Partners for Fish and Wildlife

FISH AND WILDLIFE HABITAT RESTORATION AGREEMENT

This fish and wildlife habitat restoration agreement, dated _____, between Satt Corporation, Patty Holsher, Frank and Carol Cahill, Joan Schellinger, Wynn and Susan Evoy, Breakwater Terrace Property Owners Association, Cape May County, Township of Lower, Lower Township MUA, NJ Conservation Foundation, and State of New Jersey (Cooperator), the U.S. Fish and Wildlife Service (Service), and Cape May County Department of Mosquito Control (Partners) is entered into pursuant to authority contained in Section 1 of the Fish and Wildlife Coordination Act (16 U.S.C. 661) and the Fish and Wildlife Act of 1956 (16 U.S.C. 742a-742j).

This agreement allows the Service and/or its Partners to undertake fish and wildlife habitat restoration activities on land owned by the Cooperator in Cape May County, State of New Jersey. These activities are described in Appendix A and are depicted on site plan drawings and maps. The Cooperators agrees to place 87 acre and _____ feet, as depicted in Appendix A, under this agreement for _____ years beginning on _____ (day/month/year) and ending on _____ (day/month/year).

In signing this agreement, the Cooperator joins as a participant in a fish and wildlife habitat restoration program and grants to the Service, or its designees, the authority to complete necessary habitat restoration, creation, or improvement activities or to personally carry out fish and wildlife habitat activities with financial or material support from the Service or its Partners, as described in Appendix A. The site plan drawings included in Appendix A indicate pre-restoration site conditions and work to be completed.

The estimated construction costs of the habitat project and the amount contributed by the Service and its Partners are identified in Appendix B. Any donation of supplies or equipment, or direct payment from the Service or its Partners to the Cooperator for carrying out these habitat activities, is also identified in Appendix B. If the Cooperator is being reimbursed for actions taken as part of this agreement, these actions will also be described in Appendix B.

The Cooperator grants the Service and it partners vehicular access to the site at reasonable times for conducting project-related activities, such as inspecting completed work, surveying wildlife populations, operation of structures, etc. The Cooperator retains all rights to control trespass and retains all responsibility for taxes, assessments, granting rights-of-way, control and eradication of noxious weeds, and other incidences of ownership.

The Cooperator assumes responsibility for all maintenance after the initial habitat work is complete, except for initial maintenance required because of inadequate construction by the Service or its Partners. Inadequate construction performed by the Cooperator under the special provisions in Appendix B must be rectified by the Cooperator at his/her expense.

Modifications to the original habitat site plan that the Cooperator may want to undertake shall require the written concurrence of the Service. The agreement may be modified at any time by mutual consent. It may also be terminated in writing by either party with thirty (30) days receipt of the written notice. Any written notice to the Service shall be sent to the Assistant Regional Director - Ecological Services, U.S. Fish and Wildlife Service, 300 Westgate Center Drive,

Hadley Massachusetts 01035. Any written notice to the Cooperator shall be sent to: see attached Cooperator list.

If this agreement is terminated by the Cooperator, the Cooperator will reimburse the Service and its Partners for their project construction costs, as identified in Appendix B. If the agreement is terminated in writing by the Service, then the Service may at its option remove any habitat restoration structures placed on the land.

The termination date of the agreement will determine when obligations between the parties shall end. For most freshwater wetlands restored under the terms of this agreement, this termination will initiate the 5-year grace period under which the Cooperator may convert the wetland to its pre-restoration drained condition, as allowed by Nationwide Permit No. 27, issued by the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act. Final determination about the applicability of Nationwide Permit No. 27 to any wetlands restored under this agreement lies with the Corps of Engineers. It is the responsibility of the Cooperator to contact the Corps to receive that determination. The Cooperator is advised that State and/or local regulations may either prohibit or may require a permit to convert a restored wetland to its pre-restoration drained condition.

At the end of the agreement period, any habitat developments to the land will become the property of the Cooperator. There shall be no obligation to any of the parties after the agreement has expired. Specifically, the Service will be under no obligation to restore land to its original condition.

