APPENDIX C

NATURAL RESOURCES

- Natural Resources Field Survey Plan—Fresh Kills Park (May 8, 2007)
- Figures
- Field Data Sheets (May 2007 Field Survey)
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AKRF

SUBMITTED TO:

New York City Department of Parks and Recreation (DPR), and

New York City Department of City Planning (DCP)

May 8, 2007

Natural Resources Field Survey Plan

Fresh Kills Park

1. INTRODUCTION

The City of New York, led by the New York City Department of City Planning (DCP), conducted a master planning process for the redevelopment of the approximately 2,200-acre Fresh Kills Landfill Complex (project site) on the Arthur Kill waterfront of Staten Island (Figure 1) that will guide the site's transformation to public parkland over the next 30 years. As a product of this extensive planning and community participation process, DCP, in collaboration with other City agencies, has prepared an illustrative Draft Master Plan (DMP) for the Fresh Kills Park project. Upon completion, the proposed Fresh Kills Park will include a diversity of cultural, athletic, and educational facilities, as well as an ecological restoration composed of reclaimed wetlands, grasslands, and woodlands that will offer wildlife habitat and natural open spaces for park visitors. A park roadway, as well as a secondary road and a series of foot, bicycle, and equestrian paths will allow for various transport modes through the park.

A Draft Generic Environmental Impact Statement (DGEIS) is being prepared for the proposed Fresh Kills Park plan pursuant to New York City Environmental Quality Review (CEQR). The New York City Department of Parks and Recreation (DPR), the City agency with the primary responsibility for developing the park, is the lead agency for the preparation of the DGEIS.

Much of the site is a highly engineered complex of man-made infrastructure and landscape supporting simple homogeneous ecologies that have developed over 50 years of landfilling activities. However, despite these conditions, the project site retains many ecological assets, including hundreds of acres of salt marsh and a significant network of tidal creeks, in addition to upland areas comprising young and maturing woodlands, and areas of native grasses. Moreover, proximity to the Staten Island Greenbelt park system and the William T. Davis Wildlife Refuge offers a rich mix of wildlife species with the potential to use the habitats within the project site. These adjacent open spaces also create significant opportunities for open space linkages. For these reasons, the creeks and wetland habitats of Fresh Kills have been designated a Significant Coastal Fish and Wildlife Habitat by New York State Department of State (NYSDOS 2007)

This Natural Resources Field Survey Plan (Field Survey Plan) outlines the overall approach and specific methods to be utilized in the natural resources field study of the Fresh Kills Park Study Area. The overall field survey program, including the methods presented in this Plan, is in accordance with the Natural Resources Technical Memorandum, dated January 22, 2007, which outlines the detailed technical scope of work for the natural resources analyses to be performed for the Fresh Kills Park DGEIS. As described in the Technical Memorandum, the objective of the natural resources field study is to accurately characterize existing terrestrial and aquatic resources present in the Fresh Kills Park Project Site (Primary Study Area) and surrounding areas (Secondary Study Area) (see Figure 2). The Primary Study Area for the terrestrial resources assessment covers the habitats within the Fresh Kills site. The Secondary Study Area covers habitats located adjacent to the Fresh Kills site (up to a distance of ½ mile from the Primary Study Area boundary). Adjacent areas that comprise the Secondary Study Area include park lands and other open space or natural areas such as (but not limited to) South Shore Golf Course, Arden Heights Woods Park, LaTourette Park, Willowbrook Park, and the existing Fresh Kills Park to the north of the project site. The results of the natural resources field study will be incorporated into the baseline characterization of natural resources prepared for the DGEIS.

This Field Survey Plan provides the overall objectives of the natural resources survey effort, the proposed approach to verifying and characterizing the ecological communities within the project site and surrounding areas, and outlines the specific methods that will be used to achieve the stated objectives. Base maps used during field efforts will be compiled from vegetative and other habitat data collected and prepared by Applied Ecological Services, Inc. (AES) (presented in Figure 3) and topographic data provided by GEOSyntec/Air Surveys (presented in Figure 4). Figure 5 presents the proposed improvements associated with the Park Drives. Figures 6a and 6b provide specific locations of the soil

shovel tests. Figure 7 presents an overview of the proposed locations of the short-term projects and park drives.

2. OBJECTIVES

The overall objectives of the Field Survey effort of the Fresh Kills Park project are to:

- Characterize the current terrestrial and aquatic resources present within the previously identified Primary Study Area for the Fresh Kills Park project (see Figure 2) and verify and augment the information compiled from publicly available literature and previously conducted studies of this area; and
- Verify and augment existing characterizations of natural resources within the Secondary Study Areas.

3. APPROACH

PLANT COMMUNITY

The proposed vegetative sampling approach is a modified version of the Releve´ Method of Sampling, which includes a structured, subjective reconnaissance that uses flexible, loosely-defined sampling areas to identify species present within each stratum and generalized ranges of cover estimates. This method of vegetative sampling has been documented as an effective method for sampling large areas of land, including highly disturbed or biologically isolated communities (ASTM 1998). It also is an effective approach for verifying previously performed ecological characterizations (ASTM 1998).

Based on a thorough review of previously performed ecological characterizations and surveys conducted within the project site in association with the operation of the landfill, the plant communities identified in Table 1 and Figure 3 have been selected as the primary focus of the field investigations. Factors considered in the selection of these areas as a primary focus of the field investigations included:

- Previous ecological investigations (performed in 1990 and 2003) described the community as less disturbed, relative to other natural areas in the project vicinity;
- Significant changes in the plant community were reported between field surveys described in 1990, and conducted in 2003 (e.g. invasion/spread of *Phragmites*);
- Potential for providing habitat for threatened or endangered species, or other species of concern (See discussion below);
- Designated as communities of ecological significance, or as having significant conservation value;
- Location of a short-term project (see Table 2);
- Locations that may be that may be disturbed through the development of a park element such as the road improvements depicted in Figure 5; and
- Communities with a significant amount of the total natural areas within the project site.

These communities will be sampled to verify ecological conditions and document changes that may have occurred since the field investigations performed by AES in 2003.

Table 1
Existing Plant Communities[(1)] Identified Within the Fresh Kills Project Site That are Selected for Detailed Study

Habitat/Community	Approximate Size (acres)
Spartina-dominated Saltmarsh	167
Scraped Shoreline	32
Palustrine Scrub Shrub and Emergent	4
Palustrine Forested (Muldoon Avenue Wet Woodland)	56
Young Woodland	31
Maturing Woodland (Arden Heights Woodland)	15
Phragmites Dominated Field with Woody Vegetation	148
Non-Phragmites Dominated Field	22
Grass/Forb Dominated Field	100

Notes: (1) Based on characterizations and surveys performed by SCS Engineers (1990) and Applied Ecological Services, Inc. (2003).

Table 2

Short Term Projects

Project Name
Schmul Park Entrance --park entrance and bosque parking (4 acres) (see DMP page 43 of DMP)
Travis Neighborhood Park--parade grounds, park lawn and picnic area (about 7 acres) and ball fields/playground (about 5 acres) (DMP page 43)
North Park multi-use path and wetland restoration --freshwater wetland/stormwater basin restoration (about 4 acres), freshwater stream restoration (about 6 acres), recreational loop path (about two miles) around landfill mound ¾), various footpaths to Main Creek waterfront, possible tidal wetland restoration along Main Creek (DMP page 43)
Arden Heights Neighborhood Park and wetland restoration—entrance and parking (about 3 acres) information center, restoration of freshwater wetland basin (about 2 acres) (DMP page 45)
South Mound loop trail and overlooks—trail system abound base of landfill mound 2/8 (about 8 miles) (DMP page 45)
Owl Hollow Soccer Fields-four soccer fields, parking and comfort station (total area about 21 acres)
Central Area (including the Marsh, the Terrace, and the Sunken Forest)—freshwater wetland improvements and possible tidal wetland restoration at the Marsh (about 20 acres), parking, freshwater wetland restoration, and possible tidal edge restoration at the Terrace (about 10 acres), and freshwater wetlands restoration at the Sunken Forest (about 4 acres) (DMP page 37)
Creek Landing—activities on existing built surfaces and reuse of existing bulkhead with some possible tidal wetland creation in areas of bulkhead deterioration (about 1 acres of restoration) (DMP page 37)
North and South Park mound restorations—enhancements of existing landfill cover for habitat restoration and public access at mounds 3/4 and 2/8
Segments one and two of the park drive and landscape ribbon—southern segment of the park drive and the connections to the West Shore Expressway (DMP page 47)
Wind energy systems—concrete pads on landfill mounds (locations to be determined)

Sample locations will be selected for detailed survey within these plant communities. These sample locations will be identified in the field, based on best professional judgment, and will serve as representative examples of each of the overall communities listed above. Basic data collected will be supplemented with additional, more specific data on ecological conditions, adjacent and/or surrounding land uses, site/plot specific level of disturbance assessments, tree densities and sizes, hydrologic features and conditions, wildlife observations, and location coordinates. Section 4 of this Survey Plan (Methods) describes sample location selection and size, and the data to be collected.

The remaining plant communities found within the Primary Study Area, as identified in Figure 3, will be surveyed less intensively than those selected for detailed study, to document existing conditions and verify significant ecological changes that may have transpired since field investigations in 2003. These areas include *Phragmites*-dominated wetlands, *Phragmites*-dominated upland fields, and landscaped areas occurring in the project area. Figure 3 provides the existing vegetation communities for the Primary Study Areas based on available data, as documented during field investigations by AES in 2003 (AES 2003). It was determined that these areas were documented as being significantly disturbed through landfill activities or other disturbances, did not exhibit significant changes between the 1990 field surveys and the 2003 field surveys, were not considered ecologically significant or of significant conservation value, or are landscaped/maintained areas that do not require as intensive a survey effort.

A less intensive field reconnaissance will be performed in the Secondary Study Area to provide a general description of the natural resources in these areas. These areas generally comprise parklands and other open space or natural areas such as (but not limited to) South Shore Golf Course, Arden Heights Woods Park, LaTourette Park, Willowbrook Park, and the existing Fresh Kills Park to the north of the Fresh Kills site (Figure 2). Other naturally occurring areas located adjacent to the Primary Study Area will be documented as appropriate.

WILDLIFE

Wildlife, including terrestrial and/or aquatic species observed in the vicinity of vegetation sampling locations as well as during the course of the field survey will be recorded. Observations noted could include sightings, calls, tracks, or other evidence of the presence of wildlife species. In addition, specific behavioral patterns or any unusual activities observed will be noted. All field activities will be performed between the hours of 7:00 AM and 5:00 PM to maximize the potential for wildlife viewing/observation.

PROTECTED SPECIES

The New York State Department of Environmental Conservation (NYSDEC) Natural Heritage Program, US Fish and Wildlife Service (USFWS), and National Marine Fisheries Service (NMFS), were contacted regarding information as to the potential presence of threatened or endangered species, suitable habitats for such species, and other habitats of concern within the Primary and Secondary Study Areas. No protected species were identified by the USFWS or NMFS within the project area. The NYSDEC identified several egrets, herons, and other waterbirds as having been documented in the vicinity of the Isle of Meadows, and specifically identified the Isle of Meadows as habitat for colonial waterbird nesting. However, recent studies performed by the New York City Audubon Society have confirmed that these species have not nested on the Isle of Meadows during the last 5 years. The NYSDEC also identified barn owl (*Tyto alba*), glaucous sedge (*Carex glaucodea*), and persimmon (*Diospyros virginiana*), as protected species documented as occurring within the vicinity of the project site. Significant ecological communities identified by the NYSDEC as potentially occurring within close proximity to the project site include a red maple-sweetgum swamp, and an oak-tulip forest, both of which were identified as having high ecological and/or conservation value.

Table 3 presents the species identified by the NYSDEC as potentially occurring within the project site or in surrounding areas. If habitats suitable for any species listed in Table 3 below, or any other protected species known to occur in the general vicinity of Fresh Kills are observed (i.e. Torrey's mountain-mint,

blackjack willow), the specific location of such areas will be documented, and further threatened and endangered species studies may be warranted.

Table 3
Threatened or Endangered Species, and Significant Ecological Communities Identified in the Vicinity of the Fresh Kills Project Site[1]

Species/Community	Scientific name	Legal Status[2]	Comments
Wildlife			
Great egret	*Ardea alba*	Protected	Last observed 1998, Isle of Meadows
Cattle egret	*Bubulcus ibis*	Protected	Last observed 1998, Isle of Meadows
Little blue heron	*Egretta caerulea*	Protected	Last observed 1998, Isle of Meadows
Snowy egret	*Egretta thula*	Protected	Last observed 1998, Isle of Meadows
Yellow-crowned night heron	*Nyctanassa violacea*	Protected	Last observed 1995, Isle of Meadows
Glossy ibis	*Plegadis falcinellus*	Protected	Last observed 1998, Isle of Meadows
Barn owl	*Tyto alba*	Protected	Last observed 2002, in urban areas in site vicinity
Plants			
Glaucous sedge	*Carex glaucodea*	Endangered	Last observed 1995. **Habitat** - Mesic to dry upland forests, along streams, roadside ditches, old fields. Typically on acid soils in drier areas. Fruits may be present May through July.
Persimmon	*Diospyros virginiana*	Threatened	Last observed 1996 **Habitat** - FACU, FAC (NWI), prefers moist, well-drained, bottomland or sandy soils but is also very drought tolerant. It can be the first tree species to start growth on abandoned and denuded cropland. Common persimmon is a key species in the forest cover type Sassafras-Persimmon (Society of American Foresters Type 64). Common associates are elms (*Ulmus* spp.), eastern red cedar (*Juniperus virginiana*), hickories (*Carya* spp.), sugar maple (*Acer saccharum*), yellow-poplar (*Liriodendron tulipifera*), oaks (*Quercus* spp.), boxelder (*Acer negundo*), red maple (*A. rubrum*), sycamore (*Platanus occidentalis*), and cedar elm (*Ulmus crassifolia*). Common shrub and noncommercial tree associates include swamp-privet (*Forestiera acuminata*), roughleaf dogwood (*Cornus drummondii*), hawthorns (*Crataegus* spp.), water-elm (*Planera aquatica*), shining sumac (*Rhus copallina*), and smooth sumac (*R. glabra*)[3]. Flowers in June. Fruit is a persistent spherical berry 1.9 to 5.1 cm (0.8 to 2.0 in) in diameter that ripens from September to November and yellow to orange or dark red in color.

[1] Based on correspondence received from the NYSDEC (NYSDEC 2007). No protected species were identified by the USFWS or NMFS within the project area.

[2] P – Protected, T – Threatened, E – Endangered

[3] http://www.na.fs.fed.us/pubs/silvics_manual/volume_2/diospyros/virginiana.htm

Table 3 (Continued)
Threatened or Endangered Species, and Significant Ecological Communities Identified in the Vicinity of the Fresh Kills Project Site[4]

Species/Community	Scientific name	Legal Status[5]	Comments
Ecological Communities			
Red maple-Sweetgum Swamp			Area red maple-sweetgum swamp community having high ecological and conservation value
Oak-tulip tree forest			Oak-tulip tree forests located in close proximity to Site are considered rare communities
Colonial Waterbird Nesting Area			Isle of Meadows
Historical Records[6]			
Northern cricket frog	*Acris crepitans*	Endangered	Last observation date not known
Cattail sedge	*Carex tyhpina*	Threatened	Last observed 1902
Dwarf hawthorn	*Crataegus uniflora*	Endangered	Last observed 1907
Log fern	*Dryopteris celsa*	Endangered	Last observed 1907
American strawberry-bush	*Eunonymus americanus*	Endangered	Last observed 1901
American ipecac	*Euphoribia ipecacuanhae*	Endangered	Last observed 1882
Scirpus-like rush	*Juncus scirpoides*	Endangered	Last observed 1901
Bead pinweed	*Lechea pulchella var. moniliformis*	Endangered	Last observed 1901
Orange fringed orchid	*Platanthera ciliaris*	Endangered	Last observed 1905
Rose-pink	*Sabatia angularis*	Endangered	Last observed 1908
Primrose-leaf violet	*Viola primulifolia*	Threatened	Last observed 1902

4. METHODS

As previously discussed, the overall objectives of the Natural Resources Field Survey are to:

- Characterize the current terrestrial and aquatic resources present within the previously identified Primary Study Area for the Fresh Kills Park project (Figure 2) and verify and augment the information compiled from publicly available literature and previously conducted studies of this area; and
- Verify and augment existing characterizations of natural resources within the Secondary Study Areas.

Field investigations of the Fresh Kills site will be conducted during two seasons—late spring/early summer (i.e., May/June) to generally coincide with the flowering period for spring flowering plants and bird breeding within the habitats available within the study areas, and late fall to coincide with fall flowering period and the fall bird migration (i.e., October/November).

[4] Based on correspondence received from the NYSDEC (NYSDEC 2007). No protected species were identified by the USFWS or NMFS within the project area.

[5] P – Protected, T – Threatened, E – Endangered

[6] Historical Records include plants and animals that had been documented in the project vicinity at one time, but have not been documented there since 1979 or earlier. There is no recent information on these plants and animals in the vicinity of the project site and their current status is unknown. If appropriate habitat for these plants or animals is present in the project vicinity, it is possible that they may still occur.

Specific sampling efforts in each of these communities will be determined in the field based on existing community-specific conditions such as vegetation composition, level of disturbance, and other factors that may influence the overall sampling plot size and number of plots sampled within each community. The Fresh Kills Park Natural Resources Survey Data Form (Attachment 1) will be used to document general location information, specific geographic location, weather conditions, wetland/upland classification, vegetative composition, herbaceous and canopy cover, plot size, number and size of trees observed, hydrology, wildlife observed, level of disturbance, unvegetated surface area, surrounding/adjacent land use, and other parameters.

No ground disturbing activities (i.e., invasive subsurface disturbance or soil borings) will occur within the Solid Waste Management Unit Area during the course of this field work. Shallow soil shovel tests (less than 12 inches) may be taken at select locations (See Figures 6a and 6b). Shallow shovel tests would be performed in areas that are vegetated with wetland and upland plant species and would be performed to confirm the presence of hydric soils and potentially occurring jurisdictional wetland resources. No shovel tests would be performed in active landfill areas, or other areas where the upland or wetland characteristics of a plot can be confirmed based on vegetation present and other indicators (including but not limited to standing water, saturation at the surface, water stained leaves, water marks). Required shovel tests would be performed using a 2-to-3-inch-diameter soil probe or hand auger, and would be limited to the top 12 inches from the surface. No drilling or other invasive mechanized methods of boring would be performed. Soil color and texture would be documented based on visual examination only. No analytical data, testing, or other sampling would be performed as part of this effort.

As shown in Figure 6a, a limited number of shovel tests (10-12) would be taken in the vicinity of the existing small, freshwater, wetland basin in the area of the proposed North Park, which is one of the short-term projects. These tests would be within 50 feet of the wetland. In addition, in the South Park, up to 10 shovel tests would be performed in the swale between the two mounds that create landfill section 2/8. The shovel tests would be performed along the centerline and within 25 feet of the centerline that forms the wetland swale between these two landfill sections. In addition, a limited number of shovel tests (up to 10) would be performed within the vicinity of the existing, small, freshwater wetland basin south of these mounds, which is proposed for restoration as part of the South Park project (see Figure 6b). These shovel tests would be performed within 50 feet of this wetland.

No shovel tests would impact the landfill gas collection system, nor would any shovel tests be taken within 20 feet of landfill gas monitoring wells.

As noted on the Fresh Kills Park Natural Resources Survey Data Form (Attachment 1), and in accordance with the Natural Resources Technical Memorandum, dated January 22, 2007, wildlife, including terrestrial and/or aquatic species observed in the vicinity of vegetation sampling locations as well as during the course of the field survey will be recorded. These may include sightings, calls, tracks, or other evidence of the presence of wildlife species, as well as specific behavioral patterns or any unusual activities. Following completion of the field surveys, a complete listing of wildlife species observed (including birds, mammals, reptiles, amphibians, aquatic species, etc.) will be prepared.

All field activities will be performed between the hours of 7:00 AM and 5:00 PM to maximize the potential for wildlife viewing.

AREAS SELECTED FOR DETAILED SURVEY

AREAS OF DISTURBANCE

Areas of disturbance relative to proposed park elements will be surveyed for the purposes of impact assessment. These park elements include items listed in Table 2 as short-term projects and the longer term park elements as delineated in the DMP. Figure 5 presents a specific element for the proposed park drives that will be field reviewed. Figure 7 provides an overview of the short-term project locations and the proposed park drives.

HABITATS FOR INVESTIGATION

The following sections present overall guidelines to be used for sampling of each community, based on generally accepted scientific protocols, as outlined in the Releve´ Sampling Method. The total number of sampling plots identified for each community may be modified, using best professional judgment, based on observed field conditions observed. Enough plots will be sampled to ensure a representative sampling of each of the communities occurring within the Primary Study Area of the overall Fresh Kills Park project. Locations of each sampling plot will be confirmed using Global Positioning System (GPS) data.

Spartina-dominated saltmarsh (approx. 167 acres)

According to previous field studies performed at the project site, relatively undisturbed *Spartina*-dominated salt marsh habitat occurs in the Main Creek/Springfield Creek area of the project site, north of Mound 6/7, and along Richmond Creek southeast and south of Mound 6/7 (SCS Engineers 1990, AES 2003). This community contains areas of low and high marsh. The low marsh is predominantly *S. alterniflora* and the high marsh is predominately *S. patens* and *Distichlis spicata*. *Phragmites* occurs within the high marsh areas and along the wetland/upland edges.

Vegetative and other parameters will be documented at approximately 20 sampling plots throughout the *Spartina*-dominated saltmarsh community within the project site. Each sampling plot will be 25 square meters (m^2) in size, in accordance with the American Society for Testing and Materials (ASTM) estimated minimal areas for wetland vegetation plots sampled using the Releve´ method (ASTM 1998). At each sampling plot, all applicable data will be collected as presented in the Fresh Kills Park Vegetative Survey Data Form (Attachment 1). Additional observations will be made as applicable and appropriate, including any observations of invasive species, or encroachment or significant spread of *Phragmites* into the community.

Scraped shoreline with Spartina (approx. 32 acres)

According to the SCS Engineers field surveys summarized in 1990, a scraped shoreline community existed along the shoreline areas of Mounds 1/9 and 3/4. These areas were described as being vegetated with *S. alterniflora*, *S. patens*, *D. spicata*, and *Phragmites* (SCS Engineers 1990). Investigations performed in 2003 by AES confirmed that these areas are now predominantly vegetated with *Phragmites*.

Vegetative and other parameters will be documented at approximately 10 sampling plots throughout the Scraped shoreline with *Spartina* community. Each sampling plot will be 25 square meters (m^2) in size, in accordance with the ASTM estimated minimal areas for wetland vegetation plots sampled using the Releve´ method (ASTM 1998). At each sampling plot, all applicable data will be collected as presented in the Fresh Kills Park Vegetative Survey Data Form. Additional observations will be made as applicable and appropriate.

Palustrine scrub-shrub and emergent (Non Phragmites-dominated) (4 acres)

Areas of the project site identified in the SCS Engineers Report as non-*Phragmites* dominated palustrine scrub-shrub areas have since become vegetated with *Phragmites* (AES 2003). These areas typically were observed within drainage channels of the landfill, and also within other freshwater wetland complexes associated with the landfill. Previous investigations confirmed that these areas were vegetated with *Phragmites*, with smaller amounts of the invasive purple loosestrife (*Lythrum salicaria*), various sedges, switchgrass (*Panicum virgatum*), groundselbush (*Baccharis halimifolia*), and northern bayberry (*Myrica pensylvanica*).

Vegetative and other parameters will be documented at five sampling plots throughout the extent of this community. In accordance with ASTM guidelines, plots will be 100 m^2 in size (ASTM 1998), but may vary with regards to overall shape, due to the potential linear nature of the communities. As previously stated, much of this community is associated with drainage channels within the landfill complex. Best professional judgment will be used in order to determine overall plot shape. At each sampling plot, all applicable data will be collected as presented in the Fresh Kills Park Vegetative Survey Data Form. Additional observations with regards to the linear aspects of the sampling plot and location will be made as applicable and appropriate.

Palustrine Forested (56 acres)

Palustrine forested areas of the site were described by SCS Engineers (1990) as relatively undisturbed, and vegetated predominantly with green ash (*Fraxinus pennsylvanica*), sweetgum (*Liquidambar styraciflua*), pin oak (*Quercus palustris*), and red maple (*Acer rubrum*). Subsequent reports and field investigations performed by AES staff confirmed that these palustrine forested areas remain relatively undisturbed, and continue to be vegetated with similar species. Shrubs observed in the understory included spicebush (*Lindera benzoin*) and arrow-wood (*Viburnum dentatum*). *Phragmites* was observed in the outer edges of these forested communities. The majority of the Palustrine Forested community mapped by AES is located east of Mound 6/7 and in areas identified in reports as Muldoon Avenue Wet Woodland and Arthur Kill Road Woodland.

Vegetative and other applicable parameters will be documented at 15 sampling plots throughout the extent of the palustrine forested community, as mapped by AES (AES 2003). In accordance with ASTM guidelines, sampling plots in forested areas will be 200 m^2 in size. At each sampling plot, all applicable data will be collected as presented in the Fresh Kills Park Vegetative Survey Data Form. Additional observations with regards to the linear aspects of the sampling plot and location will be made as applicable and appropriate.

Young Woodland (31 acres)

The Annandale Road Woodland was described by SCS Engineers as an upland late-successional forest that contained a mix of upland and wetland tolerant species including red maple, gray birch (*Betula populifolia*), sassafras (*Sassafras albinum*), pin oak, and black tupelo (*Nyssa sylvatica*), in the canopy layer, with understory comprising wild black cherry (*Prunus serotina*), poison ivy (*Toxicodendron radicans*) and cinnamon fern (*Osmunda cinnamomea*) (SCS Engineers 1990). In 2003, AES field efforts verified that the composition of this Young Woodland community was consistent with the SCS Engineers characterization. AES noted that over the course of 15 years, many of the canopy species could now be characterized as mature as opposed to young (AES 2003).

The Arthur Kill Road Woodland was described by SCS Engineers as a young woodland with a sparse canopy (SCS Engineers 1990). This area was further described as a late-successional area supporting a mix of upland and wetland tolerant species, consistent with those species observed in the Annandale Road Woodland. SCS Engineers went on to state that this area could be in the process of changing to a mixed wetland community, noting the obvious signs of wetland hydrology, including standing water and other indicators (SCS Engineers 1990). AES field investigations in 2003 confirmed the characterizations made by SCS Engineers, and went on to conclude that much of this area could be considered wetlands (AES 2003).

Vegetative and other applicable parameters will be documented at 15 sampling plots throughout the Annandale Road and Arthur Kill Road Young Woodland communities. Each sampling plot will be 200 m^2 in size, in accordance with the ASTM estimated minimal areas for forested plots sampled using the Releve´ method (ASTM 1998). At each sampling plot, all applicable data will be collected as presented in the Fresh Kills Park Vegetative Survey Data Form. Additional observations will be made as applicable and appropriate, including indicators/evidence of wetland hydrology such as inundation, saturated soils, water marks, and water stained leaves.

Maturing Woodland (15 acres)

The Arden Heights Woodland was described by SCS Engineers as an upland late-successional forest predominantly vegetated with pin oak, gray birch, sassafras, and big-tooth aspen (*Populus grandidentata*) (SCS Engineers 1990). This area was also noted as having several small ponds throughout the community, with small amounts of wetland species surrounding these water features. Field investigations performed by AES in 2003 confirmed the characterization of this area made by SCS Engineers.

Vegetative and other applicable parameters will be documented at 5 sampling plots throughout the Arden Heights Maturing Woodland communities. Each sampling plot will be 200 m^2 in size, in accordance with the ASTM estimated minimal areas for forested plots sampled using the Releve´ method (ASTM 1998). At each

sampling plot, all applicable data will be collected as presented in the Fresh Kills Park Vegetative Survey Data Form. Additional observations will be made as applicable and appropriate, including indicators/evidence of wetland hydrology such as inundation, saturated soils, water marks, and water stained leaves.

Phragmites-Dominated Field with Woody Vegetation (148 acres)

The Phragmites Dominated Field with Woody Vegetation community represents the largest acreage on the site, with the exception of landfill mounds (AES 2003). As such, portions of this community, including the locations of the West Shore Expressway Landfill, will be surveyed at the more intensive level. The Arden Avenue Landfill area has been previously investigated as part of the Owl Hollow Parks Environmental Assessment Statement. These data also will be incorporated into this analysis, as appropriate.

Vegetative and other parameters will be documented at several sampling plots throughout this community, however, access limitations and overall applicability and need for intensive sampling may limit or influence the total number of plots that will be sampled. Best professional judgment will be used to select specific locations and total number of plots sampled. At a minimum, sampling locations will be selected within the areas identified by AES as the former Arden Avenue Landfill and West Shore Expressway Landfill. The areas identified as the Travis Landfill will also be assessed in the field to determine the need and extent for/of intensive sampling efforts. In accordance with ASTM guidelines, plots will be 100 m^2 in size (ASTM 1998). At each sampling plot all applicable data will be collected as presented in the Fresh Kills Park Vegetative Survey Data Form. Additional observations will be made as applicable and appropriate, including any observations of invasive species, or encroachment or significant spread of *Phragmites* into the community.

Non-Phragmites Dominated Field (22 acres)

The Non-*Phragmites* Dominated Field community included areas of former landfill, and other areas associated with Mound 1/9 that were observed to be vegetated with various upland and wetland species including common wormwood (*Artemisia vulgaris*), common ragweed (*Ambrosia artemisiifolia*), with broad-leaved cattail (*Typha latifolia*), and several species of sedges and rushes in the wetter areas. This area was not field verified by AES in 2003 due to access restrictions.

Vegetative and other parameters will be documented at approximately 5 sampling plots throughout the Non-*Phragmites* Dominated Field community at the Fresh Kills Park site. Each sampling plot will be 100 m^2 in size, in accordance with the American Society for Testing and Materials estimated minimal areas for grassland plots sampled using the Releve´ method (ASTM 1998). At each sampling plot, all applicable data will be collected as presented in the Fresh Kills Park Vegetative Survey Data Form. Additional observations will be made as applicable and appropriate, including any observations of invasive species, or encroachment or significant spread of *Phragmites* into the community.

Grass/Forb Dominated Field (100 acres)

Portions of the site described by SCS Engineers as Grass/Forb Dominated Field were associated with capped landfill areas, including Mound 1/9 and Mound 3/4. These areas were characterized as having been seeded with cool-season grasses, wildflowers, and native tree and shrub seed mixes. Field investigations performed by AES in 2003 confirmed that these areas were still vegetated with cool-season grasses, in addition to other legumes, mugwort, and *Phragmites* (AES 2003).

Vegetative parameters will be documented at several sampling plots throughout this community; however, access limitations may restrict the total number of plots to be sampled. Enough plots will be sampled to adequately verify previous ecological characterizations or to document any changes that may have occurred. Each sampling plot will be 100 m^2 in size, in accordance with the American Society for Testing and Materials estimated minimal areas for grassland plots sampled using the Releve´ method (ASTM 1998). At each sampling plot, all applicable data will be collected as presented in the Fresh Kills Park Vegetative Survey Data

Form. Additional observations will be made as applicable and appropriate, including any observations of invasive species, or encroachment or significant spread of *Phragmites* into the community.

