

WALLKILL RIVER
NATIONAL WILDLIFE REFUGE

Sussex, New Jersey

ANNUAL NARRATIVE REPORT

Calendar Year 1992

U.S. Department of the Interior
Fish and Wildlife Service

NATIONAL WILDLIFE REFUGE SYSTEM

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REVIEW AND APPROVALS

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_____ Refuge Manager	_____ Date	<u>Donald N. Fuchie</u> Associate Manager Review	<u>March 15, 1993</u> Date
<u>Chad Young</u> Regional Office Approval		<u>5-28-93</u> Date	

INTRODUCTION

The Wallkill River National Wildlife Refuge was established on November 16, 1990 by authorizing legislation P.L. 101-593 Sec. 107 of H.R. 3338. The Refuge presently has an approved acquisition boundary and will encompass approximately 7,500 acres along the Wallkill River in northwestern New Jersey. It is situated in parts of Vernon, Wantage, and Hardyston Townships of Sussex County, New Jersey and Warwick Township in Orange County, New York. New York City is within one hour's drive.

The primary purpose of the Refuge is to preserve and enhance the Refuge lands and waters in a manner that will conserve the natural diversity of fish, wildlife, plants, and their habitats for present and future generations; to conserve and enhance populations of fish, wildlife, and plants within the Refuge, including populations of black ducks and other waterfowl, raptors, passerines, and marsh and water birds; to protect and enhance the water quality of aquatic habitats within the Refuge; to fulfill international treaty obligations of the United States with respect to fish and wildlife and their habitats; and to provide opportunities for compatible scientific research, environmental education, and fish and wildlife-oriented recreation.

The Wallkill River Refuge lies within two physiographic provinces--the Appalachian Valley and Ridge Province which encompasses the Kittatinny Mountain Range to the west and the Highland Ridge System Province to the east. The Wantage and Vernon terrains vary from the relative flatness of the river valley floor with an elevation of less than 400 feet above mean sea level to mountain peaks and ridges in excess of 1,400 feet elevation. Much of Wantage is rolling hills ranging between 500 and 900 feet. Vernon is a more mountainous region characterized by the Pochuck and Hamberg Mountain Ranges which transect the landscape in a northeast-to-southwest direction. The terrain steepens rapidly from the river bed to 1,100 feet above mean sea level about 1/2 mile east of Lake Wallkill in the Pochuck Mountains.

The Refuge will protect 4,200 acres of freshwater wetlands and 3,300 acres of adjacent upland when acquisition is complete. Wetland habitat types include 1,600 acres of palustrine forest, 1,500 acres of emergent marsh, 600 acres of wet meadow, 400 acres of scrub-shrub marsh, and 100 acres of open water. Upland habitat types include 2,500 acres of agricultural land and 800 acres of hardwood forest.

The Wallkill River bottomlands are unique in the large number (19) of State-threatened and endangered species utilizing the area. Few existing tracts in the northern part of the State

harbor such a large concentration of species in need of protection. Confirmed State-listed species found within the Refuge include the short-eared owl, barred owl, red-shouldered hawk, Cooper's hawk, Northern harrier, savannah sparrow, sedge wren, bobolink, great blue heron, wood turtle, and bog turtle. It is also likely that the red-headed woodpecker and upland sandpiper are present. These reports are, however, in need of confirmation. The Refuge also offers excellent potential to support breeding and migrating osprey, a threatened species in New Jersey.

Five of the 72 fish and wildlife species designated by the Service as National Resource Plan species also occur within the Refuge boundaries. These include the black duck, wood duck, mallard, American woodcock, and great blue heron.

The Wallkill River bottomlands are one of the few large areas of high quality waterfowl habitat remaining in northwestern New Jersey. During migration, it attracts large numbers of waterfowl including black ducks, mallards, green-winged teal, blue-winged teal, wood ducks, Canada geese, common mergansers, hooded mergansers, ruddy ducks, lesser scaup, ring-necked ducks, gadwall, American wigeon, northern shoveler, and buffleheads. Extensive nesting habitat is provided for the black duck, mallard, pintail, green-winged teal, and wood duck. Lesser numbers of blue-winged teal, hooded mergansers, common mergansers, and Canada geese are also found to nest on the tract.

The Refuge straddles two major migration corridors for waterfowl moving between eastern Canada and the Atlantic Coast, and the Delaware River and Hudson River Corridors. Waterfowl from both corridors stop to rest and feed in the extensive wetlands along the Wallkill River. These migration corridors are particularly important to the black duck.

