and BMPs specified in the NYS Standards and Specifications for Erosion and Sediment Control (e.g., seeding, silt fence) during construction activities. These measures reduce potential erosion and sedimentation effects to a level that is not undue or significant. Therefore, there would be no significant cumulative soil impacts from the Utilities Privatization project in combination with past, present, and reasonably foreseeable future actions.

7.2 Water Resources

The Utilities Privatization project would not cause any additional impacts to water resources at West Point. The implementation of past, present and reasonably foreseeable future actions could cause minor to moderate impacts to water resources at West Point. Most of the other projects require little to no additional impervious surfaces. The projects that do involve new development would be required to avoid, minimize or mitigate potential adverse impacts on water resources to a level that is not significant in accordance with Federal and State regulations, including development of a SWPPP and adherence with the requirements of SPDES General Construction Permit GP-02-01, application for other appropriate permits, use of BMPs for erosion and sedimentation control, and hazardous and toxic material spill control and remediation. There would be no significant cumulative water impacts from the Utilities Privatization project in combination with past, present, and reasonably foreseeable future actions.

7.3 Biological Resources

The Utilities Privatization project would not cause any additional impacts to vegetation or wildlife communities at West Point. The implementation of past, present and reasonably foreseeable future development would have the potential for adverse impacts on biological resources, including the long-term direct loss of common vegetation and short-term loss or displacement of wildlife. Any potential significant impacts to rare, threatened or endangered species or vegetation communities would be avoided, minimized or mitigated to a level that is not significant in accordance with Federal and State protection laws. Also, any impacts to jurisdictional wetlands would be avoided, minimized or mitigated to a level that is not significant in accordance with Section 404 of the Clean Water Act, Article 15 of the NYSECL, Article 24 of the NYSECL, NYSDEC 401 Water Quality Certification, and EO 11990. Implementation of mitigation measures would minimize cumulative impacts to biological resources below the significance level.

7.4 Coastal Resources

The Utilities Privatization project would not impact coastal resources at West Point. The implementation of past, present, and reasonably foreseeable future actions has the potential to cause significant impacts to coastal resources at West Point. Mitigation measures were developed to avoid or minimize impacts below the significance level. All work would be performed in accordance with the NYSDOS coastal policies and a consistency determination would be submitted for review and concurrence by the NYSDOS Coastal Management Program 90 days prior to each project's final approval. Therefore, the Utilities Privatization project in combination with the past, present, and reasonably foreseeable future actions would not cause significant cumulative impacts to coastal resources.

7.5 Land Use

The Utilities Privatization project would not impact land use at West Point. The implementation of past, present and reasonably foreseeable future development has the potential to impact land use. Mitigation measures have been developed to avoid or minimize impacts below the significance threshold. Any proposed development or redevelopment would be required to be consistent with the USMA Master Plan for the Year 2007 (USMA, 1998b). Also, although West Point does not have specific zoning regulations or guidelines, the existing land uses are consistent with uses identified in the USMA Master Plan for the Year 2007 (USMA, 1998b). As a result, no undue adverse cumulative impacts on land use are anticipated from the Utilities Privatization project in combination with past, present, and reasonably foreseeable future actions.

7.6 Visual Resources

The Utilities Privatization project would not impact visual resources at West Point. However, several of the past, present, or reasonably foreseeable future actions have the potential to cause significant impacts to visual resources at West Point. Mitigation measures have been developed to minimize visual impacts from the Utilities Privatization and other projects below the significance level. Any development would be required to comply with the NHPA, for the protection of properties listed or eligible for listing on the NRHP, as well as NYSHPO regulations. In addition, where necessary an MOA would be developed through consultation with the NYSHPO to outline mitigations/stipulations to protect visual resources at West Point. Therefore, the Utilities Privatization project, in combination with the past, present, and reasonably foreseeable future actions, would not cause significant cumulative impacts to visual resources.

7.7 Cultural Resources

The Utilities Privatization project has the potential to cause indirect impacts to cultural resources by transferring historic properties into the ownership of a private contractor. In addition, several of the past, present, or reasonably foreseeable future actions have the potential to cause significant impacts to cultural resources at West Point. Mitigation measures have been developed to avoid impacts or minimize them below the significance level. Any development would be required to comply with the NHPA for the protection of properties listed or eligible for listing on the NRHP as well as SHPO regulations. In addition, where necessary an MOA would be developed through consultation with the NYSHPO to outline mitigations/stipulations to protect cultural resources at West Point. Therefore, the Utilities Privatization project in combination with the past, present, and reasonably foreseeable future actions would not cause significant cumulative impacts to cultural resources.

7.8 Socioeconomics

7.8.1 Population and Employment

The Utilities Privatization project could result in the permanent loss of some federal jobs. Implementation of past, present and reasonably foreseeable future actions would have the potential for minor impacts to population or employment at the West Point. A few of these actions would increase or decrease housing or create any new jobs. Many of the actions would require temporary employment of contractors, which could result in a minor temporary beneficial impact to socioeconomic resources within Orange County. Once construction was complete, the employment of contractors would not be necessary and the temporary employment benefit would cease. Potentially significant adverse impacts would be or have been mitigated below the significance threshold. There would be no significant cumulative impacts to population or

employment as a result of the Utilities Privatization project in combination with past, present, and reasonably foreseeable future actions.

7.8.2 Community Services

The Utilities Privatization project would have no impact on community services at West Point. The implementation of past, present and reasonably foreseeable future development would have long-term beneficial effects to the community services at West Point. Gate and fencing upgrades will improve the security of the residents, students, and employees of West Point. Improvements to the firehouse will enhance safety at the post. Rehabilitation efforts to barracks and older housing units will improve the living conditions for the residents. New academic classrooms and library facilities will improve teaching capabilities for the students at West Point. Community services will benefit from improved parking lot and self help center. Also, recreational opportunities will be enriched by the consolidated CAC Complex and stadium and gym upgrades. There would be no adverse cumulative impacts to community services at West Point from the Utilities Privatization project in combination with the past, present, and reasonably foreseeable future actions.

7.8.3 Tax and Revenues

The Utilities Privatization project could provide a long-term economic benefit to West Point as only those utilities that would provide a savings to the government would be privatized. Furthermore, the implementation of past, present and reasonably foreseeable future development could temporarily increase benefits to the local community due to contractor's increased purchases and services with local businesses. These increased benefits would diminish once individual projects were complete. There would be no significant adverse cumulative impacts to

taxes or revenues from the Utilities Privatization project in combination with past, present, and reasonably foreseeable future actions.

7.8.4 Traffic Circulation and Parking

The Utilities Privatization project would have no impact on traffic circulation or parking at West Point. Implementation of past, present and reasonably foreseeable future development would primarily have minor adverse impacts on traffic and parking at West Point. Traffic would temporarily increase during the construction of each new project. These temporary changes in traffic patterns would cease when construction was complete. A few projects have the potential to cause more significant impacts to traffic and parking; however, these impacts have been or will be individually mitigated to reduce impacts below the significance level. There would be no significant cumulative adverse impacts to traffic or parking from the Utilities Privatization project in combination with the other past, present, or reasonably foreseeable future actions.

7.9 Air Quality

The Utilities Privatization project would have no impact on air quality at West Point. The implementation of past, present and reasonably foreseeable future actions would result in increased emissions of exhaust and fugitive dust from construction machinery and construction activities. Temporary construction emissions would be minor and confined primarily to each project site. Also, staggering of the activities over time should minimize impacts at any one time. None of the activities would have a significant effect on air quality during operation. There would be no cumulative impacts on air quality from the Utilities Privatization project in combination with past, present, and reasonably foreseeable future actions.

7.10 Noise

The Utilities Privatization project would have no impact on noise at West Point. The implementation of past, present and reasonably foreseeable future development would have temporary adverse direct and indirect impacts on noise at the installation. Planned and reasonably foreseeable future developments may result in a temporary noise increase during demolition and construction activities. Temporary construction noise would be minor because it typically occurs during daylight hours and would be confined primarily to each project site. Also, since these projects are staggered over time, noise increases are expected to be minor. There would be no significant cumulative noise impacts from the Utilities Privatization project in combination with the past, present, and reasonably foreseeable future actions.

7.11 Utility Infrastructure

The implementation of past, present and reasonably foreseeable future development in the project area would have beneficial long-term impacts to utility infrastructure at the installation.

Upgrades to the potable water security system and natural gas distribution system have recently been completed and a new water tank for the Stony Lonesome community is proposed. Although new construction projects would have increasing demand on the utilities systems, the infrastructure is sufficient to support these projects or sufficient upgrades have been or will be made. The past, present, and reasonably foreseeable future activities would have the highest utility demand for electric, followed by water, sewer, telecommunications, and then gas. The utilities privatization project is expected to significantly improve the efficiency and reliability of natural gas, water, wastewater, and electrical distribution systems at West Point, with the potential for long-term beneficial impacts. There would be no adverse cumulative impacts to utility infrastructure from the Utilities Privatization project in combination with other past, present, and reasonably foreseeable future actions.

7.12 Hazardous Materials and Waste

The Utilities Privatization project would not impact hazardous materials and wastes at West Point. Implementation of past, present, and reasonably foreseeable future actions would have minor impacts on hazardous materials and waste. A large amount of waste would be generated from the demolition/rehabilitation projects. To deal with the waste, a Construction/Demolition Waste Management Plan would be developed for each project. Older buildings would be surveyed for LBP and ACM prior to demolition/restoration and LBP/ACM would be handled and disposed of according to Federal regulations. As long as appropriate regulations are complied with, no significant cumulative impacts should occur as a result of the Utilities Privatization project in combination with the other past, present, and reasonably foreseeable future actions.

7.13 Health and Safety

The Utilities Privatization project or past, present, or reasonably foreseeable future projects are not expected to impact to health and safety at West Point.

7.14 Irreversible and Irretrievable Commitments of Resources

Irreversible and irretrievable commitments of resources are related to the use of nonrenewable resources and the effects that the uses have on future generations. An irreversible resource generally applies to nonrenewable resources that are destroyed or consumed. An irretrievable resource applies to the loss in value of an affected resource such as employee labor or disturbance of a cultural site. The Utilities Privatization project would not require the commitment of any irreversible resources. However, there could be an irretrievable commitment of employee labor to plan/implement the project as well as the potential irretrievable loss of a few federal jobs. Relative to overall work load being performed at West Point, the planning/labor costs for this

project are not considered significant. RIF procedures would be followed according to current regulation, if any government employees were to lose their jobs.

8.0 SUMMARY AND CONCLUSIONS

8.1 Proposed Action

The proposed action would privatize four utility systems (electrical, natural gas, potable water, and wastewater) throughout West Point in order to divest West Point of ownership and responsibility for these systems. Privatization allows installation commanders to focus on core defense missions and functions by relieving them of activities that can be done more efficiently and effectively by others (DOD, 2002). Specifically, privatization would transfer ownership, responsibility, investments, upgrade, plant replacement, and continued operation and maintenance of these government-owned utility systems including the utility structures and equipment like regulators; valves; treatment, storage and pumping facilities; existing distribution lines; meters; and other associated equipment throughout the installation to a private entity. The real estate (land) associated with utility systems would remain under Federal ownership, so the Army would grant an easement to the private contractor along the existing distribution and treatment system as part of the privatization.

The utility service function would not significantly change. Service would change from a government-owned and operated utility system to a privately-owned and operated utility system. Theoretically, this transfer would allow operation, maintenance, and repair of the utility systems to be performed more efficiently and effectively than currently done by West Point. West Point would be responsible for developing a government contract that would establish provisions and appropriate staffing (engineering and contracting) to ensure the private recipient of the utility systems provides reliable service and manages and operates in a manner consistent with the applicable Federal, State, and local regulations pertaining to health, safety, fire, and

environmental requirements. In addition, the contract would require a level of service equivalent to the level that would be obtained if West Point were retaining the utility systems.

The private owner/operator (contractor) would be required to comply with all West Point, U.S. Army, and DOD regulations as well as other Federal, State, and local regulations and would be responsible for permitting, planning and coordinating with West Point organizations, in addition to paying any required fees/fines. West Point would be responsible for monitoring the contractor's execution of the contract, which would include adhering to applicable regulations, while, the contractor would ultimately be responsible for environmental compliance.

8.2 Alternatives

Three alternatives are considered including: (1) the No Action Alternative, (2) Transfer of Total Utility Systems Alternative (recommended alternative), and (3) Transfer of Utility Systems Less Historic Structures Only Alternative. The No Action Alternative would require no changes to the ownership/operation of the utility systems and would not generate any additional adverse impacts to the environment, but may not allow for the increased efficiency or effectiveness in operating the utility systems that is believed to be provided by privatization process. The recommended alternative would transfer ownership, operation, and maintenance of all parts of the utilities systems to a private contractor. The third alternative would transfer all utility systems except historic structures to the private sector.

8.3 Anticipated Environmental Effects and Mitigation Measures

There are expected to be direct positive impacts to West Point and the local community as a result of the utilities privatization project. West Point may benefit from an increase in efficiency and effectiveness in the way the utility systems are operated. In addition, the local community is

expected to benefit from new private employment opportunities and a minor increase in tax/revenue base. The privatization project would not result in any direct significant adverse effects to environmental resources. However, there is the potential for the loss of a few government jobs. It is expected that West Point has the capacity/capability to handle the loss in employees.

In addition, for the preferred alternative, there is the potential for an indirect adverse impact to cultural resources as the ownership, operation, and maintenance of historic structures associated with the utilities systems would be transferred from West Point to a private entity. These structures contribute to West Point's designation as a National Historic Landmark District and modifications to these structures could jeopardize their character and West Point's designation as a NHL. Mitigation measures would include:

- West Point coordinated with NYSHPO to develop a PA that includes stipulations for the transfer that are outlined in Section 5.0. Both the contractor and West Point would be required to adhere to these stipulations.
- West Point would perform a cultural resources survey for all structures associated with the utilities systems that have not been previously studied to ensure that all historic structures are identified prior to the utilities transfer.

For the alternative that would privatize the utility systems minus the historic structures, there is the potential for impacts to the utilities infrastructure, especially during maintenance activities, if actions between the government and private entity are not coordinated. Mitigation measures would include:

- West Point would develop a process for communication/coordination for operation, maintenance, and repair of the three utilities affected by this alternative to ensure seamless coordination between itself and the contractor. A description of the coordination process would be included in the government contract.

8.4 Conclusions

Overall, the preferred alternative for the utilities privatization project is expected to improve the efficiency and effectiveness in which the utility systems at West Point are operated. Direct environmental impacts associated with the proposed action would be minor and potential indirect adverse impacts would be minimized below the significant level using mitigation measures.

Therefore, an Environmental Impact Statement is not required.

8.5 Document Availability

This EA and FNSI were made available for a 30-day public review period from April 15, 2005 through May 16, 2005 at the following locations:

West Point Community Library
Building 622
U.S. Military Academy
West Point, New York 10996

Town Clerk
Town of Highlands
254 Main Street
Highland Falls, New York 10928

Highland Falls Public Library
298 Main Street
Highland Falls, New York 10928

Village Clerk
Village of Highlands

303 Main Street
Highland Falls, New York 10928

The Alice Curtis Desmond and Hamilton Fish Library

Attn: Carol Donick
P.O. Box 265
Routes 403 and 9D
Garrison, NY 10924

No comments were received during the public review and comment period.

The point-of-contact for further information is:

Mr. Alan Bjornsen, CEP
U.S. Army Garrison
Directorate of Housing and Public Works
Building 667, Ruger Road
West Point, New York 10996
845/938-4129
845/936-2529 FAX
Al.Bjornsen@usma.edu

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10.0 LIST OF PREPARERS

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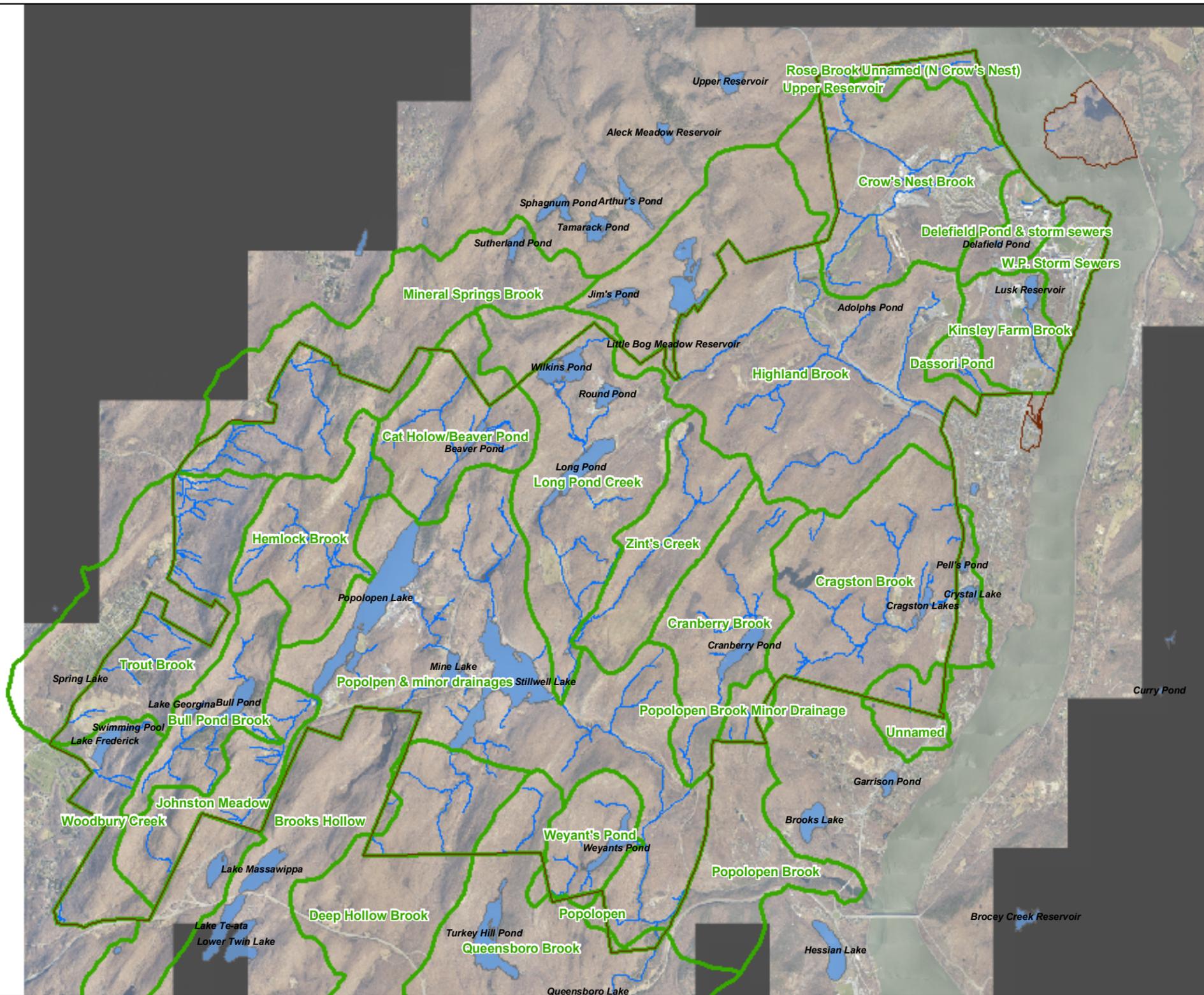
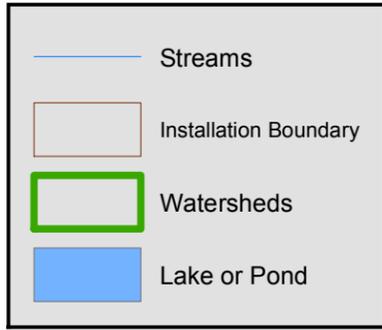
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FIGURES