AREAS SELECTED FOR LESS INTENSIVE SURVEY

Other vegetated habitats presented in Figure 3 will be surveyed in the field in order to verify ecological conditions previously described by SCS Engineers and AES. These areas mostly are planted or are comprised of areas significantly disturbed by *Phragmites*, or area areas whose conditions were not observed to have changed significantly between the time SCS Engineers investigated the site (1990) and AES performed their field surveys (2003). Specifically, these areas are mapped on Figure 3 as *Phragmites*-dominated Marsh, Palustrine Emergent (*Phragmites*-dominated), Sparse Pioneer Vegetation, *Phragmites*-dominated Field, *Phragmites*-dominated Field with Woody Vegetation, Shrub/Tree-dominated Planting, and Native Grass Dominated Species. Because of the disturbed nature of these communities, specific numbers of sampling plots have not been pre-identified. Best professional judgment will be used in order to determine an adequate number of sampling locations to represent each community. Areas associated with the landfill mounds also have been identified as requiring less intensive survey efforts. These areas will be reviewed in order to document existing conditions, however, multiple sampling plots will not be performed since these areas are not expected to possess significant ecological value and are programmed under the proposed Project for significant habitat restoration.

A field reconnaissance also will be performed within the Secondary Study Area (presented in Figure 2) to develop a general description of the natural resources within these areas. As deemed appropriate, based on best professional judgment, plots will be sampled within the Secondary Study Area to adequately describe these resources. As previously stated, sampling locations will be confirmed in the field using GPS technologies.

LITERATURE CITED

American Society for Testing and Materials (ASTM). Standard Guide for Sampling Terrestrial and Wetlands Vegetation (reprinted from the Annual Book of ASTM Standards). 1998.

Applied Ecological Services (AES). *Ecological Condition of Natural Areas at Fresh Kills Landfill.* December 9, 2003.

New York City Department of Parks and Recreation. Owl Hollow Park Environmental Assessment Statement. Prepared by AKRF Inc., Field Operations, and LiRo Engineers Inc. June 2006.

New York State Department of State, Division of Coastal Resources (NYSDOS). Significant Coastal Fish and Wildlife Habitats. 2007. http://www.nyswaterfronts.com/waterfront_natural_narratives.asp.

SCS Engineers. *Preliminary Fresh Kills Landfill Conceptual Design Report, Subtask 3.2, Mapping and Assessment of Natural Areas*. April 11 1990.

Figures

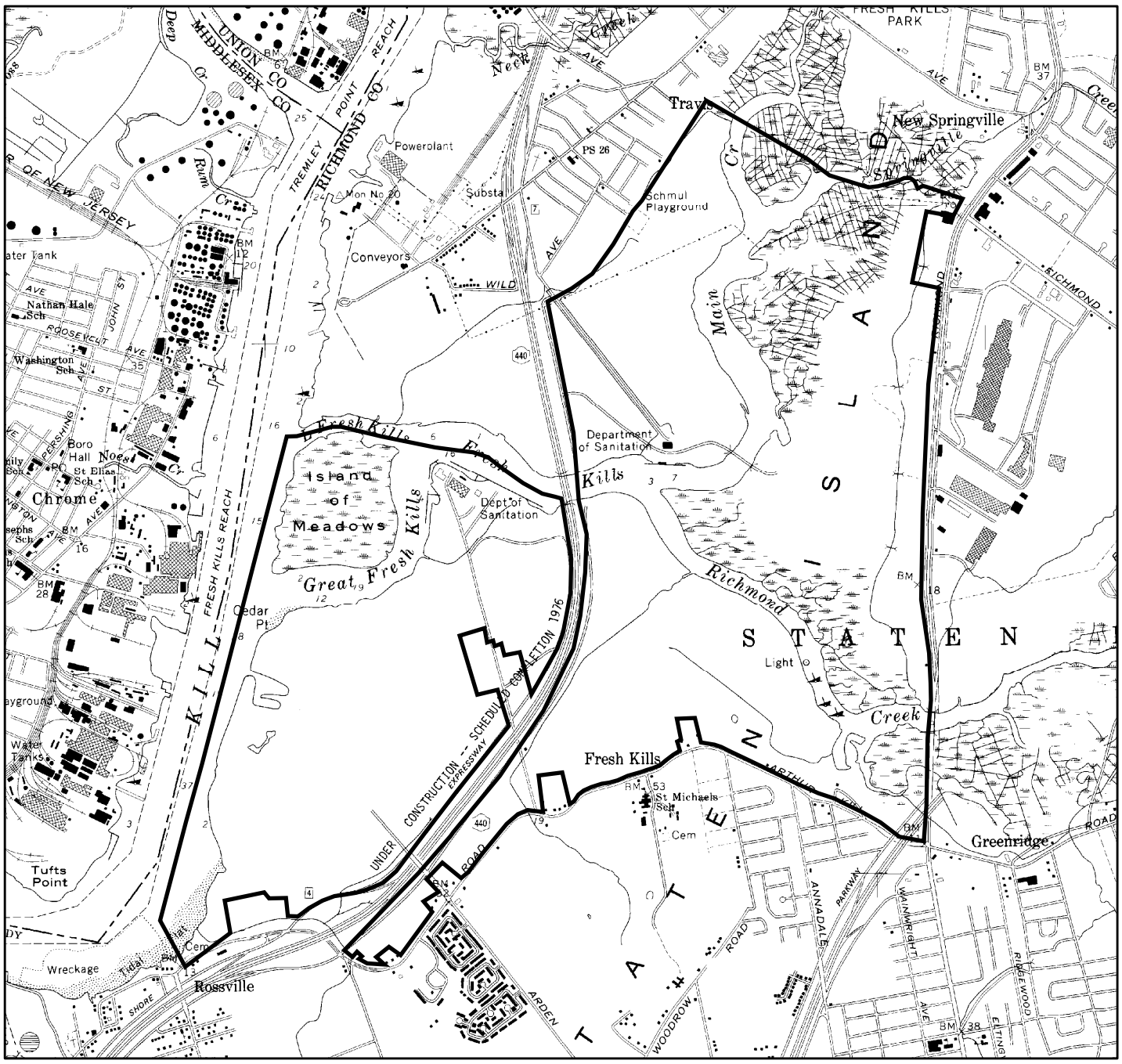


Figure 1. Fresh Kills Park Project Site
USGS Basemap - Arthur Kill Quad

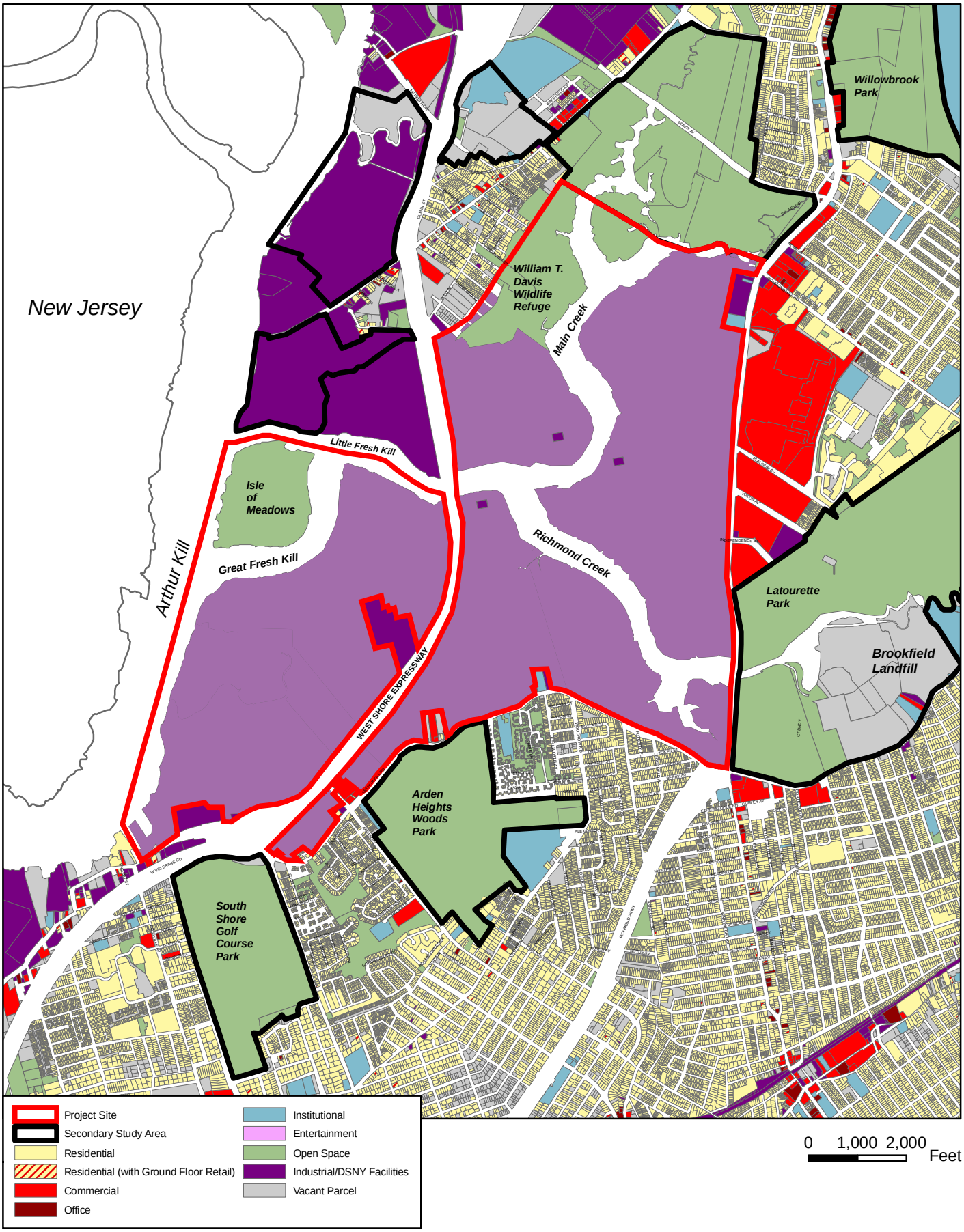


Figure 2 Primary and Secondary Natural Resources Study Areas

NOT INVENTORIED BY AES/FO

NO ACCESS IN SUMMER 2003 NOT INVENTORIED BY AES/FO

NO ACCESS IN SUMMER 2003 NOT INVENTORIED BY AES/FO

NO ACCESS IN SUMMER 2003 NOT INVENTORIED BY AES/FO

Legend

Wetland Communities

- *Spartina*-dominated salt marsh — 166.64 Acres
- Scraped shoreline, some *Spartina* — 32.18 Acres
- *Phragmites* dominated marsh — 41.56 Acres
- Palustrine emergent (*Phragmites* dominated) — 75.36 Acres
- Palustrine scrub-shrub and emergent (Non-*Phragmites* dominated) — 3.68 Acres
- Palustrine forested — 55.56 Acres

Non-Wetland Communities

- Sparse pioneer vegetation — 4.28 Acres
- *Phragmites* dominated field — 97.13 Acres
- Non-*Phragmites* dominated field — 22.44 Acres
- *Phragmites* dominated field with Woody Vegetation — 148.22 Acres
- Non-*Phragmites* dominated field with Woody Vegetation — 19.43 Acres
- Young Woodland — 30.76 Acres
- Maturing Woodland — 15.23 Acres
- Shrub/tree-dominated Planting — 27.81 Acres
- Native Grass Dominated Species — 103.71 Acres
- Weedy Species (e.g. Mugwort & cool season grasses) Dominated Areas — 99.86 Ac.

- Uncapped Landfill Areas
- Areas not Inventoried

Notes:
1. Maturing woods contain most mature upland woodlands on site.
2. Palustrine forested areas are the least disturbed woodlands onsite; especially Mulldoon Avenue wet woodland.
3. Young woodland now (2003) more developed than in 1991; and thus closer to maturing woodlands.
4. Arthur Kill Woodland (young woodland) contains wetland in low areas.
5. More detailed mapping is found in the "Areas Dominated by Planted Native Grasses" and "Hydrology as Indicated by Vegetation Patterns"
6. Most of Section 1/9 appeared to be unvegetated cover in summer 2003.

0 300' 600' 1200'

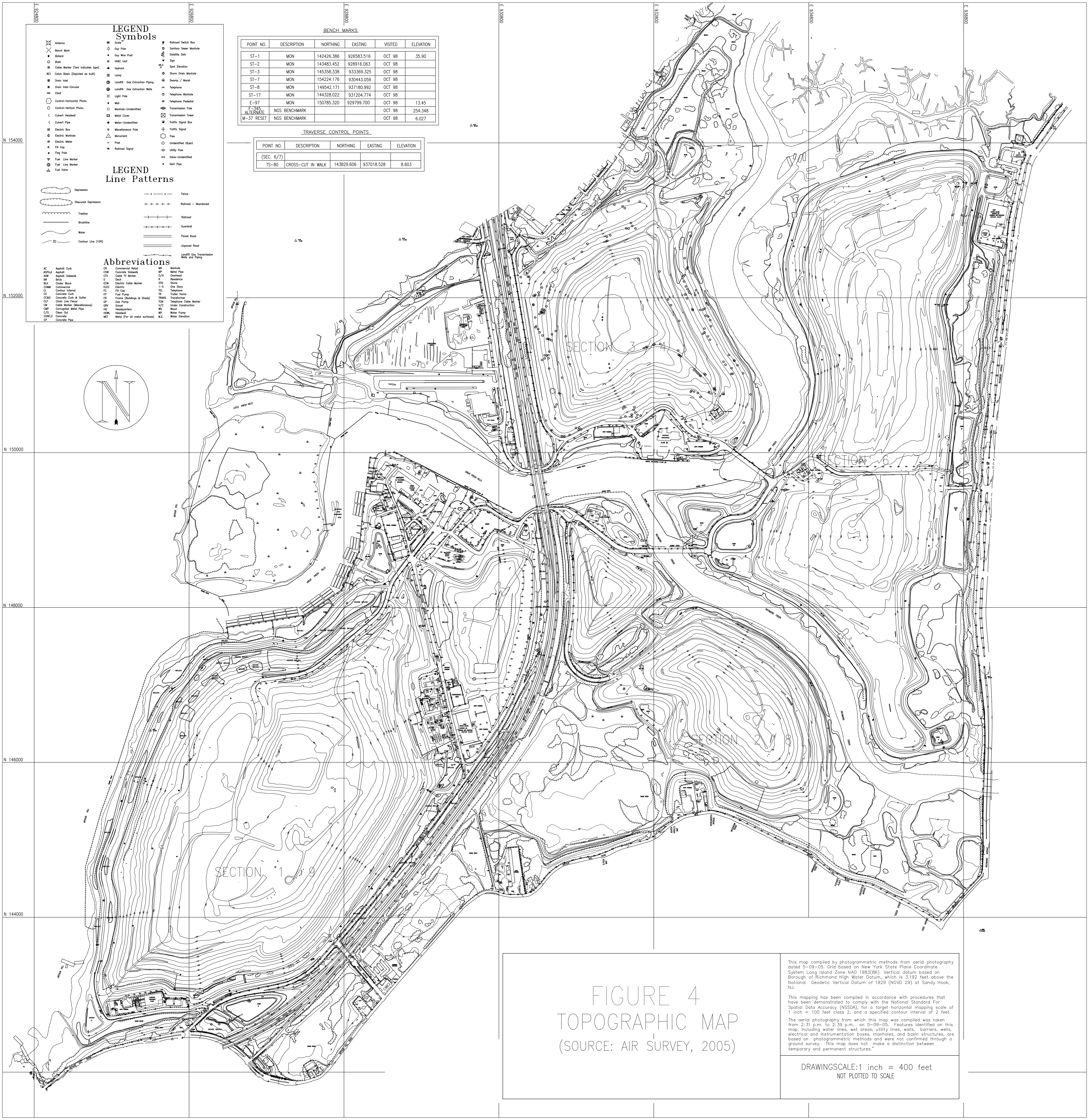
SCALE: 1"= 600'

NORTH

FIGURE 3

EXISTING VEGETATION MAP

(SOURCE: AES, INC. 2004)



LEGEND
Symbols

- Antenna
- Bench Mark
- Bollard
- Bush
- Cable Marker (Text indicates type)
- Catch Basin (Depicted as built)
- Drain Inlet
- Drain Inlet–Circular
- Cleat
- Control–Horizontal Photo.
- Control–Vertical Photo.
- Culvert Headwall
- Culvert Pipe
- Electric Box
- Electric Manhole
- Electric Meter
- Fill Cap
- Flag Pole
- Fuel Line Marker
- Fuel Line Marker
- Fuel Valve
- Grate
- Guy Pole
- Guy Wire Post
- HVAC Unit
- Hydrant
- Lamp
- Landfill Gas Extraction Piping
- Landfill Gas Extraction Wells
- Light Pole
- Mail
- Manhole–Unidentified
- Metal Cover
- Meter–Unidentified
- Miscellaneous Pole
- Monument
- Post
- Railroad Signal
- Railroad Switch Box
- Sanitary Sewer Manhole
- Satellite Dish
- Sign
- Spot Elevation
- Storm Drain Manhole
- Swamp / Marsh
- Telephone
- Telephone Manhole
- Telephone Pedestal
- Transmission Pole
- Transmission Tower
- Traffic Signal Box
- Traffic Signal
- Tree
- Unidentified Object
- Utility Pole
- Valve–Unidentified
- Vent Pipe

LEGEND
Line Patterns

- Depression
- Obscured Depression
- Treeline
- Brushline
- Water
- 30 Contour Line (10ft)
- Fence
- Railroad – Abandoned
- Railroad
- Guardrail
- Paved Road
- Unpaved Road
- Landfill Gas Transmission Wells and Piping

Abbreviations

AC	Asphalt Curb	CR	Commercial Retail	MH	Manhole
ASPH,A	Asphalt	CSW	Concrete Sidewalk	MP	Metal Pipe
ASW	Asphalt Sidewalk	CTV	Cable TV Marker	O/H	Overhead
BR	Brick	D	Deck	R	Residence
BLK	Cinder Block	ECM	Electric Cable Marker	STN	Stone
COMM	Commercial	ELEC	Electric	1–S	One Story
CI	Contour Interval	FC	Fill Cap	TEL	Telephone
CC	Concrete Curb	FP	Fuel Pump	TR	Trailer Home
CC&G	Concrete Curb & Gutter	FR	Frame (Buildings & Sheds)	TRANS	Transformer
CLF	Chain Link Fence	GP	Gas Pump	TCM	Telephone Cable Marker
CM	Cable Marker (Miscellaneous)	GRV	Gravel	U/C	Under Construction
CMP	Corrugated Metal Pipe	HQ	Headquarters	WD	Wood
C/O	Clean Out	HDWL	Headwall	WP	Water Pump
CONC,C	Concrete	MET	Metal (For all metal surfaces)	W.E.	Water Elevation
CP	Concrete Pipe				

BENCH MARKS

POINT NO.	DESCRIPTION	NORTHING	EASTING	VISITED	ELEVATION
ST–1	MON	142426.386	926583.516	OCT 98	35.90
ST–2	MON	143483.452	928916.063	OCT 98	
ST–3	MON	145358.338	933369.325	OCT 98	
ST–7	MON	154224.176	930443.059	OCT 98	
ST–8	MON	149542.171	937180.992	OCT 98	
ST–17	MON	144328.022	931204.774	OCT 98	
E–97	MON	150785.320	929799.700	OCT 98	13.45
F–345 ALTERNATE	NGS BENCHMARK			OCT 98	254.348
M–37 RESET	NGS BENCHMARK			OCT 98	6.027

TRAVERSE CONTROL POINTS

POINT NO.	DESCRIPTION	NORTHING	EASTING	ELEVATION
(SEC. 6/7)				
TS–80	CROSS–CUT IN WALK	143829.606	937018.528	8.603

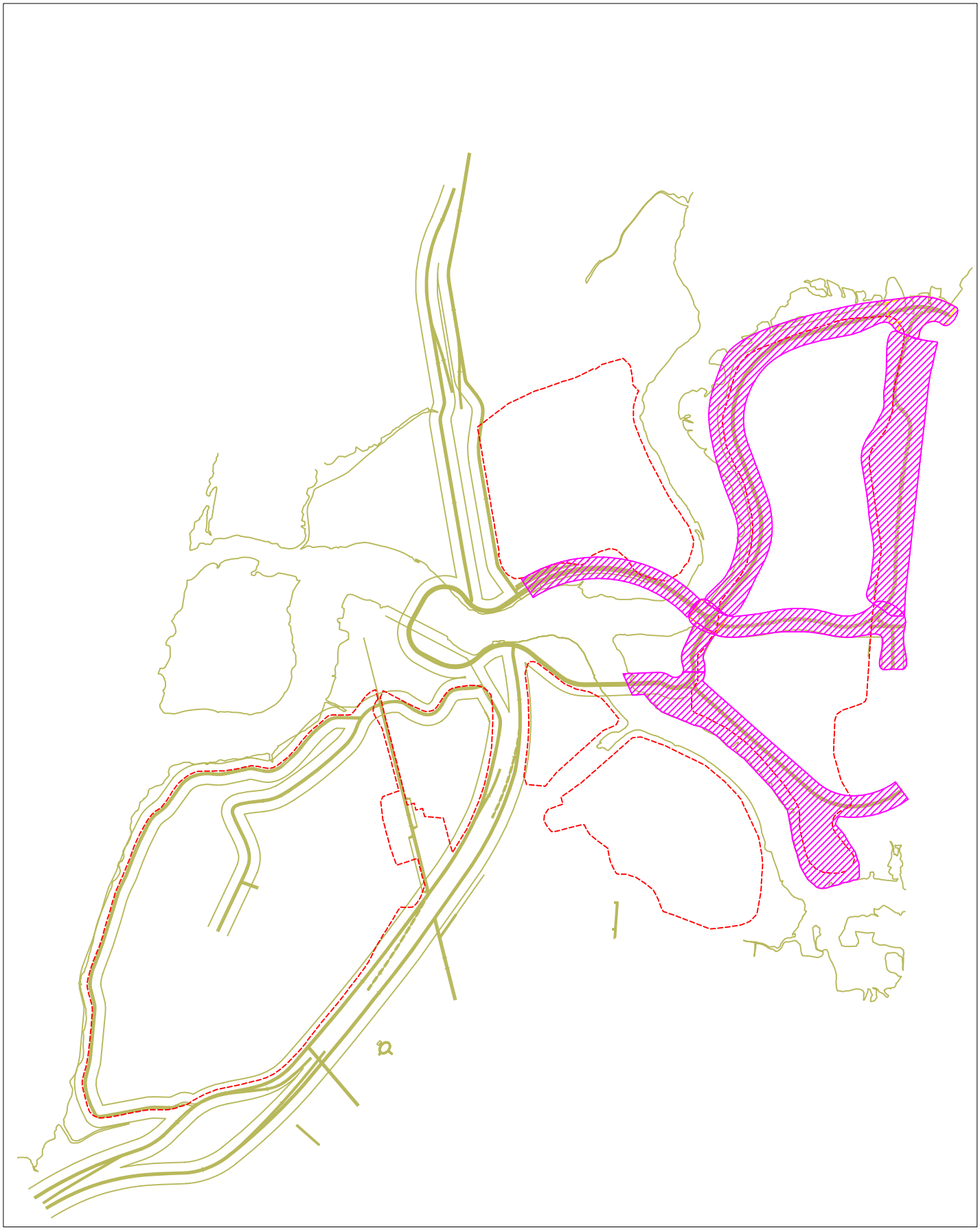
FIGURE 4
TOPOGRAPHIC MAP
(SOURCE: AIR SURVEY, 2005)

This map compiled by photogrammetric methods from aerial photography dated 5–09–05. Grid based on New York State Plane Coordinate System Long Island Zone NAD 1983(86). Vertical datum based on Borough of Richmond High Water Datum, which is 3.192 feet above the National Geodetic Vertical Datum of 1929 (NGVD 29) at Sandy Hook, NJ.

This mapping has been compiled in accordance with procedures that have been demonstrated to comply with the National Standard For Spatial Data Accuracy (NSSDA), for a target horizontal mapping scale of 1 inch = 100 feet class 2, and a specified contour interval of 2 feet.

The aerial photography from which this map was compiled was taken from 2:31 p.m. to 2:39 p.m. on 5–09–05. Features identified on this map, including water lines, wet areas, utility lines, walls, barriers, wells, electrical and instrumentation boxes, manholes, and basin structures, are based on photogrammetric methods and were not confirmed through a ground survey. This map does not make a distinction between temporary and permanent structures."

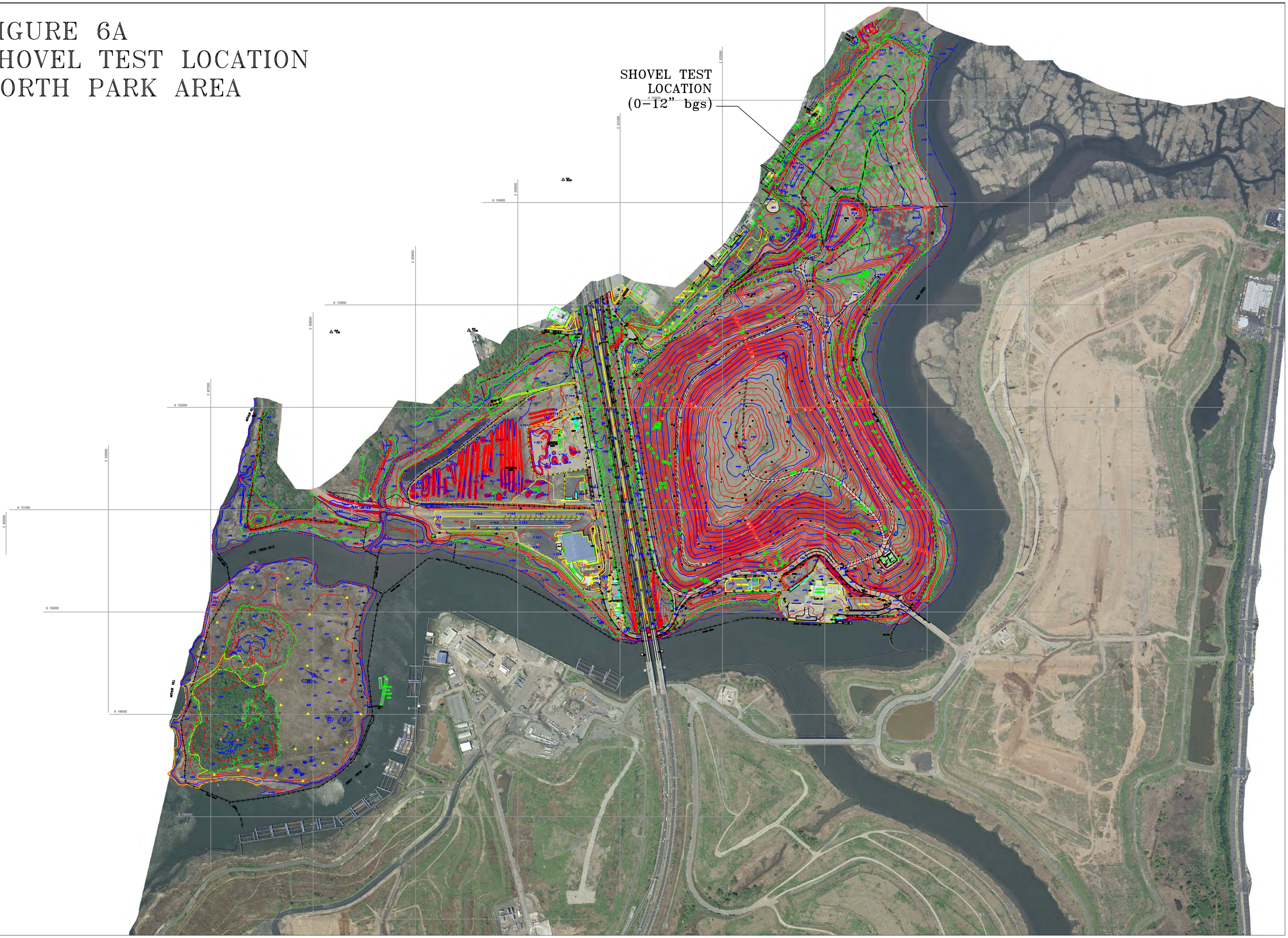
DRAWINGSCALE:1 inch = 400 feet
NOT PLOTTED TO SCALE



(Source: Arup 2007)

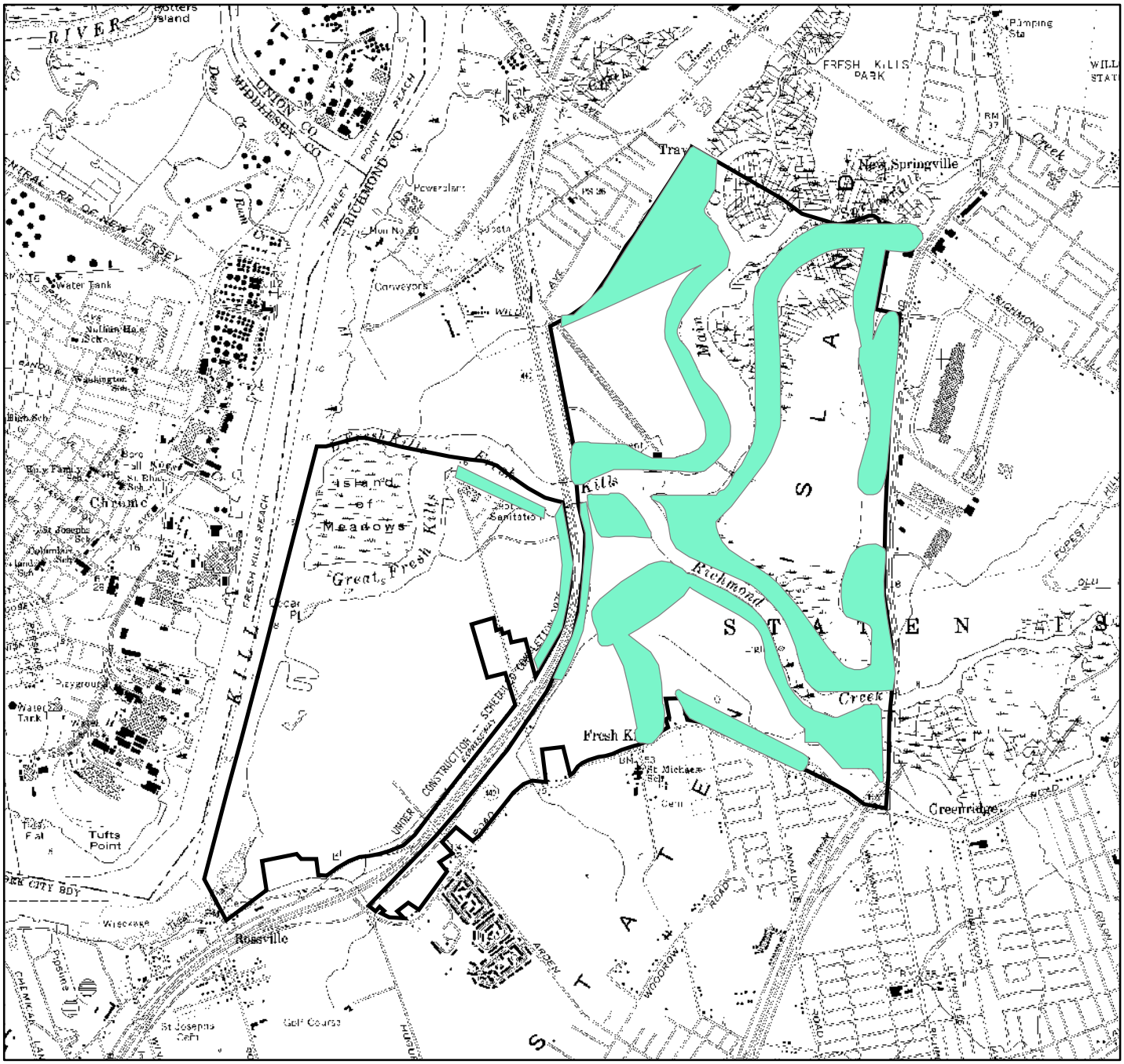
Figure 5. Proposed Road Improvements
Fresh Kills Park Project