Restoration of wetlands under this agreement cannot be credited as mitigation required for the receipt of Federal, State, or local wetlands permits.

The Cooperator guarantees ownership of the above-described land and warrants that there are no outstanding rights which interfere with the rights of the Service or its Partners under this agreement.

In the event the Cooperator transfers any of the lands designated and described in the attached site plan map, he/she shall take such steps as are necessary to inform the purchaser of the existence of this agreement. Additionally, any deed, lease, or other instrument of transfer will be made subject to this agreement so that the new landowner shall become the Cooperator. The Cooperator will notify the Service of any changes in ownership.

The Service is prohibited by law from making obligations that exceed available funds, and therefore, the Service can only do that work which is funded. In the event funds are not available to do the habitat restoration work within the period of time or in the manner described on the attached site plan, the Service will notify the Cooperator of that fact.

Signature by the parties to this agreement signifies understanding of each parties rights and responsibilities.

Satt Corporation _____ DATE _____

Patty Holscher	DATE
Frank and Carol Cahill	DATE
Joan Schellinger	DATE
Wynn and Susan Evoy	DATE
Breakwater Terrace Property Owners Association	DATE
Cape May County	DATE
Lower Township	DATE
Lower Township MUA	1.29.08 DATE

Patty Holscher	DATE
Frank and Carol Cahill	DATE
Joan Schellinger	DATE
Wynn and Susan Evoy	DATE
Breakwater Terrace Property Owners Association	DATE
Cape May County	DATE
Lower Township	11-27-07 DATE
Lower Township MUA	DATE

Lower Township MUA — DATE

NJ Conservation Foundation — DATE

State of New Jersey — DATE

FIELD REPRESENTATIVE — 11/21/07 DATE
U.S. FISH AND WILDLIFE SERVICE

PROJECT LEADER — 21 Nov 07 DATE
U.S. FISH AND WILDLIFE SERVICE

CHIEF, CONTRACTING AND GENERAL SERVICES — DATE
U.S. FISH AND WILDLIFE SERVICE

If there are any other partners, please have them sign below.

DATE

TITLE/ORGANIZATION

APPENDIX A

RESTORATION PLAN,
TOPO MAP,
SITE PLAN DRAWINGS

WETLAND RESTORATION PLAN

The proposed wetland restoration project would allow water control within an 87-acre wetland area currently dominated by common reed (*Phragmites australis*). Lower Township and the Lower Township Municipal Utilities Authority will be responsible for the proposed water-control structure. However, the project will influence water levels on Cooperators properties within approximately 87 acres of wetlands. The project will allow water level management within the 87-acre wetlands, allowing control of invasive species, improved management for waterfowl and wading birds. The wetland complex includes a total of approximately 108 acres, however, only approximately 87 acres would be influenced by the water-control structure. Over 90 acres of marsh within the project site are currently dominated by common reed. *Phragmites* invades disturbed and pristine sites. Invasion at the Cox Hall Creek may be due to a variety of reasons including construction of a pumping station and maintenance of the pumping station changing marsh hydrology and salinity, making the site more conducive to *Phragmites* expansion. Once established, *Phragmites* often outcompetes smooth cordgrass (*Spartina alterniflora*) and forms extensive, dense stands, which are unsuitable for wildlife. In southern New Jersey, *Phragmites* has been found to expand at a rate of 4% per year (Windham, 1995). The project site is located in a residential area. The project is located in Lower Township, Cape May County, New Jersey.

The purpose of the Cox Hall Creek Restoration Project is to restore 87 acres of estuarine intertidal emergent wetland habitat for fish and wildlife resources and to protect an additional 21 acres of freshwater wetlands for fish and wildlife including, threatened and endangered species and migratory birds. This will be accomplished by reintroducing limited tidal exchange in the Cox Hall Creek wetlands to eliminate and control common reed (*Phragmites australis*), an exotic and invasive species which has formed an extensive, dense stand throughout most of Cox Hall Creek marsh. The project purpose would be accomplished through the restoration of tidal inundation to Cox Hall Creek marsh by modifying the existing pumping station at the mouth of Cox Hall Creek. In addition, the culvert under Clubhouse Road would be replaced and expanded to provide more efficient inflow and outflow to the subject wetland.