Drainage Map

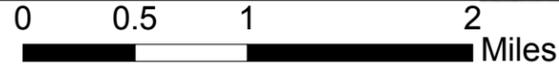
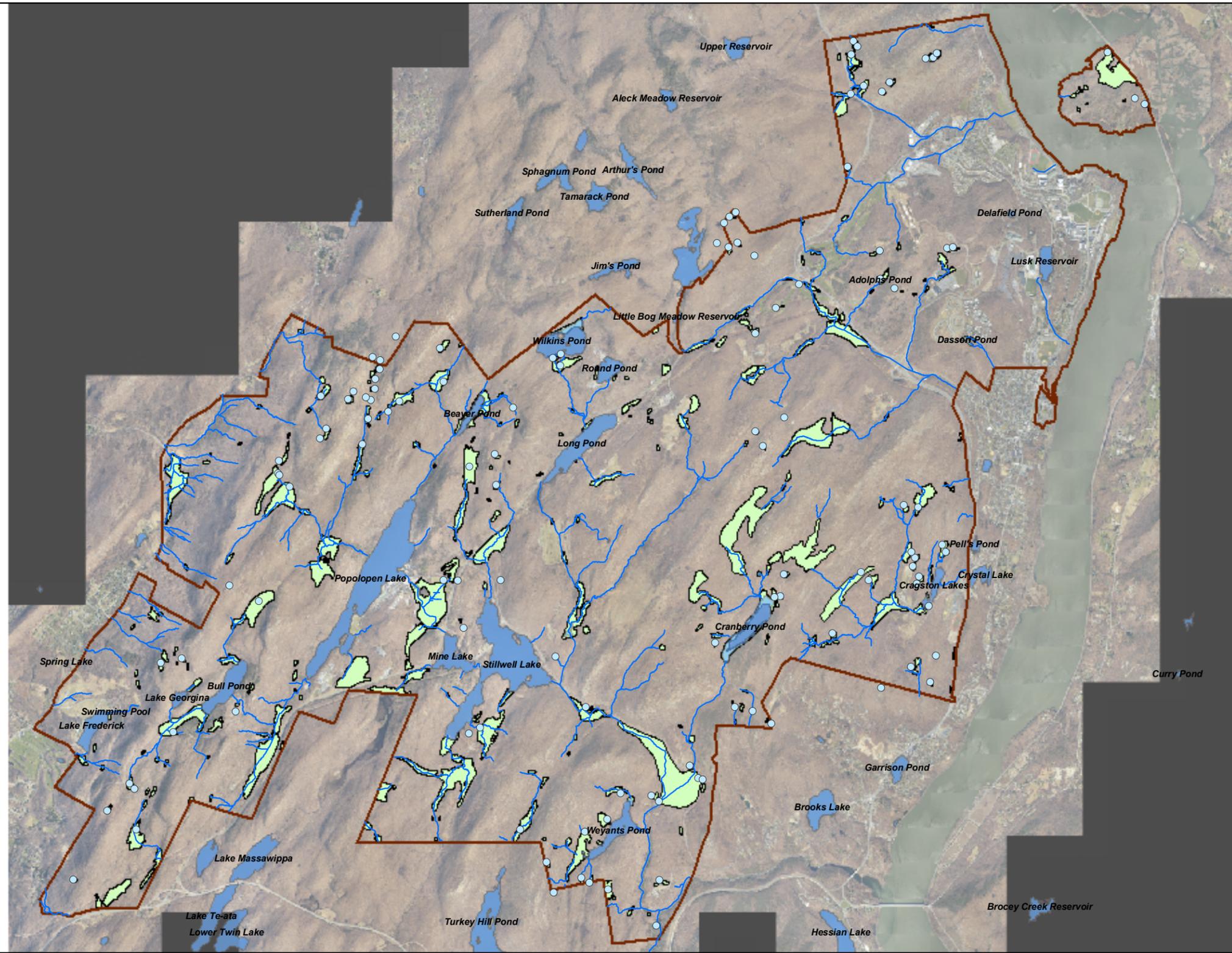
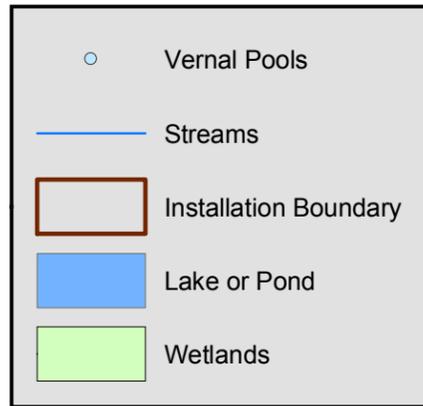
West Point Utilities Privatization Environmental Assessment
 United States Army Garrison
 West Point, New York



US Army Corps
 of Engineers®
 New York District



Figure 4-1



Surface Waters

West Point Utilities Privatization Environmental Assessment
 United States Army Garrison
 West Point, New York



Figure 4-2



- - - Hudson highlands Scenic Area of Statewide Significance (HHSASS)
- Sub-Units within HHSASS
- Coastal Boundary
- Installation Boundary

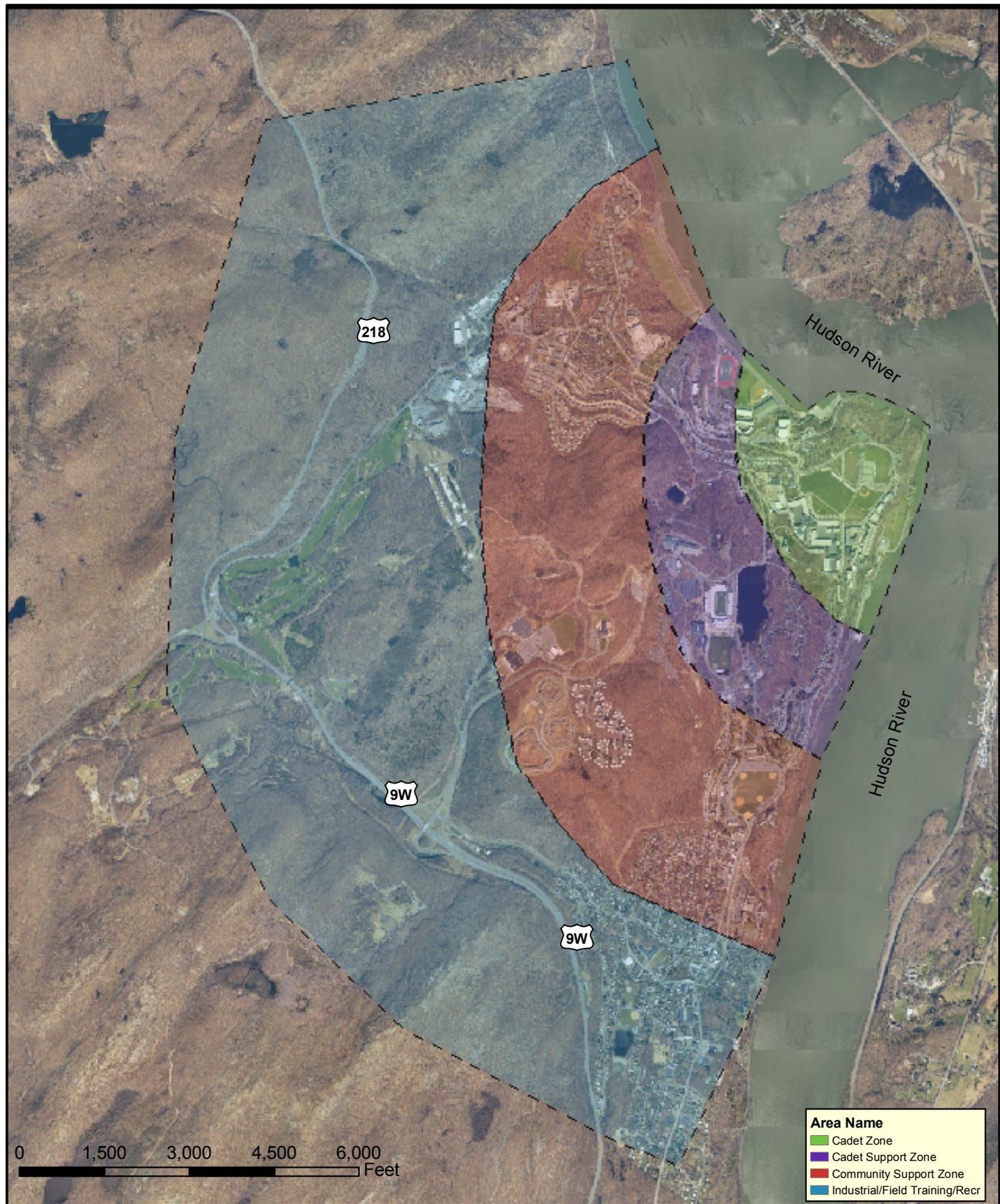
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Coastal Zone

West Point Utilities Privatization Environmental Assessment
 United States Army Garrison
 West Point, New York



Figure 4-4



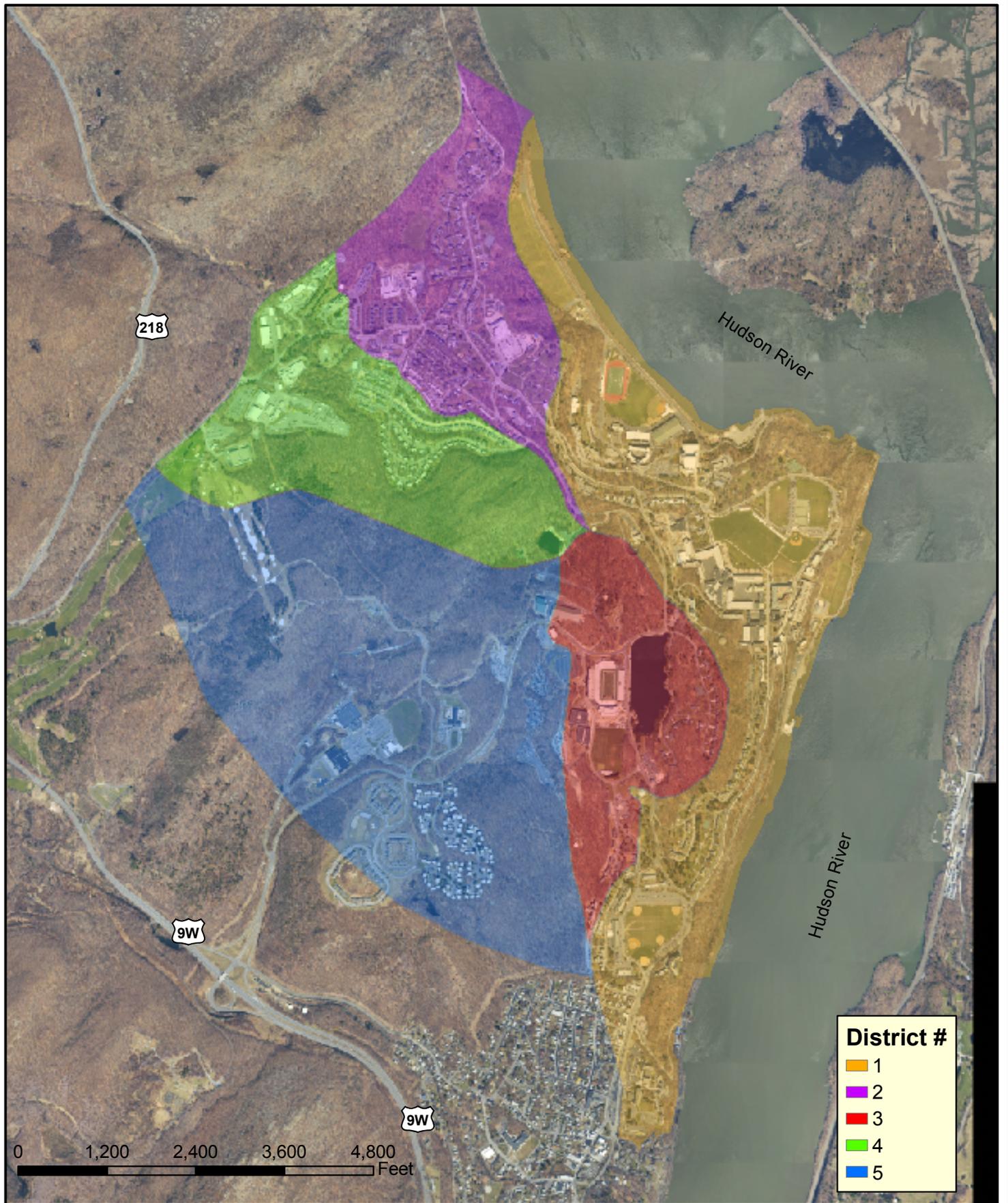
US Army Corps
of Engineers
New York District

Land Use Zones

West Point Community Activities Center Environmental Assessment
United States Army Garrison
West Point, New York



Figure 4-5



Water Districts Map

West Point Utilities Privatization Environmental Assessment
 United States Army Garrison
 West Point, New York



US Army Corps
 of Engineers®
 New York District



Figure 4-6

APPENDIX A
THREATENED AND ENDANGERED SPECIES CORRESPONDENCE



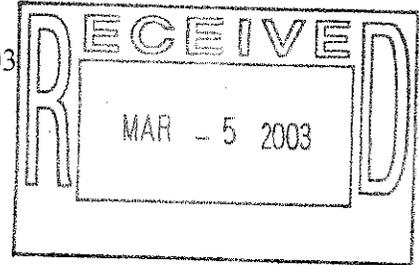
United States Department of the Interior



FISH AND WILDLIFE SERVICE

3817 Luker Road
Cortland, NY 13045

February 28, 2003



Ms. Celine Santiago Bass, P.W.S.
Certified Ecologist
Matrix Environmental & Geotechnical Services
215 Ridgedale Avenue
Florham Park, NJ 07932

Dear Ms. Bass:

This responds to your letter of February 5, 2003, requesting information on the presence of endangered or threatened species in the vicinity of the U.S. Military Academy at West Point (Academy) in conjunction with the potential privatization of Army-owned utility systems on-site under the Defense Reform Initiative Directive #49 in the Town of Highlands, Orange County, New York.

The bog turtle (*Clemmys muhlenbergii*) is known to occur at the Academy. This species is listed as threatened by the U.S. Fish and Wildlife Service (Service). The Service recommends, therefore, that an evaluation be completed of any existing habitat that would be disturbed by the project, and its potential to support the bog turtle. If the evaluation indicates sites with the potential to support the bog turtle, the site should be surveyed by a qualified person to determine the presence or absence of the bog turtle.

The bald eagle (*Haliaeetus leucocephalus*) is also known to occur at the Academy. This species is also listed as threatened by the Service. The project's environmental documents should identify any direct, indirect, and cumulative impacts on the bald eagle and/or bog turtle, and their habitat, and include appropriate measures, if necessary, to protect the respective species and their habitat. This information should be forwarded to this office and it will be used to evaluate potential impacts on either the bald eagle or bog turtle or their respective habitats, and to determine the need for further consultation pursuant to the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

Except for the bald eagle and bog turtle, and occasional transient individuals, no other Federally listed or proposed endangered or threatened species under our jurisdiction are known to exist in the project impact area. In addition, no habitat in the project impact area is currently designated or proposed "critical habitat" in accordance with the provisions of the Endangered Species Act. Should project plans change, or if additional information on listed or proposed species or critical habitat becomes available, this determination may be reconsidered. A compilation of Federally listed and proposed endangered and threatened species in New York is enclosed for your information.

The above comments pertaining to endangered species under our jurisdiction are provided pursuant to the Endangered Species Act. This response does not preclude additional Service comments under the Fish and Wildlife Coordination Act or other legislation.

Federally listed endangered and threatened marine species may be found adjacent to the Academy in the Hudson River. These species are under the jurisdiction of the National Marine Fisheries Service. You should contact Mr. Stanley Gorski, Habitat and Protected Resources Division, Area Coordinator, National Marine Fisheries Service, James J. Howard Marine Sciences Laboratory, 74 Magruder Road, Highlands, NJ 07732, for additional information (telephone: [732] 872-3037).

The bog turtle and the bald eagle are listed as endangered by the State of New York. The results of the evaluations discussed above and any plans for surveys related to bog turtles, their timing, and the results should be coordinated with both this office and with the New York State Department of Environmental Conservation (State). The State contact for the bald eagle and bog turtle is Mr. Peter Nye, Endangered Species Unit, 625 Broadway, Albany, NY 12233 (telephone: [518] 402-8859).

The State requests that you be advised that the peregrine falcon (*Falco peregrinus*), listed as endangered, and the timber rattlesnake (*Crotalus horridus*), listed as threatened, occur at the Academy. The project should, therefore, be coordinated with the State. The State contact for the peregrine falcon and timber rattlesnake is Mr. Peter Nye at the above address.

For additional information on fish and wildlife resources or State-listed species, we suggest you contact the appropriate New York State Department of Environmental Conservation regional office(s) as shown on the enclosed map, and:

New York State Department of Environmental Conservation
New York Natural Heritage Program Information Services
625 Broadway
Albany, NY 12233
(518) 402-8935

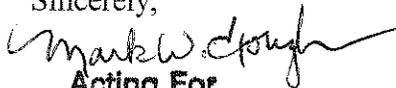
We are not aware of any Federally designated wild, recreational, or scenic rivers, wildlife preserves, and/or wildlife refuges on the Academy. Since wetlands may be present, you are advised that National Wetlands Inventory (NWI) maps may or may not be available for the project area. However, while the NWI maps are reasonably accurate, they should not be used in lieu of field surveys for determining the presence of wetlands or delineating wetland boundaries for Federal regulatory purposes. Copies of specific NWI maps can be obtained from:

Cornell Institute for Resource Information Systems
302 Rice Hall
Cornell University
Ithaca, NY 14853
(607) 255-4864

Work in certain waters of the United States, including wetlands, may require a permit from the U.S. Army Corps of Engineers (Corps). If a permit is required, in reviewing the application pursuant to the Fish and Wildlife Coordination Act, the Service may concur, with or without recommending additional permit conditions, or recommend denial of the permit depending upon potential adverse impacts on fish and wildlife resources associated with project construction or implementation. The need for a Corps permit may be determined by contacting the appropriate Corps office(s) as shown on the map available on our website.