FIGURE 6A
SHOVEL TEST LOCATION
NORTH PARK AREA



SHOVEL TEST
LOCATIONS
(0–12” bgs)

FIGURE 6B
SHOVEL TEST LOCATIONS
SOUTH PARK AREA



Approximate coordinates of
Project Site:
40° 34' 25.69" N, 74° 11' 23.04" W

Figure 7. Approximate Locations of
Short-term Projects, Including Wetland Restoration

Attachment 1

Fresh Kills Park
Natural Resources Survey Data Form

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(*Revised April 2007*)

Transect/Plot ID#:	Date and Time:
Investigators:	Photo #:
Primary or Secondary Study Area? Primary Secondary	General Location Description:
Do Normal Circumstances exist within the Sampling Area? ☐ Yes ☐ No	GPS Location Description:
Is the Sampling Area significantly disturbed (Atypical Situation)? ☐ Yes ☐ No	
Level of Disturbance (explain below): Light Med. Heavy	
Remarks:	Weather Conditions:

VEGETATION

Cowardin System:			Subsystem:				Surrounding/Adjacent Land Use:
	Upland	Estuarine		Emergent	Subtitdal		
	Palustrine	Lacustrine		Scrub-Shrub	Intertidal		
	Riverine	Palustrine		Forested			

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1				5			
2				6			
3				7			
4				8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover:	0-1	1-10	10-25	25-50	50-75	75-100

Percent Canopy Cover:	0-25	25-50	50-75	75-100

Size of Plot:	DBH of Trees in Plot:
Number of Trees in Plot:	

Percent Unvegetated Surface Area:	0-25	25-50	50-75	75-100

Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

☐ No recorded data available

Field Observations:
- Depth of Surface Water: _____ (in.)
- Depth to Free Water in Pit: _____ (in.)
- Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☐ Inundated
- ☐ Saturated in Upper 12 inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels in Upper 12”
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

Field Data Sheets (May)

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(*Revised April 2007*)

Transect/Plot ID#: 1
Investigators: Clayton / Resch Clayton / Bernick
Primary or Secondary Study Area? Primary Secondary
Do Normal Circumstances exist within the Sampling Area? ☒ Yes ☐ No
Is the Sampling Area significantly disturbed (Atypical Situation)? ☐ Yes ☒ No
Level of Disturbance (explain below): Light Med. Heavy
Remarks:

Date and Time: 5/21 10:20
Photo #: 10/1
General Location Description:
GPS Location Description: N 40 34.447 W 74 10.252
Weather Conditions: Sunny 68 / Overcast 68

VEGETATION

Cowardin System: Upland Palustrine Riverine Estuarine Lacustrine Palustrine
Subsystem: Emergent Scrub-Shrub Forested Subtidal Intertidal
Surrounding/Adjacent Land Use: landfill / tree lined road

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 Phrag	H	FACW	5 Honeysuckle	H	FAC
2 Groundsel bush	S	FACW	6 J. Knotweed	H	FACW
3 Black locust	T	FACU-	7 multiflora Rose	S	FACU
4 Milkweed	H		8		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator	Additional Species Present (Not Dominant)	Stratum	Indicator
1 Saltmarsh fleabane	H	NI	4		
2 Primrose - Willow	H	OBL	5		
3			6		

Percent Herbaceous Cover:	0-1	1-10	10-25	25-50	50-75	75-100
					☒	

Percent Canopy Cover:	0-25	25-50	50-75	75-100
	☒			

Size of Plot: 200m²
DBH of Trees in Plot: —
Number of Trees in Plot: —

Percent Unvegetated Surface Area:	0-25	25-50	50-75	75-100
	☒			

Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☐ Saturated in Upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks: vegetated area adjacent to impoundment/ow

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

Snapping turtle
Painted turtle
RW Blackbird
Cormorant
Canada Goose (w/ young)
Killdeer
GB Heron
unidentified Shorebird
Starling
Yellow-rumped Warbler
Painted turtle
Snapping turtle
Cedar waxwing
Canada goose
Mallard
Killdeer

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(*Revised April 2007*)

Transect/Plot ID#: 2
Investigators: Clayton / Resch
Primary or Secondary Study Area? Primary Secondary
Do Normal Circumstances exist within the Sampling Area? ☒ Yes ☐ No
Is the Sampling Area significantly disturbed (Atypical Situation)? ☐ Yes ☒ No
Level of Disturbance (explain below): Light Med. Heavy
Remarks:

Date and Time: 5/21 10:30
Photo #:
General Location Description:
GPS Location Description: 40 34.538 74 10.232
Weather Conditions: Sunny 68

VEGETATION

Cowardin System: Upland Palustrine Riverine Estuarine Lacustrine Palustrine
Subsystem: Emergent Scrub-Shrub Forested Subtidal Intertidal
Surrounding/Adjacent Land Use: open water / Road

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 R. oak	T	FACU	5 M. Rose	S	FACU
2 Tulip Poplar	T	FACU	6 Porcelain Ivy	H	FAC
3 B. cherry	T	FACU	7 N. creeper	H	FACU
4 HB Blackberry	S	FACU	8		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator	Additional Species Present (Not Dominant)	Stratum	Indicator
1 Phrag			4 Locust		
2 Grape sp.			5 Groundsel bush		
3			6		

Percent Herbaceous Cover:	0-1	1-10	10-25	25-50	50-75	75-100
			☒			

Percent Canopy Cover:	0-25	25-50	50-75	75-100
		☒		

Size of Plot: 200m²
DBH of Trees in Plot: 16-22"
Number of Trees in Plot: 10

Percent Unvegetated Surface Area:	0-25	25-50	50-75	75-100

Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☐ Saturated in Upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

Egret
mourning dove

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 3
Investigators: Clayton / Reech Clayton / Bernick
Primary or Secondary Study Area? Primary Secondary
Do Normal Circumstances exist within the Sampling Area? ☒ Yes ☐ No
Is the Sampling Area significantly disturbed (Atypical Situation)? ☐ Yes ☒ No
Level of Disturbance (explain below): Light Med. Heavy
Remarks:

Date and Time: 5/21 10:40
Photo #: 1011
General Location Description: 40 34.652
74 10.231
GPS Location Description:
Weather Conditions: Sunny 70 / overcast 68

VEGETATION

Cowardin System: Upland / Palustrine / Riverine; Estuarine / Lacustrine / Palustrine
Subsystem: Emergent / Scrub-Shrub / Forested; Subtidal / Intertidal
Surrounding/Adjacent Land Use: Tree lined road

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	switchgrass	H	FAC	5			
2	Phragmites	H	FACW	6			
3	Mugwort	H		7			
4	J. knotweed	H	FACW-	8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1	Goldenrod sp.	H	FAC-	4			
2	Primrose-Willow	H	NI	5			
3				6			

Percent Herbaceous Cover: 0-1 / 1-10 / 10-25 / 25-50 / 50-75 / 75-100
Percent Canopy Cover: 0-25 / 25-50 / 50-75 / 75-100
Size of Plot: 100
DBH of Trees in Plot: —
Number of Trees in Plot: —
Percent Unvegetated Surface Area: 0-25 / 25-50 / 50-75 / 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: - (in.)
Depth to Free Water in Pit: - (in.)
Depth to Saturated Soil: 0 (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☒ Saturated in Upper 12 inches
☒ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☒ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks: small emergent wetland

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

Kingfisher, House wren, European starling, Painted turtle, black-throated blue warbler, red-winged blackbird, Snapping turtle, mourning dove

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 4
Investigators: clayton / reech
Primary or Secondary Study Area? Primary Secondary
Do Normal Circumstances exist within the Sampling Area? ☒ Yes ☐ No
Is the Sampling Area significantly disturbed (Atypical Situation)? ☐ Yes ☒ No
Level of Disturbance (explain below): Light Med. Heavy
Remarks:

Date and Time: 5/21 10:52
Photo #:
General Location Description:
GPS Location Description: 40 34.783
74 10.253
Weather Conditions: Sunny

VEGETATION

Cowardin System: Upland / Palustrine / Riverine; Estuarine / Lacustrine / Palustrine
Subsystem: Emergent / Scrub-Shrub / Forested; Subtidal / Intertidal
Surrounding/Adjacent Land Use: adjacent to open water Area

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	Phrag	H	FACW	5			
2	Locust	T	FACU-	6			
3	Knotweed	H	FACW-	7			
4				8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1	Grapevine/bush	S	FACW	4			
2	Rose	S	FACU	5			
3	Birch	T	FACW	6			

Percent Herbaceous Cover: 0-1 / 1-10 / 10-25 / 25-50 / 50-75 / 75-100
Percent Canopy Cover: 0-25 / 25-50 / 50-75 / 75-100
Size of Plot: 100
DBH of Trees in Plot: 1-6"
Number of Trees in Plot: 2
Percent Unvegetated Surface Area: 0-25 / 25-50 / 50-75 / 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: (in.)
Depth to Free Water in Pit: (in.)
Depth to Saturated Soil: (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☐ Saturated in Upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

Egret, Turtle, ~~Beaver~~ Muskrat, Fish (carp?), RW Blackbird, Swallow

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(*Revised April 2007*)

Transect/Plot ID#: 5
Investigators: Clayton / Reech Clayton/Bernick
Primary or Secondary Study Area? Primary Secondary
Do Normal Circumstances exist within the Sampling Area? ☒ Yes ☐ No
Is the Sampling Area significantly disturbed (Atypical Situation)? ☐ Yes ☒ No
Level of Disturbance (explain below): Light Med. Heavy
Remarks:

Date and Time: 5/21
Photo #: 1011
General Location Description:
GPS Location Description: 40 34.923 / 74 10.198
Weather Conditions: Sunny 70 / overcast 68

VEGETATION

Cowardin System: Upland ☒ Palustrine Riverine; Estuarine Lacustrine Palustrine
Subsystem: Emergent ☒ Scrub-Shrub Forested; Subtidal Intertidal
Surrounding/Adjacent Land Use:

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	cattail	H	OBL	5			
2	Phrag	H	FACW	6			
3				7			
4				8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1	Rose	S	FACU	4	Groundsel bush		
2	b. cherry	T	FACU	5	Northern bayberry	S	FAC
3	dogwood	S	FAC	6	autumn olive	T	FACU

Percent Herbaceous Cover: 0-1 | 1-10 | 10-25 | 25-50 | 50-75 | 75-100
Percent Canopy Cover: 0-25 | 25-50 | 50-75 | 75-100
Size of Plot: 25
DBH of Trees in Plot: —
Number of Trees in Plot: —
Percent Unvegetated Surface Area: 0-25 | 25-50 | 50-75 | 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: 0-3 (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☒ Inundated
☒ Saturated in Upper 12 inches
☒ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☒ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks: small PEM adjacent to road and OW area

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

Robin, R.W. Blackbird, Meadow vole (dead)
Grackle, Goldfinch, White-footed mouse (dead)

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(*Revised April 2007*)

Transect/Plot ID#:
Investigators:
Primary or Secondary Study Area? Primary Secondary
Do Normal Circumstances exist within the Sampling Area? ☐ Yes ☐ No
Is the Sampling Area significantly disturbed (Atypical Situation)? ☐ Yes ☐ No
Level of Disturbance (explain below): Light Med. Heavy
Remarks:

Date and Time:
Photo #:
General Location Description:
GPS Location Description:
Weather Conditions:

VEGETATION

Cowardin System: Upland Palustrine Riverine; Estuarine Lacustrine Palustrine
Subsystem: Emergent Scrub-Shrub Forested; Subtidal Intertidal
Surrounding/Adjacent Land Use:

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1				5			
2				6			
3				7			
4				8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover: 0-1 | 1-10 | 10-25 | 25-50 | 50-75 | 75-100
Percent Canopy Cover: 0-25 | 25-50 | 50-75 | 75-100
Size of Plot:
DBH of Trees in Plot:
Number of Trees in Plot:
Percent Unvegetated Surface Area: 0-25 | 25-50 | 50-75 | 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☐ Saturated in Upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 6
Investigators: Clayton / Reed Clayton/Bernick
Primary or Secondary Study Area? Primary
Do Normal Circumstances exist within the Sampling Area? Yes
Is the Sampling Area significantly disturbed (Atypical Situation)? No
Level of Disturbance (explain below): Light
Remarks:

Date and Time: 5/21/07
Photo #: 1011
General Location Description:
GPS Location Description:
Weather Conditions: Sunny 75° / Overcast 68

VEGETATION

Cowardin System: Upland / Palustrine / Riverine / Estuarine / Lacustrine / Palustrine
Subsystem: Emergent / Scrub-Shrub / Forested / Subtidal / Intertidal

Surrounding/Adjacent Land Use: Road, wetlands

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 Groundsel Bush	S	FACW	5 Honeysuckle	H	FAC-
2 B. Cherry	T	FACU	6 Goldenrod	H	FAC
3 Cottonwood	S/T	FAC	7 Arrowwood	S	FAC
4 Knotweed	H	FACW-	8 Poison ivy, Mugwort	H	FAC/-

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator	Additional Species Present (Not Dominant)	Stratum	Indicator
1			4		
2			5		
3			6		

Percent Herbaceous Cover: 0-1 / 1-10 / 10-25 / 25-50 / 50-75 / 75-100
Percent Canopy Cover: 0-25 / 25-50 / 50-75 / 75-100
Size of Plot: 100
Number of Trees in Plot: 12
DBH of Trees in Plot: 10-16"
Percent Unvegetated Surface Area: 0-25 / 25-50 / 50-75 / 75-100
Explain:

HYDROLOGY

- Recorded Data (describe in Remarks)
  - Stream, Lake, or Tide Gauge
  - Aerial Photographs
  - Other
- No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- Inundated
- Saturated in Upper 12 inches
- Water Marks
- Drift Lines
- Sediment Deposits
- Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
- Oxidized Root Channels in Upper 12"
- Water-Stained Leaves
- Local Soil Survey Data
- FAC-Neutral Test
- Other (explain in remarks)

Remarks: wetland hydrology not present

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)
Painted turtle
Snapping turtle

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 7
Investigators: Clayton/Reed
Primary or Secondary Study Area? Primary
Do Normal Circumstances exist within the Sampling Area? Yes
Is the Sampling Area significantly disturbed (Atypical Situation)? No
Level of Disturbance (explain below): Light
Remarks:

Date and Time: 5/21/07 11:49
Photo #:
General Location Description: NE Portion of Site
GPS Location Description: 40.35'303" 74.10'184"
Weather Conditions: Sunny

VEGETATION

Cowardin System: Upland / Palustrine / Riverine / Estuarine / Lacustrine / Palustrine
Subsystem: Emergent / Scrub-Shrub / Forested / Subtidal / Intertidal

Surrounding/Adjacent Land Use: Wetlands

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 Phragmites	H	FACW	5 Sumac	T	FACU
2 Knotweed	H	FACW-	6 R. Maple	T	FAC
3 Mulberry	S	UPL	7 B. Willow	T	FACW+
4 Box Elder	T	FAC+	8 Va. Creeper	H	FACU

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator	Additional Species Present (Not Dominant)	Stratum	Indicator
1			4		
2			5		
3			6		

Percent Herbaceous Cover: 0-1 / 1-10 / 10-25 / 25-50 / 50-75 / 75-100
Percent Canopy Cover: 0-25 / 25-50 / 50-75 / 75-100
Size of Plot: 100
Number of Trees in Plot: 6
DBH of Trees in Plot: 8-16"
Percent Unvegetated Surface Area: 0-25 / 25-50 / 50-75 / 75-100
Explain:

HYDROLOGY

- Recorded Data (describe in Remarks)
  - Stream, Lake, or Tide Gauge
  - Aerial Photographs
  - Other
- No recorded data available

Field Observations:
Depth of Surface Water: 06 (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- Inundated
- Saturated in Upper 12 inches
- Water Marks
- Drift Lines
- Sediment Deposits
- Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
- Oxidized Root Channels in Upper 12"
- Water-Stained Leaves
- Local Soil Survey Data
- FAC-Neutral Test
- Other (explain in remarks)

Remarks: emergent/scrubshrub area near stream

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 8
Investigators: Clayton / Reeh
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks:

Date and Time: 5/21/07 11:55
Photo #:
General Location Description: NE Portion of Site
GPS Location Description:
Weather Conditions: Sunny 75°

VEGETATION

Cowardin System: Upland, Estuarine, (Palustrine), Lacustrine, Riverine, Palustrine
Subsystem: (Emergent), (Scrub-Shrub), Forested, Subtidal, Intertidal
Surrounding/Adjacent Land Use: wetland

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 Phragmites	H	FACW	5 Va. Creeper	H	FACU
2 Sensitive Fern	H	FACW	6 Jewelweed	H	FACW
3 Arrowwood	S	FAC	7		
4 Knotweed	H	FACW-	8		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator	Additional Species Present (Not Dominant)	Stratum	Indicator
1			4		
2			5		
3			6		

Percent Herbaceous Cover: 0-1 | 1-10 | 10-25 | 25-50 | (50-75) | 75-100
Percent Canopy Cover: (0-25) | 25-50 | 50-75 | 75-100
Size of Plot: 100
DBH of Trees in Plot:
Number of Trees in Plot:
Percent Unvegetated Surface Area: 0-25 | 25-50 | 50-75 | 75-100
Explain:

HYDROLOGY

(✓) Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: 0-6 (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: ~ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
(✓) Inundated
(✓) Saturated in Upper 12 inches
(✓) Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
(✓) Water-Stained Leaves
☐ Local Soil Survey Data
(✓) FAC-Neutral Test
☐ Other (explain in remarks)

Remarks: emergent/scrub shrub area

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 9
Investigators: clayton/reeh Clayton/Barnick
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks:

Date and Time: 5/21 12:05
Photo #: 10/1/07
General Location Description: Northern Portion
GPS Location Description: 40° 35' 350" 74° 10' 188"
Weather Conditions:

VEGETATION

Cowardin System: Upland, Estuarine, (Palustrine), Lacustrine, Riverine, Palustrine
Subsystem: (Emergent), (Scrub-Shrub), Forested, Subtidal, Intertidal
Surrounding/Adjacent Land Use:

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 phragmites	H	FACW	5		
2 Va Creeper	H	FACU	6		
3 Japanese Knotweed	H	FACU-	7		
4			8		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator	Additional Species Present (Not Dominant)	Stratum	Indicator
1 Big blue stem	H	FAC	4 hopeclover	H	NI
2 blackwalnut	T	FACU	5 salt marsh fleabane	H	NI
3 Mulberry sp.	S		6 primrose-willow	H	OBL

Percent Herbaceous Cover: 0-1 | 1-10 | 10-25 | 25-50 | (50-75) | 75-100
Percent Canopy Cover: 0-25 | 25-50 | 50-75 | 75-100
Size of Plot: 25
DBH of Trees in Plot:
Number of Trees in Plot:
Percent Unvegetated Surface Area: 0-25 | 25-50 | 50-75 | 75-100
Explain:

HYDROLOGY

(✓) Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: 0 (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
(✓) Saturated in Upper 12 inches
(✓) Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
(✓) Water-Stained Leaves
☐ Local Soil Survey Data
(✓) FAC-Neutral Test
☐ Other (explain in remarks)

Remarks: Emergent area w/ Phrag

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)
Raccoon (tracks)
black-crowned night heron
yellow-crowned night heron
swamp sparrow
killdeer
greater yellowlegs
yellow-rumped warbler
American woodcock

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 10

Investigators: Clayton / Reed

Primary or Secondary Study Area? Primary ☒ Secondary ☐

Do Normal Circumstances exist within the Sampling Area? ☒ Yes ☐ No

Is the Sampling Area significantly disturbed (Atypical Situation)? ☐ Yes ☒ No

Level of Disturbance (explain below): Light Med. Heavy

Remarks:

Date and Time: 12:10 5/21/07

Photo #:

General Location Description: tidal Marsh Area

GPS Location Description: 40° 35' 36.4" 74° 10' 21.1"

Weather Conditions: sunny 76°

VEGETATION

Cowardin System: Upland / Palustrine / Riverine — Estuarine / Lacustrine / Palustrine

Subsystem: Emergent / Scrub-Shrub / Forested — Subtidal / Intertidal

Surrounding/Adjacent Land Use: wetland/landfill

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 Phragmites	H	FACW	5		
2 Groundselbush	S	FACW	6		
3			7		
4			8		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator	Additional Species Present (Not Dominant)	Stratum	Indicator
1			4		
2			5		
3			6		

Percent Herbaceous Cover:	0-1	1-10	10-25	25-50	50-75	75-100
				☒		

Percent Canopy Cover:	0-25	25-50	50-75	75-100

Size of Plot: 25

DBH of Trees in Plot:

Number of Trees in Plot:

Percent Unvegetated Surface Area:	0-25	25-50	50-75	75-100

Explain:

HYDROLOGY

☒ Recorded Data (describe in Remarks)
- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

☐ No recorded data available

Field Observations:
- Depth of Surface Water: 0-3 (in.)
- Depth to Free Water in Pit: _____ (in.)
- Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☐ Inundated
- ☒ Saturated in Upper 12 inches
- ☒ Water Marks
- ☒ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
- ☒ Oxidized Root Channels in Upper 12"
- ☒ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☒ FAC-Neutral Test
- ☐ Other (explain in remarks)

Remarks: upper limits of tidal wetland

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

American Woodcock

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 11

Investigators: Clayton / Reed Clayton/Bernick

Primary or Secondary Study Area? Primary ☒ Secondary ☐

Do Normal Circumstances exist within the Sampling Area? ☒ Yes ☐ No

Is the Sampling Area significantly disturbed (Atypical Situation)? ☐ Yes ☒ No

Level of Disturbance (explain below): Light Med. Heavy

Remarks:

Date and Time: 5/21/07 12:30

Photo #: 10/11/07

General Location Description: Northern Tidal Marsh

GPS Location Description: 40° 35' 39.2" 74° 10' 24.9"

Weather Conditions:

VEGETATION

Cowardin System: Upland / Palustrine / Riverine — Estuarine / Lacustrine / Palustrine

Subsystem: Emergent / Scrub-Shrub / Forested — Subtidal / Intertidal

Surrounding/Adjacent Land Use: wetland/landfill

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 Spartina Alterniflora	H	OBL	5		
2 S. Patens	H	OBL	6		
3 Groundselbush	S	FACW	7		
4			8		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator	Additional Species Present (Not Dominant)	Stratum	Indicator
1 Saltmarsh water hemp	H	OBL	4		
2			5		
3			6		

Percent Herbaceous Cover:	0-1	1-10	10-25	25-50	50-75	75-100
					☒	

Percent Canopy Cover:	0-25	25-50	50-75	75-100

Size of Plot: 25

DBH of Trees in Plot:

Number of Trees in Plot:

Percent Unvegetated Surface Area:	0-25	25-50	50-75	75-100

Explain:

HYDROLOGY

☒ Recorded Data (describe in Remarks)
- ☐ Stream, Lake, or Tide Gauge
- ☐ Aerial Photographs
- ☐ Other

☐ No recorded data available

Field Observations:
- Depth of Surface Water: 0-3 (in.)
- Depth to Free Water in Pit: _____ (in.)
- Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☒ Inundated
- ☒ Saturated in Upper 12 inches
- ☒ Water Marks
- ☒ Drift Lines
- ☐ Sediment Deposits
- ☒ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels in Upper 12"
- ☒ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☒ FAC-Neutral Test
- ☐ Other (explain in remarks)

Remarks: tidal marsh

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 12
Investigators: Clayton / Reeh / Clayton/Bernick
Primary or Secondary Study Area? Primary / Secondary
Do Normal Circumstances exist within the Sampling Area? Yes / No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes / No
Level of Disturbance (explain below): Light / Med. / Heavy
Remarks:

Date and Time: 5/21/07 1:00
Photo #: 10/1/67
General Location Description: North of Landfill
GPS Location Description:
Weather Conditions: Sunny 77°

VEGETATION

Cowardin System: Upland / Estuarine / Palustrine / Lacustrine / Riverine / Palustrine
Subsystem: Emergent / Subtidal / Scrub-Shrub / Intertidal / Forested
Surrounding/Adjacent Land Use: Landfill/wetland

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 Mulberry	S	UPL	5 Ragweed	H	-
2 Tree of Heaven	T	-	6		
3 Cottonwood	T	FAC	7		
4 Phragmites	H	FACW	8		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator	Additional Species Present (Not Dominant)	Stratum	Indicator
1 Salt marsh water hemp	H	OBL	4		
2			5		
3			6		

Percent Herbaceous Cover: 0-1 / 1-10 / 10-25 / 25-50 / 50-75 / 75-100
Percent Canopy Cover: 0-25 / 25-50 / 50-75 / 75-100
Size of Plot: 100
DBH of Trees in Plot: 12-16"
Number of Trees in Plot: 5
Percent Unvegetated Surface Area: 0-25 / 25-50 / 50-75 / 75-100
Explain:

HYDROLOGY

- Recorded Data (describe in Remarks)
  - Stream, Lake, or Tide Gauge
  - Aerial Photographs
  - Other
- No recorded data available

Field Observations:
- Depth of Surface Water: _____ (in.)
- Depth to Free Water in Pit: _____ (in.)
- Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- Inundated
- Saturated in Upper 12 inches
- Water Marks
- Drift Lines
- Sediment Deposits
- Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
- Oxidized Root Channels in Upper 12"
- Water-Stained Leaves
- Local Soil Survey Data
- FAC-Neutral Test
- Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

Black Skimmer, E. Mockingbird, Mallard, Goldfinch, Herring Gull, T. Vulture, Osprey

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 13
Investigators: Clayton / Reeh Clayton/Bernick
Primary or Secondary Study Area? Primary / Secondary
Do Normal Circumstances exist within the Sampling Area? Yes / No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes / No
Level of Disturbance (explain below): Light / Med. / Heavy
Remarks:

Date and Time: 5/21/07
Photo #: 10/1/67
General Location Description: Northern tidal marsh
GPS Location Description:
Weather Conditions: Sunny 78°

VEGETATION

Cowardin System: Upland / Estuarine / Palustrine / Lacustrine / Riverine / Palustrine
Subsystem: Emergent / Subtidal / Scrub-Shrub / Intertidal / Forested
Surrounding/Adjacent Land Use: wetland

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 S. Alterniflora	H	OBL	5		
2 S. patens	H	OBL/FACW	6		
3			7		
4			8		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator	Additional Species Present (Not Dominant)	Stratum	Indicator
1 Salt marsh water hemp	H	OBL	4		
2			5		
3			6		

Percent Herbaceous Cover: 0-1 / 1-10 / 10-25 / 25-50 / 50-75 / 75-100
Percent Canopy Cover: 0-25 / 25-50 / 50-75 / 75-100
Size of Plot: 25
DBH of Trees in Plot:
Number of Trees in Plot:
Percent Unvegetated Surface Area: 0-25 / 25-50 / 50-75 / 75-100
Explain:

HYDROLOGY

- Recorded Data (describe in Remarks)
  - Stream, Lake, or Tide Gauge
  - Aerial Photographs
  - Other
- No recorded data available

Field Observations:
- Depth of Surface Water: 0-3 (in.)
- Depth to Free Water in Pit: _____ (in.)
- Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- Inundated
- Saturated in Upper 12 inches
- Water Marks
- Drift Lines
- Sediment Deposits
- Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
- Oxidized Root Channels in Upper 12"
- Water-Stained Leaves
- Local Soil Survey Data
- FAC-Neutral Test
- Other (explain in remarks)

Remarks: tidal marsh

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 14
Investigators: Clayton/Reich
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): Light (Med.) Heavy
Remarks: adjacent to landfill road

Date and Time: 13:38 5/21/07
Photo #:
General Location Description: western edge of landfill road
GPS Location Description: 40°35.142" 74°10.740"
Weather Conditions: sunny 82°

VEGETATION

Cowardin System: (Upland) Estuarine / Palustrine Lacustrine / Riverine Palustrine
Subsystem: Emergent Subtidal / Scrub-Shrub Intertidal / Forested
Surrounding/Adjacent Land Use: Landfill

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	Mulberry	S	UPL	5			
2	Knotweed	H	FACU-	6			
3	Phragmites	H	FACW	7			
4	Ailanthus	T	–	8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover: 0-1 / 1-10 / 10-25 / 25-50 / (50-75) / 75-100
Percent Canopy Cover: (0-25) / 25-50 / 50-75 / 75-100
Size of Plot: 100
DBH of Trees in Plot: 10-16"
Number of Trees in Plot: 3
Percent Unvegetated Surface Area: 0-25 / 25-50 / 50-75 / 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☐ Saturated in Upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks: wetland hydrology not present

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

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FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 15
Investigators: Clayton/Reich Clayton/Bernick
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks:

Date and Time: 5/21/07
Photo #: 10/11/07
General Location Description: Shoreline Main Creek
GPS Location Description: 40°34.953" 74°10.720"
Weather Conditions: Sunny

VEGETATION

Cowardin System: Upland / (Estuarine) Palustrine Lacustrine / Riverine Palustrine
Subsystem: (Emergent) Subtidal / Scrub-Shrub Intertidal / Forested
Surrounding/Adjacent Land Use: wetland/landfill

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	Phragmites	H	FACW	5			
2				6			
3				7			
4				8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1	common sunflower	H	FAC-	4			
2	beggar ticks sp.	H		5			
3				6			

Percent Herbaceous Cover: 0-1 / 1-10 / 10-25 / 25-50 / (50-75) / 75-100
Percent Canopy Cover: 0-25 / 25-50 / 50-75 / 75-100
Size of Plot: 25
DBH of Trees in Plot:
Number of Trees in Plot:
Percent Unvegetated Surface Area: 0-25 / 25-50 / 50-75 / 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: 0-5 (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☑ Inundated
☑ Saturated in Upper 12 inches
☑ Water Marks
☑ Drift Lines
☐ Sediment Deposits
☑ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☑ Water-Stained Leaves
☐ Local Soil Survey Data
☑ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks: Phrag-dominated shoreline

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

turkey vulture
palm warbler
common yellowthroat
northern harrier
osprey

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FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 16
Investigators: Clayton / Reed Clayton/Bernick
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): (Light) (Med.) Heavy
Remarks: adjacent to landfill road

Date and Time: 5/21/07
Photo #: 10/11/07
General Location Description: Main Creek Shoreline
GPS Location Description:
Weather Conditions: sunny 80°

VEGETATION

Cowardin System: (Upland) Estuarine; Palustrine Lacustrine; Riverine Palustrine
Subsystem: Emergent Subtidal; Scrub-Shrub Intertidal; Forested
upland area adjacent to shoreline wetland
Surrounding/Adjacent Land Use:

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 Mulberry	S/T	UPL	5		
2 Tree of Heaven	T	-	6		
3			7		
4			8		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator	Additional Species Present (Not Dominant)	Stratum	Indicator
1 Common Sunflower	H	FAC-	4		
2 beggar ticks	H		5		
3			6		

