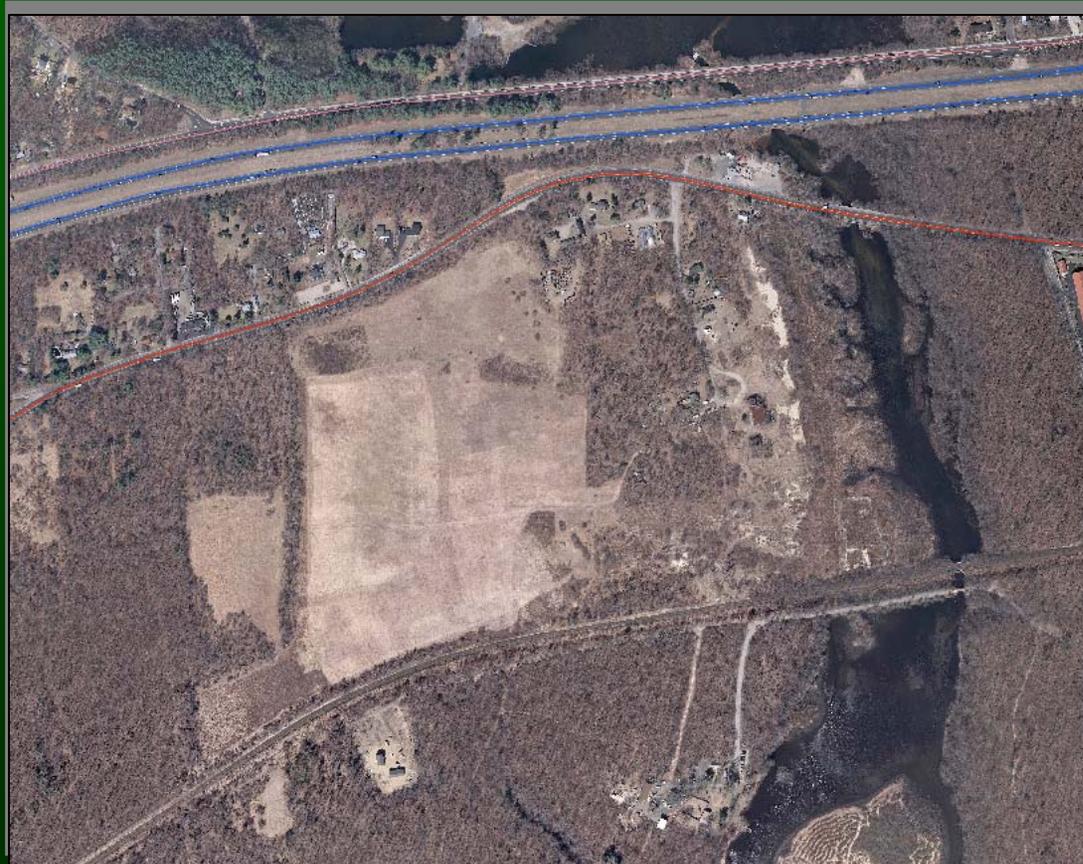


Habitat Restoration Feasibility Study at the Robinson Duck Farm County Park



GPI TEAM

GPI Greenman-Pedersen, Inc.
GSE Green Shield Ecology, Inc.
PWGC P.W. Grosser Consulting



COUNTY OF SUFFOLK
Department of Planning

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PROJECT MANAGER

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- PWGC
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- PWGC

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WORK PLAN OUTLINE

- TASK 1 Inventory and Map Site Conditions
- TASK 2 Identify Environmental Conditions (PWG)
- TASK 3 Phase II Environmental site Analysis (PWG)
- TASK 4 Past and Current Management Activities
- TASK 5 Development Management Goals and Restoration Priorities Detailed Discussion to Follow
- TASK 6 Report Preparation
- TASK 7 Meetings

Task 1 – Inventory and Map Site Conditions

Base Map Layers

- A. Aerial Photograph
- B. Topography
- C. Property Lines
- D. Cultural Features
- E. Tidal Wetlands
- F. Upland Habitats

A. Aerial Photograph



B. Topography



C. Property Lines



D. Cultural Features



E. Tidal Wetlands



F. Upland Habitats



P = Pitch Pine Forest
C = Cultural

M = Maritime Heathland
G = Maritime Grassland

Task 2 – Identify Recognized Environmental Conditions

PWGC will review the following in order to finalize a Phase II scope of work:

- Observations from site walkthrough.
- Findings from Task 1.2 mapping.
- Data contained within the Army Corp of Engineers Report.
- Data provided by Suffolk County.
- Any publicly available information.

Based upon our limited walkthrough of the property during the bid walk, PWGC has already identified the following issues for investigation in Task 3:

- Former duck pond / lagoon area
- Onsite sanitary system associated with the former farm buildings.
- Former farm building sampling
- Former vehicle storage area / aircraft hanger
- Residential building fuel oil tanks.

Task 3 – Phase II

PWGC plans to conduct sub-surface soil samples from the Duck Pond / Waste Lagoon Area.

Samples will be collected with a geoprobe and hand augers.

Goal will be to determine the extent of duck waste present and if such materials are contaminated with hazardous chemicals.



PWGC observed a potential onsite sanitary system associated with the former farm building. Such systems can be impacted as a result of improper discharges to interior drains, slop sinks, and toilets.

In order to sample the sanitary system, a backhoe will be used to expose the cesspools so that a sample can be collected from the base of the structure with a hand auger.