If you require additional information or assistance please contact Michael Stoll at (607) 753-9334.

Sincerely,


Acting For

David A. Stilwell
Field Supervisor

Enclosures

cc: NYSDEC, New Paltz, NY (Environmental Permits)
NYSDEC, Albany, NY (Natural Heritage Program, Attn: P. Nye)
NMFS, Highlands, NJ (Attn: S. Gorski)
NMFS, Milford, CT (Attn: M. Ludwig)
EPA, Div. of Environmental Planning & Protection, New York, NY

**FEDERALLY LISTED AND PROPOSED ENDANGERED AND THREATENED SPECIES
AND CANDIDATE SPECIES IN NEW YORK**

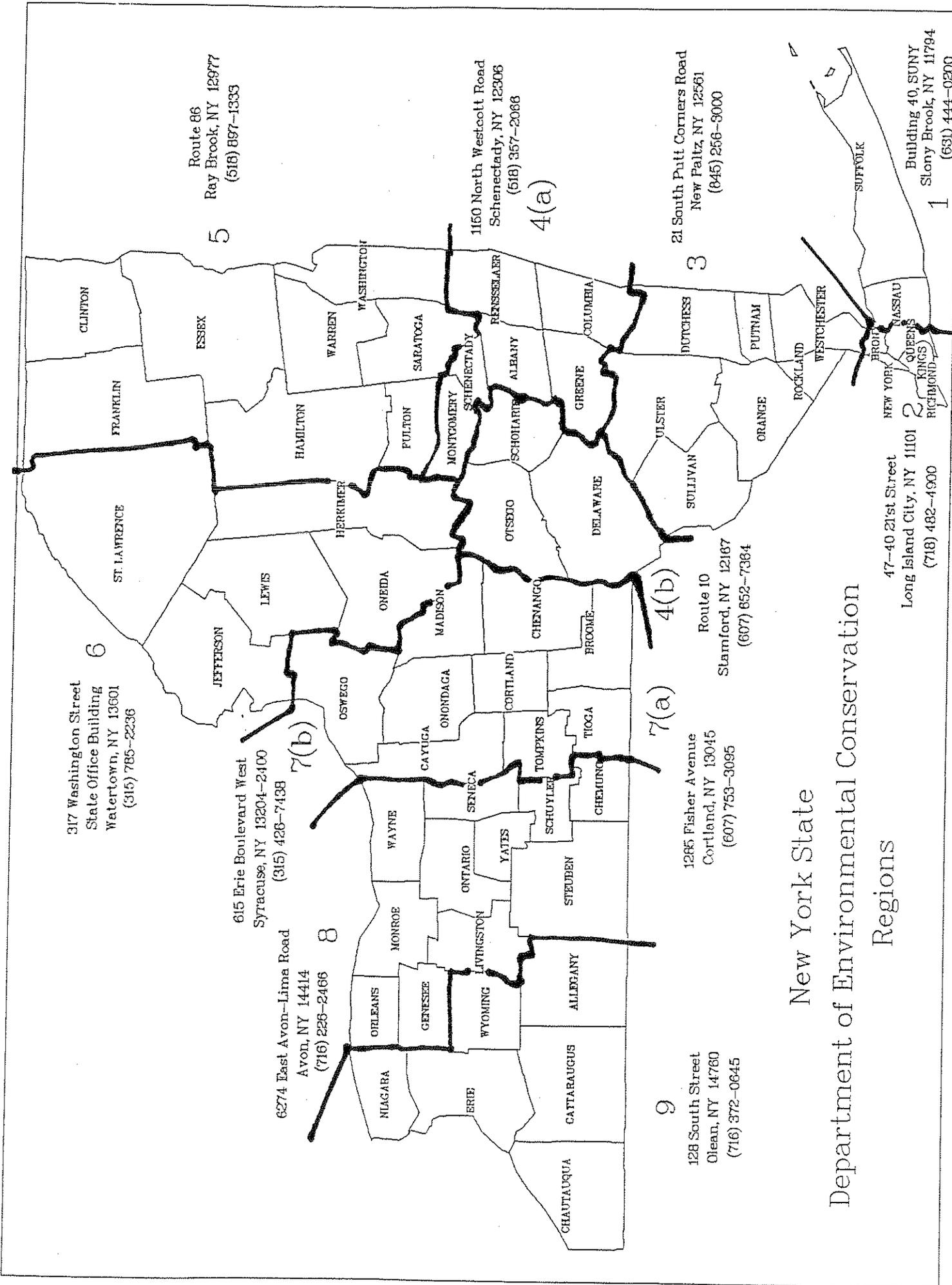
<u>Common Name</u>	<u>Scientific Name</u>	<u>Status</u>	<u>Distribution</u>
<u>FISHES</u>			
Sturgeon, shortnose*	<i>Acipenser brevirostrum</i>	E	Hudson River & other Atlantic coastal rivers
<u>REPTILES</u>			
Massasauga, Eastern	<i>Sistrurus catenatus catenatus</i>	C	Genesee and Onondaga Counties
Turtle, bog	<i>Clemmys muhlenbergii</i>	T	Albany, Columbia, Dutchess, Genesee, Orange, Oswego, Putnam, Seneca, Sullivan, Ulster, Wayne, and Westchester Counties
Turtle, green*	<i>Chelonia mydas</i>	T	Oceanic summer visitor coastal waters
Turtle, hawksbill*	<i>Eretmochelys imbricata</i>	E	Oceanic summer visitor coastal waters
Turtle, leatherback*	<i>Dermochelys coriacea</i>	E	Oceanic summer resident coastal waters
Turtle, loggerhead*	<i>Caretta caretta</i>	T	Oceanic summer resident coastal waters
Turtle, Atlantic ridley*	<i>Lepidochelys kempii</i>	E	Oceanic summer resident coastal waters
<u>BIRDS</u>			
Eagle, bald	<i>Haliaeetus leucocephalus</i>	T	Entire state
Plover, piping	<i>Charadrius melodus</i>	E	Great Lakes Watershed Critical Habitat - Eastern Lake Ontario shoreline from Salmon River (Oswego County) to Stony Point (Jefferson County)
Tern, roseate	<i>Sterna dougallii dougallii</i>	T	Remainder of coastal New York
		E	Southeastern coastal portions of state
<u>MAMMALS</u>			
Bat, Indiana	<i>Myotis sodalis</i>	E	Entire state
Cougar, eastern	<i>Felis concolor cougar</i>	E	Entire state - probably extinct
Whale, blue*	<i>Balaenoptera musculus</i>	E	Oceanic
Whale, finback*	<i>Balaenoptera physalus</i>	E	Oceanic
Whale, humpback*	<i>Megaptera novaeangliae</i>	E	Oceanic
Whale, right*	<i>Eubalaena glacialis</i>	E	Oceanic
Whale, sei*	<i>Balaenoptera borealis</i>	E	Oceanic
Whale, sperm*	<i>Physeter catodon</i>	E	Oceanic

* Except for sea turtle nesting habitat, principal responsibility for these species is vested with the National Marine Fisheries Service.

**FEDERALLY LISTED AND PROPOSED ENDANGERED AND THREATENED SPECIES
IN NEW YORK (Cont'd)**

<u>Common Name</u>	<u>Scientific Name</u>	<u>Status</u>	<u>Distribution</u>
<u>MOLLUSKS</u>			
Snail, Chittenango ovate amber	<i>Novisuccinea chittenangoensis</i>	T	Madison County
Mussel, dwarf wedge	<i>Alasmidonta heterodon</i>	E	Orange County - lower Neversink River Delaware and Sullivan Counties - Delaware River
<u>BUTTERFLIES</u>			
Butterfly, Karner blue	<i>Lycaeides melissa samuelis</i>	E	Albany, Saratoga, Warren, and Schenectady Counties
<u>PLANTS</u>			
Monkshood, northern wild	<i>Aconitum noveboracense</i>	T	Ulster, Sullivan, and Delaware Counties
Pogonia, small whorled	<i>Isotria medeoloides</i>	T	Entire state
Swamp pink	<i>Helonias bullata</i>	T	Staten Island - presumed extirpated
Gerardia, sandplain	<i>Agalinis acuta</i>	E	Nassau and Suffolk Counties
Fern, American hart's-tongue	<i>Asplenium scolopendrium</i> var. <i>americana</i>	T	Onondaga and Madison Counties
Orchid, eastern prairie fringed	<i>Platanthera leucophea</i>	T	Not relocated in New York
Bulrush, northeastern	<i>Scirpus ancistrochaetus</i>	E	Not relocated in New York
Roseroot, Leedy's	<i>Sedum integrifolium</i> ssp. <i>Leedyi</i>	T	West shore of Seneca Lake
Amaranth, seabeach	<i>Amaranthus pumilus</i>	T	Atlantic coastal plain beaches
Goldenrod, Houghton's	<i>Solidago houghtonii</i>	T	Genesee County

E=endangered T=threatened P=proposed C=candidate



317 Washington Street
State Office Building
Watertown, NY 13601
(315) 785-2236

615 Erie Boulevard West
Syracuse, NY 13204-2400
(315) 428-7438

6274 East Avon-Lima Road
Avon, NY 14414
(716) 228-2466

128 South Street
Clean, NY 14760
(716) 372-0645

1285 Fisher Avenue
Cortland, NY 13045
(607) 753-3095

Route 10
Stamford, NY 12167
(607) 652-7384

21 South Pitt Corners Road
New Paltz, NY 12561
(845) 256-3000

1150 North Westcott Road
Schenectady, NY 12306
(518) 357-2088

Route 86
Ray Brook, NY 12977
(518) 897-1333

47-40 21st Street
Long Island City, NY 11101
(718) 482-4900

Building 40, SUNY
Stony Brook, NY 11794
(631) 444-0200

New York State Department of Environmental Conservation Regions

CLINTON

FRANKLIN

ST. LAWRENCE

ESSEX

JEFFERSON

LEWIS

OSWEGO

WARREN

HERRICK

ONEIDA

CAYUGA

ONONDAGA

CORTLAND

BROOME

CHENANGO

DELAWARE

SULLIVAN

ULSTER

ORANGE

ROCKLAND

WESTCHESTER

PUTNAM

ALLEGANY

CATTARAUGUS

CHAUTAQUA

ERIE

NIAGARA

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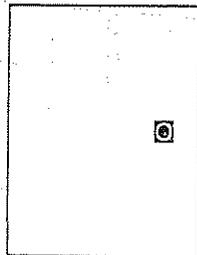
NIAGARA

U.S. Fish and Wildlife Service
New York Field Office
3817 Luker Road
Cortland, NY 13045

To provide a timely response to future requests for endangered species comments in New York, please include the following in future inquiries:

1. A concise brief description of the project/action.
2. Name of the hamlet/village/city/town/county where the project/action occurs.
3. The latitude and longitude of the project/action, i.e.: 42° 13' 28" / 76° 56' 30". If the project/action is linear, you may provide coordinates for both ends or just one near center.
4. A map showing the project/action location. Preferrably the map should be a U.S. Geological Survey quadrangle map (USGS Quad). You need only provide a copy of that portion where the project/action occurs. Please provide the name(s) of the USGS quadrangle.

If providing only a portion, indicate where the portion would be located on the full quadrangle, i.e.



Providing the information above will assist us in responding to your needs.

If you require additional information please contact Michael Stoll at (607) 753-9334.

New York State Department of Environmental Conservation

Division of Fish, Wildlife & Marine Resources

New York Natural Heritage Program

625 Broadway, Albany, New York 12233-4757

Phone: (518) 402-8935 • FAX: (518) 402-8925

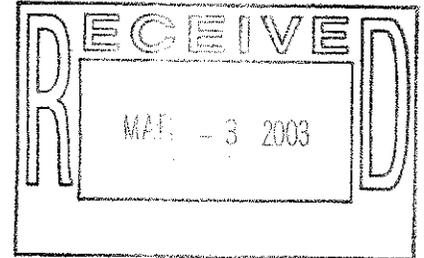
Website: www.dec.state.ny.us



Erin M. Crotty
Commissioner

March 3, 2003

Celine Santiago Bass
Matrix Environmental & Geotechnical Services
215 Ridgedale Ave
Florham, NJ 07932



Dear Ms. Bass:

In response to your recent request, we have reviewed the New York Natural Heritage Program databases with respect to the proposed Environmental Assessment for the U. S. Military Academy at West Point, Orange County, New York State. The purpose of this project is to privatize all Army owned utility systems on-site under Defense Reform Initiative Directive #49 issued by the Department of Defense.

Enclosed is a report of rare or state-listed animals and plants, significant natural communities, and other significant habitats, which our databases indicate occur, or may occur, on your site or in the immediate vicinity of your site. The information contained in this report is considered sensitive and may not be released to the public without permission from the New York Natural Heritage Program.

Your project location is within, or adjacent to, a designated Significant Coastal Fish and Wildlife Habitat. This habitat is part of New York State's Coastal Management Program (CMP), which is administered by the NYS Department of State (DOS). Projects which may impact the habitat are reviewed by DOS for consistency with the CMP. For more information regarding this designated habitat and applicable consistency review requirements, please contact:

Greg Capobianco or Steven C. Resler - (518) 474-6000
NYS Department of State
Division of Coastal Resources and Waterfront Revitalization
41 State Street, Albany, NY 12231

The presence of rare species may result in your project requiring additional permits, permit conditions, or review. For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the appropriate NYS DEC Regional Office, Division of Environmental Permits, at the enclosed address.

For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our databases. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. This information should NOT be substituted for on-site surveys that may be required for environmental impact assessment.

Our databases are continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information.

Sincerely,



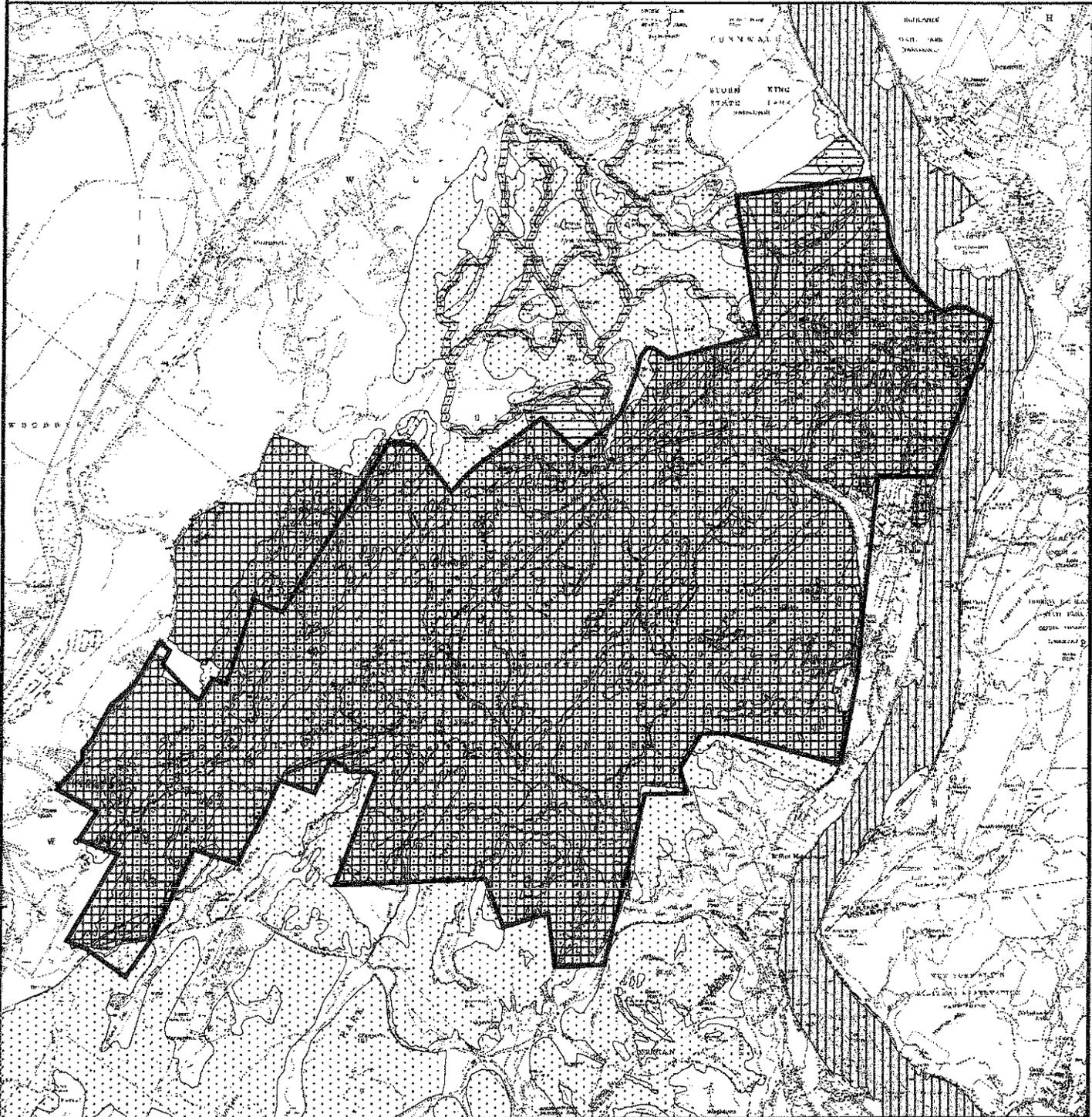
Betty A. Ketcham
Information Services
NY Natural Heritage Program

Encs.

cc: File

Natural Heritage Map of Rare Species and Ecological Communities

Prepared February 28, 2003 by NY Natural Heritage Program, NYS DEC, Albany, New York



 Project Site

New York Natural Heritage Program Database Records*

Scale: 1:80000

 Plant

 Animal

 Animal Concentration Area

 Community



* The locations that are displayed are considered sensitive and cannot be released to the public without permission. We do not provide map locations for all records. Please see report for details.