Percent Herbaceous Cover: 0-1 | 1-10 | (10-25) | 25-50 | 50-75 | 75-100
Percent Canopy Cover: (0-25) | 25-50 | 50-75 | 75-100
Size of Plot:
DBH of Trees in Plot:
Number of Trees in Plot:
Percent Unvegetated Surface Area: 0-25 | 25-50 | 50-75 | 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☐ Saturated in Upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

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FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 17
Investigators: Clayton / Reed Clayton/Bernick
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? Yes (No)
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): Light (Med.) Heavy
Remarks: Stormwater Basin

Date and Time: 5/21/07
Photo #: 10/10/07
General Location Description: Stormwater Basin
GPS Location Description:
Weather Conditions: sunny 80°

VEGETATION

Cowardin System: (Upland) Estuarine; Palustrine Lacustrine; Riverine Palustrine
Subsystem: Emergent Subtidal; Scrub-Shrub Intertidal; Forested
Surrounding/Adjacent Land Use: developed, stormwater basin

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 locust	T	FACU-	5		
2 Mugwort	H		6		
3 Va. Creeper	H	FACU	7		
4 Cottonwood	T	FAC	8		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator	Additional Species Present (Not Dominant)	Stratum	Indicator
1 Salt marsh fleabane	H	NI	4		
2 Cocklebur	H	FAC	5		
3			6		

Percent Herbaceous Cover: 0-1 | 1-10 | (10-25) | 25-50 | 50-75 | 75-100
Percent Canopy Cover: (0-25) | 25-50 | 50-75 | 75-100
Size of Plot:
DBH of Trees in Plot:
Number of Trees in Plot:
Percent Unvegetated Surface Area: 0-25 | 25-50 | 50-75 | 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☐ Saturated in Upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks: Large open water impoundments limited riparian

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

Egret, Mallard, N. Shoveler, least sandpiper Hudsonian godwit northern pintail, American green-winged teal, Canada goose, ring-billed gull, mallard, Savannah sparrow, gadwall, American kestrel

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FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 18
Investigators: Clayton/Reich Clayton/Bernick
Primary or Secondary Study Area? Primary: Yes Secondary: No
Do Normal Circumstances exist within the Sampling Area? Yes No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes No
Level of Disturbance (explain below): Light Med. Heavy
Remarks: Smaller impoundments Rip-rap

Date and Time: 5/21/07
Photo #: 10/1107
General Location Description: Smaller impoundment
GPS Location Description:
Weather Conditions: Sunny 80°

VEGETATION

Cowardin System: Upland, Palustrine, Riverine; Estuarine, Lacustrine, Palustrine
Subsystem: Emergent, Scrub-Shrub, Forested; Subtidal, Intertidal
Surrounding/Adjacent Land Use:

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 mugwort	H	UPL	5		
2 blackwillow	T	FACW+	6		
3 goldenrod spp.	H		7		
4			8		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator	Additional Species Present (Not Dominant)	Stratum	Indicator
1 White throughwort	H		4 Small white aster	H	FAC
2 black locust	T	FACU-	5 rough leaved goldenrod	H	FAC
3 Seaside goldenrod	H	FACW	6		

Percent Herbaceous Cover: 0-1 | 1-10 | 10-25 | 25-50 | 50-75 | 75-100
Percent Canopy Cover: 0-25 | 25-50 | 50-75 | 75-100
Size of Plot:
DBH of Trees in Plot:
Number of Trees in Plot:
Percent Unvegetated Surface Area: 0-25 | 25-50 | 50-75 | 75-100
Explain:

HYDROLOGY

- ☐ Recorded Data (describe in Remarks)
  - ☐ Stream, Lake, or Tide Gauge
  - ☐ Aerial Photographs
  - ☐ Other
- ☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- ☐ Inundated
- ☐ Saturated in Upper 12 inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels in Upper 12"
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)
northern shoveler, gadwall, northern pintail, mallard, greater yellowlegs, lesser yellowlegs, killdeer, blue-winged teal, American black duck

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FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 19
Investigators: Clayton/Reich Clayton/Bernick
Primary or Secondary Study Area? Primary: Yes Secondary: No
Do Normal Circumstances exist within the Sampling Area? Yes No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes No
Level of Disturbance (explain below): Light Med. Heavy
Remarks: Mud flat w/ gabion shoreline

Date and Time: 14:24 5/21/07
Photo #: 10/1107
General Location Description: Central Portion of Site
GPS Location Description: 40° 34' 526" 74° 11' 031"
Weather Conditions: Sunny 80

VEGETATION

Cowardin System: Upland, Palustrine, Riverine; Estuarine, Lacustrine, Palustrine
Subsystem: Emergent, Scrub-Shrub, Forested; Subtidal, Intertidal
Surrounding/Adjacent Land Use:

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 Scatteredlora	H	OBL	5		
2 Baccharis	S	FACW	6		
3			7		
4			8		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator	Additional Species Present (Not Dominant)	Stratum	Indicator
1			4		
2			5		
3			6		

Percent Herbaceous Cover: 0-1 | 1-10 | 10-25 | 25-50 | 50-75 | 75-100
Percent Canopy Cover: 0-25 | 25-50 | 50-75 | 75-100
Size of Plot: 100
DBH of Trees in Plot: 3-12"
Number of Trees in Plot:
Percent Unvegetated Surface Area: 0-25 | 25-50 | 50-75 | 75-100
Explain:

HYDROLOGY

- ☐ Recorded Data (describe in Remarks)
  - ☐ Stream, Lake, or Tide Gauge
  - ☐ Aerial Photographs
  - ☐ Other
- ☐ No recorded data available

Field Observations:
Depth of Surface Water: 0-3 (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- ☒ Inundated
- ☒ Saturated in Upper 12 inches
- ☒ Water Marks
- ☒ Drift Lines
- ☒ Sediment Deposits
- ☒ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels in Upper 12"
- ☒ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☒ FAC-Neutral Test
- ☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)
B.C. Night heron, whimbrel

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FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 20
Investigators: clayton/reich Clayton/Bernick
Primary or Secondary Study Area? Primary Secondary
Do Normal Circumstances exist within the Sampling Area? Yes No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes No
Level of Disturbance (explain below): Light Med. Heavy
Remarks:

Date and Time: 5/21/07
Photo #: 10/11/07
General Location Description: Richmond Creek
GPS Location Description:
Weather Conditions: sunny 82°

VEGETATION

Cowardin System: Upland Palustrine Riverine / Estuarine Lacustrine Palustrine
Subsystem: Emergent Scrub-Shrub Forested / Subtidal Intertidal
Phrag-dominated Shoreline
Surrounding/Adjacent Land Use: wetland/landfill

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species w/ spartina	Stratum	Indicator
1 Phragmites	H	FACW	5		
2			6		
3			7		
4			8		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator	Additional Species Present (Not Dominant)	Stratum	Indicator
1			4		
2			5		
3			6		

Percent Herbaceous Cover: 0-1 1-10 10-25 25-50 50-75 75-100
Percent Canopy Cover: 0-25 25-50 50-75 75-100
Size of Plot: 25
DBH of Trees in Plot:
Percent Unvegetated Surface Area: 0-25 25-50 50-75 75-100
Number of Trees in Plot:
Explain:

HYDROLOGY

- Recorded Data (describe in Remarks)
  - Stream, Lake, or Tide Gauge
  - Aerial Photographs
  - Other
- No recorded data available

Field Observations:
Depth of Surface Water: 0-5 (in.)
Depth to Free Water in Pit: (in.)
Depth to Saturated Soil: (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- Inundated
- Saturated in Upper 12 inches
- Water Marks
- Drift Lines
- Sediment Deposits
- Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
- Oxidized Root Channels in Upper 12"
- Water-Stained Leaves
- Local Soil Survey Data
- FAC-Neutral Test
- Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)
(Note behavior and/or activity in addition to species)
Glossy Ibis

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 21
Investigators: clayton/reich Clayton/Bernick
Primary or Secondary Study Area? Primary Secondary
Do Normal Circumstances exist within the Sampling Area? Yes No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes No
Level of Disturbance (explain below): Light Med. Heavy
Remarks: Richmond Creek Shoreline

Date and Time: 14:14 5/21/07
Photo #: 10/11/07
General Location Description: Richmond Creek
GPS Location Description: 40° 34' 323" 74° 10' 697"
Weather Conditions:

VEGETATION

Cowardin System: Upland Palustrine Riverine / Estuarine Lacustrine Palustrine
Subsystem: Emergent Scrub-Shrub Forested / Subtidal Intertidal
Spartina dominated Shoreline
Surrounding/Adjacent Land Use:

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 S. alterniflora	H	OBL	5		
2			6		
3			7		
4			8		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator	Additional Species Present (Not Dominant)	Stratum	Indicator
1			4		
2			5		
3			6		

Percent Herbaceous Cover: 0-1 1-10 10-25 25-50 50-75 75-100
Percent Canopy Cover: 0-25 25-50 50-75 75-100
Size of Plot: 25
DBH of Trees in Plot:
Percent Unvegetated Surface Area: 0-25 25-50 50-75 75-100
Number of Trees in Plot:
Explain:

HYDROLOGY

- Recorded Data (describe in Remarks)
  - Stream, Lake, or Tide Gauge
  - Aerial Photographs
  - Other
- No recorded data available

Field Observations:
Depth of Surface Water: 6 (in.)
Depth to Free Water in Pit: (in.)
Depth to Saturated Soil: (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- Inundated
- Saturated in Upper 12 inches
- Water Marks
- Drift Lines
- Sediment Deposits
- Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
- Oxidized Root Channels in Upper 12"
- Water-Stained Leaves
- Local Soil Survey Data
- FAC-Neutral Test
- Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)
(Note behavior and/or activity in addition to species)
fiddler crabs

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Wildlife observed between points 20 and 21
turkey vulture, osprey, savannah sparrow, palm warbler, herring gull, American goldfinch, house finch, great blue heron, greater yellowlegs, northern harrier, swamp sparrow, song sparrow

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 22
Investigators: Clayton / Reck
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks:

Date and Time: 7/26/07
Photo #:
General Location Description: Richmond Creek
GPS Location Description:
Weather Conditions: Sunny 80°

VEGETATION

Cowardin System: Upland / (Estuarine) / Palustrine / Lacustrine / Riverine / Palustrine
Subsystem: (Emergent) / Scrub-Shrub / Forested / Subtidal / (Intertidal)
Mixed marsh Shoreline
Surrounding/Adjacent Land Use:

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	Phragmites	H	FACW	5			
2	Spartina	H	OBL	6			
3				7			
4				8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover: 0-1 / 1-10 / 10-25 / 25-50 / (50-75) / 75-100
Percent Canopy Cover: 0-25 / 25-50 / 50-75 / 75-100
Size of Plot: 25
DBH of Trees in Plot:
Number of Trees in Plot:
Percent Unvegetated Surface Area: 0-25 / 25-50 / 50-75 / 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: 0-3 (in.)
Depth to Free Water in Pit: (in.)
Depth to Saturated Soil: (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☒ Inundated
☒ Saturated in Upper 12 inches
☒ Water Marks
☐ Drift Lines
☒ Sediment Deposits
☒ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☒ Water-Stained Leaves
☐ Local Soil Survey Data
☒ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

Geese, Ibis

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FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 23
Investigators: Clayton / Reck Clayton/Bernick
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks: spartina dominated marsh

Date and Time: 1459 7/26/07
Photo #: 101107
General Location Description: south tip of Landfill
GPS Location Description: 40° 34. 059" 74° 10' 298"
Weather Conditions:

VEGETATION

Cowardin System: Upland / (Estuarine) / Palustrine / Lacustrine / Riverine / Palustrine
Subsystem: (Emergent) / Scrub-Shrub / Forested / Subtidal / (Intertidal)
Surrounding/Adjacent Land Use:

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	S. patens	H	FACW	5			
2	S. alterniflora	H	OBL	6			
3				7			
4				8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1	Salt marsh water hemp	H	OBL	4	Pennsylvania Smartweed	H	FACW
2	Umbrella Sedge	H	FACW	5			
3	Purple loosestrife	H	FACW+	6			

Percent Herbaceous Cover: 0-1 / 1-10 / 10-25 / 25-50 / (50-75) / 75-100
Percent Canopy Cover: 0-25 / 25-50 / 50-75 / 75-100
Size of Plot: 25
DBH of Trees in Plot:
Number of Trees in Plot:
Percent Unvegetated Surface Area: 0-25 / 25-50 / 50-75 / 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: 0-6 (in.)
Depth to Free Water in Pit: (in.)
Depth to Saturated Soil: (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☒ Inundated
☒ Saturated in Upper 12 inches
☒ Water Marks
☒ Drift Lines
☒ Sediment Deposits
☒ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☒ Water-Stained Leaves
☐ Local Soil Survey Data
☒ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks:
~~Edge~~ low marsh

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

American goldfinch
Savannah Sparrow
Song Sparrow
mallard
Canada goose
American black duck
Semipalmated Sandpiper
common yellowthroat
gray catbird
Killdeer

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 24
Investigators: Clayton / Reich
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks:

Date and Time: 5/21/07
Photo #:
General Location Description: SE part of site
GPS Location Description: 40° 34' 32" 74° 10' 242"
Weather Conditions: Sunny 80°

VEGETATION

Cowardin System: Upland / (Estuarine) / Palustrine / Lacustrine / Riverine / Palustrine
Subsystem: (Emergent) / (Scrub-Shrub) / Forested / Subtidal / (Intertidal)
Mixed marsh
Surrounding/Adjacent Land Use: Upland/wetland

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	Spartina	H	OBL	5			
2	Salicornia	S	FACW	6			
3	PHRA	H	FACW	7			
4				8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover: 0-1 / 1-10 / 10-25 / 25-50 / (50-75) / 75-100
Percent Canopy Cover: (0-25) / 25-50 / 50-75 / 75-100
Size of Plot: 100
DBH of Trees in Plot:
Number of Trees in Plot:
Percent Unvegetated Surface Area: 0-25 / 25-50 / 50-75 / 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: 0-3 (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☐ Saturated in Upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks: Tidal Channel 10'

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 25
Investigators: Clayton / Reich Clayton/Bernick
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks:

Date and Time: 5/21/07
Photo #: 10/11/07
General Location Description: East of Landfill Mound
GPS Location Description: 40° 34' 422" 74° 10' 264"
Weather Conditions: Sunny 80°

VEGETATION

Cowardin System: Upland / Estuarine / Palustrine / Lacustrine / Riverine / (Palustrine)
Subsystem: (Emergent) / (Scrub-Shrub) / Forested / Subtidal / Intertidal
PEM/SS w/ Phrag
Surrounding/Adjacent Land Use: wetland/upland

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	Phrag	H	FACW	5	Cottonwood	T	FAC
2	Eclipta	H	FAC	6			
3	Jewelweed	H	FACW	7			
4	Goldenrod	H	-	8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1	broad-leaved cattail	H	OBL	4			
2	jewelweed	H	FACW	5			
3	Umbrella Sedge	H	FACW	6			

Percent Herbaceous Cover: 0-1 / 1-10 / 10-25 / 25-50 / (50-75) / 75-100
Percent Canopy Cover: (0-25) / 25-50 / 50-75 / 75-100
Size of Plot: 100
DBH of Trees in Plot:
Number of Trees in Plot:
Percent Unvegetated Surface Area: 0-25 / 25-50 / 50-75 / 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: – (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☐ Saturated in Upper 12 Inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 28
Investigators: Clayton/Reich
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): (Light) (Med.) Heavy
Remarks: Gabion + Riprap shoreline

Date and Time: 5/21/07
Photo #:
General Location Description: Confluence
GPS Location Description:
Weather Conditions: Sunny 80°

VEGETATION

Cowardin System: Upland / (Estuarine) / Palustrine / Lacustrine / Riverine / Palustrine
Subsystem: Emergent / Subtidal / Scrub-Shrub / (Intertidal) / Forested
Gabion, mudflat w/ some veg
Surrounding/Adjacent Land Use: developed

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 Spartina	S	FACW	5		
2 Mugwort	H	–	6		
3			7		
4			8		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator	Additional Species Present (Not Dominant)	Stratum	Indicator
1			4		
2			5		
3			6		

Percent Herbaceous Cover:	0-1	1-10	(10-25)	25-50	50-75	75-100
Percent Canopy Cover:	(0-25)	25-50	50-75	75-100		
Percent Unvegetated Surface Area:	0-25	25-50	50-75	75-100		

Size of Plot: 100
DBH of Trees in Plot:
Number of Trees in Plot:
Explain:

HYDROLOGY

- ☐ Recorded Data (describe in Remarks)
  - ☐ Stream, Lake, or Tide Gauge
  - ☐ Aerial Photographs
  - ☐ Other
- ☐ No recorded data available

Field Observations:
Depth of Surface Water: 0-6 (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- ☐ Inundated
- ☑ Saturated in Upper 12 inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels in Upper 12"
- ☑ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☑ FAC-Neutral Test
- ☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)
Night Heron

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 29
Investigators: Clayton/Reich
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks:

Date and Time: 5/22
Photo #:
General Location Description: South Park Area
GPS Location Description: 40° 34' 352" 74° 11' 090"
Weather Conditions: Sunny 78°

VEGETATION

Cowardin System: Upland / (Estuarine) / Palustrine / Lacustrine / Riverine / Palustrine
Subsystem: (Emergent) / Subtidal / Scrub-Shrub / (Intertidal) / Forested
Mixed Marsh
Surrounding/Adjacent Land Use: Landfill

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 Phragmites	H	FACW	5		
2 S. Hermiltora	H	OBL	6		
3			7		
4			8		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator	Additional Species Present (Not Dominant)	Stratum	Indicator
1			4		
2			5		
3			6		

Percent Herbaceous Cover:	0-1	1-10	10-25	25-50	(50-75)	75-100
Percent Canopy Cover:	0-25	25-50	50-75	75-100		
Percent Unvegetated Surface Area:	0-25	25-50	50-75	75-100		

Size of Plot: 25
DBH of Trees in Plot:
Number of Trees in Plot:
Explain:

HYDROLOGY

- ☐ Recorded Data (describe in Remarks)
  - ☐ Stream, Lake, or Tide Gauge
  - ☐ Aerial Photographs
  - ☐ Other
- ☐ No recorded data available

Field Observations:
Depth of Surface Water: 0-4 (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- ☐ Inundated
- ☑ Saturated in Upper 12 inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels in Upper 12"
- ☑ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☑ FAC-Neutral Test
- ☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 30
Investigators: clayton/reed
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks: Shoreline

Date and Time: 5/22/07
Photo #:
General Location Description: Richmond Creek
GPS Location Description: 40°34'401" 74° 11' 020"
Weather Conditions: Sunny 78°

VEGETATION

Cowardin System: Upland (Estuarine) / Palustrine (Lacustrine) / Riverine (Palustrine)
Subsystem: (Emergent) / Scrub-Shrub / Forested / Subtidal (Intertidal)
Spartina dominated (w/ Phrag)
Surrounding/Adjacent Land Use: landfill

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	S. alterniflora	H	OBL	5			
2				6			
3				7			
4				8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover: 0-1 / 1-10 / 10-25 / (25-50) / 50-75 / 75-100
Percent Canopy Cover: 0-25 / 25-50 / 50-75 / 75-100
Size of Plot: 25
DBH of Trees in Plot:
Number of Trees in Plot:
Percent Unvegetated Surface Area: 0-25 / 25-50 / 50-75 / 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: 0-3 (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☑ Inundated
☑ Saturated in Upper 12 inches
☑ Water Marks
☑ Drift Lines
☑ Sediment Deposits
☑ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☑ Water-Stained Leaves
☐ Local Soil Survey Data
☑ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 31
Investigators: clayton/reed
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks: debris

Date and Time: 5/22/07
Photo #:
General Location Description: trib to Richmond creek
GPS Location Description:
Weather Conditions: Sunny 79°

VEGETATION

Cowardin System: (Upland) Estuarine / Palustrine Lacustrine / Riverine Palustrine
Subsystem: Emergent / Scrub-Shrub / Forested / Subtidal / Intertidal
Phrag dominated w/ woody veg
Surrounding/Adjacent Land Use: landfill

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	Tree of heaven	T	–	5	Va. Creeper	H	FACU
2	Cottonwood	T	FAC	6			
3	Phragmites	H	FACW	7			
4	Milkweed	H	–	8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover: 0-1 / 1-10 / 10-25 / (25-50) / 50-75 / 75-100
Percent Canopy Cover: (0-25) / 25-50 / 50-75 / 75-100
Size of Plot: 100
DBH of Trees in Plot: 4-12"
Number of Trees in Plot: 23
Percent Unvegetated Surface Area: 0-25 / 25-50 / 50-75 / 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☐ Saturated in Upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 32
Investigators: Clayton/Keck
Date and Time: 5/22/07
Photo #:
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): (Light) Med. Heavy
General Location Description: Trib to Richmond Creek
GPS Location Description:
Weather Conditions: Sunny 78°
Remarks:

VEGETATION

Cowardin System: (Upland) Palustrine Riverine; Estuarine Lacustrine Palustrine
Subsystem: Emergent Scrub-Shrub Forested; Subtidal Intertidal
Surrounding/Adjacent Land Use: Phrag dominated Undeveloped

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	Phragmites	H	FACW	5			
2				6			
3				7			
4				8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover: 0-1 | 1-10 | 10-25 | 25-50 | (50-75) | 75-100
Percent Canopy Cover: 0-25 | 25-50 | 50-75 | 75-100
Size of Plot: 1C
DBH of Trees in Plot:
Number of Trees in Plot:
Percent Unvegetated Surface Area: 0-25 | 25-50 | 50-75 | 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☐ Saturated in Upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 33
Investigators: Clayton/Keck
Date and Time: 5/22/07
Photo #:
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): (Light) Med. Heavy
General Location Description: Trib to Richmond Ck.
GPS Location Description: 40° 34' 22" 74° 11' 28"
Weather Conditions: Sunny 78°
Remarks:

VEGETATION

Cowardin System: (Upland) Palustrine Riverine; Estuarine Lacustrine Palustrine
Subsystem: Emergent Scrub-Shrub Forested; Subtidal Intertidal
Surrounding/Adjacent Land Use: Undeveloped
Small isolated young woodland area adjacent to trib

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	Sassafras	T	FACU-	5	Phragmites	H	FACW
2	Olive	S	FACU	6	Red Oak	T	FACU-
3	Arrowwood	S	FAC	7	Tree of Heaven	T	-
4	Poison Ivy	H	FAC	8	Vine Creeper	H	FACU

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover: 0-1 | 1-10 | 10-25 | (25-50) | 50-75 | 75-100
Percent Canopy Cover: 0-25 | (25-50) | 50-75 | 75-100
Size of Plot: 20'
DBH of Trees in Plot: 5-10"
Number of Trees in Plot: 20
Percent Unvegetated Surface Area: 0-25 | 25-50 | 50-75 | 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☐ Saturated in Upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks: Mostly Freshwater

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 34
Investigators: Clayton/Irech
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks:

Date and Time: 5/22/07
Photo #:
General Location Description: Open Water Area
GPS Location Description:
Weather Conditions: Sunny 77°

VEGETATION

Cowardin System: Upland, Palustrine, Riverine, Estuarine, Lacustrine, (Palustrine)
Subsystem: Emergent, Scrub-Shrub, Forested, Subtidal, Intertidal
PUB/POW
Surrounding/Adjacent Land Use: undev

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1			5		
2			6		
3			7		
4			8		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator	Additional Species Present (Not Dominant)	Stratum	Indicator
1			4		
2			5		
3			6		

Percent Herbaceous Cover: 0-1 | 1-10 | 10-25 | 25-50 | 50-75 | 75-100
Percent Canopy Cover: 0-25 | 25-50 | 50-75 | 75-100
Size of Plot:
DBH of Trees in Plot:
Number of Trees in Plot:
Percent Unvegetated Surface Area: 0-25 | 25-50 | 50-75 | 75-100
Explain:

HYDROLOGY

- ☐ Recorded Data (describe in Remarks)
  - ☐ Stream, Lake, or Tide Gauge
  - ☐ Aerial Photographs
  - ☐ Other
- ☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- ☐ Inundated
- ☐ Saturated in Upper 12 inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels in Upper 12"
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (explain in remarks)

Remarks: Large open water pond

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 35
Investigators: Clayton/Irech
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks:

Date and Time: 5/22/07 10/11/07
Photo #:
General Location Descdption: Central south park
GPS Location Description: 40°35'199" 74°11'328"
Weather Conditions:

VEGETATION

Cowardin System: (Upland), Palustrine, Riverine, Estuarine, Lacustrine, Palustrine
Subsystem: Emergent, Scrub-Shrub, Forested, Subtidal, Intertidal
Phrag dominated w/ woody veg
Surrounding/Adjacent Land Use:

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 Phragmites	H	FACW	5		
2 Va. Creeper	H	FACW	6		
3 Climbing Hydrangea	H		7		
4 Poison Ivy	H	FAC	8		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator	Additional Species Present (Not Dominant)	Stratum	Indicator
1			4		
2			5		
3			6		

Percent Herbaceous Cover: 0-1 | 1-10 | 10-25 | 25-50 | (50-75) | 75-100
Percent Canopy Cover: 0-25 | 25-50 | 50-75 | 75-100
Size of Plot: 100
DBH of Trees in Plot:
Number of Trees in Plot:
Percent Unvegetated Surface Area: 0-25 | 25-50 | 50-75 | 75-100
Explain:

HYDROLOGY

- ☐ Recorded Data (describe in Remarks)
  - ☐ Stream, Lake, or Tide Gauge
  - ☐ Aerial Photographs
  - ☐ Other
- ☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- ☐ Inundated
- ☐ Saturated in Upper 12 inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels in Upper 12"
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

3 juvenile rodents (probably White footed mouse)

Bernick/Clayton
Snapping turtle

Spring Peeper
Marsh wren
Mourning warbler
northern mockingbird
Gray Catbird

Between points 35 and 36a
American green-winged teal
Mute swan
red-bellied woodpecker
northern flicker
Killdeer
least sandpiper
Wilson's phalarope

AKRF
Swamp sparrow
northern cardinal
European starling
American robin
blue jay
American kestral

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 36
Investigators: clayton / reed
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks:

Date and Time: 5/22/07
Photo #:
General Location Description: south Park area
GPS Location Description:
Weather Conditions: Sunny 78°

VEGETATION

Cowardin System: (Upland) Estuarine; Palustrine Lacustrine; Riverine Palustrine
Subsystem: Emergent Subtidal; Scrub-Shrub Intertidal; Forested
Surrounding/Adjacent Land Use: Phrag dominated w/ woody

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	Tree of Heaven	T		5	Creeping Hydrojen	H	
2	Phragmites	H	FACW	6			
3	Vol. Creeper	H	FACW	7			
4	Poison Ivy	H	FAC	8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover: 0-1 | 1-10 | 10-25 | 25-50 | (50-75) | 75-100
Percent Canopy Cover: 0-25 | 25-50 | 50-75 | 75-100
Size of Plot: 100
DBH of Trees in Plot:
Number of Trees in Plot:
Percent Unvegetated Surface Area: 0-25 | 25-50 | 50-75 | 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☐ Saturated in Upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 37
Investigators: clayton / reed
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks:

Date and Time: 5/22/07
Photo #:
General Location Description: Richmond Ck. Shoreline
GPS Location Description: 40°34'322" 94°10'817"
Weather Conditions:

VEGETATION

Cowardin System: Upland (Estuarine); Palustrine Lacustrine; Riverine Palustrine
Subsystem: (Emergent) Subtidal; Scrub-Shrub (Intertidal); Forested
Surrounding/Adjacent Land Use: Sandfill

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	S. alterniflora	H	OBL	5	other sp.		
2				6			
3				7			
4				8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover: 0-1 | 1-10 | 10-25 | (25-50) | 50-75 | 75-100
Percent Canopy Cover: 0-25 | 25-50 | 50-75 | 75-100
Size of Plot: 25
DBH of Trees in Plot:
Number of Trees in Plot:
Percent Unvegetated Surface Area: 0-25 | 25-50 | 50-75 | 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: 0-6 (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☑ Inundated
☑ Saturated in Upper 12 inches
☐ Water Marks
☐ Drift Lines
☑ Sediment Deposits
☑ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☑ Water-Stained Leaves
☐ Local Soil Survey Data
☑ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks:
tidal marsh area along shoreline

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)
Geese, Ibis

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 38
Investigators: Clayton / Tech
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks:

Date and Time: 5/22/07
Photo #:
General Location Description: SE Portion of Site
GPS Location Description:
Weather Conditions: Sunny

VEGETATION

Cowardin System: Upland / (Estuarine) / Palustrine / Lacustrine / Riverine / Palustrine
Subsystem: (Emergent) / Scrub-Shrub / Forested / Subtidal / Intertidal
Phragmites - dominated
Surrounding/Adjacent Land Use:

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 Phragmites	H	FACW	5		
2			6		
3			7		
4			8		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator	Additional Species Present (Not Dominant)	Stratum	Indicator
1			4		
2			5		
3			6		

Percent Herbaceous Cover: 0-1 | 1-10 | 10-25 | 25-50 | (50-75) | 75-100
Percent Canopy Cover: 0-25 | 25-50 | 50-75 | 75-100
Size of Plot: 25
DBH of Trees in Plot:
Number of Trees in Plot:
Percent Unvegetated Surface Area: 0-25 | 25-50 | 50-75 | 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: 0-4 (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☒ Saturated in Upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☒ Water-Stained Leaves
☐ Local Soil Survey Data
☒ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

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FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 39
Investigators: Clayton / Tech
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks:

Date and Time: 5/22/07
Photo #:
General Location Description: SE Portion
GPS Location Description:
Weather Conditions: Sunny 80°

VEGETATION

Cowardin System: Upland / Estuarine / Palustrine / Lacustrine / Riverine / Palustrine
Subsystem: Emergent / Scrub-Shrub / Forested / Subtidal / Intertidal
Phrag-dominated
Surrounding/Adjacent Land Use:

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 Knotweed	H	FACW	5 Cherry	T	FACW
2 Phragmites	H	FACW	6 Tree of Heaven	T	-
3 Vas Cheyper	H	FACW	7		
4 Locust	T	FACW	8		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator	Additional Species Present (Not Dominant)	Stratum	Indicator
1			4		
2			5		
3			6		

Percent Herbaceous Cover: 0-1 | 1-10 | 10-25 | 25-50 | (50-75) | 75-100
Percent Canopy Cover: (0-25) | 25-50 | 50-75 | 75-100
Size of Plot: 100
DBH of Trees in Plot:
Number of Trees in Plot:
Percent Unvegetated Surface Area: 0-25 | 25-50 | 50-75 | 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☐ Saturated in Upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 40
Investigators: Clayton/Reed
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): (Light) (Med.) Heavy
Remarks: former Stormwater Management Basin

Date and Time: 5/22/07
Photo #:
General Location Description: South Park area
GPS Location Description:
Weather Conditions: Sunny 78°

VEGETATION

Cowardin System: (Upland) Palustrine Riverine; Estuarine Lacustrine Palustrine
Subsystem: Emergent Scrub-Shrub Forested; Subtidal Intertidal
Phrag-dominated
Surrounding/Adjacent Land Use:

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	Cattail	H	OBL	5	mugwort	H	-
2	Phragmites	H	FACW	6			
3	Tree of Heaven	S/T		7			
4	Black locust	S/T	FACU-	8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover: 0-1 1-10 10-25 (25-50) 50-75 75-100
Percent Canopy Cover: 0-25 25-50 50-75 75-100
Size of Plot: 100
DBH of Trees in Plot: 10-16"
Number of Trees in Plot: 6
Percent Unvegetated Surface Area: 0-25 25-50 50-75 75-100
Explain:

HYDROLOGY

- ☐ Recorded Data (describe in Remarks)
  - ☐ Stream, Lake, or Tide Gauge
  - ☐ Aerial Photographs
  - ☐ Other
- ☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- ☐ Inundated
- ☐ Saturated in Upper 12 inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels in Upper 12"
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 41
Investigators: Clayton/Reed
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks:

Date and Time: 5/22/07
Photo #:
General Location Description: Central/confluence
GPS Location Description:
Weather Conditions: Sunny 79°

VEGETATION

Cowardin System: (Upland) Palustrine Riverine; Estuarine Lacustrine Palustrine
Subsystem: Emergent Scrub-Shrub Forested; Subtidal Intertidal
Phrag dominated w/ woody veg
Surrounding/Adjacent Land Use: developed

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	Mugwort	H	-	5	Phragmites	H	FACW
2	S. Willow	H	FACW+	6			
3	Cottonwood	H	FAC	7			
4	Tree of Heaven	H	-	8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover: 0-1 1-10 10-25 (25-50) 50-75 75-100
Percent Canopy Cover: (0-25) 25-50 50-75 75-100
Size of Plot: 100
DBH of Trees in Plot: 1-3"
Number of Trees in Plot: 23
Percent Unvegetated Surface Area: 0-25 25-50 50-75 75-100
Explain:

HYDROLOGY

- ☐ Recorded Data (describe in Remarks)
  - ☐ Stream, Lake, or Tide Gauge
  - ☐ Aerial Photographs
  - ☐ Other
- ☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- ☐ Inundated
- ☐ Saturated in Upper 12 inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels in Upper 12"
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 42
Investigators: Clayton / Reed
Primary or Secondary Study Area? Primary Secondary
Do Normal Circumstances exist within the Sampling Area? Yes No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes No
Level of Disturbance (explain below): Light Med. Heavy
Remarks: Shoreline of Richmond Ck.