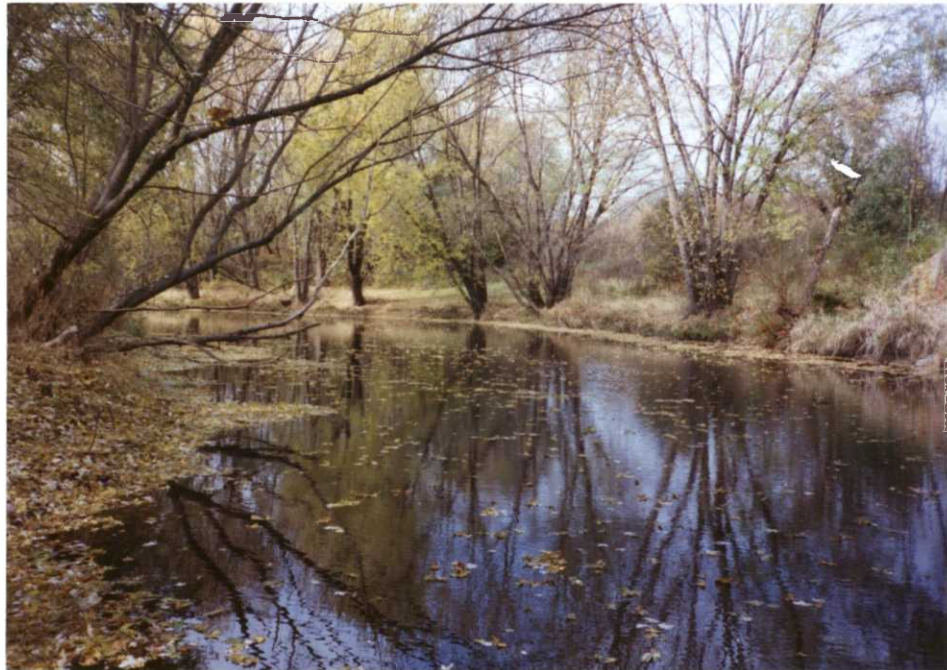
Colonial water birds encompass a number of species such as the great blue heron and their allies, gulls, terns, and skimmers which nest in colonies in a variety of habitats including beaches, marshes, and shrub thickets. The flooded areas of the Refuge such as the bottomwood shallows and marshes will provide feeding, nesting, and resting areas for these aquatic feeders.

A great variety of nongame birds, mammals, reptiles, and amphibians inhabit the diverse habitats of the Refuge as well as game species such as the white-tailed deer, wild turkey, river otter, beaver, mink, muskrat, raccoon, red fox, gray fox, coyote, cottontail rabbit, gray squirrel, and ruffed grouse.

Two other species which require large, relatively undisturbed expanses of open space inhabit the tract. These are the black bear and the bobcat. Few tracts remain in northern New Jersey

which exhibit the long-range potential to support viable populations of black bear and bobcat. The Refuge is one area where the populations of these species can potentially exist.

The Wallkill River also provides an excellent warmwater fishery for largemouth bass, pickerel, perch, sunfish, and bullheads.



The Wallkill River.