Natural Heritage Report on Rare Species and Ecological Communities

Prepared 2/26/2003 by NY Natural Heritage Program, NYS DEC, Albany, New York

Those species most vulnerable to collection and disturbance have been identified only as "SENSITIVE ELEMENT" in this report. When a project is planned for one of these specific sites, please contact the New York Natural Heritage Program for more detailed information. This report contains SENSITIVE information that should be treated in a sensitive manner -- Please see cover letter. Refer to the Users' Guide for explanations of codes, ranks, and fields.

* County ** Town	Scientific Name, COMMON NAME, & Group Name	NY Legal Status, Heritage Ranks, & Federal Status	EO Rank & Last Seen	Location	General Habitat and Quality	Office Use
* ORANGE						
** CORNWALL, HIGHLANDS						
	OAK-TULIP TREE FOREST Community	UNPROTECTED G4 S2S3	A 1998-10-30	BLACK ROCK FOREST	This community would be more accurately defined within the red oak-sugar maple alliance of the national classification. Large size intact landscape. Young to mature forest with very few (<1%) exotic species. Final classification may effect rank.	4107441
	<i>Oporornis formicivorus</i> KENTUCKY WARBLER Bird	PROTECTED G5 S2	E 1985	HIGHLANDS		4107441
** CORNWALL, HIGHLANDS, WOODBURY	<i>Carex meadii</i> MEAD'S SEDGE Vascular Plant	ENDANGERED G4G5 SH	H NO DATE	WEST POINT		4107348
	<i>Crotalaria sagittalis</i> RATTLEBOX Vascular Plant	ENDANGERED G5 S1	H NO DATE	WEST POINT		4107348

** HIGHLANDS

Natural Heritage Report on Rare Species and Ecological Communities

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* County ** Town	NY Legal Status, Heritage Ranks, & Federal Status	EO Rank & Last Seen	Location	General Habitat and Quality	Office Use
* ORANGE	ENDANGERED G5 S1	F 1993-06-16	AREA K	Some-what disturbed moist grassy area. No plants were found and it is believed to be extirpated. Continue to visit the area and double check the specimen identification before considering the site extirpated.	4107431 M
** HIGHLANDS					
<i>Syrinchium mucronatum</i> MICHAUX'S BLUE-EYED-GRASS Vascular Plant					
<i>Carex straminea</i> STRAW SEDGE Vascular Plant	ENDANGERED G5 S1	CD 1994-09-13	BEATTIES HILL ROAD	Barren area with soil removed. 6-10 plants along firebreak road.	4107338 S
<i>Carex cumulata</i> CLUSTERED SEDGE Vascular Plant	THREATENED G4? S2S3	B 1997-09-07	BEAVERS POND MOUNTAIN	A rocky summit grassland/savanna burned in 1993. 100-150 stems along ridge of remote summit.	4107431 S
ROCKY SUMMIT GRASSLAND Community	UNPROTECTED G3G4 S2S3	B 1998-07-30	BLACK ROCK FOREST	The rocky summit grassland occurs at the hill summit surrounded by Appalachian oak-hickory and chestnut oak forest on the gentle slopes to the west, north, and east and on the steep slope to the south. Small but no exotics, in intact landscape, in excellent condition with natural processes (fire). Good species and habitat diversity.	4107441
<i>Aristolochia serpentaria</i> VIRGINIA SNAKEROOT Vascular Plant	ENDANGERED G4 S1	AB 1998-07-21	BLACK ROCK FOREST	Chestnut oak forest with large patches of <i>Carex pennsylvanica</i> and rocky outcrops. The hillside slope has many large boulders and rock outcrops. These are surrounded by large stands of <i>Carex pennsylvanica</i> . Breaking up the sweep of green <i>Carex pennsylvanica</i> . Approximately 100 plants scattered across two hillsides of a high quality chestnut oak forest in a well protected area.	4107348 S

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* County ** Town	NY Legal Status, Heritage Ranks, & Federal Status	EO Rank & Last Seen	Location	General Habitat and Quality	Office Use
* ORANGE					
** HIGHLANDS					
APPALACHIAN OAK-HICKORY FOREST Community	UNPROTECTED G4G5 S4	AB 1998-07-30	BLACK ROCK FOREST	A system of granitic ridges bordering the Hudson River with some areas of limestone-type rock. Ridges have intervening valleys of varying slope and depth. There are many bedrock exposures, boulders and scree. The lower slopes have talus. Most of the fairly small size, good species composition, few exotics and well protected.	4107441
RED CEDAR ROCKY SUMMIT Community	UNPROTECTED G3G4 S3	A 1998-07-30	BLACK ROCK FOREST	A system of granitic ridges bordering the Hudson River with some areas of circumneutral rock. Undisturbed but subject to occasional fires. Good landscape context. Few exotics. Fairly large size.	4107441
ACIDIC TALUS SLOPE WOODLAND Community	UNPROTECTED G4? S3S4	A 1998-10-30	BLACK ROCK FOREST	This community occupies the lower slope of a rocky hill that is part of a larger system of rock ridges. Very large size, large contiguous talus slope. Mature forest with large trees. Good landscape context, well protected, good species composition. Few exotics.	4107348
<i>Ranunculus micranthus</i> SMALL-FLOWERED CROWFOOT Vascular Plant	THREATENED G5 S2	C 1997-05-05	BOG MEADOW MOUNTAIN	Rich rocky woodland. 10-15 plants widespread but sparse on remote rich slope. Probably more nearby.	4107441 S
<i>Hottonia inflata</i> FEATHERFOIL Vascular Plant	THREATENED G4 S2	BC 1998-05-23	BROOKS HOLLOW	1998: ponded portion of stream through narrow valley between rock ridges forming a deep emergent marsh with patches of shrub swamp. Along the landward edges of the marsh, some areas are dominated by <i>Carex stricta</i> . Plants found in the somewhat atypical Few mature plants in high quality habitat.	4107431 S

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* ORANGE						
** HIGHLANDS						
	<i>Podostemum ceratophyllum</i> RIVERWEED Vascular Plant	THREATENED G5 S2	B 1997-09-07	CAMP SHEA	Rapids of perennial stream. Four large patches and scattered smaller patches covering 600 sq. Feet in remote stream gorge.	4107431 S
	<i>Neotoma magister</i> ALLEGHENY WOODRAT Mammals	ENDANGERED G3G4 SH		COLD SPRING WEST		4107348 M ESU
	<i>Carex lupuliformis</i> FALSE HOP SEDGE Vascular Plant	RARE G4 S2S3	C 1997-09-25	CRAGSTON LAKES SWAMP	Sparse shallow graminoid marsh, seasonally flooded. 48 plants in two groups.	4107338 S
	<i>Hottonia inflata</i> FEATHER-OIL Vascular Plant	THREATENED G4 S2	C 1994-06-26	CRAGSTON LAKES SWAMP	Small, deep pool in valley.	4107338 S
	<i>Oxalis violacea</i> VIOLET WOOD-SORREL Vascular Plant	THREATENED G5 S2	B 1997-05-12	CRANBERRY MOUNTAIN	Rich rocky woodland near hillside spring. 400+ plants in 12 x 3 Square meter area on a remote ridge slope.	4107431 S

Natural Heritage Report on Rare Species and Ecological Communities

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* ORANGE						
** HIGHLANDS						
	ROCKY SUMMIT GRASSLAND Community	UNPROTECTED G3G4 S2S3	A 1998-09-25	CRANBERRY MOUNTAIN	A granitic ridge-and-valley system with streams and mesic forests (oak-tulip tree, beech-maple mesic) in valleys. There are Appalachian oak-hickory or chestnut oak forests on the mid to upper slopes. Rockier slopes may have red cedar rocky summit or An intact, natural landscape with no development. The community is surrounded by woodlands and forests. There are very few invasives and little to no disturbance in evidence. Fires (mostly natural but some from artillery range) are frequent. There is Firebreak roadside in disturbed ground of gravel and wet loam. 10-15 plants along edge of firebreak road.	4107431 S
	<i>Juncus debilis</i> WEAK RUSH Vascular Plant	ENDANGERED G5 S1	C 1992-10-01	CRANBERRY POND		4107431 S
	<i>Utricularia radiata</i> SMALL FLOATING BLADDER WORT Vascular Plant	THREATENED G4 S2	A 1992-08-20	CRANBERRY POND	Pond. 200-1000 plants on remote pond in pristine habitat.	4107431 S
	<i>Enallagma laterale</i> NEW ENGLAND BLUEET Dragonfly/Damselfly	UNPROTECTED G3 S2	B 1995-06-04	CRANBERRY POND HIGHLANDS	A high altitude, headwater, spring-fed pond originally artificial but somewhat raised by beaver activity. Most of the pond is bordered by <i>Carex stricta</i> and floating-leaved aquatics such as <i>Nymphaea</i> and <i>Brasenia</i> . There is a <i>Cephalanthus</i> swamp at the s Based on global rank specifications of August 1994.	4107431 S
	PITCH PINE-OAK-HEATH ROCKY SUMMIT Community	UNPROTECTED G4 S3	AB 1998-07-02	CROWS NEST	An open canopy pine barrens on an exposed rocky hilltop with dense scrub oak layer; heath and grasses increase at edges of rocky openings, on this rocky hill along western shore of the Hudson River. Moderate size area in excellent condition, with minor disturbances.	4107348

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* ORANGE						
** HIGHLANDS						
	APPALACHIAN OAK-HICKORY FOREST Community	UNPROTECTED G4G5 S4	B 1998-08-21	CROWS NEST	A system of granitic ridges bordering the Hudson River with some areas of limestone. Good species composition, few exotics, well protected, small-medium sized community. Some successional vegetation suggests past logging.	4107348
	ROCKY SUMMIT GRASSLAND Community	UNPROTECTED G3G4 S2S3	AB 1998-08-21	CROWS NEST	A system of granitic ridges bordering the Hudson River with some areas of limestone. Very high quality despite some invasives (inevitable in a habitat subject to natural disturbances and vegetational shifts).	4107348
	RED CEDAR ROCKY SUMMIT Community	UNPROTECTED G3G4 S3	A 1998-08-21	CROWS NEST	A system of granitic ridges bordering the Hudson River with some areas of limestone. Relatively large, very high quality despite some invasives (inevitable in a habitat subject to natural disturbances and vegetational shifts). Mature community with cycles of woody die-back and regeneration. Community now has a low number of live cedars.	4107348
	<i>Pinus virginiana</i> VIRGINIA PINE Vascular Plant	ENDANGERED G5 S1	CD 1994-08-24	CROWS NEST	Pitch pine-oak-heath rocky summit: summit of mountain with scrub oak barrens. One mature tree and two saplings in natural habitat.	4107348 S
	<i>Sensitive Element</i>	THREATENED G4 S3		CROWS NEST		4107348 S ESU

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* County ** Town	Scientific Name, COMMON NAME, & Group Name	NY Legal Status, Heritage Ranks, & Federal Status	EO Rank & Last Seen	Location	General Habitat and Quality	Office Use
* ORANGE						
** HIGHLANDS						
	<i>Sensitive Element</i>	ENDANGERED G5 S1	F 1882-06-07	CROWS NEST		4107348
	<i>Carex striatula</i> LINED SEDGE Vascular Plant	ENDANGERED G4G5 S1	C 1994-06-19	CROWS NEST CREEK	Deciduous rocky woodland in ravine and granite rocks with chestnut oak. Soil: rock outcrop-hollis complex. Associated species: Fraxinus americana, Acer saccharum, Acer pensylvanicum, Quercus alba, Sambucus racemosa, Carex laxiflora, Viola sororia. Fewer than 20 plants in protected habitat. Probably more plants downstream. Full extent of occurrence not determined.	4107348 S
	<i>Sensitive Element</i>	THREATENED G4 S3		DEEP HOLLOW WEST		4107431 ESU
	<i>Neotoma magister</i> ALLEGHENY WOODRAT Mammals	ENDANGERED G3G4 SH		EAST OF CRANBERRY POND		4107431 M ESU
	<i>Carex striatula</i> STRAW SEDGE Vascular Plant	ENDANGERED G5 S1	CD 1996-07-26	FIREBREAK 7	Clearing along east side of road/firebreak near Appalachian oak-hickory forest. 1 plant along edge of gravel road with potential for more plants.	4107338 S

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* ORANGE						
** HIGHLANDS						
	<i>Lycopus rubellus</i> GYPSY-WORT Vascular Plant	ENDANGERED G5 S1	E 1990-08-28	HERON MARSH	1994: medium fen with snags/shallow emergent marsh. 1990: flooded swamp.	4107431 S
	<i>Sensitive Element</i>	ENDANGERED G2 S1	F 1936-07-12	JIMS POND	1936: open mossy woods on the south shore of a pond along a trail. 1997: proper habitat on the south side of Jims Pond in dry chestnut oak forest with many <i>Mianthemum canadense</i> .	4107441
	<i>Geranium carolinianum</i> var <i>sphaerospermum</i> CAROLINA CRANESBILL Vascular Plant	THREATENED G5T4? S2	BC 1997-06-08	LONG MOUNTAIN	Trailside boulders on nearly level summit ridge in a post fire succession. 40 plants covering 30 x 70 foot area on remote mountain.	4107431 S
	<i>Neotoma magister</i> ALLEGHENY WOODRAT Mammals	ENDANGERED G3G4 SH		LONG MOUNTAIN		4107431 M ESU
	<i>Potamogeton pultcher</i> SPOTTED PONDWEED Vascular Plant	THREATENED G5 S2	B 1994-10-03	LONG POND HIGHLANDS	Silty muck of large pond. Water 1-2 meters deep. Large population covering about 2 ha.	4107431 S

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* ORANGE					
** HIGHLANDS					
<i>Ranunculus micranthus</i> SMALL-FLOWERED CROWFOOT Vascular Plant	THREATENED G5 S2	E 1992-05-14	LONG POND MOUNTAIN	On ledge, steep southeast-facing slope in an oak-beech-sugar maple woods.	4107431 S
<i>Potamogeton diversifolius</i> WATER-THREAD PONDWEED Vascular Plant	ENDANGERED G5 S1	B 1998-07-17	MINE LAKE	Shallow corner of a dammed freshwater pond. Partly shaded. No other aquatic species present. Approximately 50 plants in a well protected aquatic habitat.	4107431 S
<i>Utricularia radiata</i> SMALL FLOATING BLADDERWORT Vascular Plant	THREATENED G4 S2	A 1998-SU	OWL SWAMP	Manmade/natural freshwater pond with much exposed bedrock. Submerged/floating-leaved aquatics dominant (watershield, bladderworts) in ponded area. Pond was expanded from a freshwater pond-marsh by creation of road bed along eastern perimeter. About 3000 in minimally disturbed habitat.	4107338 S
<i>Carex straminea</i> STRAW SEDGE Vascular Plant	ENDANGERED G5 S1	C 1998-07-06	PATRICK TRAIL	1998: successional old field type habitat associated with a powerline right-of-way, gravel road edges and marginal areas near athletic field and buildings. Associated species: <i>Lonicera cf. Morrowii</i> , <i>Rubus</i> spp., weedy grasses and forbs, <i>Carex foenea</i> , Approximately 50 plants in marginal unprotected habitat.	4107348 S
<i>Etheostichus gloriosus</i> BLUESPOTTED SUNFISH Fish	UNPROTECTED G5 S2	H 1919-07-07	POPOLOPEN BROOK	Water up to 3 ft deep with moderate current substrate: gravel.	4107431 M

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* ORANGE	<i>Podostemum ceratophyllum</i> RIVERWEED Vascular Plant	THREATENED G5 S2	C 1994-08-30	POPOLOPEN BROOK	Rocky stream bed. Covering 2-3 meters of stream over a 10 square meter area.	4107431 S
** HIGHLANDS	<i>Potamogeton pulcher</i> SPOTTED PONDWEED Vascular Plant	THREATENED G5 S2	B 1998-08-23	POPOLOPEN BROOK MARSH	1998: slow deep watered (1-2+ meters) stream through sedge marsh. Bottom is sandy to gravelly with clay present in a few places. Stream bottom north and south of this site is predominantly rocky. <i>Pontederia cordata</i> present along stream margin where wa Hundreds of plants appearing intermittently along a 300-400 meter stretch of well protected natural stream.	4107431 S
	<i>Bidens laevis</i> SMOOTH BUR-MARIGOLD Vascular Plant	THREATENED G5 S2	C 1994-09-11	POPOLOPEN BROOK SLOPE	Stream-marsh margin with less competition from larger plants of inner marsh. Near roadside with weeds and grasses. Associated species: <i>Lactaria oryzoides</i> , <i>Scirpus</i> sp., <i>Polygonum hydropiperoides</i> , <i>Dulichium arundinacea</i> , <i>Cyperus esculenta</i> , <i>Juncus militaris</i> 10-15 plants in protected habitat.	4107431 S
	<i>Carex straminea</i> STRAW SEDGE Vascular Plant	ENDANGERED G5 S1	CD 1994-08-24	POPOLOPEN BROOK SLOPE	Wayland silt loam, swamp. Associated species: <i>Carex comosa</i> and <i>Acer rubrum</i> . 15-20 plants in dense patch less than 1 Square meter. One genet.	4107431 S
	<i>Lycopodium rubellus</i> GYPSY-WORT Vascular Plant	ENDANGERED G5 S1	E 1990-08-28	POPOLOPEN LAKE SLOPE	Hollis complex rock outcrop substrate, flooded swamp in mixed hardwoods.	4107431 S

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* ORANGE	<i>Ranunculus micranthus</i> SMALL-FLOWERED CROWFOOT Vascular Plant	THREATENED G5 S2	CD 1994-05-13	REDOUBT	Open oak woods. 8 plants in protected woodland where additional plants are likely.	4107348 S
** HIGHLANDS	<i>Elatine americana</i> AMERICAN WATERWORT Vascular Plant	ENDANGERED G4 S1	C 1994-09-11	STILLWELL LAKE	Gravelly silty rocky shore of boat launch area of lake. Scattered over shallow gravel bottom of lake edge. Sparse herbaceous aquatic, fewer than 50 plants.	4107431 S
	<i>Potamogeton diversifolius</i> WATER-THREAD PONDWEED Vascular Plant	ENDANGERED G5 S1	F 1990-08-21	STILLWELL LAKE	Reservoir. No plants found.	4107431 M
	<i>Potamogeton pectinatus</i> SPOTTED PONDWEED Vascular Plant	THREATENED G5 S2	B 1998-07-17	STILLWELL LAKE	Deep emergent marsh in the shallow narrow lobe of lake. This section of the lake is densely vegetated with other native aquatics. Associated species: <i>Potamogeton ephedrus</i> , <i>Potamogeton</i> spp., <i>Ceratophyllum</i> , <i>Elodea nuttallii</i> , other aquatics. Hundreds of stems in a quiet well protected lake.	4107431 S
	<i>Podostemum ceratophyllum</i> RIVERWEED Vascular Plant	THREATENED G5 S2	C 1994-09-11	STILLWELL LAKE	Fast moving water and rapids of outlet stream. Along 10 meters of flume connecting two reservoirs.	4107431 S