Date and Time: 5/22/07
Photo #:
General Location Description: near confluence
GPS Location Description: 40° 34' 551" 74° 11' 155"
Weather Conditions: Sunny

VEGETATION

Cowardin System: Upland / Palustrine / Riverine; Estuarine / Lacustrine / Palustrine
Subsystem: Emergent / Scrub-Shrub / Forested; Subtidal / Intertidal
Mixed marsh area
Surrounding/Adjacent Land Use: developed

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 Phragmites	M	FACW	5		
2 S. alterniflora	M	OBL	6		
3			7		
4			8		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator	Additional Species Present (Not Dominant)	Stratum	Indicator
1			4		
2			5		
3			6		

Percent Herbaceous Cover: 0-1 | 1-10 | 10-25 | 25-50 | 50-75 | 75-100
Percent Canopy Cover: 0-25 | 25-50 | 50-75 | 75-100
Size of Plot: 25
DBH of Trees in Plot:
Number of Trees in Plot:
Percent Unvegetated Surface Area: 0-25 | 25-50 | 50-75 | 75-100
Explain:

HYDROLOGY

- Recorded Data (describe in Remarks)
  - Stream, Lake, or Tide Gauge
  - Aerial Photographs
  - Other
- No recorded data available

Field Observations:
Depth of Surface Water: 0-5 (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- Inundated
- Saturated in Upper 12 inches
- Water Marks
- Drift Lines
- Sediment Deposits
- Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
- Oxidized Root Channels in Upper 12"
- Water-Stained Leaves
- Local Soil Survey Data
- FAC-Neutral Test
- Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 43
Investigators: Clayton / Reed
Primary or Secondary Study Area? Primary Secondary
Do Normal Circumstances exist within the Sampling Area? Yes No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes No
Level of Disturbance (explain below): Light Med. Heavy
Remarks: Shoreline of Fresh Kills Creek

Date and Time: 5/22/07
Photo #:
General Location Description: western portion
GPS Location Description:
Weather Conditions: Sunny 80°

VEGETATION

Cowardin System: Upland / Palustrine / Riverine; Estuarine / Lacustrine / Palustrine
Subsystem: Emergent / Scrub-Shrub / Forested; Subtidal / Intertidal
Mixed marsh area
Surrounding/Adjacent Land Use:

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 Phragmites	H	FACW	5 Mugwort	H	-
2 Mulberry	T	UPL	6		
3 Groundsel bush	S	FACW	7		
4 Olive	T	FACW	8		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator	Additional Species Present (Not Dominant)	Stratum	Indicator
1			4		
2			5		
3			6		

Percent Herbaceous Cover: 0-1 | 1-10 | 10-25 | 25-50 | 50-75 | 75-100
Percent Canopy Cover: 0-25 | 25-50 | 50-75 | 75-100
Size of Plot: 100
DBH of Trees in Plot:
Number of Trees in Plot:
Percent Unvegetated Surface Area: 0-25 | 25-50 | 50-75 | 75-100
Explain:

HYDROLOGY

- Recorded Data (describe in Remarks)
  - Stream, Lake, or Tide Gauge
  - Aerial Photographs
  - Other
- No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- Inundated
- Saturated in Upper 12 inches
- Water Marks
- Drift Lines
- Sediment Deposits
- Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
- Oxidized Root Channels in Upper 12"
- Water-Stained Leaves
- Local Soil Survey Data
- FAC-Neutral Test
- Other (explain in remarks)

Remarks:
@ transition from high marsh to upland

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

Red tailed Hawk

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 44	Date and Time: 5/22/07 10/1/07
Investigators: Clayton/Reed Clayton/Bernick	Photo #:
Primary or Secondary Study Area? (Primary) Secondary	General Location Descdption: Shoreline
Do Normal Circumstances exist within the Sampling Area? (Yes) No	GPS Location Description:
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)	Weather Conditions: Sunny 5/22 / overcast 68°F
Level of Disturbance (explain below): (Light) Med. Heavy	
Remarks: Arthur Kill Shoreline	

VEGETATION

Cowardin System:			Subsystem:			
	Upland	(Estuarine)		(Emergent)	Subtidal	
	Palustrine	Lacustrine		Scrub-Shrub	(Intertidal)	
	Riverine	Palustrine		Forested		

Mixed marsh

Surrounding/Adjacent Land Use: Landfill

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	S. alterniflora	H	OBL	5			
2	S. patens	H	FACW	6			
3	Baccharis	S	FACW	7			
4				8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover:	0-1	1-10	10-25	(25-50)	50-75	75-100

Percent Canopy Cover:	0-25	25-50	50-75	75-100

Size of Plot: 25	DBH of Trees in Plot:	Percent Unvegetated Surface Area:	0-25	25-50	50-75	75-100
Number of Trees in Plot:		Explain:				

HYDROLOGY

- ☐ Recorded Data (describe in Remarks)
  - ☐ Stream, Lake, or Tide Gauge
  - ☐ Aerial Photographs
  - ☐ Other
- ☐ No recorded data available

Field Observations:
- Depth of Surface Water: 0-6 (in.)
- Depth to Free Water in Pit: _____ (in.)
- Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☒ Inundated
- ☒ Saturated in Upper 12 Inches
- ☒ Water Marks
- ☒ Drift Lines
- ☒ Sediment Deposits
- ☒ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels in Upper 12"
- ☒ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☒ FAC-Neutral Test
- ☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

Osprey
muskrat
herring gull
great black-backed gull
gadwall
red-winged black-bird

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 45
Investigators: Clayton/Reed
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks: Sandy/rocky intertidal zone

Date and Time: 5/22/07
Photo #:
General Location Description: Arthur Kill Shoreline
GPS Location Description: 40° 34' 017" 72° 12' 573"
Weather Conditions: Sunny 82°

VEGETATION

Cowardin System: (Estuarine) Palustrine Riverine; Lacustrine Palustrine
Subsystem: (Emergent) Scrub-Shrub Forested; Subtidal (Intertidal)
Mixed marsh
Surrounding/Adjacent Land Use: Landfill

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	Mugwort	H		5			
2	Phragmites	H	FACW	6			
3				7			
4				8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover: 0-1 | 1-10 | 10-25 | (25-50) | 50-75 | 75-100
Percent Canopy Cover: 0-25 | 25-50 | 50-75 | 75-100
Size of Plot: 25
DBH of Trees in Plot:
Number of Trees in Plot:
Percent Unvegetated Surface Area: 0-25 | 25-50 | 50-75 | 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: 0-3 (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☒ Inundated
☒ Saturated in Upper 12 inches
☒ Water Marks
☒ Drift Lines
☒ Sediment Deposits
☒ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☒ Water-Stained Leaves
☐ Local Soil Survey Data
☒ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 46
Investigators: Clayton/Reed
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks:

Date and Time: 5/22/07
Photo #:
General Location Description: Arthur Kill Shoreline
GPS Location Description:
Weather Conditions:

VEGETATION

Cowardin System: (Estuarine) Palustrine Riverine; Lacustrine Palustrine
Subsystem: (Emergent) Scrub-Shrub Forested; Subtidal (Intertidal)
Mixed Marsh
Surrounding/Adjacent Land Use:

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	Phragmites	H	FACW	5			
2	S. Alterniflora	H	OBL	6			
3	Baccharis	S	FACW	7			
4				8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover: 0-1 | 1-10 | 10-25 | (25-50) | 50-75 | 75-100
Percent Canopy Cover: 0-25 | 25-50 | 50-75 | 75-100
Size of Plot: 100
DBH of Trees in Plot:
Number of Trees in Plot:
Percent Unvegetated Surface Area: 0-25 | 25-50 | 50-75 | 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: 0-6 (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☒ Inundated
☒ Saturated in Upper 12 inches
☒ Water Marks
☒ Drift Lines
☒ Sediment Deposits
☒ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☒ Water-Stained Leaves
☐ Local Soil Survey Data
☒ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 47
Investigators: Clayton / Reech Clayton/Bernick
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks: Sandy / rocky shoreline

Date and Time: 5/22/07 10:11:07
Photo #:
General Location Description: Arthur kill
GPS Location Description:
Weather Conditions: Sunny 80 / overcast 68°F

VEGETATION

Cowardin System: Upland, (Estuarine), Palustrine, Lacustrine, Riverine, Palustrine
Subsystem: (Emergent), Scrub-Shrub, Forested, Subtidal, (Intertidal)
Mixed marsh
Surrounding/Adjacent Land Use:

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 Mugwort	H	-	5		
2 Phragmites	H	FACW	6		
3			7		
4			8		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator	Additional Species Present (Not Dominant)	Stratum	Indicator
1			4		
2			5		
3			6		

Percent Herbaceous Cover: 0-1 | 1-10 | 10-25 | 25-50 | (50-75) | 75-100
Percent Canopy Cover: 0-25 | 25-50 | 50-75 | 75-100
Size of Plot: 25
DBH of Trees in Plot:
Number of Trees in Plot:
Percent Unvegetated Surface Area: 0-25 | 25-50 | 50-75 | 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: 0-3 (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☑ Inundated
☑ Saturated in Upper 12 inches
☐ Water Marks
☐ Drift Lines
☑ Sediment Deposits
☑ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☑ Water-Stained Leaves
☐ Local Soil Survey Data
☑ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

Norway rat
red-tailed hawk
ring-necked pheasant
hermit thrush

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 48
Investigators: Clayton / Reech
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks: Shoreline of Arthur kill

Date and Time: 5/22/07
Photo #:
General Location Description: Arthur kill
GPS Location Description:
Weather Conditions: Sunny 81°

VEGETATION

Cowardin System: Upland, Estuarine, Palustrine, Lacustrine, Riverine, Palustrine
Subsystem: Emergent, Subtidal, Scrub-Shrub, Intertidal, Forested
Mixed marsh
Surrounding/Adjacent Land Use: developed

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 S. alterniflora	H	OBL	5		
2 Iva frutescens	S	FACW	6		
3 Phragmites	H	FACW	7		
4			8		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator	Additional Species Present (Not Dominant)	Stratum	Indicator
1			4		
2			5		
3			6		

Percent Herbaceous Cover: 0-1 | 1-10 | 10-25 | 25-50 | (50-75) | 75-100
Percent Canopy Cover: 0-25 | 25-50 | 50-75 | 75-100
Size of Plot: 100
DBH of Trees in Plot:
Number of Trees in Plot:
Percent Unvegetated Surface Area: 0-25 | 25-50 | 50-75 | 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: 0-6 (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☑ Inundated
☑ Saturated in Upper 12 inches
☐ Water Marks
☐ Drift Lines
☑ Sediment Deposits
☑ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☑ Water-Stained Leaves
☐ Local Soil Survey Data
☑ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

Geese, brants

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(*Revised April 2007*)

Transect/Plot ID#: 49
Investigators: clayton/reech Clayton&Bernick
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks: Shoreline (main Creek)

Date and Time: 5/23/07 10/1/07
Photo #:
General Location Description: Main Creek
GPS Location Description: 40° 35'170" 74° 10' 9.74"
Weather Conditions: Sunny 75° / overcast 68°F

VEGETATION

Cowardin System: Upland (Estuarine) / Palustrine Lacustrine / Riverine Palustrine
Subsystem: (Emergent) Subtidal / Scrub-Shrub (Intertidal) / Forested
Surrounding/Adjacent Land Use: Landfill

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	Phragmites	H	FACW	5			
2	Spartina	H	OBL	6			
3	Ragweed	H	–	7			
4				8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1	willow oak	T	FAC+	4			
2	pitch pine	T	FAC-	5			
3				6			

Percent Herbaceous Cover:	0-1	1-10	10-25	25-50	(50-75)	75-100
Percent Canopy Cover:	0-25	25-50	50-75	75-100		
Percent Unvegetated Surface Area:	0-25	25-50	50-75	75-100		

Size of Plot: 25
Number of Trees in Plot:
DBH of Trees in Plot:
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: 0-3 (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☑ Inundated
☑ Saturated in Upper 12 inches
☑ Water Marks
☐ Drift Lines
☑ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☑ Water-Stained Leaves
☐ Local Soil Survey Data
☑ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

Black Skimmer
Wood duck
laughing gull
ring billed gull
northern harrier
American Kestral
red-winged blackbird
brown headed Cow-bird
Savannah Sparrow

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(*Revised April 2007*)

Transect/Plot ID#: 50
Investigators: clayton/reech
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks: Main Creek Shoreline Area

Date and Time: 5/23/07
Photo #:
General Location Description: Main Creek
GPS Location Description: confluence
Weather Conditions: Sunny 75°

VEGETATION

Cowardin System: (Upland) Estuarine / Palustrine Lacustrine / Riverine Palustrine
Subsystem: Emergent Subtidal / Scrub-Shrub Intertidal / Forested
Surrounding/Adjacent Land Use: Landfill/developed

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	B. Locust	T	FACU-	5	Knotweed	H	FACU-
2	Tree of Heaven	T	–	6			
3	Phragmites	H	FACW	7			
4	Ragweed	H	–	8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover:	0-1	1-10	10-25	25-50	(50-75)	75-100
Percent Canopy Cover:	(0-25)	25-50	50-75	75-100		
Percent Unvegetated Surface Area:	0-25	25-50	50-75	75-100		

Size of Plot: 100
Number of Trees in Plot: 3
DBH of Trees in Plot: 10-12"
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☐ Saturated in Upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks: near upland/wetland transition

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(*Revised April 2007*)

Transect/Plot ID#: 51
Investigators: Clayton / Reich
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (X) Yes ( ) No
Is the Sampling Area significantly disturbed (Atypical Situation)? ( ) Yes (X) No
Level of Disturbance (explain below): Light (Med.) Heavy
Remarks: Main Creek / Richmond Ck.

Date and Time: 5/23/07
Photo #:
General Location Description: confluence
GPS Location Description:
Weather Conditions: Sunny 73°

VEGETATION

Cowardin System: Upland (Estuarine) Palustrine Lacustrine Riverine Palustrine
Subsystem: (Emergent) Scrub-Shrub Forested Subtidal (Intertidal)
bulkheaded and natural shorelines
Surrounding/Adjacent Land Use: developed

Dominant Plant Species		Stratum	Indicator	Dominant Plant Species		Stratum	Indicator
1	Phragmites	H	FACW	5			
2	S. alterniflora	H	OBL	6			
3	Baccharis	S	FACW	7			
4	Mulberry	S	UPL	8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)		Stratum	Indicator	Additional Species Present (Not Dominant)		Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover: 0-1 | 1-10 | 10-25 | (25-50) | 50-75 | 75-100
Percent Canopy Cover: (0-25) | 25-50 | 50-75 | 75-100
Size of Plot: 100
DBH of Trees in Plot:
Number of Trees in Plot:
Percent Unvegetated Surface Area: 0-25 | 25-50 | 50-75 | 75-100
Explain:

HYDROLOGY

( ) Recorded Data (describe in Remarks)
( ) Stream, Lake, or Tide Gauge
( ) Aerial Photographs
( ) Other
( ) No recorded data available

Field Observations:
Depth of Surface Water: 0-6f (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
(X) Inundated
(X) Saturated in Upper 12 inches
( ) Water Marks
( ) Drift Lines
( ) Sediment Deposits
(X) Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
( ) Oxidized Root Channels in Upper 12"
(X) Water-Stained Leaves
( ) Local Soil Survey Data
(X) FAC-Neutral Test
( ) Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)
B.C. Night Heron

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(*Revised April 2007*)

Transect/Plot ID#: 52
Investigators: Clayton / Reich Clayton/Bernick
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? ( ) Yes (X) No
Is the Sampling Area significantly disturbed (Atypical Situation)? (X) Yes ( ) No
Level of Disturbance (explain below): Light (Med.) Heavy
Remarks: former stormwater basin

Date and Time: 5/23/07 10/01/07
Photo #:
General Location Description: former Travis Landfill Area
GPS Location Description: 40°35'612" 74°10'953"
Weather Conditions: Sunny 73° / overcast 68°F

VEGETATION

Cowardin System: (Upland) Estuarine Palustrine Lacustrine Riverine Palustrine
Subsystem: Emergent Scrub-Shrub Forested Subtidal Intertidal
Surrounding/Adjacent Land Use:

Dominant Plant Species		Stratum	Indicator	Dominant Plant Species		Stratum	Indicator
1	Mugwort	H	-	5	Tree of Heaven	T	-
2	goldenrod	H	FAC	6			
3	Cottonwood	T	FAC	7			
4	B. T. Aspen	T	FACU-	8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)		Stratum	Indicator	Additional Species Present (Not Dominant)		Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover: 0-1 | 1-10 | 10-25 | (25-50) | 50-75 | 75-100
Percent Canopy Cover: (0-25) | 25-50 | 50-75 | 75-100
Size of Plot: 200
DBH of Trees in Plot: 1-5"
Number of Trees in Plot: 13
Percent Unvegetated Surface Area: 0-25 | 25-50 | 50-75 | 75-100
Explain:

HYDROLOGY

( ) Recorded Data (describe in Remarks)
( ) Stream, Lake, or Tide Gauge
( ) Aerial Photographs
( ) Other
( ) No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
( ) Inundated
( ) Saturated in Upper 12 inches
( ) Water Marks
( ) Drift Lines
( ) Sediment Deposits
( ) Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
( ) Oxidized Root Channels in Upper 12"
( ) Water-Stained Leaves
( ) Local Soil Survey Data
( ) FAC-Neutral Test
( ) Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)
Balt. Oriole
immature northern harrier finding on meadow vole

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(*Revised April 2007*)

Transect/Plot ID#: 53
Investigators: clayton/reem
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? (Yes) No
Level of Disturbance (explain below): Light (Med.) (Heavy)
Remarks: former Travis Landfill Area

Date and Time: 5/23/07
Photo #:
General Location Description: Travis Landfill Area
GPS Location Description: 40° 35' 382" 74° 11' 015"
Weather Conditions: Sunny 79°

VEGETATION

Cowardin System: (Upland) Palustrine Riverine; Estuarine Lacustrine Palustrine
Subsystem: Emergent Scrub-Shrub Forested; Subtidal Intertidal
Phrag w/ woody
Surrounding/Adjacent Land Use: Landfill

Dominant Plant Species		Stratum	Indicator	Dominant Plant Species		Stratum	Indicator
1	Phragmites	H	FACW	5			
2	Mugwort	H		6			
3				7			
4				8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)		Stratum	Indicator	Additional Species Present (Not Dominant)		Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover: 0-1 | 1-10 | 10-25 | 25-50 | 50-75 | (75-100)
Percent Canopy Cover: 0-25 | 25-50 | 50-75 | 75-100
Size of Plot: 25
DBH of Trees in Plot:
Number of Trees in Plot:
Percent Unvegetated Surface Area: 0-25 | 25-50 | 50-75 | 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☐ Saturated in Upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(*Revised April 2007*)

Transect/Plot ID#: 54
Investigators: clayton/reem
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? (Yes) No
Level of Disturbance (explain below): Light (Med.) (Heavy)
Remarks: former Landfill

Date and Time: 5/23/07
Photo #:
General Location Description: Travis Landfill
GPS Location Description: 40° 35' 341" 74° 10' 793"
Weather Conditions:

VEGETATION

Cowardin System: (Upland) Palustrine Riverine; Estuarine Lacustrine Palustrine
Subsystem: Emergent Scrub-Shrub Forested; Subtidal Intertidal
Phrag w/ woody
Surrounding/Adjacent Land Use: Landfill

Dominant Plant Species		Stratum	Indicator	Dominant Plant Species		Stratum	Indicator
1	Phragmites	H	FACW	5			
2	Mugwort	H		6			
3				7			
4				8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)		Stratum	Indicator	Additional Species Present (Not Dominant)		Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover: 0-1 | 1-10 | 10-25 | 25-50 | 50-75 | (75-100)
Percent Canopy Cover: 0-25 | 25-50 | 50-75 | 75-100
Size of Plot: 25
DBH of Trees in Plot:
Number of Trees in Plot:
Percent Unvegetated Surface Area: 0-25 | 25-50 | 50-75 | 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☐ Saturated in Upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 55
Investigators: clayton/rech
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): Light (Med) (Heavy)
Remarks: former landfill

Date and Time: 5/23/07
Photo #:
General Location Description: Travis Landfill
GPS Location Description:
Weather Conditions: sunny 79°

VEGETATION

Cowardin System: (Upland) Estuarine / Palustrine Lacustrine / Riverine Palustrine
Subsystem: Emergent Subtidal / Scrub-Shrub Intertidal / Forested
Phrag w/woody veg.
Surrounding/Adjacent Land Use: Landfill

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	Tree of Heaven	T	–	5	Mugwort	H	–
2	Black Cherry	T	FACW	6			
3	Phragmites	H	FACW	7			
4	Knotweed	H	FACW	8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover: 0-1 | 1-10 | 10-25 | 25-50 | 50-75 | (75-100)
Percent Canopy Cover: (0-25) | 25-50 | 50-75 | 75-100
Size of Plot: 100
DBH of Trees in Plot:
Percent Unvegetated Surface Area: 0-25 | 25-50 | 50-75 | 75-100
Number of Trees in Plot:
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☐ Saturated in Upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 56
Investigators: Clayton/Rech
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): Light (Med.) (Heavy)
Remarks: former landfill

Date and Time: 5/23/07
Photo #:
General Location Description: Travis Landfill Area
GPS Location Description: 40° 33' 47.78" 74° 10' 9.52"
Weather Conditions: sunny 79°

VEGETATION

Cowardin System: (Upland) Estuarine / Palustrine Lacustrine / Riverine Palustrine
Subsystem: Emergent Subtidal / Scrub-Shrub Intertidal / Forested
Phrag w/ woody veg
Surrounding/Adjacent Land Use: Landfill

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	Tree of Heaven	T	–	5			
2	Black Cherry	T	FACW	6			
3	Black Locust	T	FACU–	7			
4	Phragmites	H	FACW	8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover: 0-1 | 1-10 | 10-25 | 25-50 | 50-75 | (75-100)
Percent Canopy Cover: (0-25) | 25-50 | 50-75 | 75-100
Size of Plot: 200
DBH of Trees in Plot: 1-6"
Percent Unvegetated Surface Area: 0-25 | 25-50 | 50-75 | 75-100
Number of Trees in Plot: 20
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☐ Saturated in Upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 57
Investigators: clayton/rech
Primary or Secondary Study Area? Primary Secondary
Do Normal Circumstances exist within the Sampling Area? ☒ Yes ☐ No
Is the Sampling Area significantly disturbed (Atypical Situation)? ☒ Yes ☐ No
Level of Disturbance (explain below): Light Med Heavy
Remarks: former Travis Landfill Area

Date and Time: 5/23/07
Photo #:
General Location Description: Travis Landfill
GPS Location Description:
Weather Conditions: sunny 80°

VEGETATION

Cowardin System: Upland / Palustrine / Riverine; Estuarine / Lacustrine / Palustrine
Subsystem: Emergent / Scrub-Shrub / Forested; Subtidal / Intertidal
Phrag w/ woody
Surrounding/Adjacent Land Use: Landfill

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 Phragmites	H	FACW	5		
2			6		
3			7		
4			8		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator	Additional Species Present (Not Dominant)	Stratum	Indicator
1			4		
2			5		
3			6		

Percent Herbaceous Cover:	0-1	1-10	10-25	25-50	50-75	75-100
						☒

Percent Canopy Cover:	0-25	25-50	50-75	75-100

Percent Unvegetated Surface Area:	0-25	25-50	50-75	75-100

Size of Plot: 25
DBH of Trees in Plot:
Number of Trees in Plot:
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☐ Saturated in Upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

Misc. passerines (robin, grackle, mockingbird)

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FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 58
Investigators: clayton/rech
Primary or Secondary Study Area? Primary Secondary
Do Normal Circumstances exist within the Sampling Area? ☒ Yes ☐ No
Is the Sampling Area significantly disturbed (Atypical Situation)? ☒ Yes ☐ No
Level of Disturbance (explain below): Light Med Heavy
Remarks: former Travis Landfill

Date and Time: 5/23/07
Photo #:
General Location Description: Travis Landfill
GPS Location Description:
Weather Conditions: Sunny 79°

VEGETATION

Cowardin System: Upland / Palustrine / Riverine; Estuarine / Lacustrine / Palustrine
Subsystem: Emergent / Scrub-Shrub / Forested; Subtidal / Intertidal
Phrag w/ woody
Surrounding/Adjacent Land Use: Landfill

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 Tree of Heaven	T	–	5		
2 Tatarian Honeysuckle	H	FACU	6		
3 Goldenrod	H	FAC	7		
4 Phragmites	H	FACW	8		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator	Additional Species Present (Not Dominant)	Stratum	Indicator
1			4		
2			5		
3			6		

Percent Herbaceous Cover:	0-1	1-10	10-25	25-50	50-75	75-100
						☒

Percent Canopy Cover:	0-25	25-50	50-75	75-100
	☒			

Percent Unvegetated Surface Area:	0-25	25-50	50-75	75-100

Size of Plot: 100
DBH of Trees in Plot: 3-10"
Number of Trees in Plot: 18
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☐ Saturated in Upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

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FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 59
Investigators: clayton/reech
Primary or Secondary Study Area? Primary / Secondary
Do Normal Circumstances exist within the Sampling Area? (X) Yes ( ) No
Is the Sampling Area significantly disturbed (Atypical Situation)? (X) Yes ( ) No
Level of Disturbance (explain below): Light (Med.) (Heavy)
Remarks: former landfill area

Date and Time: 5/23/07
Photo #:
General Location Description: Travis Landfill
GPS Location Description:
Weather Conditions: Sunny 79°

VEGETATION

Cowardin System: (Upland) Palustrine Riverine Estuarine Lacustrine Palustrine
Subsystem: Emergent Scrub-Shrub Forested Subtidal Intertidal
Surrounding/Adjacent Land Use: maturing woodland / landfill/developed

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	B. Cherry	T	FACU	5			
2	Maple	T	FAC	6			
3	Knotweed	H	FACU-	7			
4	Raywseed	H	FACW	8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover: 0-1 / 1-10 / 10-25 / 25-50 / (50-75) / 75-100
Percent Canopy Cover: (0-25) / 25-50 / 50-75 / 75-100
Size of Plot: 200
DBH of Trees in Plot: 16-22"
Number of Trees in Plot: 10
Percent Unvegetated Surface Area: 0-25 / 25-50 / 50-75 / 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☐ Saturated in Upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks: near trib to Richmond Creek

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)
(Note behavior and/or activity in addition to species)

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FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 60
Investigators: clayton/reech
Primary or Secondary Study Area? Primary / Secondary
Do Normal Circumstances exist within the Sampling Area? (X) Yes ( ) No
Is the Sampling Area significantly disturbed (Atypical Situation)? ( ) Yes (X) No
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks: forested wetland along Arthur Kill Road

Date and Time: 5/23/07, 10/3/07
Photo #:
General Location Description: South Park Area
GPS Location Description: 40° 33' 783" 74° 11' 597"
Weather Conditions: Sunny 80°

VEGETATION

Cowardin System: (Upland) Palustrine Riverine Estuarine Lacustrine Palustrine
Subsystem: Emergent Scrub-Shrub (Forested) Subtidal Intertidal
Surrounding/Adjacent Land Use: Palustrine forested

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	R. Maple	T	FAC	5	Garlic Mustard	H	FACU-
2	S. Gum	T	FAC	6	Greenbriar	H	FAC
3	Knotweed	H	FACU-	7			
4	Spicebush	S	FACW	8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover: 0-1 / 1-10 / 10-25 / 25-50 / 50-75 / (75-100)
Percent Canopy Cover: 0-25 / 25-50 / 50-75 / (75-100)
Size of Plot: 200
DBH of Trees in Plot: 12-22"
Number of Trees in Plot: 8
Percent Unvegetated Surface Area: 0-25 / 25-50 / 50-75 / 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☒ Inundated
☒ Saturated in Upper 12 inches
☒ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☒ Water-Stained Leaves
☐ Local Soil Survey Data
☒ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)
(Note behavior and/or activity in addition to species)

10/1/07

AKRF

Bernick/Clayton Wildlife near points 60/61/62:
hairy woodpecker
red-bellied woodpecker
northern flicker
tufted titmouse
black-capped Chickadee
Swainson's thrush

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 61
Investigators: Clayton/Reech
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks: " Muldoon Ave. Wet woodland "

Date and Time: 5/23/07
Photo #:
General Location Description: South Park Area
GPS Location Description: 40° 33' 83" 74° 11' 603"
Weather Conditions:

VEGETATION

Cowardin System: Upland (Palustrine) Estuarine / Riverine Lacustrine Palustrine
Subsystem: Emergent Subtidal / Scrub-Shrub Intertidal / (Forested)
PFO
Surrounding/Adjacent Land Use: wooded

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 Elm	T	FACW	5 Jewelweed	H	FACW
2 R. Maple	T	FAC	6 Impatiens		
3 R. Oak	T	FACW	7 Arrow wood	S	FAC
4 SweetGum	T	FACW	8 Poison Ivy	H	FAC

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator	Additional Species Present (Not Dominant)	Stratum	Indicator
1			4		
2			5		
3			6		

Percent Herbaceous Cover: 0-1 | 1-10 | 10-25 | 25-50 | 50-75 | (75-100)
Percent Canopy Cover: 0-25 | 25-50 | 50-75 | (75-100)
Size of Plot: 900
DBH of Trees in Plot: 12-22"
Number of Trees in Plot: 8
Percent Unvegetated Surface Area: 0-25 | 25-50 | 50-75 | 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☒ Saturated in Upper 12 inches
☒ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☒ Water-Stained Leaves
☐ Local Soil Survey Data
☒ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks: wetland hydrology observed