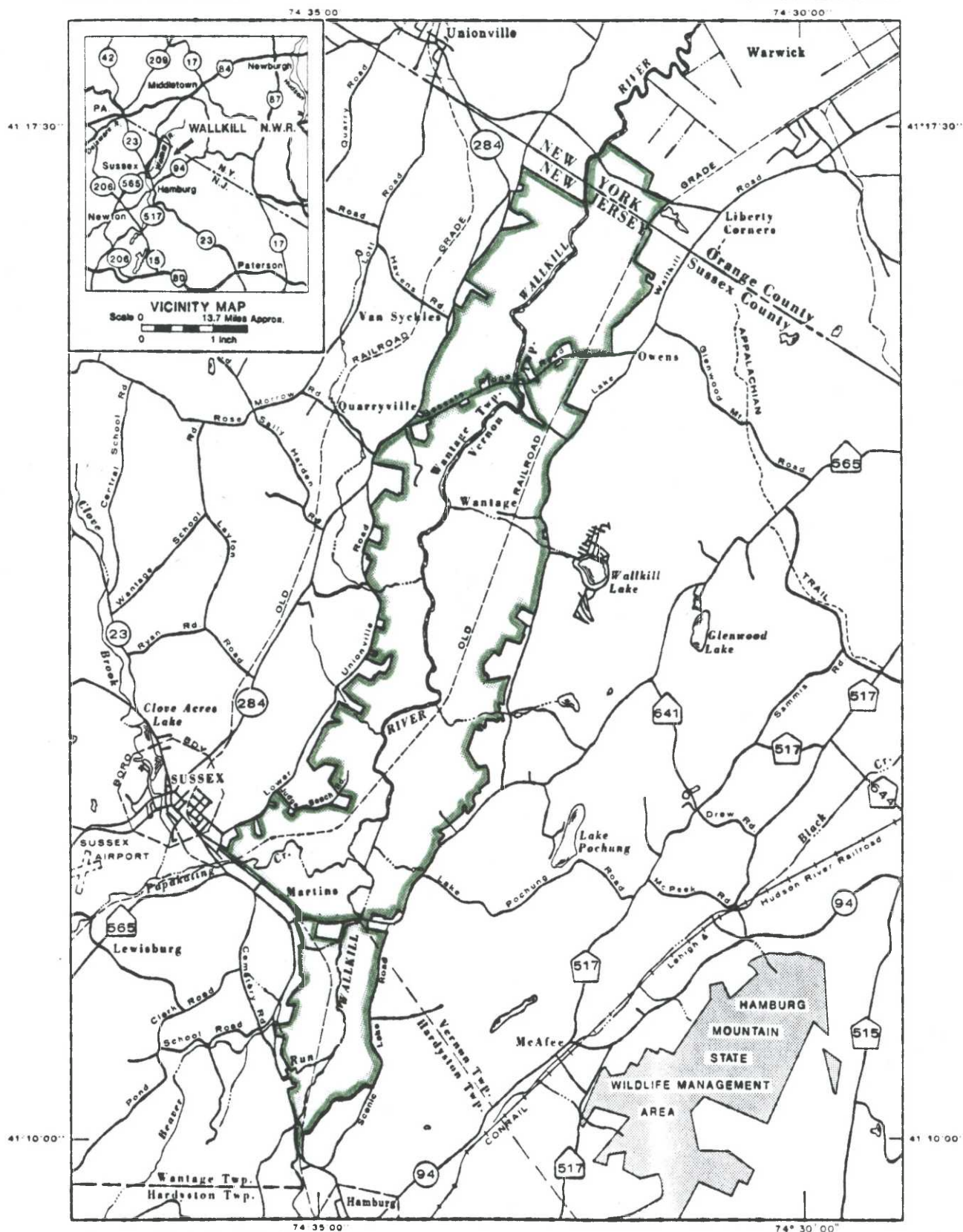
S. Pelizza 11/92

MAP 1. AQUISITION BOUNDARY WALLKILL RIVER NATIONAL WILDLIFE REFUGE

UNITED STATES
DEPARTMENT OF THE INTERIOR

SUSSEX COUNTY, NEW JERSEY & ORANGE COUNTY, NEW YORK

UNITED STATES
FISH AND WILDLIFE SERVICE



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A. HIGHLIGHTS

Total acreage for Wallkill just over 1,000 acres by the end of the year (C.1).

A land donation is in the process (C.3).

Second employee for Wallkill hired (E.1).

Dedication ceremonies conducted on May 2 (E.8).

Water quality is a major concern at Wallkill (F.2).

B. CLIMATIC CONDITIONS

Weather conditions for 1992 remained near the norm. Temperatures ranged between -1°F and 90°F . The average minimum temperature was recorded at 23°F while the average maximum was 73°F . Precipitation for the year totalled 42.82 inches. Flurries occurred off and on during the winter months with little accumulation. The largest snow storm for the year occurred on December 11 leaving 17 inches of snow.

Please refer to Table 1 for additional information.

Table 1. Temperature and Precipitation Totals

<u>Month</u>	<u>High(°F)</u>	<u>Low(°F)</u>	<u>PPT(in.)</u>	<u>Snow(in.)</u>
January	64	-01	3.10	3.5
February	57	05	2.47	0
March	60	08	3.48	12.3
April	75	23	1.18	0
May	84	29	1.99	0
June	86	37	4.67	0
July	90	52	4.15	0
August	90	45	3.37	0
September	83	31	2.60	0
October	72	22	0.64	0
November	65	13	5.02	0
December	44	07	4.62	19.15
Averages:	73	23	Totals: 42.82	34.95



A chilly morning in December.

J. Reid 12/92

C. LAND ACQUISITION

1. Fee Title

To date, Refuge lands have been acquired through fee simple title. Service priority has been placed on the acquisition of upland areas adjacent to wetlands, particularly those parcels with development potential. Because wetlands are provided more legal protection than uplands, it is essential to give upland areas priority in order to ensure long-term protection of the wetland resource.

Purchases monies for Wallkill are derived from the Land and Water Conservation Fund. During FY 91, \$4 million was appropriated for acquisition. FY 92 money totalled \$500,000. Acquisition began in January 1992 with the purchase of the first parcel totalling 156.2 acres. By the end of the year, 1086.73 acres had been purchased. The remainder of FY 91 and FY 92 monies are tied up in three options totalling 396.61 acres. Transactions on all three parcels will be complete in 1993.

A total of \$1.5 million was appropriated for FY 93. Two options had been presented by December, a total of 675 acres. If both are accepted, all of FY 93's funding will have been spent.

The Trust for Public Land (TPL) conservation group has continued to work with the Service on acquiring lands. During 1992, 188.83 acres were conveyed to the Service through TPL. An option for 135.85 is pending. Tracts acquired by TPL are designated by the number 15.