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* ORANGE	THREATENED G4? S2S3 Vascular Plant	BC 1994-09-13	TURKEY MOUNTAIN	Oak-hickory savanna. 30 plants in 5 x 3 meter area.	4107431 S
** HIGHLANDS	THREATENED G4 S2 Vascular Plant	B 1998-SU	WEST POINT BEAVER POND	Beaver pond. 1000 plants on remote pond.	4107431 S
	THREATENED G5 S2S3 Vascular Plant	CD 1997-07-21	WEST POINT CORRAL	Along a fence of horse corral in mud and manure. Six inches outside the fence there is too much plant competition for survival and six inches inside the fence there is too much horse activity for survival. Small population in highly disturbed area.	4107338 S
	THREATENED G5F5 S2 Vascular Plant	BC 1994-09-13	WEST POINT CRAGSTON LAKES	Low herb shrubland on disturbed ground along firebreak. Soil hollis complex with rock outcrops. Associated species: <i>Comptonia perregrina</i> , <i>Sassafras albidum</i> , <i>Cornus</i> and <i>vitus</i> . 80 plants in three groups in protected habitat.	4107338 S
	THREATENED G4 S2 Vascular Plant	C 1993	WEYANTS POND	Pond. 10-30 plants on remote pond.	4107431 S

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* ORANGE						
** HIGHLANDS						
	<i>Neotoma magister</i>	ENDANGERED		WILKINS POND		4107441
	ALLEGHENY WOODRAT	G3G4 SH				M
	Mammals					ESU
	<i>Utricularia radiata</i>	THREATENED	B	WILKINS POND	In mud on border of pond. Associated species: Nymphaea odorata and Brasenia	4107441
	SMALL FLOATING	G4 S2	1998-SU		schreberi.	S
	BLADDERWORT				300 plants in protected habitat.	
	Vascular Plant					
** HIGHLANDS, CORNWALL						
	CHESTNUT OAK FOREST	UNPROTECTED	A	BLACK ROCK FOREST	This community is the matrix forest community at mid to upper elevations.	4107441
	Community	G4 S4	1998-10-30		Large size, relatively undisturbed, approaching mature forest, in an extensive, relatively undisturbed landscape.	
	<i>Sisyrinchium micronotum</i>	ENDANGERED	H	BLACK ROCK FOREST	Roadside bank.	4107441
	MICHAUXS	G5 S1	1967-06-20			
	BLUE-EYED-GRASS					
	Vascular Plant					
** HIGHLANDS, WOODBURY						

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* ORANGE						
** HIGHLANDS, WOODBURY	<i>Compilus rogersi</i> SABLE CLUFTAIL Dragonfly/Damselfly	UNPROTECTED G4 S1	BC 2000-06-25	DEEP HOLLOW BROOK	This is a cold-water brook which runs through mixed hardwood forest with occasional sunny and marshy openings. The brook is alternately wide (approximately 8 feet) and deep, and narrow (1-3 feet) with shallow, rocky riffles. In the sunny areas the bank is not based on global rank specifications. The species is now recorded from approximately one mile of stream length and the occurrence is persistent suggesting it is viable and therefore not "D" ranked. It is not likely to be "A" ranked as	4107431
** HIGHLANDS, WOODBURY, CORNWALL	<i>Sensitive Element</i>	THREATENED G5 S1	H 1883-06-09	WEST POINT		4107348
** WOODBURY	<i>Ranunculus micranthus</i> SMALL-FLOWERED CROWFOOT Vascular Plant	THREATENED G5 S2	B 1997-05-24	BLACK CAP MOUNTAIN	Rich rocky woodland. 250-350 plants in two groups on remote summit.	4107431 S
	<i>Potamogeton diversifolius</i> WATER-THREAD PONDWEED Vascular Plant	ENDANGERED G5 S1	AB 1998-08-23	BULL POND	A deep oligotrophic pond with fairly shallow margins (0.8-1 x meters). Mostly unvegetated except for margins and south end which is shallow enough for <i>Potamogeton pulcher</i> . South end bordered by a shrub swamp dominated by leatherleaf and sweet pepperb A large population with hundreds of plants along a shoreline with limited development and in protected habitat.	4107431 S

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* ORANGE	<i>Potamogeton pultcher</i> SPOTTED PONDWEED Vascular Plant	THREATENED G5 S2	CD 1994-10-03	BULL POND	Pond. About 10 plants in remote pond.	4107431 S
** WOODBURY	<i>Scirpus georgianus</i> GEORGIA BULRUSH Vascular Plant	ENDANGERED G5 S1	AB 1994-07-17	PROCTORIA ROAD MEADOW	Mowed meadow. Large roadside occurrence in ditch and mowed field on military property.	4107431 S
	<i>Ranunculus micranthus</i> SMALL-FLOWERED CROWFOOT Vascular Plant	THREATENED G5 S2	BC 1997-05-24	RIDGE ROAD SUMMIT	Rich rocky woodland. 80-90 plants on remote summit.	4107431 S
	HEMLOCK-HARDWOOD SWAMP Community	UNPROTECTED G4G5 S4	AB 1994-10-05	WEST POINT BEAR SWAMP	A mature hemlock-dominated swamp grading to a red maple swamp to the south and west. A somewhat small swamp in excellent condition, apparently not logged. This occurrence is a mature swamp forest with large hemlocks and red maples.	4107431
	ACIDIC TALUS SLOPE WOODLAND Community	UNPROTECTED G47 S3S4	A 1994-06-13	WEST POINT BULL HILL	Partially wooded talus on the northwest slope of Bull Hill. Relatively large for this community type. The community is mature, undisturbed and well-buffered by the surrounding forests.	4107431
** WOODBURY, CORNWALL						

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* ORANGE						
** WOODBURY, CORNWALL	<i>Ranunculus micranthus</i> SMALL-FLOWERED CROWFOOT Vascular Plant	THREATENED G5 S2	BC 1997-05-26	BURKE MOUNTAIN	Rich rocky woodland and savanna. 50-70 stems in 3 groups on remote summit.	4107431 S
** WOODBURY, HIGHLANDS, CORNWALL	ROCKY SUMMIT GRASSLAND Community	UNPROTECTED G3G4 S2S3	AB 1998-09-27	BURKE MOUNTAIN	A large, intact natural community with a history of frequent fires. This occurrence is currently recovering from fires in 1988 and 1993. There is occasional disturbance from troop training activities. There are a few exotics.	4107441
	CHESTNUT OAK FOREST Community	UNPROTECTED G4 S4	AB 2000-10-19	WEST POINT	An extensive matrix forest covering nearly 60% of all land within the West Point Military Reservation. This chestnut oak forest is found most commonly on well drained slopes but also occurs on rounded summits and valley floors where the soil remains A large chestnut oak forest minimally disturbed by military activities in a relatively populated region yet with excellent quality abutting and enveloped communities. Size: A. Condition: AB. Landscape Context: AB.	4107431
	<i>Tachipteryx thoreyi</i> GRAY PETALTAIL Dragonfly/Damselfly	UNPROTECTED - SPECIAL CONCERN G4 S2		WEST POINT		4107348 ESU
* ORANGE, PUTNAM, WESTCHESTER, ROCKLAND						

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* ORANGE, PUTNAM, WESTCHESTER, ROCKLAND						
** HIGHLANDS, CORNWALL, PHILIPSTOWN, CORTLAND						
	ANADROMOUS FISH CONCENTRATION AREA Other	UNPROTECTED S3	E 1986	HUDSON RIVER MILE 44-56	12 mile section of deep turbulent narrow river.	4107338 S
	<i>Acipenser brevirostrum</i> SHOR-TNOSE STURGEON Fish	ENDANGERED G3 S1 LE		HUDSON RIVER MILE 44-56	12 mile section of deep, turbulent, narrow river.	4107338 S BOF
* ORANGE, ROCKLAND						
** HIGHLANDS, STONY POINT						
	<i>Sensitive Element</i>	THREATENED G5 S1		BEAR MOUNTAIN		4107431 ESU
* ROCKLAND, ORANGE						
** STONY POINT, TUXEDO, RAMAPO, HIGHLANDS, WOODBURY, HAVERSTRAW, CORNWALL						

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* **	* ROCKLAND, ORANGE					
**	STONY POINT, TUXEDO, RAMAPO, HIGHLANDS, WOODBURY, HAVERSTRAW, CORNWALL					
	CHESTNUT OAK FOREST Community	UNPROTECTED G4 S4	A 2000-10-19	HARRIMAN	This tremendous matrix forest blankets the majority of the Hudson Highlands in this region. An extremely large, predominantly mature forest with low disturbance in a relatively undisturbed landscape. Size: A. Condition: A. Landscape context: A.	4107431
**	TUXEDO, STONY POINT, RAMAPO, HAVERSTRAW, HIGHLANDS, WOODBURY					
	CHESTNUT OAK FOREST Community	UNPROTECTED G4 S4	A 1999-07-08	HARRIMAN	This tremendous matrix forest blankets the majority of the Hudson Highland's rolling to mountainous terrain. A tremendous, predominantly mature matrix forest with diverse physiognomy and composition. There is recent fire disturbance and very few exotic species. The forest is bisected by park roads.	4107421

USERS GUIDE TO NY NATURAL HERITAGE DATA

NATURAL HERITAGE PROGRAM: The Natural Heritage Program is an ongoing, systematic, scientific inventory whose goal is to compile and maintain data on the rare plants and animals native to New York State, and significant ecological communities. The data provided in the report facilitate sound planning, conservation, and natural resource management and help to conserve the plants, animals and ecological communities that represent New York's natural heritage.

DATA SENSITIVITY: The data provided in the report are ecologically sensitive and should be treated in a sensitive manner. The report is for your in-house use and should not be released, distributed or incorporated in a public document without prior permission from the Natural Heritage Program.

NATURAL HERITAGE REPORTS (may contain any of the following types of data):

COUNTY NAME: County where the occurrence of a rare species or significant ecological community is located.

TOWN NAME: Town where the occurrence of a rare species or significant ecological community is located.

USGS 7 1/2' TOPOGRAPHIC MAP: Name of 7.5 minute US Geological Survey (USGS) quadrangle map (scale 1:24,000).

SIZE (acres): Approximate acres occupied by the rare species or significant ecological community at this location. A blank indicates unknown size.

SCIENTIFIC NAME: Scientific name of the occurrence of a rare species or significant ecological community.

COMMON NAME: Common name of the occurrence of a rare species or significant ecological community.

ELEMENT TYPE: Type of element (i.e. plant, animal, significant ecological community, other, etc.)

LAST SEEN: Year rare species or significant ecological community last observed extant at this location.

EO RANK: Comparative evaluation summarizing the quality, condition, viability and defensibility of this occurrence. Use with LAST SEEN.

A-E = Extant: A=excellent, B=good, C=marginal, D=poor, E=extant but with insufficient data to assign a rank of A - D.

F = Failed to find. Did not locate species, but habitat is still there and further field work is justified.

H = Historical. Historical occurrence without any recent field information.

X = Extirpated. Field/other data indicates element/habitat is destroyed and the element no longer exists at this location.

? = Unknown.

Blank = Not assigned.

NEW YORK STATE STATUS (animals): Categories of Endangered and Threatened species are defined in New York State Environmental Conservation Law section 11-0535. Endangered, Threatened, and Special Concern species are listed in regulation 6NYCRR 182.5.

E = Endangered Species: any species which meet one of the following criteria:

1) Any native species in imminent danger of extirpation or extinction in New York.

2) Any species listed as endangered by the United States Department of the Interior, as enumerated in the Code of Federal Regulations 50 CFR 17.11.

T = Threatened Species: any species which meet one of the following criteria:

1) Any native species likely to become an endangered species within the foreseeable future in NY.

2) Any species listed as threatened by the U.S. Department of the Interior, as enumerated in the Code of the Federal Regulations 50 CFR 17.11.

SC = Special Concern Species: those species which are not yet recognized as endangered or threatened, but for which documented concern exists for their continued welfare in New York. Unlike the first two categories, species of special concern receive no additional legal protection under Environmental Conservation Law section 11-0535 (Endangered and Threatened Species).

P = Protected Wildlife (defined in Environmental Conservation Law section 11-0103): wild game, protected wild birds, and endangered species of wildlife.

U = Unprotected (defined in Environmental Conservation Law section 11-0103): the species may be taken at any time without limit; however a license to take may be required.

G = Game (defined in Environmental Conservation Law section 11-0103): any of a variety of big game or small game species as stated in the Environmental Conservation Law; many normally have an open season for at least part of the year, and are protected at other times.

NEW YORK STATE STATUS (plants): The following categories are defined in regulation 6NYCRR part 193.3 and apply to NYS Environmental Conservation Law section 9-1503.

E = Endangered Species: listed species are those with:

1) 5 or fewer extant sites, or

2) fewer than 1,000 individuals, or

3) restricted to fewer than 4 U.S.G.S. 7 1/2 minute topographical maps, or

4) species listed as endangered by U.S. Department of Interior, as enumerated in Code of Federal Regulations 50 CFR 17.11.

T = Threatened: listed species are those with:

1) 6 to fewer than 20 extant sites, or

2) 1,000 to fewer than 3,000 individuals, or

3) restricted to not less than 4 or more than 7 U.S.G.S. 7 and 1/2 minute topographical maps, or

4) listed as threatened by U.S. Department of Interior, as enumerated in Code of Federal Regulations 50 CFR 17.11.

R = Rare: listed species have:

1) 20 to 35 extant sites, or

2) 3,000 to 5,000 individuals statewide.

V = Exploitably vulnerable: listed species are likely to become threatened in the near future throughout all or a significant portion of their range within the state if causal factors continue unchecked.
U = Unprotected; no state status.

NEW YORK STATE STATUS (communities): At this time there are no categories defined for communities.

FEDERAL STATUS (plants and animals): The categories of federal status are defined by the United States Department of the Interior as part of the 1974 Endangered Species Act (see Code of Federal Regulations 50 CFR 17). The species listed under this law are enumerated in the Federal Register vol. 50, no. 188, pp. 39526 - 39527.

(blank) = No Federal Endangered Species Act status.

LE = The element is formally listed as endangered.

LT = The element is formally listed as threatened.

E/SA = The element is treated as endangered because of similarity of appearance to other endangered species or subspecies.

PE = The element is proposed as endangered.

PT = The element is proposed as threatened.

C = The element is a candidate for listing.

(LE) = If the element is a full species, all subspecies or varieties are listed as endangered; if the element is a subspecies, the full species is listed as endangered.

(LE-LT) = The species is formally listed as endangered in part of its range, and as threatened in the other part; or, one or more subspecies or varieties is listed as endangered, and the others are listed as threatened.

(LT-C) = The species is formally listed as threatened in part of its range, and as a candidate for listing in the other part; or, one or more subspecies or varieties is listed as threatened, and the others are candidates for listing.

(LT-(T/SA)) = One or more subspecies or populations of the species is formally listed as threatened, and the others are treated as threatened because of similarity of appearance to the listed threatened subspecies or populations.

(PS) = Partial status: the species is listed in parts of its range and not in others; or, one or more subspecies or varieties is listed, while the others are not listed.

GLOBAL AND STATE RANKS (animals, plants, ecological communities and others): Each element has a global and state rank as determined by the NY Natural Heritage Program. These ranks carry no legal weight. The global rank reflects the rarity of the element throughout the world and the state rank reflects the rarity within New York State. Intraspecific taxa are also assigned a taxon rank to reflect the infraspecific taxon's rank throughout the world. ? = Indicates a question exists about the rank. Range ranks, e.g. S1S2, indicate not enough information is available to distinguish between two ranks.

GLOBAL RANK:

G1 = Critically imperiled globally because of extreme rarity (5 or fewer occurrences), or very few remaining acres, or miles of stream) or especially vulnerable to extinction because of some factor of its biology.

G2 = Imperiled globally because of rarity (6 - 20 occurrences, or few remaining acres, or miles of stream) or very vulnerable to extinction throughout its range because of other factors.

G3 = Either rare and local throughout its range (21 to 100 occurrences), or found locally (even abundantly at some of its locations) in a restricted range (e.g. a physiographic region), or vulnerable to extinction throughout its range because of other factors.

G4 = Apparently secure globally, though it may be quite rare in parts of its range, especially at the periphery.

G5 = Demonstrably secure globally, though it may be quite rare in parts of its range, especially at the periphery.

GH = Historically known, with the expectation that it might be rediscovered.

GX = Species believed to be extinct.

STATE RANK:

S1 = Typically 5 or fewer occurrences, very few remaining individuals, acres, or miles of stream, or some factor of its biology making it especially vulnerable in New York State.

S2 = Typically 6 to 20 occurrences, few remaining individuals, acres, or miles of stream, or factors demonstrably making it very vulnerable in New York State.

S3 = Typically 21 to 100 occurrences, limited acreage, or miles of stream in New York State.

S4 = Apparently secure in New York State.

S5 = Demonstrably secure in New York State.

SH = Historically known from New York State, but not seen in the past 15 years.

SX = Apparently extirpated from New York State.

SZ = Present in New York State only as a transient migrant.

SxB and SxN, where Sx is one of the codes above, are used for migratory animals, and refer to the rarity within New York State of the breeding (B) populations and the non-breeding populations (N), respectively, of the species.

TAXON (T) RANK: The T-ranks (T1 - T5) are defined the same way as the Global ranks (G1 - G5), but the T-rank refers only to the rarity of the subspecific taxon.

T1 through T5 = See Global Rank definitions above.

Q = Indicates a question exists whether or not the taxon is a good taxonomic entity.

OFFICE USE: Information for use by the Natural Heritage Program.