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)
(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 62
Investigators: Clayton/Reech
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks: Forested Area

Date and Time: 5/23/07
Photo #:
General Location Description: muldoon Ave wet woodland
GPS Location Description: 40° 33' 856" 74° 11' 620"
Weather Conditions:

VEGETATION

Cowardin System: Upland (Palustrine) Estuarine / Riverine Lacustrine Palustrine
Subsystem: Emergent Subtidal / Scrub-Shrub Intertidal / (Forested)
PFO
Surrounding/Adjacent Land Use: wooded

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 Jewelweed	H	FACW	5 R. Maple	T	FAC
2 Poison Ivy	H	FAC	6 Sweetgum	T	FAC
3 Virginia Creeper	H	FACU	7 Pin Oak	T	FACW
4			8 Arrowwood	S	FAC

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator	Additional Species Present (Not Dominant)	Stratum	Indicator
1			4		
2			5		
3			6		

Percent Herbaceous Cover: 0-1 | 1-10 | 10-25 | (25-50) | 50-75 | 75-100
Percent Canopy Cover: 0-25 | 25-50 | 50-75 | (75-100)
Size of Plot: 900
DBH of Trees in Plot: 12-22"
Number of Trees in Plot: 12
Percent Unvegetated Surface Area: 0-25 | 25-50 | 50-75 | 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☑ Saturated in Upper 12 inches
☒ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☒ Oxidized Root Channels in Upper 12"
☒ Water-Stained Leaves
☐ Local Soil Survey Data
☒ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)
(Note behavior and/or activity in addition to species)

AKRF

10/1/01
Bernik/Clayton
Wildlife near points 60/61/62:
hairy woodpecker, red-bellied woodpecker, northern flicker
tufted titmouse, black-capped chickadee, Swainson's thrush

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 63
Investigators: clayton / reich
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks:

Date and Time: 5/23/07
Photo #:
General Location Description: Arthur kill Rd. woodland
GPS Location Description: 40° 33' 998" 74° 11' 148"
Weather Conditions: Sunny 82°

VEGETATION

Cowardin System: (Upland) Estuarine / Palustrine Lacustrine / Riverine Palustrine
Subsystem: (Emergent) Subtidal / Scrub-Shrub Intertidal / Forested
Young woodland
Surrounding/Adjacent Land Use: wooded/developed

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 Black Cherry	T	FACU	5 Va. Creeper	H	FACW
2 Pin Oak	T	FACW	6 Tree of Heaven	T	
3 Silver Maple *	T	FACW	7 Spice Bush	S	FACW
4 Arrowwood	S	FAC	8 Sassafras	T	FACU-

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator	Additional Species Present (Not Dominant)	Stratum	Indicator
1			4		
2			5		
3			6		

Percent Herbaceous Cover: 0-1 | 1-10 | 10-25 | (25-50) | 50-75 | 75-100
Percent Canopy Cover: 0-25 | 25-50 | (50-75) | 75-100
Size of Plot: 200
DBH of Trees in Plot: 12-18"
Number of Trees in Plot:
Percent Unvegetated Surface Area: 0-25 | 25-50 | 50-75 | 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☐ Saturated in Upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks: wetland hydrology not observed

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

* Mix of wetland tolerant and upland trees and plants

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 64
Investigators: clayton / Reich
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks:

Date and Time: 5/23/07
Photo #:
General Location Description: Arthur kill Rd. woodland
GPS Location Description: 40° 33' 978" 74° 11' 173"
Weather Conditions: Sunny 82°

VEGETATION

Cowardin System: Upland / Palustrine (Estuarine) Lacustrine / Riverine Palustrine
Subsystem: Emergent / (Scrub-Shrub) Subtidal / (Forested) Intertidal
PFO
Surrounding/Adjacent Land Use: wooded/developed

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 Red Maple	T	FAC	5 Va. Creeper	H	FACW
2 Pin Oak	T	FACW	6 Poison Ivy	H	FAC
3 Black Gum	T	FAC	7 Jewelweed	H	FACW
4 Arrowwood	S	FAC	8		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator	Additional Species Present (Not Dominant)	Stratum	Indicator
1			4		
2			5		
3			6		

Percent Herbaceous Cover: 0-1 | 1-10 | 10-25 | 25-50 | (50-75) | 75-100
Percent Canopy Cover: 0-25 | 25-50 | (50-75) | 75-100
Size of Plot: 200
DBH of Trees in Plot: 12-18"
Number of Trees in Plot:
Percent Unvegetated Surface Area: 0-25 | 25-50 | 50-75 | 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☒ Inundated
☒ Saturated in Upper 12 inches
☒ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☒ Oxidized Root Channels in Upper 12"
☒ Water-Stained Leaves
☐ Local Soil Survey Data
☒ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks: wetland hydrology observed

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(*Revised April 2007*)

Transect/Plot ID#: 65
Investigators: Clayton / Reich
Primary or Secondary Study Area? Primary Secondary
Do Normal Circumstances exist within the Sampling Area? Yes No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes No
Level of Disturbance (explain below): Light Med. Heavy
Remarks: Arthur Kill Road Woodland

Date and Time: 5/23/07
Photo #:
General Location Description: South Park Area
GPS Location Description: 40° 33' 950" 74° 11' 1099"
Weather Conditions: Sunny 80°

VEGETATION

Cowardin System: Upland, Estuarine, Palustrine, Lacustrine, Riverine, Palustrine
Subsystem: Emergent, Subtidal, Scrub-Shrub, Intertidal, Forested
PFO
Surrounding/Adjacent Land Use: wooded/developed

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	Sweetgum	T	FAC	5	Arrowwood	S	FAC
2	Birch	T	FAC	6	Poison Ivy	H	FAC
3	Pin Oak	T	FACW	7	Va. Creeper	H	FACW
4	R. Maple	T	FAC	8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover:	0-1	1-10	10-25	25-50	50-75	75-100
					✓	

Percent Canopy Cover:	0-25	25-50	50-75	75-100
			✓	

Size of Plot: 200
Number of Trees in Plot: 10
DBH of Trees in Plot: 18-22"

Percent Unvegetated Surface Area:	0-25	25-50	50-75	75-100

Explain:

HYDROLOGY

- ☐ Recorded Data (describe in Remarks)
  - ☐ Stream, Lake, or Tide Gauge
  - ☐ Aerial Photographs
  - ☐ Other
- ☐ No recorded data available

Field Observations:
- Depth of Surface Water: _____ (in.)
- Depth to Free Water in Pit: _____ (in.)
- Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☐ Inundated
- ☑ Saturated in Upper 12 inches
- ☑ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels in Upper 12"
- ☑ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☑ FAC-Neutral Test
- ☐ Other (explain in remarks)

Remarks: wetland hydrology observed

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(*Revised April 2007*)

Transect/Plot ID#: 66
Investigators: Clayton / Reich
Primary or Secondary Study Area? Primary Secondary
Do Normal Circumstances exist within the Sampling Area? Yes No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes No
Level of Disturbance (explain below): Light Med. Heavy
Remarks: Arthur Kill Road Woodland

Date and Time: 5/23/07
Photo #:
General Location Description: South Park Area
GPS Location Description: 40° 33' 895" 74° 11' 244"
Weather Conditions: Sunny 81°

VEGETATION

Cowardin System: Upland, Estuarine, Palustrine, Lacustrine, Riverine, Palustrine
Subsystem: Emergent, Subtidal, Scrub-Shrub, Intertidal, Forested
Palustrine Forested
Surrounding/Adjacent Land Use: wooded/developed

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	Sweetgum	T	FAC	5	Poison Ivy	H	FAC
2	R. Maple	T	FAC	6			
3	Pin Oak	T	FACW	7			
4	Arrowwood	S	FAC	8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover:	0-1	1-10	10-25	25-50	50-75	75-100
					✓	

Percent Canopy Cover:	0-25	25-50	50-75	75-100
			✓	

Size of Plot: 200
Number of Trees in Plot: 12
DBH of Trees in Plot: 12-22"

Percent Unvegetated Surface Area:	0-25	25-50	50-75	75-100

Explain:

HYDROLOGY

- ☐ Recorded Data (describe in Remarks)
  - ☐ Stream, Lake, or Tide Gauge
  - ☐ Aerial Photographs
  - ☐ Other
- ☐ No recorded data available

Field Observations:
- Depth of Surface Water: _____ (in.)
- Depth to Free Water in Pit: _____ (in.)
- Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☐ Inundated
- ☑ Saturated in Upper 12 inches
- ☑ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels in Upper 12"
- ☑ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☑ FAC-Neutral Test
- ☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(*Revised April 2007*)

Transect/Plot ID#: 67
Investigators: Clayton/Reed
Primary or Secondary Study Area? Primary / Secondary
Do Normal Circumstances exist within the Sampling Area? (X) Yes ( ) No
Is the Sampling Area significantly disturbed (Atypical Situation)? ( ) Yes (X) No
Level of Disturbance (explain below): Light / Med. / Heavy
Remarks: ~~Arden~~ Arden Heights Woodland

Date and Time: 5/23/07
Photo #:
General Location Description: South of Expressway
GPS Location Description: 40°33'483" 74°11'944"
Weather Conditions: Sunny 80°

VEGETATION

Cowardin System: (Upland) Palustrine Riverine; Estuarine Lacustrine Palustrine
Subsystem: Emergent Scrub-Shrub Forested; Subtidal Intertidal
Maturing woodland
Surrounding/Adjacent Land Use: wooded/developed

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	B. Cherry	T	FACW	5	Ironwood	H	FAC-
2	Red Maple	T	FAC	6	Multiflora Rose	S	FACU
3	Sp. Locust	T	FACU-	7			
4	Tree of Heaven	T	–	8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover: 0-1 / 1-10 / 10-25 / (25-50) / 50-75 / 75-100
Percent Canopy Cover: 0-25 / 25-50 / 50-75 / (75-100)
Size of Plot: 200
DBH of Trees in Plot: 3-16"
Number of Trees in Plot: 15
Percent Unvegetated Surface Area: 0-25 / 25-50 / 50-75 / 75-100
Explain:

HYDROLOGY

( ) Recorded Data (describe in Remarks)
( ) Stream, Lake, or Tide Gauge
( ) Aerial Photographs
( ) Other
( ) No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
( ) Inundated
( ) Saturated in Upper 12 inches
( ) Water Marks
( ) Drift Lines
( ) Sediment Deposits
( ) Drainage Patters in Wetlands
Secondary Indicators (2 or more required):
( ) Oxidized Root Channels in Upper 12"
( ) Water-Stained Leaves
( ) Local Soil Survey Data
( ) FAC-Neutral Test
( ) Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(*Revised April 2007*)

Transect/Plot ID#: 68
Investigators: Clayton/Reed
Primary or Secondary Study Area? (X) Primary / Secondary
Do Normal Circumstances exist within the Sampling Area? (X) Yes ( ) No
Is the Sampling Area significantly disturbed (Atypical Situation)? ( ) Yes (X) No
Level of Disturbance (explain below): Light / Med. / Heavy
Remarks: Arden Heights Woodland

Date and Time: 5/23/07
Photo #:
General Location Description: South of Expressway
GPS Location Description: 40°33'511" 74°12'008"
Weather Conditions: Sunny 80°

VEGETATION

Cowardin System: (Upland) Palustrine Riverine; Estuarine Lacustrine Palustrine
Subsystem: Emergent Scrub-Shrub Forested; Subtidal Intertidal
Young Woodland Area
Surrounding/Adjacent Land Use: wooded/developed

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	Birch	T	FAC	5	Phragmites	H	FACW
2	Cottonwood	T	FAC	6			
3	Pin Oak	T	FACW	7			
4	Poison Ivy	H	FAC	8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover: 0-1 / 1-10 / 10-25 / (25-50) / 50-75 / 75-100
Percent Canopy Cover: 0-25 / (25-50) / 50-75 / 75-100
Size of Plot: 200
DBH of Trees in Plot: 3-18"
Number of Trees in Plot: 12
Percent Unvegetated Surface Area: 0-25 / 25-50 / 50-75 / 75-100
Explain:

HYDROLOGY

( ) Recorded Data (describe in Remarks)
( ) Stream, Lake, or Tide Gauge
( ) Aerial Photographs
( ) Other
( ) No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
( ) Inundated
( ) Saturated in Upper 12 inches
( ) Water Marks
( ) Drift Lines
( ) Sediment Deposits
( ) Drainage Patters in Wetlands
Secondary Indicators (2 or more required):
( ) Oxidized Root Channels in Upper 12"
( ) Water-Stained Leaves
( ) Local Soil Survey Data
( ) FAC-Neutral Test
( ) Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

Bernick/Bright 10/3/07 Wildlife near points 68/71/72:
Opossum dog brown thrasher
gray squirrel white tailed deer Swainson's thrush
raccoon feral cat wood thrush

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(*Revised April 2007*)

Transect/Plot ID#: 69
Investigators: Clayton / Reich
Primary or Secondary Study Area? Primary Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks: Arden Heights Woodland

Date and Time: 5/23/07
Photo #:
General Location Description: South of Expressway
GPS Location Description:
Weather Conditions: Sunny 80°

VEGETATION

Cowardin System: Upland Estuarine / Palustrine Lacustrine / Riverine (Palustrine)
Subsystem: Emergent Subtidal / Scrub-Shrub Intertidal / (Forested)
Palustrine forested
Surrounding/Adjacent Land Use: wooded/developed

Dominant Plant Species		Stratum	Indicator	Dominant Plant Species		Stratum	Indicator
1	Pin Oak	T	FACW	5			
2	Arrowwood	S	FAC	6			
3	Poison Ivy	H	FAC	7			
4	Greenbrier	H	FAC	8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)		Stratum	Indicator	Additional Species Present (Not Dominant)		Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover:	0-1	1-10	10-25	(25-50)	50-75	75-100
Percent Canopy Cover:	0-25	25-50	(50-75)	75-100		
Percent Unvegetated Surface Area:	0-25	25-50	50-75	75-100		

Size of Plot: 700
Number of Trees in Plot: 9
DBH of Trees in Plot: 10-20"
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☒ Saturated in Upper 12 inches
☒ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☒ Water-Stained Leaves
☐ Local Soil Survey Data
☒ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks: wetland hydrology observed

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(*Revised April 2007*)

Transect/Plot ID#: 70
Investigators: Clayton / Reich
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks: Arden Heights Woodland

Date and Time: 5/23/07
Photo #:
General Location Description: South of Expressway
GPS Location Description:
Weather Conditions: Sunny 80°

VEGETATION

Cowardin System: (Upland) Estuarine / Palustrine Lacustrine / Riverine Palustrine
Subsystem: Emergent Subtidal / Scrub-Shrub Intertidal / (Forested)
maturing woodland
Surrounding/Adjacent Land Use: wooded/developed

Dominant Plant Species		Stratum	Indicator	Dominant Plant Species		Stratum	Indicator
1	Pin Oak	T	FACW	5	Poison Ivy	H	FAC
2	Chestnut Oak	T	UPL	6			
3	Sassafras	T	FACU	7			
4	Greenbrier	H	FAC	8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)		Stratum	Indicator	Additional Species Present (Not Dominant)		Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover:	0-1	1-10	10-25	(25-50)	50-75	75-100
Percent Canopy Cover:	0-25	25-50	(50-75)	75-100		
Percent Unvegetated Surface Area:	0-25	25-50	50-75	75-100		

Size of Plot: 200
Number of Trees in Plot:
DBH of Trees in Plot: 18-26"
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☐ Saturated in Upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks: wetland hydrology not observed

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 71
Investigators: clayton/reech
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks: Large open water vernal pool area

Date and Time: 5/23/07
Photo #:
General Location Description: Arden Heights woodland
GPS Location Description:
Weather Conditions: Sunny 81°

VEGETATION

Cowardin System: Upland / Estuarine / Palustrine / Lacustrine / Riverine / (Palustrine)
Subsystem: Emergent / Subtidal / Scrub-Shrub / Intertidal / Forested
POW/PUB
Surrounding/Adjacent Land Use: wooded

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1			5		
2			6		
3			7		
4			8		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator	Additional Species Present (Not Dominant)	Stratum	Indicator
1			4		
2			5		
3			6		

Percent Herbaceous Cover:	0-1	1-10	10-25	25-50	50-75	75-100
Percent Canopy Cover:	0-25	25-50	50-75	75-100		
Percent Unvegetated Surface Area:	0-25	25-50	50-75	75-100		

Size of Plot:
DBH of Trees in Plot:
Number of Trees in Plot:
Explain:

HYDROLOGY

- ☐ Recorded Data (describe in Remarks)
  - ☐ Stream, Lake, or Tide Gauge
  - ☐ Aerial Photographs
  - ☐ Other
- ☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- ☐ Inundated
- ☐ Saturated in Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels in Upper 12"
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)
(Note behavior and/or activity in addition to species)

vernal pool w/in maturing woodland area

FRESH KILLS PARK
NATURAL RESOURCES SURVEY
DATA FORM
(Revised April 2007)

Transect/Plot ID#: 72
Investigators: clayton/reech
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks: Arden Heights woodland

Date and Time: 5/23/07
Photo #:
General Location Description: South of Expressway
GPS Location Description:
Weather Conditions: Sunny 82°

VEGETATION

Cowardin System: (Upland) / Estuarine / Palustrine / Lacustrine / Riverine / Palustrine
Subsystem: Emergent / Subtidal / Scrub-Shrub / Intertidal / (Forested)
woodland
Surrounding/Adjacent Land Use: wooded/developed

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 Elm	T	FACW	5 TS. Locust	T	FACU-
2 Violet	H	-	6		
3 Knotweed	H	FACW	7		
4 TS. Cherry	T	FACU	8		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator	Additional Species Present (Not Dominant)	Stratum	Indicator
1			4		
2			5		
3			6		

Percent Herbaceous Cover:	0-1	1-10	(10-25)	25-50	50-75	75-100
Percent Canopy Cover:	0-25	(25-50)	50-75	75-100		
Percent Unvegetated Surface Area:	0-25	25-50	50-75	75-100		

Size of Plot: 200
DBH of Trees in Plot: 10-20"
Number of Trees in Plot: 10
Explain:

HYDROLOGY

- ☐ Recorded Data (describe in Remarks)
  - ☐ Stream, Lake, or Tide Gauge
  - ☐ Aerial Photographs
  - ☐ Other
- ☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- ☐ Inundated
- ☐ Saturated in Upper 12 inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels in Upper 12"
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)
(Note behavior and/or activity in addition to species)

AKRF Bernick/Bright 10/3/07 Wildlife near points 68/71/72:

gray squirrel, raccoon, opossum, white tailed deer, feral cat, dog, Swainson's thrush, wood thrush, brown thrasher

AKRF

FRESH KILLS PARK
VEGETATIVE SURVEY DATA FORM
(Revised March 2007)

Transect/Plot ID#: 73
Investigators: Clayton/Reed
Primary or Secondary Study Area? Primary / Secondary
Do Normal Circumstances exist within the Sampling Area? ☐ Yes ☐ No
Is the Sampling Area significantly disturbed (Atypical Situation)? ☐ Yes ☐ No
Level of Disturbance (explain below): Light / Med. / Heavy
Remarks: Arden Woods Park

Date: 5/24/07
Photo #:
General Location Description: South Portion of Park
GPS Location Description:
Weather Conditions: Sunny 78°

VEGETATION

Cowardin System: Upland / Palustrine / Riverine / Estuarine / Lacustrine / Palustrine
Subsystem: Emergent / Scrub-Shrub / Forested / Subtidal / Intertidal
PFO
Surrounding/Adjacent Land Use: wooded developed

	Dominant Plant Species	Stratum	Indicator
1	R. maple	T	FAC
2	Sweetgum	T	FAC
3	S. white oak	T	FACW
4			
5	Knotweed	H	FACW
6	Poison IVY	H	FAC
7	Va. creeper	H	FACW
8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator
1	Red Oak		
2			
3			
4			
5			
6			

Percent Herbaceous Cover: 0-1 / 1-10 / 10-25 / 25-50 / 50-75 / 75-100
Percent Canopy Cover: 0-25 / 25-50 / 50-75 / 75-100
Size of Plot: 200
Number of Trees in Plot: 16
DBH of Trees in Plot: 10-18"
Percent Unvegetated Surface Area: 0-25 / 25-50 / 50-75 / 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☑ Saturated in Upper 12 inches
☑ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☑ Water-Stained Leaves
☐ Local Soil Survey Data
☑ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks: wetland hydrology present

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
VEGETATIVE SURVEY DATA FORM
(Revised March 2007)

Transect/Plot ID#: 74
Investigators: Clayton/Reed
Primary or Secondary Study Area? Primary / Secondary
Do Normal Circumstances exist within the Sampling Area? ☐ Yes ☐ No
Is the Sampling Area significantly disturbed (Atypical Situation)? ☐ Yes ☐ No
Level of Disturbance (explain below): Light / Med. / Heavy
Remarks: Arden Woods Park

Date: 5/24/07
Photo #:
General Location Description: South/central Park
GPS Location Description:
Weather Conditions: Sunny 78°

VEGETATION

Cowardin System: Upland / Palustrine / Riverine / Estuarine / Lacustrine / Palustrine
Subsystem: Emergent / Scrub-Shrub / Forested / Subtidal / Intertidal
PFO
Surrounding/Adjacent Land Use: wooded developed

	Dominant Plant Species	Stratum	Indicator
1	Sweetgum	T	FAC
2	R. maple	T	FAC
3	R. Oak	T	FACU
4	Spicebush	T	FACW
5	P. Ivy	H	FAC
6			
7			
8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator
1			
2			
3			
4			
5			
6			

Percent Herbaceous Cover: 0-1 / 1-10 / 10-25 / 25-50 / 50-75 / 75-100
Percent Canopy Cover: 0-25 / 25-50 / 50-75 / 75-100
Size of Plot: 200
Number of Trees in Plot: 18
DBH of Trees in Plot: 10-22"
Percent Unvegetated Surface Area: 0-25 / 25-50 / 50-75 / 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☑ Saturated in Upper 12 inches
☑ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☑ Water-Stained Leaves
☐ Local Soil Survey Data
☑ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
VEGETATIVE SURVEY DATA FORM
(Revised March 2007)

Transect/Plot ID#: 75
Investigators: Clayton / Reed
Primary or Secondary Study Area? Primary / (Secondary)
Do Normal Circumstances exist within the Sampling Area? [X] Yes [ ] No
Is the Sampling Area significantly disturbed (Atypical Situation)? [ ] Yes [X] No
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks: Arden Woods Park

Date: 5/24/07
Photo #:
General Location Description: Arden Heights
GPS Location Description:
Weather Conditions: Sunny 80°

VEGETATION

Cowardin System: Upland / Palustrine / Riverine / (Palustrine) — Estuarine / Lacustrine
Subsystem: Emergent / (Scrub-Shrub) / (Forested) — Subtidal / Intertidal
PFO
Surrounding/Adjacent Land Use: wooded/developed

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	Sweetgum	T	FAC	5	Bluberry	S	FACW
2	Pin Oak	T	FACW	6	Jewelweed	H	FACW
3	Red Maple	T	FAC	7			
4				8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover: 0-1 / 1-10 / 10-25 / (25-50) / 50-75 / 75-100
Percent Canopy Cover: 0-25 / (25-50) / 50-75 / 75-100
Size of Plot: 200
DBH of Trees in Plot: 10-18"
Number of Trees in Plot: 12
Percent Unvegetated Surface Area: 0-25 / 25-50 / 50-75 / 75-100
Explain:

HYDROLOGY

[ ] Recorded Data (describe in Remarks)
[ ] Stream, Lake, or Tide Gauge
[ ] Aerial Photographs
[ ] Other
[ ] No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
[ ] Inundated
[X] Saturated in Upper 12 inches
[X] Water Marks
[ ] Drift Lines
[ ] Sediment Deposits
[ ] Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
[ ] Oxidized Root Channels in Upper 12"
[X] Water-Stained Leaves
[ ] Local Soil Survey Data
[X] FAC-Neutral Test
[ ] Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
VEGETATIVE SURVEY DATA FORM
(Revised March 2007)

Transect/Plot ID#: 76
Investigators: Clayton / Reed
Primary or Secondary Study Area? Primary / (Secondary)
Do Normal Circumstances exist within the Sampling Area? [X] Yes [ ] No
Is the Sampling Area significantly disturbed (Atypical Situation)? [ ] Yes [X] No
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks: Catoueffe Park

Date: 5/24/07
Photo #:
General Location Description: Catoueffe Park
GPS Location Description:
Weather Conditions: Sunny 81°

VEGETATION

Cowardin System: Upland / Palustrine / Riverine / (Palustrine) — Estuarine / Lacustrine
Subsystem: Emergent / (Scrub-Shrub) / (Forested) — Subtidal / Intertidal
Forested
Surrounding/Adjacent Land Use: wooded/developed

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	sweet gum	T	FAC	5	B. Cherry	T	FACU
2	Ash	T	FAC	6	P. Ivy	H	FAC
3	Oak spp.	T		7			
4	Arrowwood	S	FACW	8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover: 0-1 / 1-10 / (10-25) / 25-50 / 50-75 / 75-100
Percent Canopy Cover: 0-25 / (25-50) / 50-75 / 75-100
Size of Plot: 200
DBH of Trees in Plot: 12-20"
Number of Trees in Plot: 16
Percent Unvegetated Surface Area: 0-25 / 25-50 / 50-75 / 75-100
Explain:

HYDROLOGY

[ ] Recorded Data (describe in Remarks)
[ ] Stream, Lake, or Tide Gauge
[ ] Aerial Photographs
[ ] Other
[ ] No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
[ ] Inundated
[ ] Saturated in Upper 12 inches
[ ] Water Marks
[ ] Drift Lines
[ ] Sediment Deposits
[ ] Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
[ ] Oxidized Root Channels in Upper 12"
[ ] Water-Stained Leaves
[ ] Local Soil Survey Data
[ ] FAC-Neutral Test
[ ] Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

Riparian area near Stream

AKRF

FRESH KILLS PARK
VEGETATIVE SURVEY DATA FORM
(Revised March 2007)

Transect/Plot ID#: 77
Investigators: Clayton / Reech
Primary or Secondary Study Area? (Primary / Secondary)
Do Normal Circumstances exist within the Sampling Area? (Primary) ☒ Yes ☐ No
Is the Sampling Area significantly disturbed (Atypical Situation)? ☐ Yes ☒ No
Level of Disturbance (explain below): Light / Med. / Heavy
Remarks:

Date: 5/24/07
Photo #:
General Location Description: Latourette Park
GPS Location Description:
Weather Conditions: sunny 79°

VEGETATION

Cowardin System: Upland / Palustrine / Riverine; Estuarine / Lacustrine / Palustrine
Subsystem: Emergent / Scrub-Shrub / Forested; Subtidal / Intertidal

Forested

Surrounding/Adjacent Land Use: wooded/developed

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	R. Maple	T	FAC	5			
2	Oak spp.	T	-	6			
3	Witchhazel	S	UPL	7			
4	Arrowwood	S	FACW	8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover: 0-1 / 1-10 / 10-25 / 25-50 / 50-75 / 75-100
Percent Canopy Cover: 0-25 / 25-50 / 50-75 / 75-100
Size of Plot: 200
DBH of Trees in Plot: 10-18"
Number of Trees in Plot: 9
Percent Unvegetated Surface Area: 0-25 / 25-50 / 50-75 / 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☐ Saturated in Upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

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FRESH KILLS PARK
VEGETATIVE SURVEY DATA FORM
(Revised March 2007)

Transect/Plot ID#: 78
Investigators: Clayton / Reech
Primary or Secondary Study Area? (Primary / Secondary)
Do Normal Circumstances exist within the Sampling Area? (Primary) ☒ Yes ☐ No
Is the Sampling Area significantly disturbed (Atypical Situation)? ☐ Yes ☒ No
Level of Disturbance (explain below): Light / Med. / Heavy
Remarks:

Date: 5/24/07
Photo #:
General Location Description: Latourette Park
GPS Location Description:
Weather Conditions: Sunny 80°

VEGETATION

Cowardin System: Upland / Palustrine / Riverine; Estuarine / Lacustrine / Palustrine
Subsystem: Emergent / Scrub-Shrub / Forested; Subtidal / Intertidal

Surrounding/Adjacent Land Use: Recreational fields / wooded

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	Phragmites	H	FACW	5	Elm spp.	T	FACW
2	Tree of Heaven	T		6			
3	Knotweed	H	FACW	7			
4	B. Locust	T	FACW	8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover: 0-1 / 1-10 / 10-25 / 25-50 / 50-75 / 75-100
Percent Canopy Cover: 0-25 / 25-50 / 50-75 / 75-100
Size of Plot: 100
DBH of Trees in Plot: 6-12"
Number of Trees in Plot: 6
Percent Unvegetated Surface Area: 0-25 / 25-50 / 50-75 / 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☐ Saturated in Upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
VEGETATIVE SURVEY DATA FORM
(Revised March 2007)

Transect/Plot ID#: 79
Investigators: Clayton / Reich
Primary or Secondary Study Area? Primary / (Secondary)
Do Normal Circumstances exist within the Sampling Area? [x] Yes [ ] No
Is the Sampling Area significantly disturbed (Atypical Situation)? [ ] Yes [x] No
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks:

Date: 5/24/07
Photo #:
General Location Description: W. Flatbrook Park
GPS Location Description:
Weather Conditions: Sunny 79°

VEGETATION

Cowardin System: (Upland) Estuarine / Palustrine Lacustrine / Riverine Palustrine
Subsystem: Emergent Subtidal / Scrub-Shrub Intertidal / Forested
Forested
Surrounding/Adjacent Land Use: Parklands / developed

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	B. Cherry	T	FACU	5	B. Locust	T	FACU
2	Oak spp.	T	FACU	6	Elm spp.	T	FACW
3	Tree Of Heaven	T		7			
4	Knotweed	H	FACW	8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover:	0-1	1-10	(10-25)	25-50	50-75	75-100
Percent Canopy Cover:	0-25	25-50	(50-75)	75-100		
Percent Unvegetated Surface Area:	0-25	25-50	50-75	75-100		

Size of Plot: 200
DBH of Trees in Plot: 10-18"
Number of Trees in Plot: 8
Explain:

HYDROLOGY

[ ] Recorded Data (describe in Remarks)
[ ] Stream, Lake, or Tide Gauge
[ ] Aerial Photographs
[ ] Other
[ ] No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
[ ] Inundated
[ ] Saturated in Upper 12 inches
[ ] Water Marks
[ ] Drift Lines
[ ] Sediment Deposits
[ ] Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
[ ] Oxidized Root Channels in Upper 12"
[ ] Water-Stained Leaves
[ ] Local Soil Survey Data
[ ] FAC-Neutral Test
[ ] Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
VEGETATIVE SURVEY DATA FORM
(Revised March 2007)

Transect/Plot ID#: 80
Investigators: Clayton / Reich
Primary or Secondary Study Area? Primary / (Secondary)
Do Normal Circumstances exist within the Sampling Area? [x] Yes [ ] No
Is the Sampling Area significantly disturbed (Atypical Situation)? [ ] Yes [x] No
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks: Adjacent to Golf Course

Date: 5/24/07
Photo #:
General Location Description: South Shore Golf Course
GPS Location Description:
Weather Conditions: Sunny 79°

VEGETATION

Cowardin System: Upland Estuarine / Palustrine Lacustrine / Riverine Palustrine
Subsystem: Emergent Subtidal / Scrub-Shrub Intertidal / Forested
Forested
Surrounding/Adjacent Land Use: Golf course / developed