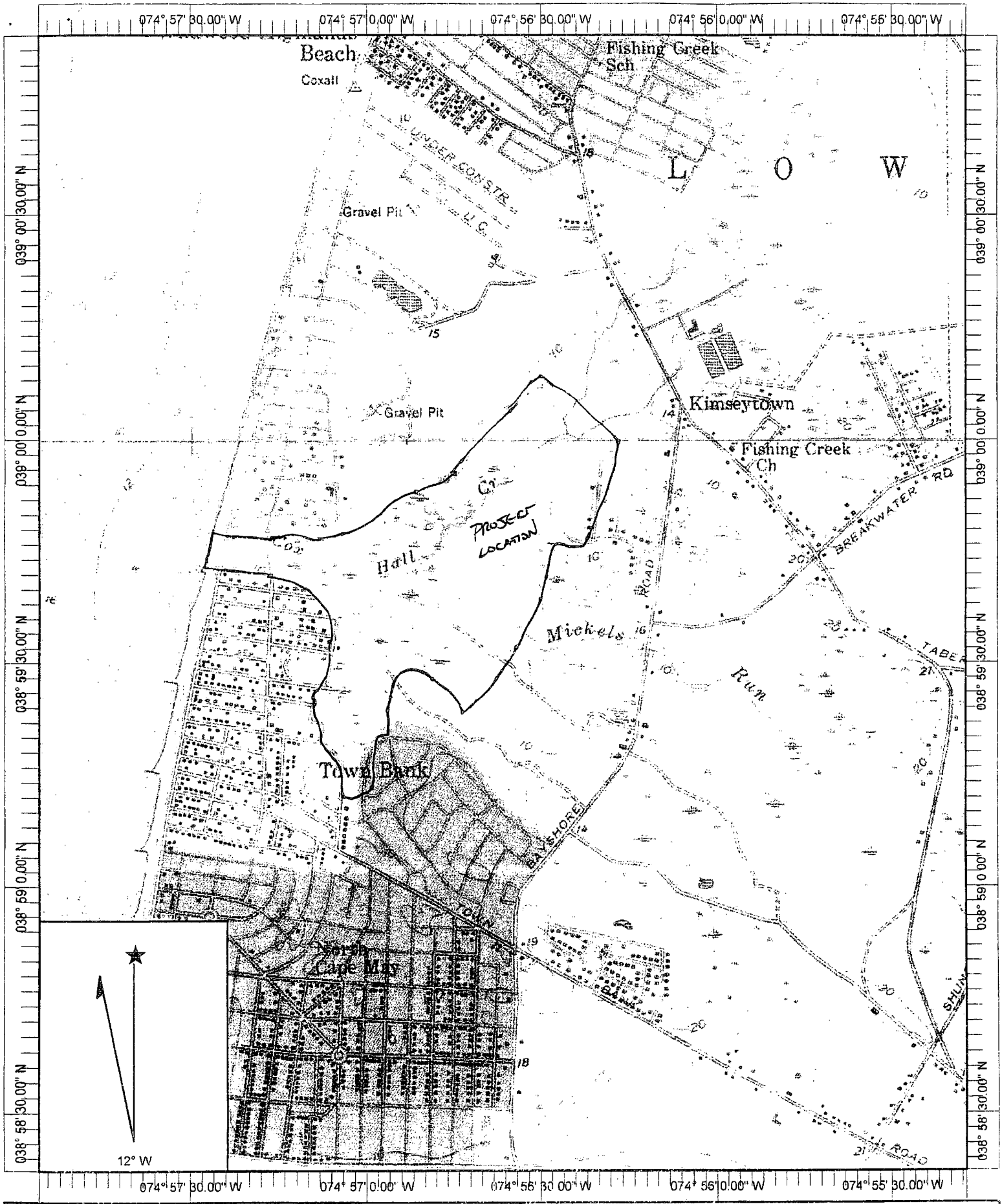
The proposed water-control structure at the pumping station would essentially throttle the tidal flow into Cox Hall Creek limiting tidal inundation to 87 acres. In addition, the internal berms and small water-control structures would prevent tidal waters from impacting freshwater wetland areas to the east. The water-control structures would prevent tidal flooding of residential development to the south and east of the project area. The proposed project would also involve minor and temporary impacts to wetlands associated with Open Marsh Water Management (OMWM). The OMWM process may involve installation of a variety of ponds and radials throughout the 87-acre marsh to provide refuge areas for mosquito-eating fish. These areas are created to allow these fish to move throughout the wetlands during high tide to consume mosquito larvae.