DIVISION OF ENVIRONMENTAL PERMITS

June 2001

REGION	COUNTIES	REGIONAL PERMIT ADMINISTRATORS
1	Nassau & Suffolk Telephone: (631) 444-0365	John Pavacic NYS-DEC BLDG. 40 SUNY at Stony Brook Stony Brook, NY 11790-2356
2	New York City (Boroughs of Manhattan, Brooklyn, Bronx, Queens, & Staten Island) Telephone: (718) 482-4997	John Cryan NYS-DEC One Hunters Point Plaza 47-40 21st Street Long Island City, NY 11101-5407
3	Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster & Westchester Telephone: (845) 256-3054	Margaret Duke (Peg) NYS-DEC 21 South Putt Corners Road New Paltz, NY 12561-1696
4	Albany, Columbia, Greene, Montgomery, Rensselaer & Schenectady Telephone: (518) 357-2069	William Clarke NYS-DEC 1150 North Wescott Road Schenectady, NY 12306-2014
4 (sub-office)	Delaware, Otsego & Schoharie Telephone: (607) 652-7741	John Feltman NYS-DEC Route 10 HCR#1, Box 3A Stamford, NY 12167-9503
5	Clinton, Essex, Franklin & Hamilton Telephone: (518) 897-1234	Richard Wild NYS-DEC Route 86, PO Box 296 Ray Brook, NY 12977-0296
5 (sub-office)	Fulton, Saratoga, Warren & Washington. Telephone: (518) 623-1281	Thomas Hall* NYS-DEC County Route 40 PO Box 220 Warrensburg, NY 12885-0220
6	Jefferson, Lewis & St. Lawrence Telephone: (315) 785-2245	Brian Fenlon NYS-DEC State Office Building 317 Washington Street Watertown, NY 13601-3787
6 (sub-office)	Herkimer & Oneida Telephone: (315) 793-2555	J. Joseph Homburger* NYS-DEC State Office Building 207 Genesee Street Utica, NY 13501-2885

7	Broome, Cayuga, Chenango, Cortland, Madison, Onondaga, Oswego, Tioga & Tompkins	Ralph Manna NYS-DEC 615 Erie Blvd. West (Env. Permits Room 206) Syracuse, NY 13204-2400
7 (sub-office)		Michael Barylski* NYS-DEC 1285 Fisher Avenue Cortland, NY 13045-1090
8	Chemung, Genesee, Livingston, Monroe, Ontario, Orleans, Schuyler, Seneca, Steuben, Wayne & Yates	Peter Lent NYS-DEC 6274 East Avon Lima Road Avon, NY 14414-9519
9	Allegany, Cattaraugus, Chautauqua, Erie, Niagara & Wyoming	Steve Doleski NYS-DEC 270 Michigan Avenue Buffalo, NY 14203-2999
9 (sub-office)		Ken Taft* NYS-DEC 182 East Union, Suite 3 Allegany, NY 14706-1328

* Deputy Regional Permit Administrator

**National Marine Fisheries Service
Habitat Conservation Division
Milford Field Office, 212 Rogers Avenue
Milford, Connecticut 06460**

TO: Ms. Celine Santiago Bass, P.W.S.
Certified Ecologist
MATRIX Environmental & Geotechnical Services, Inc.
215 Ridgedale Avenue
Florham Park, New Jersey 07932

DATE: 23 September 2003

SUBJECT: **Information Request for United States Military Academy at West Point; West Point, Orange County, New York**


Diane Rusanowsky
(Reviewing Biologist)

We have reviewed the information provided to us regarding the above subject project. We offer the following preliminary comments pursuant to the Endangered Species Act, the Fish and Wildlife Coordination Act and the Magnuson-Stevens Fishery Conservation and Management Act:

Endangered and Threatened Species

There are no endangered or threatened species in the upland project area.

The following endangered or threatened species may be present in the project area:

shortnose sturgeon (*Acipenser brevirostrum*) [Hudson River]

sea turtles: loggerhead (*Caretta caretta*) Kemp's ridley (*Lepidochelys kempii*)
 green (*Chelonia mydas*) leatherback (*Dermochelys coriacea*)

Other: Please note that the Atlantic sturgeon, a Candidate Species for listing under the Endangered Species Act, also is present in the Hudson River

Fish and Wildlife Coordination Act Species

The following may be present in the project area: Anadromous and resident fish, forage and benthic species

Please contact the appropriate Regional Office of the New York State DEC to confirm the presence of anadromous or resident aquatic populations. Habitat use by some species or life stages may be seasonal

Essential Fish Habitat

Aquatic habitats in the project area have been designated as Essential Fish Habitat (EFH) for one or more species. When details of the project are made available and permit applications have been made, conservation recommendations may be given. For a listing of EFH and further information, please go to our website at: <http://www.nmfs.gov/ro/doc/webintro.html> and refer to the information provided for the Hudson-Raritan Estuary. Since the project is a federal civil works activity, an EFH assessment is necessary. After reviewing the available information, please contact us at 203/882-6504 to discuss the appropriate scope for the EFH assessment.

No EFH presently designated in the upland project area.



United States Department of the Interior



FISH AND WILDLIFE SERVICE

3817 Luker Road
Cortland, NY 13045

July 15, 2004

Mr. James A. Beemer
USMA Fishery and Wildlife Biologist
Department of the Army
U.S. Military Academy
West Point, NY 10996-1592

for:
UTIL
PRIV
EA

Dear Mr. Beemer:

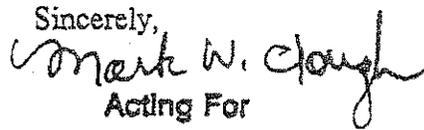
This responds to your letter of May 6, 2004, providing information regarding the presence or absence of the bog turtle (*Clemmys muhlenbergii*), listed as threatened species by the U.S. Fish and Wildlife Service (Service), in the vicinity of the U.S. Military Academy at West Point (Academy) in conjunction with the potential privatization of Army-owned utility systems on-site under the Defense Reform Initiative Directive #49 in the Town of Highlands, Orange County, New York. Based on the information provided, we concur that no bog turtles have been reported from the West Point Military Reservation.

However, bald eagles (*Haliaeetus leucocephalus*), a Federally listed threatened species, and potential bog turtle habitat are known from the military reservation. Consequently, the recommendations in our letter of February 28, 2003, to Ms. Celine Santiago Bass of Matrix Environmental & Geotechnical Services regarding the bald eagle and bog turtle remain applicable.

Further, we note that bat surveys were conducted in 2002 and that no Indian bats (*Myotis sodalis*), a Federally listed endangered species, were captured. In general we consider these surveys good for a period of 3 years, therefore, future surveys will likely be necessary for Indiana bats.

The above comments pertaining to endangered species under our jurisdiction are provided pursuant to the Endangered Species Act. This response does not preclude additional Service comments under the Fish and Wildlife Coordination Act or other legislation.

If you require additional information or assistance please contact Michael Stoll
at (607) 753-9334.

Sincerely,

Acting For

David A. Stilwell
Field Supervisor

cc: NYSDEC, New Paltz, NY (Environmental Permits)
NYSDEC, Albany, NY (Natural Heritage Program, Attn: P. Nye)
NMFS, Highlands, NJ (Attn: S. Gorski)
NMFS, Milford, CT (Attn: M. Ludwig)
EPA, Div. of Environmental Planning & Protection, New York, NY



DEPARTMENT OF THE ARMY
UNITED STATES MILITARY ACADEMY
Directorate of Housing & Public Works, 667A Ruger Road
West Point, New York 10996-1592

6 May 2004

REPLY TO
ATTENTION OF MAEN-EV-N

Mr. Michael Stoll
US Fish and Wildlife Service
3817 Luker Road
Cortland, NY 13045

RE: 8 February 2003 Letter to Ms. Celine Santiago Bass

Dear Mr. Stoll:

This letter is in response to US Fish and Wildlife Service comments received by Ms. Celine Santiago Bass of Matrix Environmental & Geotechnical Services, Inc. regarding a potential privatization of Army-owned utility systems and the presence of endangered and threatened species at the United States Military Academy at West Point, New York (USMA). Specifically, this letter concerns the statement that the bog turtle (*Clemmys muhlenbergii*) is known to occur at the Academy.

I am unaware of any records documenting the presence of bog turtles on properties under the authority of the U.S. Military Academy at West Point, NY (USMA). In 1991-92, the Biological Survey Unit of the New York State Museum conducted a survey of USMA properties in order to document the presence of threatened and endangered species. The survey included a review of records and collections at several museums and the New York State Department of Environmental Conservation's Endangered Species Unit (NYSDEC-ESU). Results of the survey and records search did not find bog turtles on USMA property. A 1928 record of a bog turtle was noted at Queensboro Lake, which is located in Harriman State Park, more than two miles from USMA.

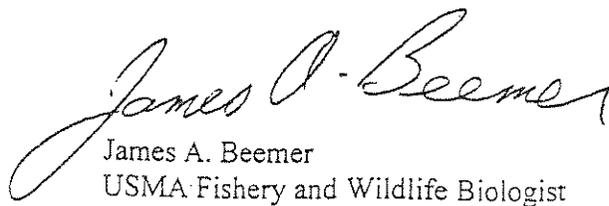
I have spoken with Mr. Alvin Breisch, Reptile and Amphibian Specialist for NYSDEC-ESU regarding bog turtle records in the vicinity of USMA. Mr. Breisch confirmed three records, none of which were on USMA property, none of which were recorded in the past 50 years. Besides the Queensboro record, Mr. Breisch notes a road-kill record from Storm King State Park (four miles north of USMA and a record that has some uncertainty attached as far as authenticity). He also notes a record in Harriman, NY that was more than 10 miles from USMA property. Mr. Breisch also noted that in recent follow-up surveys to historic bog turtle locations, no individual turtles have been located.

In conformance with Section 7 of the Endangered Species Act of 1973, the USMA through informal consultation requests that the reference to the bog turtle being known to occur at USMA be stricken. The request is based on the documentation discussed above.

Questions may be directed to me at 845-938-3857, Monday through Friday, 0800 to 1630 hours.

I await the Service's response.

Respectfully,


James A. Beemer
USMA Fishery and Wildlife Biologist



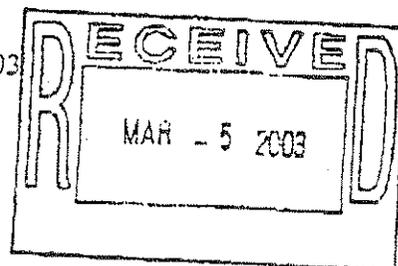
United States Department of the Interior



FISH AND WILDLIFE SERVICE

3817 Luker Road
Cortland, NY 13045

February 28, 2003



Ms. Celine Santiago Bass, P.W.S.
Certified Ecologist
Matrix Environmental & Geotechnical Services
215 Ridgedale Avenue
Florham Park, NJ 07932

Dear Ms. Bass:

This responds to your letter of February 5, 2003, requesting information on the presence of endangered or threatened species in the vicinity of the U.S. Military Academy at West Point (Academy) in conjunction with the potential privatization of Army-owned utility systems on-site under the Defense Reform Initiative Directive #49 in the Town of Highlands, Orange County, New York.

The bog turtle (*Clemmys muhlenbergii*) is known to occur at the Academy. This species is listed as threatened by the U.S. Fish and Wildlife Service (Service). The Service recommends, therefore, that an evaluation be completed of any existing habitat that would be disturbed by the project, and its potential to support the bog turtle. If the evaluation indicates sites with the potential to support the bog turtle, the site should be surveyed by a qualified person to determine the presence or absence of the bog turtle.

The bald eagle (*Haliaeetus leucocephalus*) is also known to occur at the Academy. This species is also listed as threatened by the Service. The project's environmental documents should identify any direct, indirect, and cumulative impacts on the bald eagle and/or bog turtle, and their habitat, and include appropriate measures, if necessary, to protect the respective species and their habitat. This information should be forwarded to this office and it will be used to evaluate potential impacts on either the bald eagle or bog turtle or their respective habitats, and to determine the need for further consultation pursuant to the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

Except for the bald eagle and bog turtle, and occasional transient individuals, no other Federally listed or proposed endangered or threatened species under our jurisdiction are known to exist in the project impact area. In addition, no habitat in the project impact area is currently designated or proposed "critical habitat" in accordance with the provisions of the Endangered Species Act. Should project plans change, or if additional information on listed or proposed species or critical habitat becomes available, this determination may be reconsidered. A compilation of Federally listed and proposed endangered and threatened species in New York is enclosed for your information.

The above comments pertaining to endangered species under our jurisdiction are provided pursuant to the Endangered Species Act. This response does not preclude additional Service comments under the Fish and Wildlife Coordination Act or other legislation.

Federally listed endangered and threatened marine species may be found adjacent to the Academy in the Hudson River. These species are under the jurisdiction of the National Marine Fisheries Service. You should contact Mr. Stanley Gorski, Habitat and Protected Resources Division, Area Coordinator, National Marine Fisheries Service, James J. Howard Marine Sciences Laboratory, 74 Magruder Road, Highlands, NJ 07732, for additional information (telephone: [732] 872-3037).

The bog turtle and the bald eagle are listed as endangered by the State of New York. The results of the evaluations discussed above and any plans for surveys related to bog turtles, their timing, and the results should be coordinated with both this office and with the New York State Department of Environmental Conservation (State). The State contact for the bald eagle and bog turtle is Mr. Peter Nye, Endangered Species Unit, 625 Broadway, Albany, NY 12233 (telephone: [518] 402-8859).

The State requests that you be advised that the peregrine falcon (*Falco peregrinus*), listed as endangered, and the timber rattlesnake (*Crotalus horridus*), listed as threatened, occur at the Academy. The project should, therefore, be coordinated with the State. The State contact for the peregrine falcon and timber rattlesnake is Mr. Peter Nye at the above address.

For additional information on fish and wildlife resources or State-listed species, we suggest you contact the appropriate New York State Department of Environmental Conservation regional office(s) as shown on the enclosed map, and:

New York State Department of Environmental Conservation
New York Natural Heritage Program Information Services
625 Broadway
Albany, NY 12233
(518) 402-8935

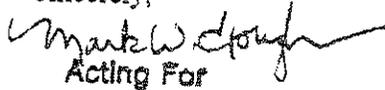
We are not aware of any Federally designated wild, recreational, or scenic rivers, wildlife preserves, and/or wildlife refuges on the Academy. Since wetlands may be present, you are advised that National Wetlands Inventory (NWI) maps may or may not be available for the project area. However, while the NWI maps are reasonably accurate, they should not be used in lieu of field surveys for determining the presence of wetlands or delineating wetland boundaries for Federal regulatory purposes. Copies of specific NWI maps can be obtained from:

Cornell Institute for Resource Information Systems
302 Rice Hall
Cornell University
Ithaca, NY 14853
(607) 255-4864

Work in certain waters of the United States, including wetlands, may require a permit from the U.S. Army Corps of Engineers (Corps). If a permit is required, in reviewing the application pursuant to the Fish and Wildlife Coordination Act, the Service may concur, with or without recommending additional permit conditions, or recommend denial of the permit depending upon potential adverse impacts on fish and wildlife resources associated with project construction or implementation. The need for a Corps permit may be determined by contacting the appropriate Corps office(s) as shown on the map available on our website.

If you require additional information or assistance please contact Michael Stoll at (607) 753-9334.

Sincerely,


Acting For

David A. Stilwell
Field Supervisor

Enclosures

cc: NYSDEC, New Paltz, NY (Environmental Permits)
NYSDEC, Albany, NY (Natural Heritage Program, Attn: P. Nye)
NMFS, Highlands, NJ (Attn: S. Gorski)
NMFS, Milford, CT (Attn: M. Ludwig)
EPA, Div. of Environmental Planning & Protection, New York, NY

APPENDIX B

**HISTORICAL REVIEW OF NATURAL GAS AND POTABLE WATER UTILITY SYSTEMS AT
WEST POINT**

MEMORANDUM

To: Patrice Halin
From: Douglas R. Cubbison
Subject: USMA Natural Gas System
Date: June 17, 2002

I have investigated the natural gas system at the U.S. Military Academy (USMA), until the installation of the Central Hudson natural gas pipeline from Crow's Nest to the Power Plant (Building 604) in 1931.

1. The USMA Natural Gas system was established in 1857. It originally occupied a one-story building situated due north of the Ordnance Compound, directly across Howard Road. This building was located in the general vicinity of present Building 639 (Department of Intercollegiate Athletics). According to a survey of the USMA Facilities performed by Captain Charles Williams, USMA Assistant Quartermaster in 1885, at the time the USMA Natural Gas system included 57 street lamps with an illuminating power of 17 candles; and provided gas illumination to all public buildings and officers quarters.¹ Williams included a comprehensive discussion of the gas works at this location. He made no other mention of any additional or supplemental natural gas facilities at USMA.
2. The earliest topographical map that could be located that included the Natural Gas Works was prepared in 1863. It depicted a complex of several buildings, including two circular storage tanks, due north of the Ordnance Compound, directly across Howard Road.² This is the identical location described and depicted by Captain Williams in 1885.
3. Subsequent topographical maps of the USMA (1903, 1904, 1916 and 1926) consistently depicted the Natural Gas Works in the same location. These maps provided no indications of any other natural gas facilities at the USMA.³
4. Building 604 (Power Plant) was constructed in 1909 as a Coal Power Plant for the USMA.⁴ It should be noted that early 20th century technology did use coal to produce natural gas.
5. The Crow's Nest six-inch Natural Gas Line providing natural gas service between Central Hudson and the USMA was constructed approximately in 1931.⁵

¹ Captain Charles Williams, "West Point 1889" Archives and Special Collections, U.S. Military Academy Library, West Point, New York, p. 20-22.

² "West Point Map, 1863 from Captain Edward C. Boynton's Map of West Point from page 282 of his History of West Point," Archives and Special Collections, U.S. Military Academy Library, West Point, New York.

³ "Topographical Map of West Point Military Reservation, 1903;" "Topographical Map of West Point Military Reservation prepared by Major Mason M. Patrick, 1904;" "Topographical Map of West Point adapted from Road Map, 1916;" and "Telephone Directory Map of West Point, 1926," Archives and Special Collections, U.S. Military Academy Library, West Point, New York.

⁴ *USMA Installation Cultural Resources Management Plan*, 2001.

⁵ For this, refer to U.S. War Department, "Military Reservations: 1937-1943" (Washington, D.C.: Government Printing Office, 1937-1943), p. 97. The following easement was recorded for West Point Military Reservation, New York: "(20) Permit August 1, 1931 to Central Gas and Electric Company to transmit gas for its own purposes in either direction through the 6-inch Government-owned main during the

6. Building 639 was constructed on Howard Road in 1937, at the precise location of the old USMA Natural Gas Works. Assuming time for installation and testing of the new natural gas lines, demolition of the old Natural Gas Works, and design and construction time for Building 639, this would be consistent with the 1931 construction date of the Crow's Nest Natural Gas Line connecting to Building 604 (USMA Power Plant).
7. Subsequent topographical maps of the USMA (1937, 1944) no longer depict the Natural Gas Works, and instead depict Building 639.⁶
8. Based upon the relatively limited information available, I believe that the USMA Natural Gas Works on Howard Road were in operation from 1857 until approximately 1931. I do not believe that Building 604 (USMA Power Plant) produced natural gas when originally constructed in 1909. When the six-inch natural gas pipeline was constructed by Central Hudson in 1931 to the "new" power plant (Building 604), there was no longer a reason to maintain the USMA Natural Gas Works. Even with repairs, and upgraded or replacement equipment, these gas works would have been badly outdated by 1931. The USMA Natural Gas Works were subsequently demolished, and Building 639 built on this location in 1937.

life of the contract between said company and the United States, dated June 15, 1931, said contract expires June 30, 1941."