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	Sweetgum	T	FAC	5	Poison Ivy	H	FAC
2	R. Maple	T	FAC	6	Va. Creeper	H	FACU
3	Sassafras	T	FACU	7			
4	Tulip Poplar	T	FACU	8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover:	0-1	1-10	(10-25)	25-50	50-75	75-100
Percent Canopy Cover:	0-25	25-50	(50-75)	75-100		
Percent Unvegetated Surface Area:	0-25	25-50	50-75	75-100		

Size of Plot: 200
DBH of Trees in Plot: 12-22"
Number of Trees in Plot: 10
Explain:

HYDROLOGY

[ ] Recorded Data (describe in Remarks)
[ ] Stream, Lake, or Tide Gauge
[ ] Aerial Photographs
[ ] Other
[ ] No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
[ ] Inundated
[ ] Saturated in Upper 12 inches
[ ] Water Marks
[ ] Drift Lines
[ ] Sediment Deposits
[ ] Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
[ ] Oxidized Root Channels in Upper 12"
[ ] Water-Stained Leaves
[ ] Local Soil Survey Data
[ ] FAC-Neutral Test
[ ] Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
VEGETATIVE SURVEY DATA FORM
(Revised March 2007)

Transect/Plot ID#: S1
Investigators: Clayton / Reeh
Primary or Secondary Study Area? (Primary / Secondary)
Do Normal Circumstances exist within the Sampling Area? Yes / No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes / No
Level of Disturbance (explain below): Light / Med. / Heavy
Remarks: adjacent to Golf course

Date: 5/24/07
Photo #:
General Location Description: see Remarks
GPS Location Description:
Weather Conditions: Sunny 80°

VEGETATION

Cowardin System: Upland / Palustrine / Riverine / Estuarine / Lacustrine / Palustrine
Subsystem: Emergent / Scrub-Shrub / Forested / Subtidal / Intertidal
Forested
Surrounding/Adjacent Land Use: golf course / developed

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 Sweetgum	T	FAC	5 Tulip Poplar	T	FACU
2 R. Maple	T	FAC	6 Arrowwood	S/H	FACW
3 Pin Oak	T	FACW	7 Poison Ivy	H	FAC
4 Sassafras	T	FACU	8		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator	Additional Species Present (Not Dominant)	Stratum	Indicator
1 Elm spp.			4		
2			5		
3			6		

Percent Herbaceous Cover:	0-1	1-10	10-25	25-50	50-75	75-100
				✓		

Percent Canopy Cover:	0-25	25-50	50-75	75-100
			✓	

Size of Plot: 200
DBH of Trees in Plot: 14-22"
Number of Trees in Plot: 18
Percent Unvegetated Surface Area: 0-25 / 25-50 / 50-75 / 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☐ Saturated in Upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
VEGETATIVE SURVEY DATA FORM
(Revised March 2007)

Transect/Plot ID#: S2
Investigators: Clayton / Reeh
Primary or Secondary Study Area? (Primary / Secondary)
Do Normal Circumstances exist within the Sampling Area? Yes / No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes / No
Level of Disturbance (explain below): Light / Med. / Heavy
Remarks:

Date: 5/24/07
Photo #:
General Location Description: William T. Davis
GPS Location Description:
Weather Conditions: Sunny 79°

VEGETATION

Cowardin System: Upland / Palustrine / Riverine / Estuarine / Lacustrine / Palustrine
Subsystem: Emergent / Scrub-Shrub / Forested / Subtidal / Intertidal
PFO
Surrounding/Adjacent Land Use: Parkland

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 R. maple	T	FAC	5 P. Ivy	H	FAC
2 Sweetgum	T	FAC	6 Jewelweed	H	FACW
3 Elm spp.	T	FACU	7 Arrowwood	S	FACW
4			8		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator	Additional Species Present (Not Dominant)	Stratum	Indicator
1			4		
2			5		
3			6		

Percent Herbaceous Cover:	0-1	1-10	10-25	25-50	50-75	75-100
				✓		

Percent Canopy Cover:	0-25	25-50	50-75	75-100
			✓	

Size of Plot: 200
DBH of Trees in Plot: 16-18"
Number of Trees in Plot: 10
Percent Unvegetated Surface Area: 0-25 / 25-50 / 50-75 / 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☐ Saturated in Upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
VEGETATIVE SURVEY DATA FORM
(Revised March 2007)

Transect/Plot ID#: 53
Investigators: clayton / reich
Primary or Secondary Study Area? Primary (Secondary)
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks:

Date: 5/24/07
Photo #:
General Location Description: William T. Davis
GPS Location Description:
Weather Conditions: Sunny 79°

VEGETATION

Cowardin System: Upland, Estuarine, Palustrine, Lacustrine, (Palustrine), Riverine
Subsystem: Emergent, Subtidal, Scrub-Shrub, Intertidal, (Forested)
PFO
Surrounding/Adjacent Land Use: Parkland

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	R. Maple	T	FAC	5	Jewelweed	H	FACW
2	Sweetgum	T	FAC	6	Arrowwood	S	FACW
3	Elm	T	FACW	7			
4				8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1	Va. creeper			4			
2				5			
3				6			

Percent Herbaceous Cover:	0-1	1-10	10-25	(25-50)	50-75	75-100
Percent Canopy Cover:	0-25	25-50	(50-75)	75-100		
Percent Unvegetated Surface Area:	0-25	25-50	50-75	75-100		

Size of Plot:
DBH of Trees in Plot:
Number of Trees in Plot:
Explain:

HYDROLOGY

- ☐ Recorded Data (describe in Remarks)
  - ☐ Stream, Lake, or Tide Gauge
  - ☐ Aerial Photographs
  - ☐ Other
- ☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- ☐ Inundated
- ☐ Saturated in Upper 12 inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels in Upper 12"
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
VEGETATIVE SURVEY DATA FORM
(Revised March 2007)

Transect/Plot ID#: 54
Investigators: clayton / reich
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes (No)
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks:

Date: 5/24/07
Photo #:
General Location Description: William T. Davis
GPS Location Description:
Weather Conditions: Sunny 80°

VEGETATION

Cowardin System: Upland, (Estuarine), Palustrine, Lacustrine, Riverine, Palustrine
Subsystem: (Emergent), Subtidal, Scrub-Shrub, (Intertidal), Forested
Surrounding/Adjacent Land Use: Parkland / tidal wetland

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	Phragmites	H	FACW	5			
2	Spartina alterniflora	H	OBL	6			
3	Bluecher II	S	FACW	7			
4				8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover:	0-1	1-10	10-25	25-50	(50-75)	75-100
Percent Canopy Cover:	0-25	25-50	50-75	75-100		
Percent Unvegetated Surface Area:	0-25	25-50	50-75	75-100		

Size of Plot:
DBH of Trees in Plot:
Number of Trees in Plot:
Explain:

HYDROLOGY

- ☐ Recorded Data (describe in Remarks)
  - ☐ Stream, Lake, or Tide Gauge
  - ☐ Aerial Photographs
  - ☐ Other
- ☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- ☐ Inundated
- ☐ Saturated in Upper 12 inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
- ☐ Oxidized Root Channels in Upper 12"
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
VEGETATIVE SURVEY DATA FORM
(Revised March 2007)

Transect/Plot ID#: 85
Investigators: Clayton / Reich
Primary or Secondary Study Area? Primary / (Secondary)
Do Normal Circumstances exist within the Sampling Area? (Yes) / No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes / (No)
Level of Disturbance (explain below): (Light) / Med. / Heavy
Remarks:

Date: 5/24/07
Photo #:
General Location Description: William T. Davis
GPS Location Description:
Weather Conditions: Sunny 81°

VEGETATION

Cowardin System: Upland, Palustrine, Riverine; Estuarine, Lacustrine, Palustrine
Subsystem: Emergent, Scrub-Shrub, Forested; Subtidal, Intertidal
Forested
Surrounding/Adjacent Land Use:

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	Tulip poplar	T	FACU	5	P. Ivy	M	FAC
2	Sassafras	T	FACU	6	Am. Beech	M	FACU
3	R. maple	T	FAC	7			
4	Va. Creeper	H	FACU	8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover: 0-1 / 1-10 / (10-25) / 25-50 / 50-75 / 75-100
Percent Canopy Cover: 0-25 / 25-50 / (50-75) / 75-100
Size of Plot: 200
DBH of Trees in Plot: 12-22"
Number of Trees in Plot: 12
Percent Unvegetated Surface Area: 0-25 / 25-50 / 50-75 / 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☐ Saturated in Upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
VEGETATIVE SURVEY DATA FORM
(Revised March 2007)

Transect/Plot ID#: 86
Investigators: Clayton / Reich
Primary or Secondary Study Area? (Primary) / Secondary
Do Normal Circumstances exist within the Sampling Area? (Yes) / No
Is the Sampling Area significantly disturbed (Atypical Situation)? Yes / (No)
Level of Disturbance (explain below): Light / (Med.) / Heavy
Remarks: industrial activity nearbye

Date: 5/24/07
Photo #:
General Location Description: NE of Fresh Kills Site
GPS Location Description:
Weather Conditions: Sunny 82°

VEGETATION

Cowardin System: Upland, Palustrine, Riverine; Estuarine, Lacustrine, Palustrine
Subsystem: Emergent, Scrub-Shrub, Forested; Subtidal, Intertidal
Surrounding/Adjacent Land Use: Industrial / wooded

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	Black Locust	T	FACU	5			
2	Cottonwood	T	FAC	6			
3	Black cherry	T	FACU	7			
4				8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover: 0-1 / (1-10) / 10-25 / 25-50 / 50-75 / 75-100
Percent Canopy Cover: 0-25 / 25-50 / (50-75) / 75-100
Size of Plot: 200
DBH of Trees in Plot: 16-22"
Number of Trees in Plot: 13
Percent Unvegetated Surface Area: 0-25 / 25-50 / 50-75 / 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☐ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☐ Saturated in Upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

Field Data Sheets (October)

FRESH KILLS PARK
VEGETATIVE SURVEY DATA FORM
(Revised March 2007)

Transect/Plot ID#: 27F
Investigators: Bernick / Clayton
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? [X] Yes [ ] No
Is the Sampling Area significantly disturbed (Atypical Situation)? [ ] Yes [X] No
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks: South of point 26

Date: 10/11/07
Photo #:
General Location Description: South of Point 26
GPS Location Description:
Weather Conditions: Overcast 68°F

VEGETATION

Cowardin System: (Upland) Estuarine / Palustrine / Lacustrine / Riverine / Palustrine
Subsystem: Emergent / Subtidal / Scrub-Shrub / Intertidal / (Forested)
Forested area
Surrounding/Adjacent Land Use:

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 gray birch	T	FAC	5		
2 black cherry	T	FACU	6		
3 autumn olive	T	—	7		
4 Poison ivy	V	FAC	8		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 50%

Additional Species Present (Not Dominant)	Stratum	Indicator	Additional Species Present (Not Dominant)	Stratum	Indicator
1 arrow-wood	S	FAC	4 bayberry	S	FAC
2 Sweet-gum	T	FAC	5 blackberry spp.	V	
3 Pin oak	T	FACW	6 Japanese honeysuckle	V	FAC-

Percent Herbaceous Cover: 0-1 / 1-10 / 10-25 / (25-50) / 50-75 / 75-100
Percent Canopy Cover: 0-25 / 25-50 / (50-75) / 75-100
Size of Plot:
DBH of Trees in Plot:
Percent Unvegetated Surface Area: (0-25) / 25-50 / 50-75 / 75-100
Number of Trees in Plot:
Explain: Very densely vegetated

HYDROLOGY

[ ] Recorded Data (describe in Remarks)
[ ] Stream, Lake, or Tide Gauge
[X] Aerial Photographs
[ ] Other
[ ] No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
[ ] Inundated
[ ] Saturated in Upper 12 inches
[ ] Water Marks
[ ] Drift Lines
[ ] Sediment Deposits
[ ] Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
[ ] Oxidized Root Channels in Upper 12"
[ ] Water-Stained Leaves
[ ] Local Soil Survey Data
[ ] FAC-Neutral Test
[ ] Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

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FRESH KILLS PARK
VEGETATIVE SURVEY DATA FORM
(Revised March 2007)

Transect/Plot ID#: 26F
Investigators: Bernick / Clayton
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? [X] Yes [ ] No
Is the Sampling Area significantly disturbed (Atypical Situation)? [ ] Yes [X] No
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks:

Date: 10/11/07
Photo #:
General Location Description: West of Richmond Ave.
GPS Location Description:
Weather Conditions: Overcast 68°F

VEGETATION

Cowardin System: (Upland) Estuarine / Palustrine / Lacustrine / Riverine / Palustrine
Subsystem: Emergent / Subtidal / Scrub-Shrub / Intertidal / Forested
Upland meadow
Surrounding/Adjacent Land Use: Patches of Phragmites

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1 goldenrod spp.	H		5 black cherry	T	FACU
2 black locust	T	FACU-	6 bradford pear	T	
3 dogbane spp.	H		7		
4 milkweed spp.	H		8		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator	Additional Species Present (Not Dominant)	Stratum	Indicator
1 late flowering thoroughwort	H	FAC-	4 Sassafras	S	FACU-
2 bayberry	S	FAC	5 path rush	H	FAC-
3 Crabapple spp.	T		6 New York aster	H	FACW+

Percent Herbaceous Cover: 0-1 / 1-10 / 10-25 / 25-50 / 50-75 / 75-100
Percent Canopy Cover: 0-25 / 25-50 / 50-75 / 75-100
Size of Plot:
DBH of Trees in Plot:
Percent Unvegetated Surface Area: 0-25 / 25-50 / 50-75 / 75-100
Number of Trees in Plot:
Explain:

HYDROLOGY

[ ] Recorded Data (describe in Remarks)
[ ] Stream, Lake, or Tide Gauge
[X] Aerial Photographs
[ ] Other
[ ] No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
[ ] Inundated
[ ] Saturated in Upper 12 inches
[ ] Water Marks
[ ] Drift Lines
[ ] Sediment Deposits
[ ] Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
[ ] Oxidized Root Channels in Upper 12"
[ ] Water-Stained Leaves
[ ] Local Soil Survey Data
[ ] FAC-Neutral Test
[ ] Other (explain in remarks)

Remarks:
upland meadow

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)
eastern Cottontail rabbit
White-tailed deer
gray catbird
Yellow-rumped Warbler
northern cardinal

AKRF

FRESH KILLS PARK
VEGETATIVE SURVEY DATA FORM
(Revised March 2007)

Transect/Plot ID#: 24F
Investigators: Bernick | Clayton
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? [X] Yes [ ] No
Is the Sampling Area significantly disturbed (Atypical Situation)? [ ] Yes [X] No
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks:

Date: 10/01/07
Photo #:
General Location Description: SE. East Park
GPS Location Description:
Weather Conditions: Overcast 68°F

VEGETATION

Cowardin System: (Upland) Estuarine / Palustrine / Lacustrine / Riverine / Palustrine
Subsystem: Emergent / Subtidal / Scrub-Shrub / Intertidal / Forested
transitional area where tidal creek drains to Rich. Creek - Slopes
Surrounding/Adjacent Land Use: Landfill

Dominant Plant Species	Stratum	Indicator
1 black gum	T	FAC
2 red maple	T	FAC
3 gray birch	T	FAC
4 sweet gum	T	FAC
5		
6		
7		
8		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator
1 Winged Sumac	S	FACU+
2 arrow-wood	S	FAC
3		
4		
5		
6		

Percent Herbaceous Cover:	0-1	1-10	10-25	25-50	50-75	75-100

Percent Canopy Cover:	0-25	25-50	50-75	75-100

Size of Plot:
Number of Trees in Plot:
DBH of Trees in Plot:

Percent Unvegetated Surface Area:	0-25	25-50	50-75	75-100

Explain:

HYDROLOGY

- [ ] Recorded Data (describe in Remarks)
  - [ ] Stream, Lake, or Tide Gauge
  - [X] Aerial Photographs
  - [ ] Other
- [ ] No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- [ ] Inundated
- [ ] Saturated in Upper 12 Inches
- [ ] Water Marks
- [ ] Drift Lines
- [ ] Sediment Deposits
- [ ] Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
- [ ] Oxidized Root Channels in Upper 12"
- [ ] Water-Stained Leaves
- [ ] Local Soil Survey Data
- [ ] FAC-Neutral Test
- [ ] Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

northern mockingbird
eastern towhee
Yellow-billed Cuckoo
American robin

AKRF

FRESH KILLS PARK
VEGETATIVE SURVEY DATA FORM
(Revised March 2007)

Transect/Plot ID#:
Investigators:
Primary or Secondary Study Area? Primary Secondary
Do Normal Circumstances exist within the Sampling Area? [ ] Yes [ ] No
Is the Sampling Area significantly disturbed (Atypical Situation)? [ ] Yes [ ] No
Level of Disturbance (explain below): Light Med. Heavy
Remarks:

Date:
Photo #:
General Location Description:
GPS Location Description:
Weather Conditions:

VEGETATION

Cowardin System: Upland / Estuarine / Palustrine / Lacustrine / Riverine / Palustrine
Subsystem: Emergent / Subtidal / Scrub-Shrub / Intertidal / Forested
Surrounding/Adjacent Land Use:

Dominant Plant Species	Stratum	Indicator
1		
2		
3		
4		
5		
6		
7		
8		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

Additional Species Present (Not Dominant)	Stratum	Indicator
1		
2		
3		
4		
5		
6		

Percent Herbaceous Cover:	0-1	1-10	10-25	25-50	50-75	75-100

Percent Canopy Cover:	0-25	25-50	50-75	75-100

Size of Plot:
Number of Trees in Plot:
DBH of Trees in Plot:

Percent Unvegetated Surface Area:	0-25	25-50	50-75	75-100

Explain:

HYDROLOGY

- [ ] Recorded Data (describe in Remarks)
  - [ ] Stream, Lake, or Tide Gauge
  - [ ] Aerial Photographs
  - [ ] Other
- [ ] No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- [ ] Inundated
- [ ] Saturated in Upper 12 Inches
- [ ] Water Marks
- [ ] Drift Lines
- [ ] Sediment Deposits
- [ ] Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
- [ ] Oxidized Root Channels in Upper 12"
- [ ] Water-Stained Leaves
- [ ] Local Soil Survey Data
- [ ] FAC-Neutral Test
- [ ] Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
VEGETATIVE SURVEY DATA FORM
(Revised March 2007)

Transect/Plot ID#:
Investigators: Bernick / Clayton
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? ☐ Yes ☒ No
Is the Sampling Area significantly disturbed (Atypical Situation)? ☒ Yes ☐ No
Level of Disturbance (explain below): Light Med. (Heavy)
Remarks: Top of landfill - mowed meadow

Date: 10/2/07
Photo #:
General Location Description: top of mound 3/4
GPS Location Description:
Weather Conditions: 50% cloud cover 68°F

VEGETATION

Cowardin System: (Upland) Palustrine Riverine Estuarine Lacustrine Palustrine
Subsystem: Emergent Scrub-Shrub Forested Subtidal Intertidal
mowed meadow
Surrounding/Adjacent Land Use: Landfill

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	mugwort	H	UPL	5	Goldenrod spp.	H	—
2	Phragmites	H	FACW	6			
3	switchgrass spp.	H	—	7			
4	hopeclover	H	—	8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): —

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1	broom Sedge	H	FACW+	4	black cherry	T	FACU
2	red fescue	H	FACU	5	Bradford Pear	T	—
3	big leave stem	H	FAC-	6	Cottonwood	T	FAC

Percent Herbaceous Cover: 0-1 | 1-10 | 10-25 | 25-50 | (50-75) | 75-100
Percent Canopy Cover: (0-25) | 25-50 | 50-75 | 75-100
Size of Plot:
DBH of Trees in Plot: Saplings
Number of Trees in Plot:
Percent Unvegetated Surface Area: (0-25) | 25-50 | 50-75 | 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: ____ (in.)
Depth to Free Water in Pit: ____ (in.)
Depth to Saturated Soil: ____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☐ Saturated in Upper 12 Inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks: Landfill mound 3/4

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)
northern harrier
merlin
savannah sparrow
Song sparrow
American Kestrel
red-tailed hawk

AKRF

FRESH KILLS PARK
VEGETATIVE SURVEY DATA FORM
(Revised March 2007)

Transect/Plot ID#:
Investigators: Bernick / Clayton
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? ☐ Yes ☒ No
Is the Sampling Area significantly disturbed (Atypical Situation)? ☒ Yes ☐ No
Level of Disturbance (explain below): Light Med. (Heavy)
Remarks: between Arden Ave. and Muldoon Ave.

Date: 10/02/07
Photo #:
General Location Description: SE side Mound 1/9
GPS Location Description:
Weather Conditions: 50% cloud cover 68°F

VEGETATION

Cowardin System: (Upland) Palustrine Riverine Estuarine Lacustrine Palustrine
Subsystem: Emergent (Scrub-Shrub) Forested Subtidal Intertidal
forb/grass area w/ patches of Scrub-Shrub
Surrounding/Adjacent Land Use: Landfill

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	Phragmites	H	FACW	5			
2	mugwort	H	UPL	6			
3	groundselbush	S	FACW	7			
4	goldenrod spp.	H		8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1	black locust	T	FACU-	4	queen anne's lace	H	—
2	sweetgum	T	FAC	5	Bradford pear	T	—
3	small white aster	H	FAC	6	winged sumac	S	FACU-

Percent Herbaceous Cover: 0-1 | 1-10 | 10-25 | 25-50 | (50-75) | 75-100
Percent Canopy Cover: 0-25 | (25-50) | 50-75 | 75-100
Size of Plot:
DBH of Trees in Plot: 15in+
Number of Trees in Plot:
Percent Unvegetated Surface Area: (0-25) | 25-50 | 50-75 | 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: ____ (in.)
Depth to Free Water in Pit: ____ (in.)
Depth to Saturated Soil: ____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☐ Saturated in Upper 12 Inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks: no standing water in wetland swale

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)
American goldfinch
European Starling
American crow
red-tailed hawk

AKRF

FRESH KILLS PARK
VEGETATIVE SURVEY DATA FORM
(Revised March 2007)

Transect/Plot ID#:
Investigators: Bernick / Clayton
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? ☐ Yes ☒ No
Is the Sampling Area significantly disturbed (Atypical Situation)? ☒ Yes ☐ No
Level of Disturbance (explain below): Light Med. (Heavy)
Remarks: developed area (former facility) N. of Mound 119

Date: 10/02/07
Photo #:
General Location Description: N. Mound 119
GPS Location Description:
Weather Conditions: 50% Cloud Cover 68°F

VEGETATION

Cowardin System: (Upland) Palustrine Riverine; Estuarine Lacustrine Palustrine
Subsystem: Emergent Scrub-Shrub Forested; Subtidal Intertidal
95% covered w/impervious surface
Surrounding/Adjacent Land Use: former facility Landfill

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	tree-of-heaven	T	FACU-	5	Phragmites	H	FACW
2	black locust	T	FACU-	6			
3	mugwort	H	UPL	7			
4	goldenrod spp.	H	—	8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1	Cottonwood	T	FAC	4	Asiatic bittersweet	V	FACU
2	black cherry	T	FACU	5			
3	Va. Creeper	V	FACU	6			

Percent Herbaceous Cover: 0-1 | 1-10 | (10-25) | 25-50 | 50-75 | 75-100
Percent Canopy Cover: (0-25) | 25-50 | 50-75 | 75-100
Size of Plot:
Number of Trees in Plot:
DBH of Trees in Plot: 3-10 inch.
Percent Unvegetated Surface Area: 0-25 | 25-50 | 50-75 | (75-100)
Explain: 95% impervious surface

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☐ Saturated in Upper 12 Inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

feral cat
herring gull
great black-backed gull
rock pigeon
mourning dove
European Starling

AKRF

FRESH KILLS PARK
VEGETATIVE SURVEY DATA FORM
(Revised March 2007)

Transect/Plot ID#:
Investigators: Bernick / Clayton
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? ☒ Yes ☐ No
Is the Sampling Area significantly disturbed (Atypical Situation)? ☐ Yes ☒ No
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks: At Dean and Roswell – Alberta St.

Date: 10/02/07
Photo #:
General Location Description: W. of former Travis landfill
GPS Location Description:
Weather Conditions: 50% Cloud Cover 68°F

VEGETATION

Cowardin System: Upland (Palustrine) Riverine; Estuarine Lacustrine Palustrine
Subsystem: (Emergent) Scrub-Shrub (Forested); Subtidal Intertidal
Palustrine forested Wetland
Surrounding/Adjacent Land Use: former Landfill

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	Pin oak	T		5	arrow-wood	S	
2	sweet gum	T		6	groundsel bush	S	
3	red maple	T		7			
4	Japanese Knotweed	H		8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1	black gum	T		4	blunt spike rush	H	
2	gray birch	T		5	Phragmites	H	
3	white oak	T		6	Winged Sumac	S	

Percent Herbaceous Cover: 0-1 | 1-10 | (10-25) | 25-50 | 50-75 | 75-100
Percent Canopy Cover: 0-25 | 25-50 | (50-75) | 75-100
Size of Plot:
Number of Trees in Plot:
DBH of Trees in Plot:
Percent Unvegetated Surface Area: (0-25) | 25-50 | 50-75 | 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☐ Saturated in Upper 12 Inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks:
* noted in AES report on North Mound area vegetated communities

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

green frog
American goldfinch
American robin
swamp sparrow
song sparrow
red-winged blackbird
downy woodpecker
black-capped Chickadee

AKRF

FRESH KILLS PARK
VEGETATIVE SURVEY DATA FORM
(Revised March 2007)

Transect/Plot ID#:
Investigators: Bernick / Clayton
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? [X] Yes [ ] No
Is the Sampling Area significantly disturbed (Atypical Situation)? [ ] Yes [X] No
Level of Disturbance (explain below): (Light) Med. Heavy
Remarks: Disturbed by waste activities related to adjacent road and development

Date: 10/02/07
Photo #:
General Location Description: Along Arden Rd. E. of Arden Heights
GPS Location Description:
Weather Conditions: 50% Cloud Cover 68°F

VEGETATION

Cowardin System: (Upland) Estuarine; Palustrine; Lacustrine; Riverine; Palustrine
Subsystem: Emergent; Scrub-Shrub; Forested; Subtidal; Intertidal
Woodland/Shrub land
Surrounding/Adjacent Land Use: Road and development

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	Bradford pear	T	—	5			
2	mugwort	H	UPL	6			
3	ragweed	H	FACU	7			
4				8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover:	0-1	1-10	10-25	25-50	50-75	75-100
Size of Plot: —	DBH of Trees in Plot: —					
Number of Trees in Plot:						

Percent Canopy Cover:	0-25	25-50	50-75	75-100
Percent Unvegetated Surface Area:	0-25	25-50	50-75	75-100
Explain:				

HYDROLOGY

- [ ] Recorded Data (describe in Remarks)
  - [ ] Stream, Lake, or Tide Gauge
  - [X] Aerial Photographs
  - [ ] Other
- [ ] No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- [ ] Inundated
- [ ] Saturated in Upper 12 inches
- [ ] Water Marks
- [ ] Drift Lines
- [ ] Sediment Deposits
- [ ] Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
- [ ] Oxidized Root Channels in Upper 12"
- [ ] Water-Stained Leaves
- [ ] Local Soil Survey Data
- [ ] FAC-Neutral Test
- [ ] Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)
rock pigeon
European starling
hairy woodpecker
American robin
gray catbird

AKRF

FRESH KILLS PARK
VEGETATIVE SURVEY DATA FORM
(Revised March 2007)

Transect/Plot ID#:
Investigators:
Primary or Secondary Study Area? Primary Secondary
Do Normal Circumstances exist within the Sampling Area? [ ] Yes [ ] No
Is the Sampling Area significantly disturbed (Atypical Situation)? [ ] Yes [ ] No
Level of Disturbance (explain below): Light Med. Heavy
Remarks:

Date:
Photo #:
General Location Description:
GPS Location Description:
Weather Conditions:

VEGETATION

Cowardin System: Upland; Palustrine; Riverine; Estuarine; Lacustrine; Palustrine
Subsystem: Emergent; Scrub-Shrub; Forested; Subtidal; Intertidal
Surrounding/Adjacent Land Use:

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1				5			
2				6			
3				7			
4				8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-):

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1				4			
2				5			
3				6			

Percent Herbaceous Cover:	0-1	1-10	10-25	25-50	50-75	75-100
Size of Plot:	DBH of Trees in Plot:					
Number of Trees in Plot:						

Percent Canopy Cover:	0-25	25-50	50-75	75-100
Percent Unvegetated Surface Area:	0-25	25-50	50-75	75-100
Explain:				

HYDROLOGY

- [ ] Recorded Data (describe in Remarks)
  - [ ] Stream, Lake, or Tide Gauge
  - [ ] Aerial Photographs
  - [ ] Other
- [ ] No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- [ ] Inundated
- [ ] Saturated in Upper 12 Inches
- [ ] Water Marks
- [ ] Drift Lines
- [ ] Sediment Deposits
- [ ] Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
- [ ] Oxidized Root Channels in Upper 12"
- [ ] Water-Stained Leaves
- [ ] Local Soil Survey Data
- [ ] FAC-Neutral Test
- [ ] Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

AKRF

FRESH KILLS PARK
VEGETATIVE SURVEY DATA FORM
(Revised March 2007)

Transect/Plot ID#: OH1 (1f)
Investigators: Andy Bernick and Michelle Bright
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? [X] Yes [ ] No
Is the Sampling Area significantly disturbed (Atypical Situation)? [ ] Yes [X] No
Level of Disturbance (explain below): Light (Med.) Heavy
Remarks:

Date: 10/03/07
Photo #:
General Location Description: Owl Hollow area
GPS Location Description: N. 40 33.631 W. 74 11.795
Weather Conditions: Overcast

VEGETATION

Cowardin System: (Upland) Palustrine Riverine; Estuarine Lacustrine Palustrine
Subsystem: (Emergent) Scrub-Shrub (Forested); Subtidal Intertidal

Surrounding/Adjacent Land Use: Forested area near Parking lot

	Dominant Plant Species		Stratum	Indicator
1	Princesstree	Paulownia tomentosa	T	UPL
2	Black Cherry	Prunus serotina	T	FACU
3	Tree-of-heaven	Ailanthus altissima	T	FACU-
4	Jap. knotweed	Polygonum cuspidatum	H	FACU-
5	Mugwort	Artemisia vulgaris	H	UPL
6	Poison Ivy	Toxicodendron radicans	V	FAC
7				
8				

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 17% (1÷6x100)

	Additional Species Present (Not Dominant)		Stratum	Indicator
1	Pokeweed	Phytolacca americana	S	FACU+
2	Common reed	Phragmites australis	H	FACW
3	False nettle	Boehmeria cylindrica	H	FACW+
4	Mulberry	Morus spp.	S	
5	Sassafras	Sassafras albidum	S	FACU-
6	White knotroot	Ageratina altissima	H	

Percent Herbaceous Cover: 0-1 | 1-10 | 10-25 | 25-50 | (50-75) | 75-100
Percent Canopy Cover: (0-25) | 25-50 | 50-75 | 75-100
Size of Plot:
DBH of Trees in Plot: 15+
Number of Trees in Plot: 5
Percent Unvegetated Surface Area: (0-25) | 25-50 | 50-75 | 75-100
Explain:

HYDROLOGY

- [ ] Recorded Data (describe in Remarks)
  - [ ] Stream, Lake, or Tide Gauge
  - [X] Aerial Photographs
  - [ ] Other
- [ ] No recorded data available