The first parcel purchased for Wallkill was Tract 79a, known as Meadowview Farms. Negotiations began in July 1991 when an option was presented to the landowner. The option was accepted in November 1991 and closing procedures commenced on January 16, 1992.

Meadowview Farms consists of 156.2 acres which includes agricultural fields, pastured land, and flooded woodlands. Several acres of potential wetland restoration sites exist on this tract.

Two leases were honored until the end of 1992. One with a tenant sheep farmer, and the other with a local hunt club. See Section F.7 for additional information on the grazing situation.



A section of Meadowview Farms (Tract 79a) and associated outbuildings.

S. Pelizza 9/92

The parcel also contains five outbuildings including a barn, garage, and three storage sheds. Only one of the sheds and the barn are worth keeping. The others are very deteriorated and were not placed on the real property inventory.



Another view of Meadowview Farms as well as the Wallkill River Valley.

S. Pelizza 9/92

On February 27, Tract 69 was purchased from the New Jersey Conservation Foundation. The Foundation had been holding this parcel in trust for the Service for approximately two years. The 30.7 acre tract consists of drained wetlands with canary grass the primary vegetation. Hardwoods border the property along the southern boundary. More than half of the property has the potential to be restored. A lease with a local hunt club was honored for the current hunting season.

The 104.7 acre West Valley Sports Club (Tract 51) was conveyed to the Service during the month of April. Before the transaction was completed, a household garbage dump on the property had to be removed. This was accomplished on March 4 and 5. RM Pelizza oversaw the project.

Tract 51 is very unique in that several buildings including a bath house and five bunk houses; four soccer fields; a junior olympic size swimming pool; and tennis courts were included in the acquisition.

The large building serving as the cafeteria and indoor soccer "field" will provide an excellent visitor center and office. The bath house and five bunk houses could provide facilities for environmental education camps as well as a Youth Conservation Corps Program.

These facilities and the two soccer fields encompass a total of 18 acres, approximately. The remainder of the tract includes wooded uplands, drained wetlands, and emergent marsh.

Also as part of the purchase, the owners have been given a special use permit (SUP) to stay on the property and utilize their/our facilities until the Service has successfully relocated them. Until that time, we cannot begin to rehabilitate the buildings to suit our needs.



Wallkill River, the resort refuge.
S. Pelizza 7/92



Panoramic view of Tract 22a during the fall.
S. Pelizza 11/92



The same tract during high water levels in the Wallkill River. The River is located to the left of the picture.
J. Reid 12/92

Tract 22, formerly known as 22a, was purchased from Mr. and Mrs. Lawrence Mack on July 1. The 112 acre tract consists of flooded woodlands, emergent marsh, and wet meadows which have been ditched.

A second parcel (Tract 22a) was purchased from the Mack's on September 2. This 32.6 acre parcel lies due north of Tract 22 across Route 565. It consists entirely of drained wetlands.

Both parcels are bordered on their western boundary by the Wallkill River.

The fifth parcel purchased for the Refuge was Tract 15a, formerly known as Tract 27. TPL purchased the 29.33 acre piece from Walter Weslowski on July 10. We in turn purchased the property from TPL. Forested uplands and emergent marsh make up this tract.

The Quinn property, Tract 15b formerly known as Tract 63, was purchased on August 13. This parcel was again conveyed to the Service after TPL purchased it from the owner. Along with the 73.4 acres, a small one-bedroom tenant house was acquired. The Refuge office has been temporarily moved into this structure. The property consists of wet meadows, grasslands, forested uplands, and a four acre agricultural field.

This parcel was being grazed by a tenant farmer who owns land on both sides of the tract. He was issued a SUP to continue grazing through the year. See Section F.7 for more information regarding the grazing issue.

The largest tract purchased this year was Tract 46 owned by Bernard Montalbano. Meadow Park, as it is known, is 290.4 acres in size. Approximately 50 acres are currently cultivated. The remainder of the tract consists of wet meadows and flooded woodlands, grasslands, and forested uplands. The majority of the tract is forested.

Three leases were current when the Refuge purchased the property. A local hunt club and two farmers were utilizing the area. The hunt club was allowed to stay through the 1992-93 hunting season. Discussions are ongoing with the crop farmer concerning a cooperative farming agreement. The other is a dairy farmer who is grazing approximately 21 acres. Grazing on this property will be phased out by 1994. If this activity is not discontinued, the land will be severely degraded.

On November 12, Tract 32a, formerly known as Tract 32, was conveyed to the Service. The 120 acre parcel consists of flooded woodland and emergent marsh.

This same date Tract 64 was purchased from Mr. Austin Hovey. The 51.3 acre parcel was being negotiated by TPL in the beginning. The landowner, however, did not want to deal with the conservation group. RM Pelizza was approached by Mr. Hovey at the Refuge dedication requesting that the Service assume the lead in purchasing his property. TPL agreed that the Service should deal with the landowner.