⁶ "Topographical Map of West Point Military Reservation, 1937;" and "Topographical Map of West Point Military Reservation, 1944," Archives and Special Collections, U.S. Military Academy Library, West Point, New York.

USMA Water System Historical Extract
Mr. Doug Cubbison, 7 Oct 03

1. From the occupation of West Point by the Continental Army in February, 1778 through 1879 there was no formal potable water system at West Point. Water was obtained from local wells, springs and streams.

2. In 1879 the USMA constructed its first potable water system. According to Department of West Point Special Order No. 90, dated July 1, 1879, the Round Pond and adjacent watershed was purchased by the U.S. Government on January 20, 1879. Various rights-of-way and deed issues were resolved between this date and May 1882. At that time the USMA initiated construction of a water pipeline from Round Pond to Delafield Pond, USMA.¹ Various documentation in the project file noted that the water system from Round Pond to the USMA was to consist of a buried water pipe or water main. The Quartermasters Office, U.S. Military Academy prepared a description of the USMA installation in 1889 that included the following information on the ensuing Round Pond water system:

A mountain pond known as "Round Pond," distant from the post 4 miles and 112 yards; capacity 48,000,000 gallons; height above parade ground 868 feet; quality of water fair; area of pond about 11 acres and drains 30 acres of adjoining surface... 22,404 feet of 6 inch cast iron main to Delafield Reservoir.²

Delafield Pond was modified as a component of this construction to become Delafield Reservoir.

3. It shortly became obvious that this potable water system was inadequate to fulfill the needs of the installation. In 1895 Lusk Reservoir was completed to augment to the potable water system. Lusk Reservoir was formed by construction of the Lusk Dam in 1895, and was fed by an extension of the 6" line from Round Pond, and the installation of an 8" line from several ponds and brooks in the vicinity of Crow's Nest (including Sinclair Pond, and Crow's Nest Pond). Building 728, the Lusk Reservoir Pump House, was constructed at this time. Building 728 is a small, brick, functional pump house located on the eastern edge of Lusk Reservoir that assisted in the transfer of water to and from the Lusk Reservoir.

4. Again, this system sufficed for approximately twenty years when the need for additional potable water capacity at West Point was identified. In 1904 the USMA initiated a potable water system running from Popolopen Creek to Lusk Reservoir with the purchase of approximately 720 acres of land including Popolopen Creek, the waterpower of said creek, and easements for a right-of-way from said creek to the main reservation for a pipeline.³ In 1905 the intake was constructed in the vicinity of Queensboro Furnace on Popolopen Creek, where a new dam was also constructed. A 20" cast iron water pipe was then laid from Popolopen Creek to Lusk Reservoir.⁴ The total length of this pipeline was 32,367 linear feet. Construction was completed for this project in August 1906. Additional water tanks were constructed in the vicinity of Howze Place at this time, and the water pump house at Howze Place (Building 638) was also constructed. Like the Lusk Reservoir Pump House, the Howze Place pump house is a small, brick, functional facility.

¹ All information on Round Pond acquisition from "Department of West Point, Documents Relating to the Expansion of the Post Water Supply System, Round Pond Informal File, April 1879-May 1882," Special Collections and Archives, U.S. Military Academy Library, West Point, New York.

² Quartermaster's Office, U.S. Military Academy, *Letterbook, 1889, Description of Buildings* (West Point, New York: Headquarters, United States Military Academy, 1889), p. 12.

³ United States War Department, *Military Reservations 1937-1943*. (Washington, DC: Government Printing Office, 1937-1943), 83-84.

⁴ "Advertisement, Instructions, and Specifications for Laying a 20" Cast-Iron Water Pipe from Popolopen Creek to West Point, New York, Opened May 11, 1905" Issued by Major J. M. Carson, Jr., Quartermaster, U.S. Military Academy, West Point, New York. Archives and Special Collections, USMA Library.

5. The elevation of the spillway of Lusk Reservoir is 327.6', that of the intake at Queensboro Furnace is 375', and that of the spillway of the Queensboro Furnace Dam is 382' that provides a head of 54.4 feet. At the time of construction the daily water consumption of West Point was 750,000 gallons per day.⁵
6. The water system at West Point was next upgraded in the 1930s, again to accommodate increased water consumption at the installation. At this time an improved water treatment system was installed, and additional storage capacity was added. A 300,000-gallon storage tank was constructed near Fort Putnam (Building 712) in 1932. A 500,000-gallon storage tank (Building 773) was constructed near Delafield Reservoir in 1937. Another 500,000-gallon storage tank (Building 775) was constructed near the West Point School in 1937. This is the tank now located near the Keller Army Community Hospital. As a component of this upgrade the Lusk Water Treatment Plant was constructed in 1932 (Building 726), along with another Water House at Howze Place (Building 688), also constructed in 1932. At this time a series of water mains were operated from the 12" main water line on USMA.
7. The most recent major construction to the West Point potable water system occurred in 1966 with the construction of the Stony Lonesome Water Treatment Plant. This new plant went into operation in 1969. This new plant had a rated water capacity of 2,000,000 gallons a day, and is fed from Stillwell Pond and Long Pond by pump stations located at each pond. From Stillwell Pond to Stony Lonesome the water is pumped through an 8,315-foot long concrete 20" water pipe. From Long Pond to Stony Lonesome the water is pumped through a 17,320-foot long concrete 20" water pipe. Two water tanks were constructed to support Stony Lonesome, the Ski Slope Water Tank of 250,000 gallons, and the Golf Course Water Tank of 250,000 gallons.⁶
8. The water system has also been upgraded at various times through the construction of additional water tanks, water pipeline upgrades, and the construction of additional pump houses, at various locations throughout the installation. The most recent upgrade to the USMA potable water system occurred in March-April 2002 when security upgrades were installed at selected facilities. The USMA is currently planning the construction of a new 1,000,000-gallon water tank at the top of the Ski Slope to support the West Point Community.⁷

⁵ Captain Osborne, Department of Engineering, USMA, "Water Supply System, West Point, New York, 1937-1938," Special Collections and Archives, USMA Library.

⁶ "Water Treatment Facility, Stony Lonesome Treatment Plant" (UFD, USMA, West Point, New York, n.d.).

⁷ USMA, "Draft Environmental Assessment, Stony Lonesome Water Tank" (USMA: 2003).

APPENDIX C

**PROGRAMMATIC AGREEMENT BETWEEN WEST POINT AND SHPO REGARDING THE
UTILITIES PRIVATIZATION AT WEST POINT**



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

November 12, 2003

Douglas R. Cubbison
Acting Cultural Resources Manager
Department of Housing and Public Works
Building 667, Ruger Road
United States Military Academy
West Point, NY 10996

Dear Mr. Cubbison:

Re: ARMY
Utilities Privatization PA
USMA, West Point, Orange Co.
03PR02533

Enclosed please find a copy of the Utilities Privatization Programmatic Agreement for the United States Military Academy (USMA) at West Point. The State Historic Preservation Office has reviewed the agreement in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, and the State Historic Preservation Officer has affixed her signature.

Once the appropriate signatures have been made at the USMA please return a copy for our files.

If you have any questions, or if I can be of any assistance, please call me at 9518) 237-8643, ext. 3271.

Sincerely,

Julian W. Adams
Sr. Historic Sites Restoration Coordinator

**PROGRAMMATIC AGREEMENT
BETWEEN
THE UNITED STATES MILITARY ACADEMY
WEST POINT, NEW YORK
AND THE
NEW YORK STATE HISTORIC PRESERVATION OFFICE
REGARDING
UTILITIES PRIVATIZATION
AT THE
UNITED STATES MILITARY ACADEMY
WEST POINT, ORANGE COUNTY, NEW YORK**

WHEREAS, the Department of Defense (DoD) issued Defense Reform Initiative Directive (DRID) #49 on December 23, 1998. This Directive called for the privatization of all DoD owned utility systems (electrical, natural gas, potable water and waste water/storm water) by September 30, 2003 except where privatization is uneconomical, or where unique security reasons require that the DoD maintain ownership. Accordingly, the United States Military Academy at West Point, New York (USMA) has initiated efforts to comply with DRID #49 by privatizing four utility systems:

- Electricity;
- Natural Gas;
- Potable Water; and
- Waste Water/Storm Water.

This action would transfer ownership, environmental permitting, maintenance and future operations, upgrades and development of the utility systems to a public or private entity that shall become responsible for the operation of the system, and by contract provide utility service to the USMA.

WHEREAS, the USMA has determined that this undertaking has the potential to effect properties included in, or eligible for, inclusion in the National Register of Historic Places, and has consulted with the New York State Historic Preservation Officer (SHPO) pursuant to Section 800.6 of the regulations (36 CFR part 800) implementing Section 106 of the National Historic Preservation Act (16 U.S. C. 470f), and Section 110(f) of the same Act (16 U.S.C. 470h-2(f)); and

WHEREAS, the USMA has identified the Area for Potential Effects (APE) for this undertaking as the USMA National Historic Landmark District, and the Hudson River and Hudson River Valley Coastal Management Zone within the immediate vicinity of the USMA and West Point; and

WHEREAS, the USMA developed and evaluated alternatives or modifications to the undertaking that could avoid, minimize or mitigate adverse effects on historic properties in accordance with 36 CFR 800.6; and

WHEREAS, the Advisory Council on Historic Preservation has been afforded the opportunity to participate in this Programmatic Agreement in accordance with 36 CFR

800.6 (a) (1), and has determined that their participation in consultation is not necessary; and

NOW, THEREFORE, the USMA and the New York SHPO agree that utilities privatization at the USMA shall be administered in accordance with the following stipulations to satisfy the USMA's Section 106 responsibility for this undertaking at the U.S. Military Academy, West Point, Orange County, New York.

I. STIPULATIONS:

The Garrison Commander, on behalf of the USMA, shall ensure that the following stipulations are implemented:

1. The Request For Proposal (RFP) and Contract for the four utility systems proposed for privatization shall provide information on USMA historic properties. This information will include a list of properties that contribute to the USMA National Historic Landmark District (NHL), and a list of properties individually eligible for the National Register of Historic Places. This list of historic properties shall include structures, monuments, inscriptions, plaques, landscapes, Viewsheds, and other historic properties as identified by the National Historic Preservation Act and implementing regulations, including AR 200-4, *Cultural Resources Management*.
2. The USMA shall ensure that the RFP and proposal evaluation shall include evaluation factors that focus on the treatment of historic properties, and compliance with historic preservation considerations, by the contractor/lessee. The USMA shall ensure that the USMA Cultural Resources Manager is available to review all proposal documents on matters related to historic properties, and the USMA shall ensure that such considerations are taken into account in any contract or lease negotiations and/or award.
3. Structures identified as being particularly significant (e.g. Electrical Vault Building 715, historic ammunition magazine) will be specifically designated in the contract, lease and conveyance documents, and said documents will require that the operation, maintenance and repairs of these structures will be performed in a manner that is sensitive and attentive to their historic significance.
4. ~~The Contract, lease and conveyance documents shall require the contractor/lessee to conform to the standards and guidelines for the treatment of historic properties established by the Secretary of the Interior as *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings* (1992) for all historic properties identified in Stipulation #1 above.~~
5. Any alteration, modification, changes, or similar treatment for all historic properties identified in Stipulation #1 above would require that review be performed in accordance with Section 106 of the National Historic Preservation Act (as amended) and implementing regulations; the National

Environmental Policy Act (as amended) and implementing regulations; and applicable laws and regulations governing the Hudson Valley and Hudson River Coastal Management Zone. The contactor/lessee is responsible for notifying the USMA in a timely manner that such activities are planned or proposed. The USMA is responsible for the performance of all regulatory reviews for such an undertaking.

6. No new vegetation clearance (e.g. cutting trees, removing limbs, clearing brush) is authorized, without reviews being performed in accordance with Section 106 of the National Historic Preservation Act (as amended) and implementing regulations; the National Environmental Policy Act (as amended) and implementing regulations; and applicable laws and regulations governing the Hudson Valley and Hudson River Coastal Management Zone. The contactor/lessee is responsible for notifying the USMA in a timely manner that such activities are planned or proposed. The USMA is responsible for the performance of all regulatory reviews for such an undertaking.
7. Any installation of new external equipment (any equipment that protrudes outside of an existing structure) would require review in accordance with Section 106 of the National Historic Preservation Act (as amended) and implementing regulations; the National Environmental Policy Act (as amended) and implementing regulations; and applicable laws and regulations governing the Hudson Valley and Hudson River Coastal Management Zone. The contactor/lessee is responsible for notifying the USMA in a timely manner that such activities are planned or proposed. The USMA is responsible for the performance of all regulatory reviews for such an undertaking.
8. All areas of ground disturbance and/or excavation would require review in accordance with Section 106 of the National Historic Preservation Act (as amended) and implementing regulations; the National Environmental Policy Act (as amended) and implementing regulations; and applicable laws and regulations governing the Hudson Valley and Hudson River Coastal Management Zone. The contactor/lessee is responsible for notifying the USMA in a timely manner that such activities are planned or proposed. The USMA is responsible for the performance of all regulatory reviews for such an undertaking.
9. The contractor/lessee would be required to provide an annual written report documenting maintenance, repair, alteration, upgrades, or changes to any historic properties identified in Stipulation #1 above that has been performed over the previous year. The USMA will provide a copy of this report to the New York SHPO for their review.
10. The contractor/lessee would prepare and implement an annual work plan providing for the appropriate maintenance, repair, and upkeep of historic properties identified in Stipulation #1 above scheduled to be performed over the subsequent year. The USMA will provide a copy of this plan to the New York SHPO for their review and comment.

11. The contractor/lessee would prepare an Emergency Response Plan in accordance with 36 CFR 800.12, which must be reviewed and approved by the USMA Cultural Resources Manager and NEPA Coordinator, and reviewed by the New York SHPO, to address emergency responses in the event of tree or wind damage, catastrophic equipment failure, accidents, natural or manmade incidents or disasters, fire, flood, etc. The Emergency Response Plan will provide for the treatment of historic properties in the event of a designated emergency. The Emergency Response Plan would also provide for the timely notification of the New York SHPO that the provisions of this plan have been implemented.
12. The contractor/lessee would be required to comply with the provisions of DHPW Standard Operating Procedure 16-1 in the event of the unexpected discovery of archaeological or historic artifacts or resources.
13. The Contract/Lease must contain written, verifiable, sustainable, and legally and contractually enforceable requirements for compliance with the stipulations of this Programmatic Agreement. The USMA Cultural Resources Manager will assist the USMA Contracting Officer with monitoring the contractor/lessee performance under the contract. The Contracting Officer will assess these needs pursuant to the Federal Acquisition Regulations. The contract will specify conditions under which the contractor/lessee would forfeit money for non-compliance with contract provisions. The contract shall specify necessary and sufficient conditions for contract performance.
14. The USMA shall include provisions in the contract that provide for USMA cultural resources review and approval of any successor, sub-contractors, agent or designee, to insure that the stipulations of this Programmatic Agreement are met or exceeded.
15. These stipulations shall apply to all employees, sub-contractors, agents, or designees of the contractor/lessee.

II. PROJECT MODIFICATION:

Should additional components of this project develop, the USMA shall consult with the New York SHPO in accordance with 36 CFR 800.5 (Revised 1999).

The renewal of the contract and/or lease; and/or any modification to the contract or lease terms; constitutes a new federal undertaking in accordance with the National Historic Preservation Act and implementing regulations.

III. PUBLIC INVOLVEMENT:

- A. The USMA shall use the National Environmental Policy Act (NEPA) process to inform the public of the existence of this Programmatic Agreement. The Utilities Privatization initiative as implemented at the USMA shall receive separate environmental analysis and documentation to the appropriate level in accordance with NEPA. The Programmatic Agreement and ensuing NEPA document(s) shall

be disclosed publicly, and shall be made available for review for a thirty-day period at local libraries and other public places.

- B. The USMA shall review and resolve timely and substantive comments by consulting parties. The USMA shall consult with the New York SHPO to resolve objections. Project actions, which are not the subject of the objections, may proceed while the consultation is conducted.

IV. AMENDMENTS:

Any party to this Programmatic Agreement may request that other parties consider amendments to the Agreement. Amendments shall be made in accordance with 36 CFR 800 (c) (7) (Revised 1999).

V. DISPUTE RESOLUTION:

At any time during implementation of the measures stipulated in the Programmatic Agreement, should an objection to any such measure or its manner of implementation be raised by a consulting party, the USMA shall take the objection into account and consult, as needed, with the objecting party and the New York SHPO to resolve the objection.

VI. FAILURE TO CARRY OUT TERMS OF THE AGREEMENT:

In the event the USMA Garrison Commander does not carry out the terms of this Programmatic Agreement, then activities related to the component that is the subject of the violation shall cease until the parties to the Agreement have consulted to determine a corrected course of action. Activities related to all components not the subject of the violation shall continue uninterrupted.

VII. COMPLIANCE WITH THE ANTI-DEFICIENCY ACT

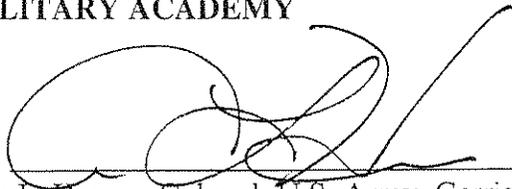
In the event that sufficient funds are not made available to fully execute the agreement, the USMA Garrison Commander shall consult with the New York SHPO to either terminate or amend the Programmatic Agreement in accordance with the termination and amendment procedures established in this Programmatic Agreement.

VIII. DURATION:

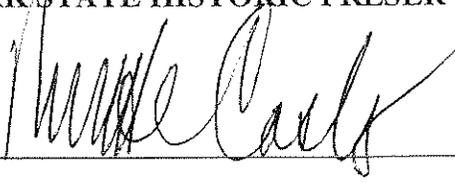
This Programmatic Agreement shall continue in force so long as the Utilities Privatization initiative remains in effect at the USMA.

Execution and implementation of the Agreement evidences that the USMA has taken into account the effects of the project on historic properties, and provided the New York SHPO with a reasonable opportunity to comment.