There will be a number of benefits derived from the Cox Hall Creek Restoration project. Fish and wildlife habitat will be enhanced by increasing the diversity of vegetation within the wetlands. The Cox Hall Creek wetlands currently provide limited habitat for fish and wildlife resources due to the overwhelming presence of dense stands of common reed, which provides limited habitat value for fish and wildlife. Reducing common reed improve habitat value and diversity. Improving diversity within the wetland would also improve the aesthetics of the

project site. By opening up the Cox Hall Creek wetlands visually, the general public would be better able to fish, hunt, bird-watch, and conduct environmental studies. Controlling *Phragmites* would also reduce the need for the Cape May County Department of Mosquito Control to spray insecticides in and around marshes and residential areas. The project will also improve water quality within Cox Hall Creek (*e.g.*, total dissolved solids, biological oxygen demand, fecal contamination (coliforms)) by improving tidal flushing of the marsh. Reducing the biomass of *Phragmites* will also decrease the chance and risk of a catastrophic wildfire occurring and damaging residential property in the area. The project may also alleviate some current flooding problems that are experienced due to *Phragmites* blocking outlet structures and impeding upland drainage.

REFERENCES

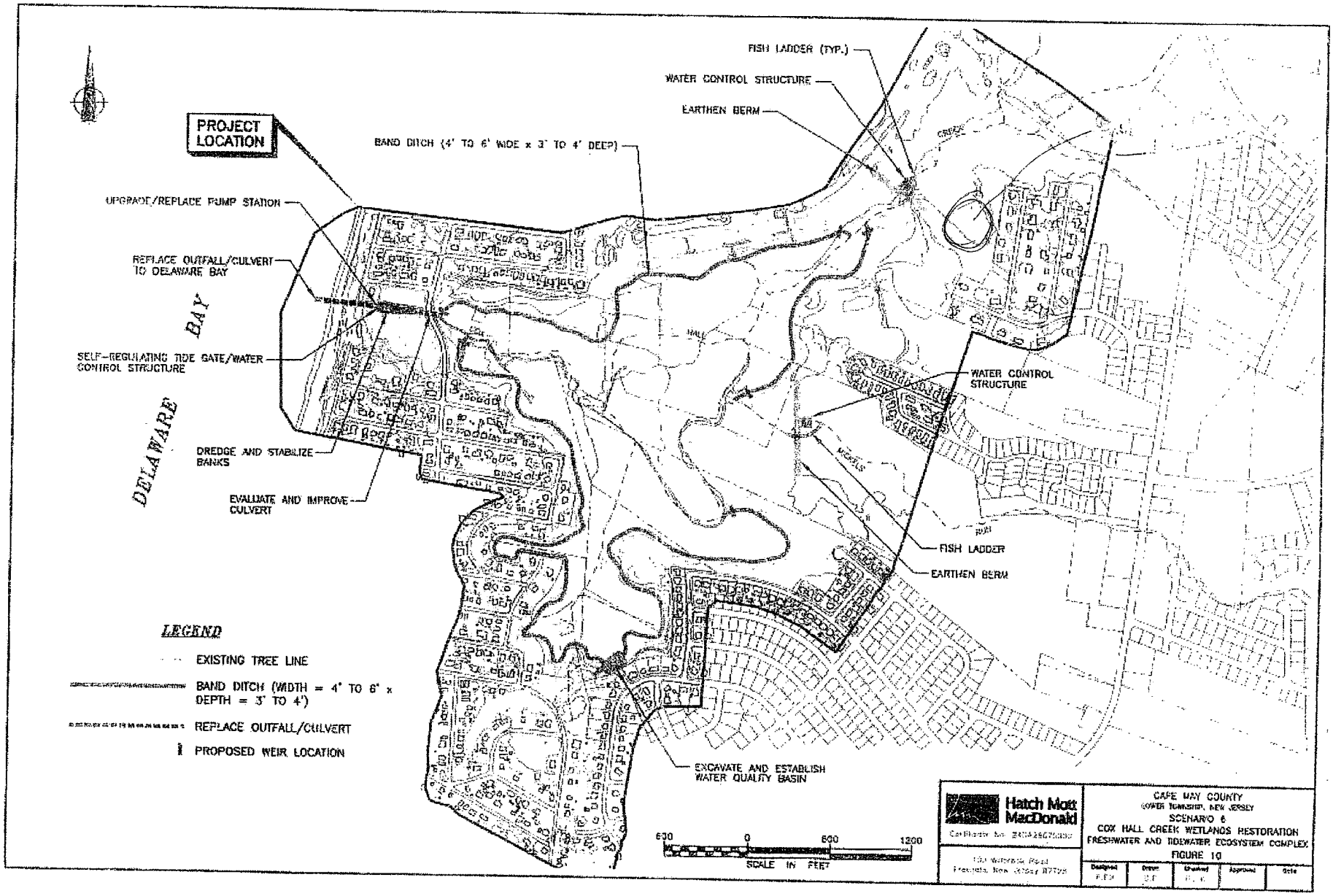
Windham, L. 1995. Effects of *Phragmites australis* invasion on aboveground biomass and soil properties in brackish tidal marsh of the Mullica River, New Jersey. M.S. Thesis, Rutgers University, New Brunswick, New Jersey.



Name: CAPE MAY
Date: 9/19/2001
Scale: 1 inch equals 1666 feet

Location: 038° 59' 38.1" N 074° 56' 36.3" W
Caption: Cox Hall Creek


Cox Hall Creek
Lower Township, Cape May County, NJ
EDNA AVE
SHAWMOUNT AVE
MISTLETOE RD
SANDALWOOD RD
BEACHPLUMB RD
DUNE RD
SPRINGTIME RD
ROBIN RD
MULBERRY RD
WINDWARD RD
FERN RD
FOREST RD
HOLLYWOOD RD
BAYWYN RD
MALLOW RD
Beer World
Saft
Green Acres
CMC Mosquito
CMC
Cahill
Evoy
Bay Woods
NJ Con. Fdn.
CMC Mosquito
PINEWOOD RD
FERNWOOD RD
AVALON RD
BROOKDALE RD
CEDARBROOK RD
DELAIR RD
ELMWOOD RD
FOLSOM RD
RACE TRACK DR
ADELPHIA RD
BEVERLY RD
TOWN BANK RD
DELFORD RD
EAGLEWOOD RD
EMERSON AVE
Lower Twp
LeGates
Lower Twp
NJ Con. Fdn.
Lower Twp
HARMONY ROAD
EDGEWATER RD
BAYWOOD DR
BREAKWATER RD
BREAKWATER PL
BRUCE DR
BAYSHORE RD
HOLLY RD
HEMLOCK RD
CHESTNUT RD
PONTAXIT AVE
MARGARET ST
CROTON DR
SHEA ST
JOANNE ST
SUZANNE AVE
JUDITH ST
ARION AVE
N
0 250 500 1,000 1,500 2,000 Feet
Digital Data provided by Cape May County Planning Department and NJDEP 2002 colored infarred aerials.