During the bid walk, PWGC observed potential oil staining in a former farm maintenance building. PWGC proposes to inspect the area and look for potential pathways for the impacts to reach the subsurface. PWGC plans to collect soil samples from the area if it is likely that the oil staining has impacted the sites soils.



Portions of the property were utilized to store old vehicles and farm equipment. Oil and fuel leaks from such vehicles could impact the surface soils.

A reported aircraft hanger is also present at the property. If fueling or maintenance activities occurred at the building, there is a potential for spills to have occurred.

PWGC proposes to inspect both areas and collect representative soil samples from each.



At the time of the bid walk, it was not determined how the residential properties are heated. Since the buildings may use fuel oil, PWGC proposes to inspect the buildings to determine if fuel oil tanks are present. If present, PWGC will make a determination if a visual inspection is sufficient or if soil sampling would be required to assess the tanks.



Task 4 – Past and Current Management Activities

Task 5 - Develop Management Goals and Restoration Priorities

5.1 Site Management Goals

5.2 Site Habitat Restoration and Management Options

A. Native Grasslands/Meadows

B. Coastal Shrubland/Dune

C. Woodland

D. Ponds/Riparian Fringe

A. Native Grasslands/Meadows



Existing grassland meadow near dilapidated building structures. Enhance with plantings of native grasses and wildflowers. Remove invasive mugwort in the foreground mechanically or by spot treatment with herbicide.



Heavily invaded meadow (mugwort). Complete vegetation removal, reseeding with native grass and wildflower mixture. Maintain native species composition by focused removal of all mugwort regrowth. Gently modify topographic to maximize species diversity.

B. Coastal Shrubland/Dune



Former duck beaches support growth of native beach heather, wildflowers such as blue toadflax and wild black cherry trees. Enhance with plantings of additional native coastal shrubs such as bayberry and blueberry, as well as herbaceous species.

c. Woodland



Degraded woodlot with only a few native species in the canopy, and understory dominated by invasive mugwort. Remove invasive species and replant a native shrub and woodland herb understory, building biodiversity and habitat structure.

D. Ponds and Riparian Fringe



Phragmites reed infests former duck ponds and wet areas. Remove reed and open up the water surface for enhanced waterfowl feeding and resting use, as well as lovely vistas for human visitors.

PROPOSED PROJECT SCHEDULE

SUFFOLK COUNTY DEPARTMENT OF PLANNING

Robinson Duck Farm County Park Habitat Restoration Feasibility Study

DESCRIPTION TASK	MONTHS												
	***	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10
TASK 1.1: Develop Basemap Architecture		■											
TASK 1.2: Locate and Map All Site Features		■	■										
TASK 1.3: Document Existence of Any Historic Resources On-site			■	■									
TASK 2: Identify Recognized Environmental Conditions				■									
TASK 3: Conduct Phase II Environmental Site Analysis				■	■	■	■	■	■				
TASK 4: Describe Past and Current Management Activities					■	■	■						
TASK 5.1: Site Management Goals								■	■	■			
TASK 5.2: Site Habitat Restoration and Management Options										■	■	■	
TASK 6: Prepare Park Management and Habitat Restoration Report											■	■	■
TASK 7: Meetings		■			■				■			■	

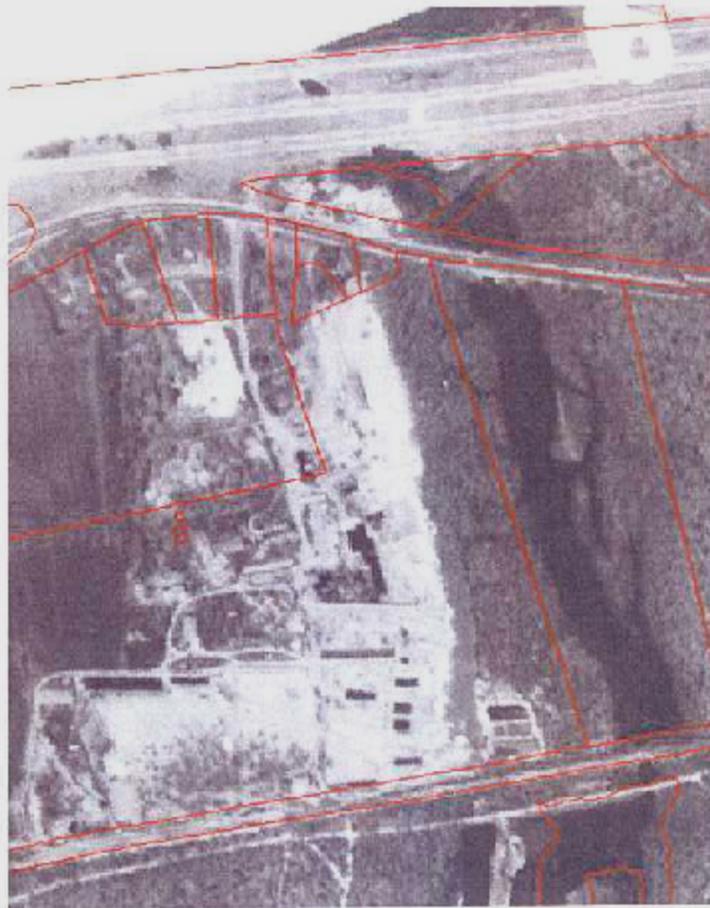
* Bars do not indicate relative effort but merely represent a suggested duration for each scheduled task.

** The start dates and durations of each task are approximate, however, all tasks will be completed on or about one year from the execution of the contract.

*** Assume start date of 2/15/09

Carmans River, Town of Brookhaven

1966



2001