UNITED STATES DEPARTMENT OF THE ARMY, UNITED STATES
MILITARY ACADEMY

By:  Date: 17 Dec 03
Ann L. Horner, Colonel, U.S. Army, Garrison Commander

NEW YORK STATE HISTORIC PRESERVATION OFFICE

By:  Date: 11/6/03

SUMMARY SHEET

ROUTING

Office	Date	Concur	Non-concur	See Tab
1. SJA	10 DEC 03	DDG	_____	A
2. GC	_____	_____	_____	_____
3. DHPW	_____	_____	_____	_____

ACTION OFFICE: Cultural Resources Manager
ACTION OFFICER / PHONE: Mr. Douglas R. Cubbison / Ext. 3522

SUBJECT: Programmatic Agreement, Utilities Privatization

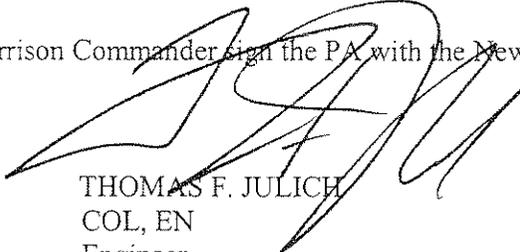
1. **PURPOSE:** To forward for signature by the Garrison Commander, official USMA response letters to agency and interested parties comments (Tab A).

2. **BACKGROUND:** Utilities Privatization requires the preparation of a Programmatic Agreement in accordance with the National Historic Preservation Act and implementing regulations, including AR 200-4.

3. **DISCUSSION: SUMMARY:** The Department of Defense (DoD) issued Defense Reform Initiative Directive (DRID) #49 on December 23, 1998. This Directive called for the privatization of all DoD owned utility systems (electrical, natural gas, potable water and waste water) by September 30, 2003 except where privatization is uneconomical, or where unique security reasons require that the DoD maintain ownership. Accordingly, the USMA has initiated efforts to comply with DRID #49 by privatizing four utility systems: Electricity; Natural Gas; Potable Water; and Waste Water. This action would transfer ownership, environmental permitting, maintenance and future operations, upgrades and development of the utility systems to a public or private entity that shall become responsible for the operation of the system, and by contract provide utility service to the USMA. The proposed real estate transactions involve the transfer of the utility structures and equipment for all four systems. The real estate (land) associated with the utility distribution systems would not be transferred out of DoD ownership, but the USMA would grant an easement along existing distribution and treatment systems. The USMA has determined that utilities privatization to the four specified utility systems has the potential to result in adverse effects to USMA historic properties, and other historic properties within the Area of Potential Effects. Accordingly, the USMA has consulted with the New York State Historic Preservation Office in accordance with Section 106 of the National Historic Preservation Act to prepare a Programmatic Agreement (PA) for this undertaking. USMA has utilized similar PAs from Fort Lewis, Washington and Fort Bragg, North Carolina as references for this PA.

4. **RESOURCE IMPACT:** None

5. **RECOMMENDATION:** That the Garrison Commander sign the PA with the New York SHPO provided at Tab A.


 THOMAS F. JULICH
 COL, EN
 Engineer

DECISION OFFICE
 Garrison Commander

APPROVED
 APPROVED AS MODIFIED
 DISAPPROVED
 SEE ME
 Initials DDG Date 12/1/03

APPENDIX D

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
CONSENT ORDER**

MEMORANDUM FOR COL Ann L. Horner, Garrison Commander

SUBJECT: Programmatic Agreement, Utilities Privatization

1. Purpose. This memorandum provides supplemental review of this matter as requested.
2. Conclusion. There is no legal objection to the PA.
3. Background. The PA will assist the installation in reducing the amount of time to mitigate adverse effects identified as part of the Section 106 consultation. With a signed PA, we can handle all of the Section 106 issues that arise in one document without consulting the SHPO. As a result, the installation will encounter less delay in SHPO concurrence of routine actions that affect historic resources.
4. Recommendation. Sign the programmatic agreement as presented.

FOR THE STAFF JUDGE ADVOCATE:

DANIEL D. GRIESER
CPT, JA
Administrative and Civil Law Attorney

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

X-----X

In the Matter of the Violation(s) of
Article 17, of the New York State Environmental
Conservation Law, by:

ORDER ON CONSENT
FILE NO. R3-20040426-43

United States Military Academy at West Point

Respondent(s)

(Orange County)

X-----X

WHEREAS:

1. The New York State Department of Environmental Conservation (the "Department") is responsible for the administration and enforcement of law and regulation regarding waters of the State pursuant to Article 17, of the New York State Environmental Conservation Law.

2. On May 1, 2001, Respondent, United States Military Academy, was issued a State Pollution Discharge Elimination System ("SPDES") permit # NY-0023761 by the Department (expiration date May 1, 2006), for the Target Hill Wastewater Treatment Plant (the "facility") which permit contained certain limits on discharges of pollutants to waters of the State. On November 4, 2002, Respondent entered into an Order on Consent with the Department to settle violations which included violations of exceeding numerous limits in its SPDES permit, and discharges of untreated sewage into the Hudson River, which Order required Respondent to, among other requirements, immediately meet all SPDES permit effluent limits.

3. On or before March 24, 2004, information was submitted to the Department by Respondent via email notification or submission of a Report of Noncompliance Event, which documented violations by the United States Military Academy at West Point involving the Target Hill Wastewater Treatment Plant and specifically states: Respondent violated Environmental Conservation Law ("ECL") Sections 17-0803, which prohibits discharge of pollutants to waters of the State in a manner other than as prescribed by a SPDES permit, and ECL 17-0701 (1) which prohibits the increase or alteration of contents of wastes discharges through an outlet or point source into the waters of the state by a change in volume or physical, chemical or biological characteristics as follows.

A. The 16 monthly Discharge Monitoring Reports ("DMR"s) submitted by Respondent for the period November 2002 through February 2004 indicated numerous SPDES permit violations, including violation of the BOD-5 limit (30 day) of 30 mg/L on 2 occasions, BOD-5 limit (7 day) of 45 mg/L on 1 occasion, BOD-5 limit (30 day) of 515 lbs/day on 1 occasion, BOD-5 limit (7 day) of 774 lbs/day on 1 occasion, Settleable Solids limit of 0.3 mg/L on 4 occasions, exceeding the Flow

limit of 2.06 MGD on 2 occasions, failure to meet the BOD-5 Percent Removal limit of 85% on 5 occasions;

B. On 12/24/03, Respondent discharged 1500 gallons of partially treated sewage ("primary effluent") via primary tank overflow onto the driveway of the facility and Ernst Road, and Respondent discharged 275,000 gallons of primary effluent which bypassed to the Hudson River during a 50% bypass event;

C. On 11/28/03, Respondent discharged between 2000 to 3000 gallons of raw sewage from the South Dock Pump Station at the facility by overflow into the Hudson River;

D. On 10/27/03, Respondent discharged between 1000 to 3000 gallons of raw sewage from the South Dock Pump Station to the Hudson River;

E. On 9/28/03, Respondent discharged 38,000 gallons of raw sewage from the South Dock Pump Station to the Hudson River;

F. On 9/27 and 9/28/03, Respondent bypassed the facility, causing 56,000 gallons of raw sewage to be discharged directly to the Hudson River, and 4,274,500 gallons of combined stormwater and partially treated sewage to be discharged to the Hudson River;

G. On 9/27/03, Respondent discharged 18,000 gallons of raw sewage from the South Dock Pump Station to the Hudson River; and Respondent's facility overflowed, causing 6000 gallons of raw sewage to be discharged to the Hudson River;

H. On 9/23/03, a manhole owned and controlled by Respondent, located on Ernst Road, 500 feet upstream of the South Dock Pump Station overflowed causing 1000 gallons of raw sewage to be discharged to the Hudson River;

I. On 8/6/03, Respondent caused between 2000 and 5000 gallons of raw sewage to be discharged from its South Dock Pump Station into the Hudson River;

J. On 5/28/02, Respondent caused between 2000 and 7000 gallons of raw sewage to be discharged from its South Dock Pump Station into the Hudson River.

K. On 5/14/02, Respondent caused between 2000 and 8000 gallons of raw sewage to be discharged from its South Dock Pump Station into the Hudson River.

4. Respondent affirmatively waives the right to a public hearing in this matter in the manner provided by law and consents to the entering and issuing of this Order, and agrees to be bound by the terms and conditions of this Order and Schedule A.

NOW, having considered this matter and being duly advised, it is ORDERED that:

I. In compromise and satisfaction of all violations or claims relative to the above-referenced violations, Respondent agrees to pay to the Department the sum of \$3,216.00 for the administrative costs expended by New York State to process these violations. The sum of these administrative costs in the amount of \$3,216.00 is payable and must be submitted by Respondent within sixty (60) days of the date of this Consent Order bearing the signature of Respondent. A table setting forth these administrative costs is appended to this Order as Schedule B. This Order does include a Compliance Schedule (Schedule A);

II. It is the expectation of the parties to this Order that all obligations of Respondent arising under this Consent Order will be fully funded. Respondent agrees to seek sufficient funding to fulfill its obligations under this Order. However, any requirement for the payment or obligation of funds by Respondent established by the terms of this Order shall be subject to the availability of funds, and no provisions herein shall be interpreted to require obligation or payment of funds in violations of the Antideficiency Act, 31 U.S.C. Section 1341. In cases where payment or obligation of funds would constitute a violation of the Antideficiency Act, the dates established requiring payment or obligation of such funds shall be appropriately adjusted.

III. Payment shall be by check made payable to the department of Environmental Conservation and mailed to:

Joyce E. Giudice
21 South Putt Corners Road
New Paltz, N.Y. 12561-1696

IV. If Respondent cannot comply with a deadline or requirement of this Order, because of an act of God, war, strike, riot, catastrophe or other condition occurring at the United States Military Academy at West Point, which is not caused by the negligence or misconduct of Respondent and which could not have been avoided by Respondent through the exercise of due care, Respondent shall make its best effort to comply nonetheless and shall, within seventy-two hours (unless notice is required sooner by State or Federal law), notify the Department by telephone and in writing, after it obtains knowledge of any such condition or event and request an appropriate extension or modification of this Order.

V. This Order shall not become effective until it is signed by the Regional Director on behalf of the Commissioner;

VI. The 2002 Order on Consent shall continue in full force and effect except for terms specifically modified by this Order.

VII. Respondent shall strictly adhere to the terms and conditions of this Order;

VIII. This Order may be changed only by written order of the Commissioner or the Commissioner's designee;

IX. This Order shall be deemed binding on Respondent, any successors and assigns and all persons, firms and corporations acting under or for Respondent, including, but not limited to those who may carry on any or all of the operations now being conducted by Respondent(s), whether at the present location or at any other in this State; and

X. Respondent shall indemnify and hold harmless the Department, the State of New York, and their representatives and employees for all claims, suits, actions, damages and costs of every

name and description arising out of or resulting from the fulfillment or attempted fulfillment of this Order by Respondent and any successors (including successors in title) and assigns.

Dated: New Paltz, New York

July 9 2004

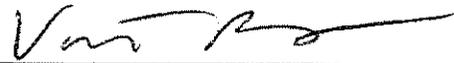
ERIN M. CROTTY, Commissioner
New York State
Department of Environmental Conservation

By: _____


MARC MORAN
Regional Director
Region 3

This Order on Consent has been reviewed and approved by the Regional Attorney as to form.

By: _____


VINCENT ALTIERI
Regional Attorney

Date: _____

7/2 2004

Schedule A

Compliance Schedule
for
Article 17

GENERAL REQUIREMENTS:

Immediately: Respondent(s) shall cease and desist from any and all future violations of the New York State Environmental Conservation Law and the rules and regulations enacted pursuant thereto.

Respondent(s) shall certify completion of the work, if any, required under this schedule, to the Department within five (5) days of its completion.

All technical submittals to the Department required under this Order shall be made by Respondent(s) as follows:

Three copies to Natalie Browne, Region Three, New York State Department of Environmental Conservation, 200 White Plains Road - 5th Floor, Tarrytown, NY 10591-5805

REMEDICATION / RESTORATION REQUIREMENTS:

By July 15, 2004	Respondent shall submit a repair schedule providing intermediate dates derived from the approvable SSES, which I & I and SSES repair schedule shall be incorporated into this order.
By September 1, 2005	All I&I and SSES work as set forth above shall be completed.
By June 1, 2006	Respondent shall complete pilot plant study of plant biological process.
By June 1, 2007	Respondent shall complete a study of plant biological process.
By November 1, 2007	Respondent shall submit a repair schedule derived from the biological study, which biological study repair schedule shall be incorporated into this order.

Respondent shall comply with the following interim limits until the date for completion of its repair work which has been approved by the Department and incorporated in this Order, after which Respondent must comply with all effluent limits contained in its then current SPDES permit.

PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL No.	LIMITATIONS APPLY:	RECEIVING WATER	EFFECTIVE	EXPIRING
001	<input checked="" type="checkbox"/> All Year <input type="checkbox"/> Seasonal from _____ to _____	Hudson River		

PARAMETER	EFFLUENT LIMIT					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
BOD ₅	Monthly average	40	mg/l	922	lbs/d	1/week	24 hour comp.			(1,2,4)
Solids, Suspended	Monthly average	40	mg/l	922	lbs/d	1/week	24 hour comp.			(1,2,4)
Solids, Settleable	Monthly average	0.5	ml/l			1/day	grab			(2)
pH	Range	6.0-9.0	SU			1/day	grab			
Temperature	Monitor		°F			1/day	grab			
Effluent Disinfection required: <input type="checkbox"/> All Year <input checked="" type="checkbox"/> Seasonal from <u>May 15</u> to <u>October 15</u>										
Coliform, Fecal	30 day geometric mean	200	No./100 ml			1/week	grab			(3)
Coliform, Fecal	7 day geometric mean	400	No./100 ml			1/week	grab			(3)
Chlorine, Total Residual	Daily Max.	0.5-2.0	mg/l			1/day	grab			(3)

FOOTNOTES: (1) and effluent shall not exceed 25 % and 25 % of influent values for BOD₅ & TSS respectively.
 (2) For rain events greater than 1", monitor only
 (3) Monitoring is only required during the period when disinfection is required.
 (4) No limits on 7 day average regardless of rain events

SCHEDULE B

ADMINISTRATIVE COSTS

NYS Department of Environmental Conservation Region 3
Permitting and Compliance Administrative Costs
For the US Military Academy at West Point

Natalie Browne, Environmental Program Specialist I 48 hours @ \$20 per hour	\$960
Leonard Meyerson, Environmental Engineer III 20 hours @ \$40 per hour	\$800
Elizabeth Zicca, Environmental Program Specialist I 8 hours @ \$20 per hour	\$160
Joyce E. Giudice, Senior Attorney 36 hours @ \$36	\$1296
Total	\$3216

CONSENT BY RESPONDENT

Respondent hereby consents to the issuance and entry to this Order without further notice, waives its right to a hearing in this matter, and agrees to be bound by the terms, conditions and provisions of this Order.



Title: Garrison Conder

STATE OF NEW YORK)

) ss:

COUNTY OF ORANGE)

On the 17th day of June, 2004, before me, the undersigned, personally appeared Colonel Ann Horner, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies) as shown in the instrument, and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.



NOTARY PUBLIC

DANIEL W. SHIMEX
Notary Public, State Of New York
Qualified in Orange County
Registration No. 4827022
Commission Expires March 21, 2006

APPENDIX E

**LIST OF AGENCIES AND PERSONS CONSULTED
AND SUPPORTING INFORMATION**

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Name of Contact Agency	Information Requested	Date Contacted	Date Responded
Betty Ketcham, Natural Heritage Program	Threatened and endangered species and significant habitats	2/5/03	3/3/03
Patricia A. Kurkul, National Marine Fisheries Service	Biologically important resources, Magnuson- Stevens Fishery Conservation and Management Act	7/23/03	9/23/03
Lee Kassin, NYS Department of Environmental Conservation	Threatened and endangered species, significant habitats	2/23/03	8/12/03
David Stilwell, US Fish and Wildlife Service	Threatened and endangered species, significant habitats	2/5/03	2/28/03
Mary Colbert, West Point Personnel	RIF procedures and American Federation of Government Employees contact	12/4/03	12/4/03
Daniel O'Brien, West Point Personnel	Utility system background, socioeconomics, emergency response procedures	12/2/03	12/3/03
Doug Cubbison, West Point Personnel	History of utility systems	10/9/03	10/9/03

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APPENDIX F
DISTRIBUTION LIST

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National Trust for Historic Preservation
Attn: Ms. Marilyn Fenollosa
7 Faneuil Hall Marketplace, 4th Floor
Boston, MA 02109

U.S. Environment Protection Agency
Region II, Environmental Review Section,
Strategic Planning & Multi-Media Programs
Branch
Attn: Ms. Grace Musumeci
290 Broadway
New York, NY 10007-1876

Mr. Kenneth Markunas
New York State Office of Parks,
Recreation and Historic Preservation
Historic Preservation
Field Services Bureau
Peebles Island, PO Box 189
Waterford, NY 12188-0189

American Federation of Government
Employees
Attn: Donald Hale
PO Box 81
AFGE Local 2367
West Point, NY 10996

Scenic Hudson, Inc.
Attn: Mr. Ned Sullivan
Once Civic Center Plaza, Suite 200
Poughkeepsie, NY 12601

New York State
Department of Environmental Conservation
Region 3, Division of Regulatory Affairs
21 South Putt Corners Road
New Paltz, NY 12561-1696

Ms. Laura Dean
Advisory Council on Historic Preservation
Eastern Area
Old Post Office Building, Suite 803
1100 Pennsylvania Avenue NW
Washington, DC 20004

Mr. Steven C. Resler
Supervisor of Consistency Review and
Analysis
New York Coastal Management Program
Department of State
41 State Street
Albany, NY 12231-0001

The Greenway Conservancy for the Hudson
River Valley, Inc., and
The Hudson River Valley National Heritage
Area, and
Hudson River Valley Greenway
Communities Council
Attn: Barbara Kendall, Executive Director
Capitol Building, Room 254
Albany, NY 12224

U.S. Army Environmental Center
Attn: Mr. Larry Mango,
SFIM-AEC-EQN
Aberdeen Proving Ground, MD 21010-5401

The Nature Conservancy
Eastern New York Chapter
Conservation Office
200 Broadway, 3rd Floor
Troy, NY 12180

Mrs. Suzanne Moskola
Community Library
Building 622
United States Military Academy
West Point, NY 10516

Installations Management Agency
Northeast Regional Office
Attn: SFIM-NE-ER (Potter)
5A North Gate Road
Ft. Monroe, VA 23651

Mr. Daniel Mackey
Director of Public Policy
Preservation League of New York State
44 Central Avenue
Albany, New York 12206-3002

Mr. Edward Diana
Orange County Executive
County Government Center
255-275 Main Street
Goshen, NY 10924

Woodbury Public Library: Ida Cornell
Memorial Branch
23 Smith Clove Road
PO Box 38
Central Valley, NY 10917-0038

American Federation of Government
Employees, AFL-CIO
80 F Street, NW
Washington, DC 20001

Executive Director
Hudson Highlands Land Trust
P.O. Box 226
Garrison, NY 10524

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