Field Observations:
Depth of Surface Water: (in.)
Depth to Free Water in Pit: (in.)
Depth to Saturated Soil: (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- [ ] Inundated
- [ ] Saturated in Upper 12 inches
- [ ] Water Marks
- [ ] Drift Lines
- [ ] Sediment Deposits
- [ ] Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
- [ ] Oxidized Root Channels in Upper 12"
- [ ] Water-Stained Leaves
- [ ] Local Soil Survey Data
- [ ] FAC-Neutral Test
- [ ] Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

Spring peeper
Monarch butterfly
red admiral
hairy woodpecker
American crow
European starling
house sparrow

AKRF

FRESH KILLS PARK
VEGETATIVE SURVEY DATA FORM
(Revised March 2007)

Transect/Plot ID#: OH2 (2f)
Investigators: Andy Bernick and Michelle Bright
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? [X] Yes [ ] No
Is the Sampling Area significantly disturbed (Atypical Situation)? [ ] Yes [X] No
Level of Disturbance (explain below): Light (Med.) Heavy
Remarks:

Date: 10/03/07
Photo #:
General Location Description: Owl Hollow area
GPS Location Description: N. 40 33.659 W. 74 11.763
Weather Conditions: Overcast

VEGETATION

Cowardin System: (Upland) Palustrine Riverine; Estuarine Lacustrine Palustrine
Subsystem: (Emergent) Scrub-Shrub (Forested); Subtidal Intertidal

Surrounding/Adjacent Land Use: Along unpaved path onsite Surrounded by Scrub-Shrub

	Dominant Plant Species		Stratum	Indicator
1	Tree-of-heaven	Ailanthus altissima	T	FACU-
2	Common reed	Phragmites australis	H	FACW
3	Mugwort	Artemisia vulgaris	H	UPL
4				
5				
6				
7				
8				

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 1÷3 x 100 = 33%

	Additional Species Present (Not Dominant)		Stratum	Indicator
1	Blunt-spike rush	Eleocharis obtusa	H	OBL
2	Canada Goldenrod	Solidago canadensis	H	FACU
3	Poison ivy	Toxicodendron radicans	V	FAC
4	rambler rose	Rosa multiflora	S	FACU
5				
6				

Percent Herbaceous Cover: 0-1 | 1-10 | 10-25 | 25-50 | (50-75) | 75-100
Percent Canopy Cover: 0-25 | 25-50 | (50-75) | 75-100
Size of Plot:
DBH of Trees in Plot: 10 to 15
Number of Trees in Plot: 10
Percent Unvegetated Surface Area: (0-25) | 25-50 | 50-75 | 75-100
Explain:

HYDROLOGY

- [ ] Recorded Data (describe in Remarks)
  - [ ] Stream, Lake, or Tide Gauge
  - [X] Aerial Photographs
  - [ ] Other
- [ ] No recorded data available

Field Observations:
Depth of Surface Water: (in.)
Depth to Free Water in Pit: (in.)
Depth to Saturated Soil: (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- [ ] Inundated
- [ ] Saturated in Upper 12 inches
- [ ] Water Marks
- [ ] Drift Lines
- [ ] Sediment Deposits
- [ ] Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
- [ ] Oxidized Root Channels in Upper 12"
- [ ] Water-Stained Leaves
- [ ] Local Soil Survey Data
- [ ] FAC-Neutral Test
- [ ] Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

blue jay
rock pigeon
mourning dove
Common yellowthroat
Song Sparrow

AKRF

FRESH KILLS PARK
VEGETATIVE SURVEY DATA FORM
(Revised March 2007)

Transect/Plot ID#: OH3 (3F)
Investigators: Andy Bernick and Michelle Bright
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? [X] Yes [ ] No
Is the Sampling Area significantly disturbed (Atypical Situation)? [ ] Yes [X] No
Level of Disturbance (explain below): Light (Med.) Heavy
Remarks:

Date: 10/03/07
Photo #:
General Location Description: Owl Hollow area
GPS Location Description: N. 40 33.708 W. 74 11.723
Weather Conditions: overcast

VEGETATION

Cowardin System: (Upland) Palustrine Riverine; Estuarine Lacustrine Palustrine
Subsystem: (Scrub-Shrub) Forested; Emergent Subtidal Intertidal
Surrounding/Adjacent Land Use: Along unpaved path on-site surrounded by scrub-shrub and open field

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	Tree-of-heaven Ailanthus altissima	T	FACU-	5	Mugwort Artemisia vulgaris	H	UPL
2	Princess-tree Paulownia tomentosa	T	UPL	6	Ragweed Ambrosia artemisiifolia	H	FACU
3	Stag horn Sumac Rhus typhina	S	U	7			
4	Common reed Phragmites australis	H	FACW	8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 1/6 x 100 = 17%

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1	Blunt spike rush Eleocharis obtusa	H	OBL	4	Reed Canary grass Phalaris arundinacea	H	FACW
2	Canada goldenrod Solidago canadensis	H	FACU	5	White snakeroot Ageratina altissima	H	U
3	Long barnyard grass Echinochloa Crus-galli	H	FACU	6	Black cherry Prunus serotina	T	FACU

Percent Herbaceous Cover:	0-1	1-10	10-25	25-50	50-75	(75-100)
Percent Canopy Cover:	(0-25)	25-50	50-75	75-100		
Size of Plot:	DBH of Trees in Plot: 15"					
Percent Unvegetated Surface Area:	(0-25)	25-50	50-75	75-100		
Number of Trees in Plot: 4	Explain:					

HYDROLOGY

[ ] Recorded Data (describe in Remarks)
[ ] Stream, Lake, or Tide Gauge
[X] Aerial Photographs
[ ] Other
[ ] No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
[ ] Inundated
[ ] Saturated in Upper 12 inches
[ ] Water Marks
[ ] Drift Lines
[ ] Sediment Deposits
[ ] Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
[ ] Oxidized Root Channels in Upper 12"
[ ] Water-Stained Leaves
[ ] Local Soil Survey Data
[ ] FAC-Neutral Test
[ ] Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)
dog (tracks)
White tailed deer (tracks)
raccoon (tracks)
Spring Peeper
green frog
feral cat
Carolina wren
house wren
Song Sparrow
prairie warbler
swamp sparrow
American Crow
herring gull
gray catbird
northern cardinal

AKRF

FRESH KILLS PARK
VEGETATIVE SURVEY DATA FORM
(Revised March 2007)

Transect/Plot ID#: OH4 (4F)
Investigators: Andy Bernick and Michelle Bright
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? [X] Yes [ ] No
Is the Sampling Area significantly disturbed (Atypical Situation)? [ ] Yes [X] No
Level of Disturbance (explain below): Light (Med.) Heavy
Remarks:

Date: 10/03/07
Photo #:
General Location Description: Owl Hollow area
GPS Location Description: N. 40 33.770 W. 74 11.740
Weather Conditions: overcast

VEGETATION

Cowardin System: (Upland) Palustrine Riverine; Estuarine Lacustrine Palustrine
Subsystem: (Scrub-Shrub) Forested; Emergent Subtidal Intertidal
Surrounding/Adjacent Land Use: On earthen berm next to Road A10W - Surrounded by Scrub-Shrub

	Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1	Tree-of-heaven Ailanthus altissima	T	FACU-	5	American pokeweed Phytolacca americana	H	FACU+
2	Staghorn Sumac Rhus typhina	S	U	6	Japanese Knotweed Polygonum cuspidatum	H	FACU-
3	Mugwort Artemisia vulgaris	H	UPL	7			
4	Ragweed Ambrosia artemisiifolia	H	FACU	8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0

	Additional Species Present (Not Dominant)	Stratum	Indicator		Additional Species Present (Not Dominant)	Stratum	Indicator
1	Black cherry Prunus serotina	T	FACU	4	Japanese honeysuckle Lonicera japonica	W V	FAC-
2	Silver maple Acer Saccharinum	T	FACW	5	Common reed Phragmites australis	H	FACW
3	Eastern Cottonwood Populus deltoides	T	FAC	6	Blackberry Rubus spp.	V	

Percent Herbaceous Cover:	0-1	1-10	10-25	25-50	(50-75)	75-100
Percent Canopy Cover:	0-25	(25-50)	50-75	75-100		
Size of Plot:	DBH of Trees in Plot: 10					
Percent Unvegetated Surface Area:	(0-25)	25-50	50-75	75-100		
Number of Trees in Plot: 3	Explain:					

HYDROLOGY

[ ] Recorded Data (describe in Remarks)
[ ] Stream, Lake, or Tide Gauge
[X] Aerial Photographs
[ ] Other
[ ] No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
[ ] Inundated
[ ] Saturated in Upper 12 inches
[ ] Water Marks
[ ] Drift Lines
[ ] Sediment Deposits
[ ] Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
[ ] Oxidized Root Channels in Upper 12"
[ ] Water-Stained Leaves
[ ] Local Soil Survey Data
[ ] FAC-Neutral Test
[ ] Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)
Song Sparrow
red-winged blackbird
Common yellow throat
White-throated Sparrow
black-capped chickadee
gray catbird
American gold finch
northern cardinal

AKRF

FRESH KILLS PARK
VEGETATIVE SURVEY DATA FORM
(Revised March 2007)

Transect/Plot ID#: OH5 (5f)
Investigators: Andy Bernick and Mitchell Bright
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? [X] Yes [ ] No
Is the Sampling Area significantly disturbed (Atypical Situation)? [ ] Yes [X] No
Level of Disturbance (explain below): Light (Med.) Heavy
Remarks:

Date: 10/03/07
Photo #:
General Location Description: Owl Hollow area
GPS Location Description: N. 40 33. 811 W. 74 11. 745
Weather Conditions: overcast

VEGETATION

Cowardin System: (Upland) Palustrine Riverine; Estuarine Lacustrine Palustrine
Subsystem: Emergent (Scrub-Shrub) Forested; Subtidal Intertidal

Surrounding/Adjacent Land Use: On unpaved path next to road ROW - surrounded by Scrub-Shrub and open field

	Dominant Plant Species	Stratum	Indicator
1	Staghorn sumac Rhus typhina	S	U
2	White thoroughwort Eupatorium album	H	U
3	Common plantain Plantago major	H	FACU
4	Golden rods Solidago spp.	H	
5	Curly dock Rumex crispus	H	FACW
6	sweet gum Liquidambar styraciflua	T	FAC
7	eastern red cedar Juniperus virginiana	T	FACU
8	black locust Robinia pseudoacacia	T	FACU-

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 0

	Additional Species Present (Not Dominant)	Stratum	Indicator
1	Jewelweed Impatiens capensis	H	FACW
2	Large barnyard grass Echinochloa crus-galli	H	FACW
3	Panic grass Panicum spp.	H	
4	Path rush Juncus tenuis	H	FAC-
5	Ragweed Ambrosia artemisiifolia	H	FACU
6	Soft rush Juncus effusus	H	FACW+

Percent Herbaceous Cover: 0-1 | 1-10 | 10-25 | 25-50 | 50-75 | (75-100)
Percent Canopy Cover: (0-25) | 25-50 | 50-75 | 75-100
Size of Plot:
DBH of Trees in Plot: 10
Number of Trees in Plot: 4
Percent Unvegetated Surface Area: (0-25) | 25-50 | 50-75 | 75-100
Explain:

HYDROLOGY

- [ ] Recorded Data (describe in Remarks)
  - [ ] Stream, Lake, or Tide Gauge
  - [X] Aerial Photographs
  - [ ] Other
- [ ] No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- [ ] Inundated
- [ ] Saturated in Upper 12 inches
- [ ] Water Marks
- [ ] Drift Lines
- [ ] Sediment Deposits
- [ ] Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
- [ ] Oxidized Root Channels in Upper 12"
- [ ] Water-Stained Leaves
- [ ] Local Soil Survey Data
- [ ] FAC-Neutral Test
- [ ] Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

monarch butterfly
red admiral
green darner
American goldfinch
red-bellied woodpecker
Baltimore oriole
American crow
European starling
house sparrow
song sparrow
gray catbird
northern cardinal

AKRF

FRESH KILLS PARK
VEGETATIVE SURVEY DATA FORM
(Revised March 2007)

Transect/Plot ID#: OH6 (6f)
Investigators: Andy Bernick and Mitchell Bright
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? [X] Yes [ ] No
Is the Sampling Area significantly disturbed (Atypical Situation)? [ ] Yes [X] No
Level of Disturbance (explain below): Light (Med.) Heavy
Remarks:

Date: 10/03/07
Photo #:
General Location Description: Near Owl Hollow area
GPS Location Description: N. 40 33.868 W. 74 11.655
Weather Conditions: overcast

VEGETATION

Cowardin System: (Upland) Palustrine Riverine; Estuarine Lacustrine Palustrine
Subsystem: Emergent Scrub-Shrub (Forested); Subtidal Intertidal

Surrounding/Adjacent Land Use: In moist forest next to Stream

	Dominant Plant Species	Stratum	Indicator
1	Sweetgum Liquidambar styraciflua	T	FAC
2	Red maple Acer rubrum	T	FAC
3	Pin oak Quercus palustris	T	FACW
4	Southern arrowwood Viburnum dentatum	S	FAC
5	Poison ivy Toxicodendron radicans	V	FAC
6			
7			
8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100%

	Additional Species Present (Not Dominant)	Stratum	Indicator
1	Japanese knotweed Polygonum cuspidatum	H	FACU-
2	Jewelweed Impatiens capensis	H	FACW
3	Japanese honeysuckle Lonicera japonica	V	FAC-
4	Green Brier Smilax rotundifolia	V	FAC
5	Virginia-creeper Parthenocissus quinquefolia	V	FACU
6			

Percent Herbaceous Cover: 0-1 | 1-10 | (10-25) | 25-50 | 50-75 | 75-100
Percent Canopy Cover: 0-25 | 25-50 | 50-75 | (75-100)
Size of Plot:
DBH of Trees in Plot: 25+
Number of Trees in Plot: 25
Percent Unvegetated Surface Area: 0-25 | (25-50) | 50-75 | 75-100
Explain: Moist woods next Stream

HYDROLOGY

- [ ] Recorded Data (describe in Remarks)
  - [ ] Stream, Lake, or Tide Gauge
  - [X] Aerial Photographs
  - [ ] Other
- [ ] No recorded data available

Field Observations:
Depth of Surface Water: _____ (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
- [ ] Inundated
- [ ] Saturated in Upper 12 inches
- [ ] Water Marks
- [ ] Drift Lines
- [ ] Sediment Deposits
- [ ] Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
- [ ] Oxidized Root Channels in Upper 12"
- [X] Water-Stained Leaves
- [ ] Local Soil Survey Data
- [ ] FAC-Neutral Test
- [ ] Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

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FRESH KILLS PARK
VEGETATIVE SURVEY DATA FORM
(Revised March 2007)

Transect/Plot ID#: OH7 (7F)
Investigators: Andy Bernick and Michelle Bright
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? ☐ Yes ☒ No
Is the Sampling Area significantly disturbed (Atypical Situation)? ☐ Yes ☒ No
Level of Disturbance (explain below): Light (Med.) Heavy
Remarks: Old paved path overgrown with vegetation

Date: 10/03/07
Photo #:
General Location Description: Near Owl Hollow area
GPS Location Description: N. 40 33.828 W. 74 11.569
Weather Conditions: overcast

VEGETATION

Cowardin System: (Upland) Estuarine / Palustrine Lacustrine / Riverine Palustrine
Subsystem:
Emergent Subtidal / Scrub-Shrub Intertidal / (Forested)
Surrounding/Adjacent Land Use: Along paved path in forested area

Dominant Plant Species		Stratum	Indicator
1	Red maple Acer rubrum	T	FAC
2	Tree-of-heaven Ailanthus altissima	T	FACU-
3	Japanese knotweed Polygonum Cupidatum	H	FACU-
4	Japanese honeysuckle Lonicera japonica	V	FAC-
5	Jewel weed Impatiens capensis	H	FACW
6	Poison Ivy Toxicodendron radicans	V	FAC
7			
8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 3÷6 x 100 = 50%

Additional Species Present (Not Dominant)		Stratum	Indicator
1	Mulberry Morus spp.	T	
2	Gray birch Betula populifolia	T	FAC
3	Goldenrod Solidago spp.	H	
4	Common reed Phragmites australis	H	FACW
5	Common boneset Eupatorium perfoliatum	H	FACW+
6	Asiatic dayflower Commelina communis	H	FAC-

Percent Herbaceous Cover:	0-1	1-10	10-25	(25-50)	50-75	75-100
Percent Canopy Cover:	(0-25)	25-50	50-75	75-100		
Percent Unvegetated Surface Area:	0-25	(25-50)	50-75	75-100		

Size of Plot:
Number of Trees in Plot: 5
DBH of Trees in Plot: 10-15
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: ____ (in.)
Depth to Free Water in Pit: ____ (in.)
Depth to Saturated Soil: ____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☐ Saturated in Upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

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FRESH KILLS PARK
VEGETATIVE SURVEY DATA FORM
(Revised March 2007)

Transect/Plot ID#: OH8 (8F)
Investigators: Andy Bernick and Michelle Bright
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? ☒ Yes ☐ No
Is the Sampling Area significantly disturbed (Atypical Situation)? ☐ Yes ☒ No
Level of Disturbance (explain below): Light (Med.) Heavy
Remarks: Near stream and culvert leading under road

Date: 10/03/07
Photo #:
General Location Description: Near Owl Hollow area
GPS Location Description: N. 40 33.766 W. 74 11.580
Weather Conditions: Overcast

VEGETATION

Cowardin System: (Upland) Estuarine / Palustrine Lacustrine / Riverine Palustrine
Subsystem:
Emergent Subtidal / Scrub-Shrub Intertidal / (Forested)
Surrounding/Adjacent Land Use: Next to road near stream culvert - forested

Dominant Plant Species		Stratum	Indicator
1	Red maple Acer rubrum	T	FAC
2	Sweet-gum Liquidambar styraciflua	T	FAC
3	Japanese knotweed Polygonum cuspidatum	H	FACU-
4			
5			
6			
7			
8			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 2÷3 x 100 = 67%

Additional Species Present (Not Dominant)		Stratum	Indicator
1	Asian bittersweet Celastrus orbiculata	V	FACU
2	Virginia Creeper Parthenocissus quinquefolia	V	FACU
3			
4			
5			
6			

Percent Herbaceous Cover:	0-1	1-10	(10-25)	25-50	50-75	75-100
Percent Canopy Cover:	0-25	25-50	(50-75)	75-100		
Percent Unvegetated Surface Area:	(0-25)	25-50	50-75	75-100		

Size of Plot:
Number of Trees in Plot: 10
DBH of Trees in Plot: 15+
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: ____ (in.)
Depth to Free Water in Pit: ____ (in.)
Depth to Saturated Soil: ____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☐ Saturated in Upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands

Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks:

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)

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FRESH KILLS PARK
VEGETATIVE SURVEY DATA FORM
(Revised March 2007)

Transect/Plot ID#: 17 (9F)
Investigators: Andy Bernick and Michelle Bright
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? ☐ Yes ☒ No
Is the Sampling Area significantly disturbed (Atypical Situation)? ☒ Yes ☐ No
Level of Disturbance (explain below): Light Med. (Heavy)
Remarks: Site on open landfill

Date: 10/03/07
Photo #:
General Location Description: North Park near North mound
GPS Location Description: N. 40 35.473 W. 74 11.050
Weather Conditions: Overcast

VEGETATION

Cowardin System: (Upland) Estuarine; Palustrine Lacustrine; Riverine Palustrine
Subsystem: Emergent Subtidal; Scrub-Shrub Intertidal; (Forested) Pockets of forested areas on-site
Surrounding/Adjacent Land Use: Surrounded by monocultures of invasive species - open areas

Dominant Plant Species	Stratum	Indicator
1 American pokeweed Phytolacca americana	H	FACU+
2 Common reed Phragmites Australis	H	FACW
3 Japanese knotweed Polygonum cuspidatum	H	FACU-
4 Mugwort Artemisia vulgaris	H	UPL
5		
6		
7		
8		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 1/4 x 100 = 25%

Additional Species Present (Not Dominant)	Stratum	Indicator
1 Green Ash Fraxinus pennsylvanica	T	FACW
2 Mulberry Morus spp.	T	
3 Poison ivy Toxicodendron radicans	V	FAC
4 Virginia creeper Parthenocissus quinquefolia	V	FACU
5		
6		

Percent Herbaceous Cover: 0-1 | 1-10 | 10-25 | 25-50 | 50-75 | (75-100)
Percent Canopy Cover: 0-25 | (25-50) | 50-75 | 75-100
Size of Plot:
DBH of Trees in Plot: 10
Number of Trees in Plot: 5
Percent Unvegetated Surface Area: (0-25) | 25-50 | 50-75 | 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: ____ (in.)
Depth to Free Water in Pit: ____ (in.)
Depth to Saturated Soil: ____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☐ Saturated in Upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands
Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks: Possibly in area identified as 'native vegetation' on AES north mound report '07

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)
Song sparrow
black-capped chickadee
gray catbird
American goldfinch
Common grackle
northern harrier
turkey vulture

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FRESH KILLS PARK
VEGETATIVE SURVEY DATA FORM
(Revised March 2007)

Transect/Plot ID#: 18 (10F)
Investigators: Andy Bernick and Michelle Bright
Primary or Secondary Study Area? (Primary) Secondary
Do Normal Circumstances exist within the Sampling Area? ☐ Yes ☒ No
Is the Sampling Area significantly disturbed (Atypical Situation)? ☒ Yes ☐ No
Level of Disturbance (explain below): Light Med. (Heavy)
Remarks: Site on open landfill

Date: 10/03/07
Photo #:
General Location Description: North park near North Mound
GPS Location Description: N. 40 35.547 W. 74.11.001
Weather Conditions: Overcast

VEGETATION

Cowardin System: (Upland) Estuarine; Palustrine Lacustrine; Riverine Palustrine
Subsystem: Emergent Subtidal; Scrub-Shrub Intertidal; (Forested) Pockets of forested areas on-site
Surrounding/Adjacent Land Use: Interrupted area surrounded by monocultures of invasive plant species

Dominant Plant Species	Stratum	Indicator
1 Sweetgum Liquidambar styraciflua	T	FAC
2 Red maple Acer rubrum	T	FAC
3 Winged Sumac Rhus copallinum	S	FACU-
4 Japanese knotweed Polygonum cuspidatum	H	FACU-
5 Common reed Phragmites Australis	H	FACW
6		
7		
8		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 3/5 x 100 = 60%

Additional Species Present (Not Dominant)	Stratum	Indicator
1 Blackgum Nyssa sylvatica	T	FACW
2 Gray birch Betula populifolia	T	FAC
3 Blackberry Rubus spp.	S	
4 Goldenrods Solidago spp.	H	
5		
6		

Percent Herbaceous Cover: 0-1 | 1-10 | 10-25 | (25-50) | 50-75 | 75-100
Percent Canopy Cover: 0-25 | (25-50) | 50-75 | 75-100
Size of Plot:
DBH of Trees in Plot: 15
Number of Trees in Plot: 10
Percent Unvegetated Surface Area: (0-25) | 25-50 | 50-75 | 75-100
Explain:

HYDROLOGY

☐ Recorded Data (describe in Remarks)
☐ Stream, Lake, or Tide Gauge
☒ Aerial Photographs
☐ Other
☐ No recorded data available

Field Observations:
Depth of Surface Water: ____ (in.)
Depth to Free Water in Pit: ____ (in.)
Depth to Saturated Soil: ____ (in.)

Wetland Hydrology Indicators:
Primary Indicators:
☐ Inundated
☐ Saturated in Upper 12 inches
☐ Water Marks
☐ Drift Lines
☐ Sediment Deposits
☐ Drainage Patters in Wetlands
Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12"
☐ Water-Stained Leaves
☐ Local Soil Survey Data
☐ FAC-Neutral Test
☐ Other (explain in remarks)

Remarks: Possibly in area identified as 'native vegetation' on AES north mound report - Fall '07

WILDLIFE OBSERVED (INCLUDING SIGNS, TRACKS, CALLS)

(Note behavior and/or activity in addition to species)
Song Sparrow
Carolina wren
Common yellow-throat
Palm warbler
Yellow-rumped warbler
black-throated blue warbler
gray catbird
American goldfinch
northern cardinal

AKRF

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Technical Memorandum

To:	Eloise Hirsh, New York City Department of Parks and Recreation (DPR) Angelyn Chandler, DPR Nicholas Molinari, DPR Michael Marrella, New York City Department of City Planning (DCP)
From:	Robert White/AKRF, Sandy Collins/AKRF, Michael Clayton/AKRF, Andrew Bernick/AKRF
Subject:	Draft Natural Resources Field Survey Fall 2007 Addendum
Date:	September 5, 2007
cc:	Judita Eisenberger/AKRF

A Natural Resources Field Survey Plan (Field Survey Plan) was prepared and submitted in May 2007 that outlined the overall approach and specific methods to be utilized in the natural resources field study of the Project Site and Secondary Study Area at the proposed Fresh Kills Park. The overall field survey program, including the methods presented in the submitted and approved Plan, was in accordance with the Natural Resources Technical Memorandum, dated January 22, 2007, which outlined the detailed technical scope of work for the natural resources analyses to be performed for the Fresh Kills Park DGEIS. The Field Survey Plan provided the overall objectives of the natural resources survey effort, the proposed approach to verifying and characterizing the ecological communities within the project site and surrounding areas, and outlined the specific methods that would be used to achieve the stated objectives.

This addendum serves as a follow-up to the initial Field Survey Plan and May 2007 field efforts. It outlines areas of focus proposed for the fall 2007 field survey and identifies additional activities that have been determined to be applicable or appropriate based on data collected during the May 2007 field effort. Specifically, objectives of the fall 2007 field survey will include:

- capturing seasonal changes at the project site;
- further documenting existing conditions within the short-term project areas, including the proposed Park Drives;
- further documenting the utilization of the project site by wildlife species, including migratory birds, mammals, reptiles, and insects; and
- determining the presence of aquatic biota within seven open water areas adjacent to Mound 6/7 and Mound 2/8, that include the four large open water and vegetated

areas located along the eastern edge of the project site, between Mound 6/7 and Richmond Avenue (i.e., Basins B1 and B2, and Fresh Water Wetland north of Basin B1, and Fresh Water Wetland south of Basin B2), the two stormwater management ponds located in the central portion of the project site near the confluence of Main Creek and Richmond Creek that currently receive stormwater runoff from Mound 6/7 (i.e., Basins C1, C2), and the pond located between the two portions of Mound 2/8, south of Richmond Creek and west of Basin H, that connects to the Richmond Creek tributary between the two portions of Mound 2/8.

APPROACH

During the fall field effort, the project site will be revisited to achieve the objectives stated above. Vegetative communities identified during the May 2007 field effort will be confirmed using a generalized rapid assessment approach with the purpose of noting changes that may have occurred since the May field efforts. Changes observed will be recorded and subsequently included in the DGEIS.

Terrestrial and aquatic wildlife species observed throughout the project site will be recorded. Observations may include sightings, calls, tracks, or other evidence. In addition, behavior and any unusual activities observed will be noted. Consistent with the May 2007 field efforts, all field activities will be performed between the hours of 7:00 AM and 5:00 PM to maximize the potential for wildlife viewing/observation.

As discussed in the Field Survey Plan, the New York State Department of Environmental Conservation (NYSDEC) Natural Heritage Program, US Fish and Wildlife Service (USFWS), and National Marine Fisheries Service (NMFS), were contacted regarding information as to the potential presence of threatened or endangered species, suitable habitats for such species, and other habitats of concern within the project site and Secondary Study Area.

NYSDEC identified several egrets, herons, and other waterbirds as having been documented in the vicinity of the Isle of Meadows, and specifically identified the Isle of Meadows as habitat for colonial waterbird nesting. However, recent studies performed by New York City Audubon have confirmed that these species have not nested on the Isle of Meadows in the last 5 years. NYSDEC also identified barn owl (*Tyto alba*), glaucous sedge (*Carex glaucodea*), and persimmon (*Diospyros virginiana*), as protected species documented as occurring within the vicinity of the project site. Significant ecological communities identified by NYSDEC as potentially occurring within close proximity to the project site include a red maple-sweetgum swamp, and an oak-tulip forest, both of which were identified as having high ecological and/or conservation value. Observations of any state listed species or habitats of concern or significance will be recorded and included in the DGEIS.

No protected species were identified by the USFWS or NMFS within the project area; however, observations of any federally listed threatened or endangered species will be recorded and discussed in the DGEIS.

In addition to the above mentioned species and habitats, additional protected species including gamma grass (*Trypsacum dactyloides*) and hyssopleaf thoroughwort (*Eupatorium hyssopifolium* L. var. *laciniatum*) have been documented as occurring within the project site and in Secondary Study Area. Any observations of these species within the project site or Secondary Study Area will be documented and discussed in the DGEIS.

METHODS

As outlined in the Field Survey Plan, the overall objectives of the Natural Resources Field Survey are to characterize the current terrestrial and aquatic resources present within the previously identified Primary Study Area for the Fresh Kills Park project and verify and augment the information compiled from publicly available literature.

The fall field survey will focus on further documenting natural resources within the project site. Because sufficient information has been compiled to characterize the natural resources within the Secondary Study area, the Secondary Study Area will not be revisited during the fall field survey.

Natural resource field investigations of the Fresh Kills site were conducted during May 2007 to coincide with the flowering period for spring flowering plants and bird breeding within the habitats available within the study areas. Additional investigations are proposed to be conducted in October 2007 (week beginning October 1, 2007) to coincide generally with fall flowering periods and the fall bird migration. Appropriate vegetative data (herbaceous, shrub, and tree layer species composition) will be collected as to document any seasonal changes that may have occurred since the May 2007 field effort. No ground disturbing activities or shallow shovel tests will be required as part of the fall field effort.

As discussed earlier in this memorandum, wildlife observed during the course of the field survey will be recorded. Additional observations made, including sightings, calls, tracks, or other evidence of the presence of wildlife species, as well as specific behavioral patterns or any unusual activities also will be documented. Following completion of the field surveys, a complete listing of wildlife species observed (including birds, mammals, reptiles, amphibians, and aquatic species) will be prepared. All field activities will be performed between the hours of 7:00 AM and 5:00 PM to maximize the potential for wildlife viewing.

Rapid assessment survey techniques may also be used to describe aquatic biota within the seven open water areas described above. These techniques will be limited to the use of dip nets or other similar methods to document the presence of aquatic biota, and will be performed in accordance with generally accepted techniques and methodologies for aquatic biota sampling. No testing or offsite analysis will be performed as part of this effort.

AREAS PROPOSED FOR INVESTIGATION

The habitats identified during the May 2007 field effort will be revisited to document any seasonal changes in species composition or diversity. These habitats include *Spartina*-dominated wetlands, mixed marsh wetlands, *Phragmites*-dominated emergent-scrub-shrub wetlands, palustrine forested wetlands, *Phragmites*-dominated field with woody vegetation (upland), maturing woodland (upland), and grass/forb dominated upland areas. The seven open water areas described above will surveyed in accordance with the methods described in the previous section of this Addendum.

Areas of disturbance relative to proposed park elements will be revisited for the purposes of impact assessment. These park elements include items listed as short-term projects and the longer term park elements as delineated in the DMP. Furthermore, any modifications to the list of short-term projects or other recently proposed activities that warrant detailed investigations or impact assessments will be confirmed prior to field activities and included as part of the Fall effort. Surveys or other natural resource investigations associated with any such recently proposed activities will be performed in accordance with the methods described in this Addendum.