PROJECT LOCATION
FISH LADDER (TYP.)
WATER CONTROL STRUCTURE
EARTHEN BERM
BAND DITCH (4' TO 6' WIDE x 3' TO 4' DEEP)
UPGRADE/REPLACE PUMP STATION
REPLACE OUTFALL/CULVERT TO DELAWARE BAY
DELAWARE BAY
SELF-REGULATING TIDE GATE/WATER CONTROL STRUCTURE
DREDGE AND STABILIZE BANKS
EVALUATE AND IMPROVE CULVERT
WATER CONTROL STRUCTURE
FISH LADDER
EARTHEN BERM
EXCAVATE AND ESTABLISH WATER QUALITY BASIN
LEGEND
EXISTING TREE LINE
BAND DITCH (WIDTH = 4' TO 6' x DEPTH = 3' TO 4')
REPLACE OUTFALL/CULVERT
PROPOSED WEIR LOCATION
600 0 600 1200
SCALE IN FEET
Hatch Mott MacDonald
CAPE MAY COUNTY
COVER TOWNSHIP, NEW JERSEY
SCENARIO 6
COX HALL CREEK WETLANDS RESTORATION
FRESHWATER AND TIDEWATER ECOSYSTEM COMPLEX
FIGURE 10

APPENDIX B

COST ESTIMATES,
SERVICE / PARTNER CONTRIBUTIONS,
SPECIAL PROVISIONS

PARTNERS FOR FISH AND WILDLIFE
HABITAT RESTORATION PROJECT COSTS

Cooperator / Landowner: Multiple
County: Cape May
Drainage: Cox Hall Creek

Material and Restoration Costs: Wetland Restoration

Planning, engineering, and design	(In-kind) Ducks Unlimited = $	50,000
Culvert replacement	(In-kind) Partners = $	500,000
Excavation of channel	(In-kind) CMMEC = $	50,000
Construct hydraulic structure	(Cash) Partners = $	400,000
Management of hydraulic structure	(In-kind) Lower Township MUA = $	40,000
Open marsh water management	(In-kind) CMMEC = $	50,000
Preparation of environmental documentation	(In-kind) Service = $	30,000
Permit acquisition and coordination	(In-kind) Service = $	20,000
Educational signs	(Cash) Cooperators = $	1,000
Well testing and boring	(Cash) Lower Township = $	10,000
Totals:	**(In-kind) Service = $**	**50,000**
	(Cash) Cooperators = $	**1,000**
	(Cash) Partners = $	**900,000**
	(In-kind) Ducks Unlimited = $	**50,000**
	(In-kind) CMCMEC = $	**100,000**
	(Cash) Lower Township = $	**10,000**
	(In-kind) Lower Township MUA = $	**40,000**
TOTAL PROJECT COST:		**$ 1,151,000**[1]

[1] Estimated Costs based on preliminary conceptual information. The Partners is currently an undefined contribution base that may include, but are not limited to, federal and state agency funds and/or grants from non-profit conservation organizations.

PARTNERS FOR FISH AND WILDLIFE

SERVICE / PARTNERS CONTRIBUTIONS AND SPECIAL PROVISIONS

Service Contributions

The Service will obtain permits, coordinate the project, and prepare associated environmental documentation for the project, not to exceed $50,000. The Service will provide technical support with project implementation and monitoring. The materials and technical assistance costs provided by the Service is equivalent to a 4.3% cost-share.