The last tract purchased in 1992 was Tract 15, formerly known as Tract 48. TPL purchased 86.1 acres from Robert Cline on December 7. Before the property was purchased, the landowner was requested to remove two 55-gallon containers which had been found during a contaminants survey conducted by TPL's contractor. One drum was empty. The other contained an unknown substance. RM Pelizza oversaw the removal of the drums and substance on October 28. The substance was tested for hazardous/toxic chemicals at TPL's expense. None were found.



Drum which was removed from Tract 15.
S. Pelizza 10/92



Mr. Cline and son removing substance from drum.
S. Pelizza 10/92

Table 2. Properties Acquired for the Wallkill River NWR - 1992

<u>Date of Closing</u>	<u>Tract #</u>	<u>Formerly Known As</u>	<u>Acreage</u>	<u>Landowner</u>
1/16/92	79,a	same	156.2	Meadowview Farms
2/27/92	69	same	30.7	NJ Cons. Found.
4/24/92	51	same	104.7	West Valley
7/01/92	22	22a	112.0	Mack
7/10/92	15a	27	29.33	Weslowski
8/13/92	15b	63	73.4	Quinn
9/02/92	22a	22	32.6	Mack
10/27/92	46	same	290.4	Meadow Park
11/12/92	32a	32	120.0	Warwick
11/12/92	64	same	51.3	Hovey
12/07/92	15	48	86.1	Cline

TOTAL ACREAGE IN FEE TITLE = 1086.73

See Map 2 for location of properties purchased.

WALLKILL RIVER NATIONAL WILDLIFE REFUGE

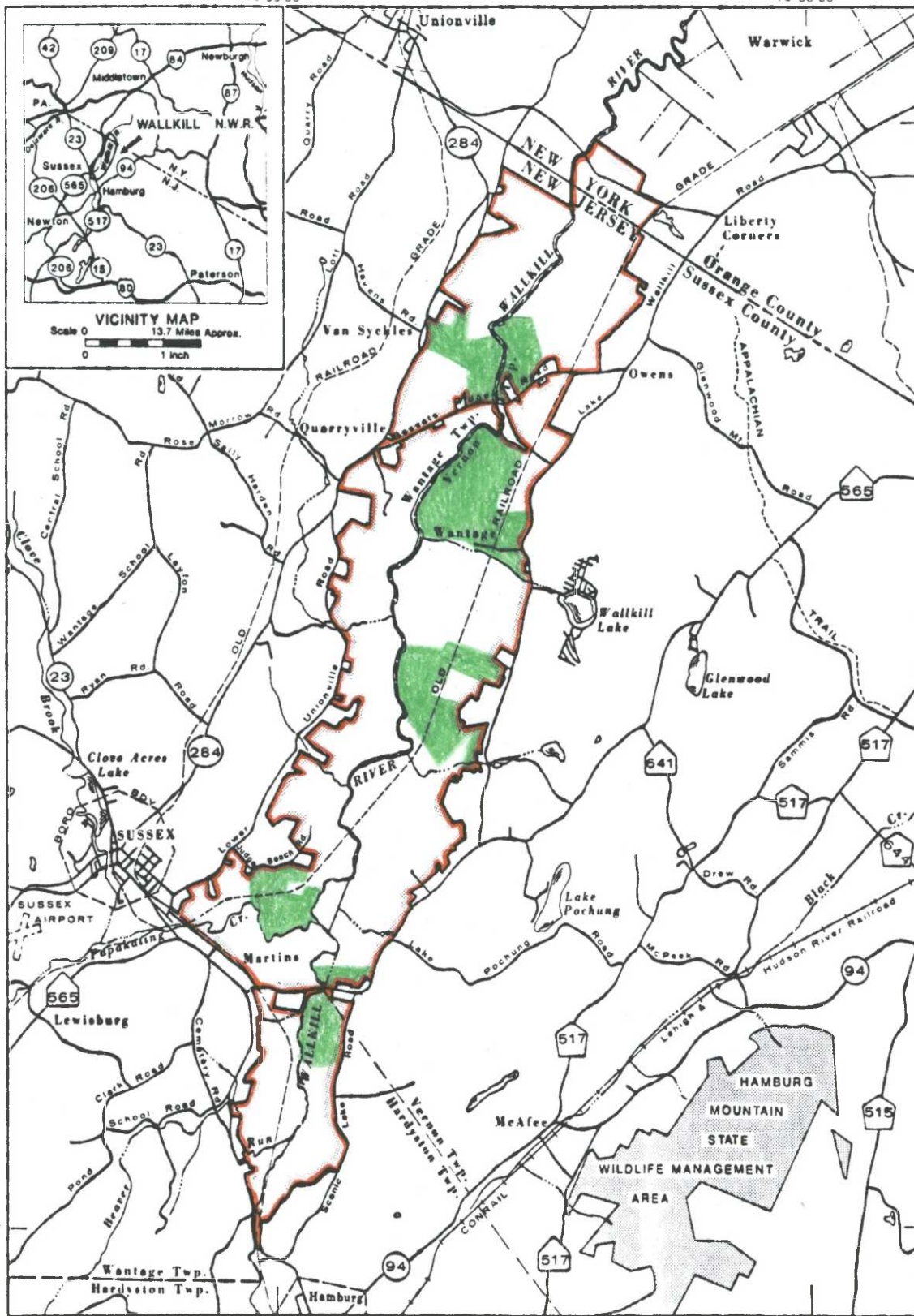
UNITED STATES
DEPARTMENT OF THE INTERIOR

SUSSEX COUNTY, NEW JERSEY & ORANGE COUNTY, NEW YORK

UNITED STATES
FISH AND WILDLIFE SERVICE

41° 17' 30"

41° 17' 30"



41° 10' 00"

41° 10' 00"

COMPILED IN THE DIVISION OF REALTY
FROM SURVEYS BY U.S.G.S. AND U.S.F.W.S.

SCALE 0 3000 6000 9000 12000 FEET
0 75 150 225 300 KILOMETERS

MEAN DECLINATION
1954

NEWTON CORNER, MASSACHUSETTS
MARCH 1907

RM Pelizza met Realty Specialists Dan Leahy and Rick Jorgenson on August 19 to assist with the presentation of an option on Tract 58,a. Grazing, haying, and wood cutting were issues of concern for the landowner. Those concerns were addressed as well as negotiating a section of the western boundary to accommodate both parties. After long discussions, the landowner felt confident enough to sign the option.

As the months rolled by, the landowner of Tract 58,a decided he did not want to sell his land to the Service. His lawyer claimed the government was taking advantage of the "poor Polish farmer". The lawyer believes that the Service is trying to acquire the property for much less than it is worth.

Realty Specialists Leahy and Jorgenson met with the landowner's lawyer on December 7 to discuss the option. By the end of the year, the landowner had again decided to sell his property to the Service.

On September 3 and 8, RM Pelizza conducted a Level I Contaminants Survey on Tract 86 owned by Charney et al. Negotiations on cleaning up a known dump site were in progress before the surveys were conducted. Unfortunately, additional concerns were found on September 8.

An adjacent plant operated by the Ames Rubber Corporation was discharging a clear liquid into the marshes of Tract 86. According to the Service's Level II Pre-acquisition Contaminants Survey, this plant was found to have contaminants on-site. The site contamination consists of widely dispersed low to moderate levels of volatile organic chemicals in the ground water.

Discussions between the Fish and Wildlife Enhancement (FWE) Office in Pleasantville, New Jersey began concerning the purchase of a "potential" contaminated site.

After several days of research and discussions with State representatives, FWE Contaminants Biologist Craig Moore found that the rubber plant is under an Administrative Order to remediate the contamination problem. The approved site remediation plan calls for pumping the on-site ground water wells and air stripping the water to remove the volatile organic chemicals. No off-site remediation of contaminants, in the wetlands, is planned beyond what will occur as a result of the approved on-site pump and treat remediation program.

Contaminants Biologist Moore believes it is unlikely, given the low to moderate concentrations and "volatile" nature of the contaminants, that this incident will pose a significant hazard to fish and wildlife resources.

All the information gathered was forwarded to the RO Realty Division. They in turn will forward the material to Washington for approval to purchase the property.

As these talks were occurring, the dump site was cleaned up along the old railroad bed on Tract 86. The contractor began on November 3 under the supervision of RM Pelizza. Tires, refrigerators, truck caps, household garbage, construction and farming excess, etc. were removed. Some trash dated as far back as the 1970's. The cost was estimated at \$18,000.00. Fortunately for the landowners, the job took fewer days and fewer dumpsters than anticipated. The clean up was complete on November 6.

RM Pelizza conducted another Level I Contaminants Survey on September 11 for Tract 15c,R. No contaminants were found. TPL's option had been accepted by the landowner during the year, but closing had not occurred by December.



"Wetland trash dump" on Tract 86.

S. Pelizza 11/92



Contractors cleaning up site.
S. Pelizza 11/92



And more trash....
S. Pelizza 11/92

These two incidents do not over shadow the importance of acquiring this 175.3 acre tract. Valuable wetland areas make up approximately 50% of the parcel.



Tract 86 wetland.

S. Pelizza 9/92



Tract 86 wetland.

S. Pelizza 11/92

Realty Specialists Leahy and Jorgenson visited two landowners on December 7 and 8 to present options. One was for the much desired Liberty Sod Farm which will provide over 400 acres of moist soil habitat when management begins (total acreage 507.0). The other is for the Parrot Farm which totals 168.0 acres. This property consists of agricultural fields, grasslands, and wet meadows.

If both options are accepted, all of FY 93's land acquisition money will have been obligated.