Cooperators Contributions

The Cooperator will provide permission to restore the wetland to a tidally flowed wetland. The Cooperators will also be responsible for installation of a sign with the assistance of the Service at the project site. The materials and technical assistance costs provided by the Cooperator is equivalent to a 0.1% cost-share

Partners Contributions

The Partners (federal and state agency and grant funding from non-profit organizations will provide funds for all work associated with the water-control structure and culvert replacement. The materials and contracting costs provided by the Partners is equivalent to a 78.2% cost-share

Ducks Unlimited Contributions

Ducks Unlimited will provide designs for the subject project and provide technical assistance to the Cooperator and contractor as needed. The in-kind services provided by the Ducks Unlimited is equivalent to a 4.2% cost-share

Lower Township Contributions

Lower Township will provide funds (as needed) for well testing and boring (if necessary) for determination and mitigation of wells impacted by project-related salt-water inundation. The cash and/or in-kind services provided by the Lower Township is equivalent to a 0.9% cost-share.

Lower Township MUA Contributions

Lower Township MUA will provide in-kind services to manage the hydraulic structure and water-control structure. The in-kind services provided by the Lower Township MUA is equivalent to a 3.5% cost-share

Cape May County Department of Mosquito Control Contributions

The CMCMEC will provide funds to implement Open Marsh Water Management and internal

berms (as needed). The in-kind services provided by the CMCMEC is equivalent to a 8.8% cost-share

Special Provisions

The Cooperator will notify the Service and other partners if project plans significantly change from those outlined above. Significant changes will require written modification to this Agreement.

ENCLOSURE 2

HABITAT RESTORATION SITE PLAN FORMS

RESTORATION PLAN**

Property Owner Multiple Site # Cox Hall Creek

Plan Prepared by Eric Schrading -USFWS Date November 15, 2007

Purpose/Goals of the Project (wildlife species to benefit, vegetative community to be achieved, % open water, miles of riparian restoration to be achieved, etc.): Restore 87 acres of wetlands adjacent to the Delaware Bay through water level management to reduce invasive species. .

This project benefits which of the following priority factors:

____	endangered, threatened, or candidate species	____	FmHA conservation easement
X	migratory nongame birds of mgmt. concern	X	national wildlife refuge
____	globally or nationally imperiled community	X	NAWMP goals
X	spawning habitat of anadromous fish	____	existing habitat fragmentation

Project Description: Replace culvert and install a water-control structure at Cox Hall Creek to allow water level management and tidal inundation.

Previous Habitat Degradation/Alteration at Site: Water exchange within the existing wetland and previous ditching activities have altered the hydrology within this wetland. In addition, invasion of common reed have compromised the ecological integrity of the wetland. .

Is the project primarily Habitat: (Restoration), Improvement, Creation (circle applicable)

Will endangered species, cultural resources or existing wetlands be impacted by the proposed project?. . . . . Yes. . . . . (No)
If yes, explain
SCS/Corps Wetland Determination
Are any permits required (including Corps NWP 27)?. . . . . (Yes). . . . . .No
If yes, identify
Acres/Feet Restored 87 Buffer Size
List of Cooperators/Partners Multiple landowners, DU, Lower Township, MUA, CMCMEC

Length of Landowner Agreement . . . . . Minimum 10 years
Is monitoring planned for this project? . . . . . Yes. . . . . No
If yes, describe The Service will monitor the site yearly

** *For the purposes of this form, Habitat Restoration can include improvement and creation projects. All Restoration Plans must include site plan drawings and a completed Restoration Site Habitat Summary (HR-5).*

RESTORATION HABITAT SUMMARY

Property Owner Multiple Site # Cox Hall Creek

HABITAT TYPES		EXISTING SITE (ACRES)	ACRES IMPACTED	TYPE OF IMPACT *	POST-PROJECT ACRES
Wetlands	Freshwater Marsh (PEM)	87	87	Restore	0
	Scrub/Shrub (PSS)				
	Forested (PFO)				
	Tidal Marsh (E2EM)	0	0	Water mgmt	87
	Tidal Scrub/Shrub (E2SS)				
	Farmed Wetland				
	Prior Converted Cropland				
Uplands	Grassland				
	Pasture				
	Cropped Field				
	Old Field				
	Scrub/Shrub				
	Deciduous Forest				
	Evergreen Forest				
	Mixed Forest				
Other					

* Type of Impact should include both positive and negative impacts such as filling, inundating, planting, fencing, etc.