Tracts that were optioned in 1991 and not accepted include Tract 57 and Tract 71. Neither landowner would accept the proposed purchase price.

Table 3. Options Pending as of December 1992

<u>Tract #</u>	<u>Acreage</u>	<u>Landowner</u>
15c,R	135.85	Friend
58,a	85.46	Frankowski
86	175.3	Charney et al

TOTAL ACREAGE PENDING = 396.61

Table 4. Options Presented, Awaiting Acceptance

<u>Tract #</u>	<u>Acreage</u>	<u>Landowner</u>
[52a, 52b, 104 & 103]	507.0	Liberty Sod Farm
74	168.0	Parrot Farm

TOTAL ACREAGE OPTIONS PRESENTED = 675.0

3. Other

On March 20, RM Pelizza met with Mr. and Mrs. Vinton Coes, adjacent landowners, looking for information on the status of land acquisition and Refuge management objectives. The Coes were also interested in learning whether or not their property was located within the acquisition boundary. It is not.

The Coes are very much in favor of the Refuge and had been contemplating donating or selling their four acre farm to the Service before our meeting.

On November 3, RM Pelizza returned to the Coes' home to discuss the donation of one acre of land. The parcel is forested upland which would serve as a buffer between the housing development nearby and the brook which flows into the Wallkill River. The southern, eastern, and western boundaries of the parcel are set. The delineation of the northern boundary is still being discussed.

The Coes had discussed their intentions with their children prior to our second meeting. Their children believe they should evaluate all their options including tax relief, inheritance fees, etc. before donating the land.

Mr. and Mrs. Coes indicated they were still leaning towards donation, but would wait a few months "to be diplomatic about it." Plans for the remaining acreage have not been discussed.

Negotiations will continue in 1993.

D. PLANNING

1. Master Plan

A Refuge Objective Setting meeting was held at the Best Western Inn in Matamoras, Pennsylvania on July 27-29.

The entire meeting was attended by RO Personnel Curt Laffin (Refuges), Pam Rooney (Refuges), and Dan Leahy (Realty); RM Pelizza; and Central ZB Charles Pelizza. Great Swamp ORP Tom McFadden attended one session of the meeting while FWE Contaminants Biologist Craig Moore another.

Management objectives and strategies for the next 2-3 years were discussed along with three different scenarios regarding the number of employees required to accomplish the objectives. Hiring of additional personnel was on hold due to limited FTEs and funding.

Drafts of the Station Management Plan were circulated several times. A final had not been completed by the end of the year.

2. Management Plan

A Refuge hunt plan for white-tailed deer was written as well as an Environmental Assessment (EA), Compatibility Determination, and Section 7 Evaluation.

3. Public Participation

A 30-day public comment period for the draft Public Hunting of White-tailed Deer EA began on December 28. Thirty copies of the news release describing the proposed action and announcing the availability of the EA were distributed to daily newspapers, interested citizens and conservation groups, and state and local township officials. Only nineteen copies of the draft EA were mailed.

4. Compliance with Environmental and Cultural Resource Mandates

As stated above, an EA, Compatibility Determination, Section 7 Evaluation, and FONSI were completed for the Refuge's white-tailed deer hunt.

The only federally listed species occurring on the Refuge include the bald eagle and peregrine falcon. Neither would be affected by the hunt.

E . ADMINISTRATION

1. Personnel

Julie Reid became Wallkill's second employee when she entered on duty December 27, filling the Office Assistant position. Julie's academic background includes business administration and management. Her first few days were spent moving furniture, unpacking boxes, and setting up the office. Being a former Peace Corps Volunteer, she is willing and able to put up with the chaos and met the challenge of establishing a new refuge.

<u>YEAR</u>	<u>PERMANENT</u>		<u>TEMPORARY</u>	<u>TOTAL FTE USED</u>
	<u>FULL-TIME</u>	<u>PART-TIME</u>		
1992	2	0	0	1.02
1991	1	0	0	0.33



Sylvia R. Pelizza, Refuge Manager, GS-12, EOD 9/8/91, PFT
Julie A. Reid, Office Assistant, GS-5, EOD 12/27/92, PFT
Charles A. Pelizza, Central Zone Biologist, GS-12, EOD
9/8/91, PFT

4. Volunteer Program

A structured volunteer program does not exist at this time. There are, however, many people who want to volunteer their services. Names and addresses are being collected, and individuals are called when needed.

This year Central ZB Pelizza and three Refuge volunteers assisted the New Jersey Division of Fish, Game, and Wildlife with Canada goose banding on two different occasions. Two sites were visited in Sussex County on June 26, and another in Morris County on July 1. A total of 36 volunteer hours were recorded.

Forty-two volunteer hours were recorded during Wallkill's dedication ceremony. See Section E.8 for additional information.

5. Funding

Minimum level funding for FY 92 included salary; utilities (phone); and fixed costs such as fuel, training, travel, and supplies. No maintenance money was available in FY 92.

Funding for FY 93 included the following:

Minimum Level	\$ 151,800	(FTE 2.5)
Other O & M	3,000	
MMS/Base maintenance	19,000	
Watchable Wildlife	2,500	
Volunteers	<u>2,000</u>	
 TOTAL BUDGET	 \$178,300	

There will be some "salary savings" during FY 93 since we will be unable to hire an assistant manager.

6. Safety

All safety memorandums and brochures sent by the RO Safety Manager were read by the staff including the Central ZB.

No accidents occurred during the year.

8. Other Items

Inez Conner, ARD for Public Affairs; RMs Pelizza and Bill Koch; and ORP McFadden met with David Moore and Michelle Byer representatives from the New Jersey Conservation Foundation on February 21 at Great Swamp NWR to begin planning a dedication ceremony for Wallkill. The Foundation was being honored for their support in acquiring property for the Refuge as well as dedicating the newest refuge in New Jersey.

Personnel from Cape May, Great Swamp, Ninigret, and Mississquoi NWRs were called upon to assist with tasks such as posting boundaries, staffing displays, conducting tours, and providing law enforcement support. Staff from the Public Affairs and Realty Offices contributed to all the logistical activities. Wallkill Volunteers, Great Swamp Volunteers, and spouses and children of Refuge employees contributed approximately 42 hours of labor which involved sign posting, photography, tour guide assistance, grounds preparation, and clean up. The New Jersey Conservation Foundation provided catering and

other financial needs. The support from each of these individuals contributed to the success of the dedication.

Dedication ceremonies were held on May 2 at the West Valley Sports Club (Tract 51) which had just been purchased the month prior. Presentation of colors was performed by Vernon Scout Pack 183. Regional Director Ronald Lambertson served as the master of ceremonies.

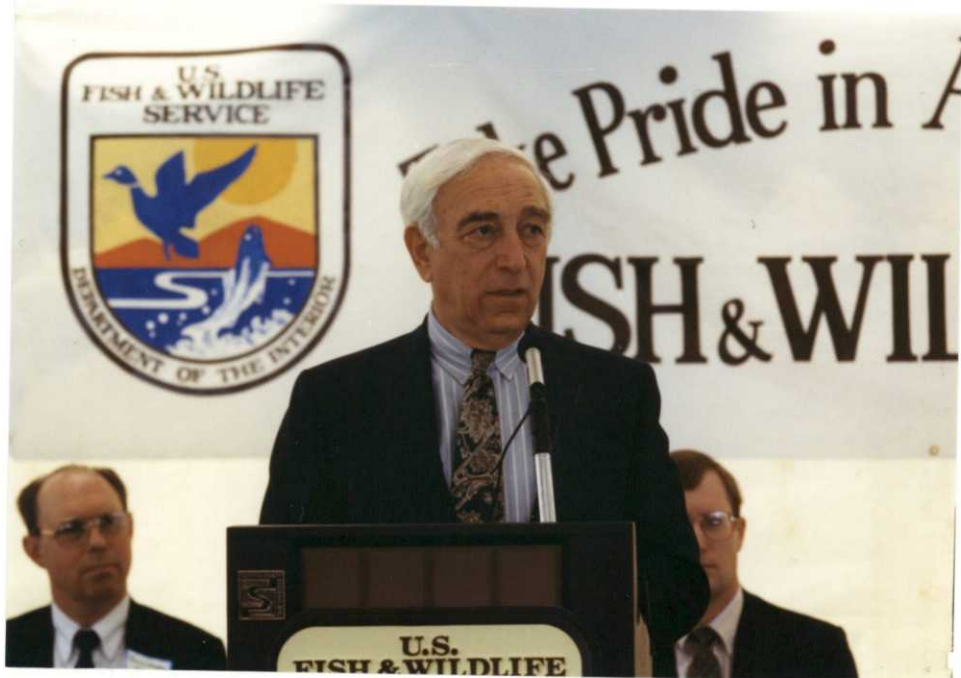


Regional Director Lambertson.

A. Cossa 5/92

Distinguished guests included David F. Moore, Executive Director for the New Jersey Conservation Foundation; Franklin E. Parker, Director of the New Jersey Field Office for Trust for Public Land; James F. Hall, Assistant Commissioner for Natural and Historic Resources, New Jersey Department of Environmental Protection and Energy; and the Honorable Frank R. Lautenberg, New Jersey's Senator who was primarily responsible for the acquisition of the Refuge. Remarks were presented by each of the individuals.

Executive Director Moore was presented with a check for the 30-acre parcel that the New Jersey Conservation Foundation held in trust for the Service for approximately two years. This was the second parcel purchased for the Refuge in 1992.



Senator Frank R. Lautenberg.

A. Cossa 5/92



New Jersey Conservation Foundation Director Moore and Regional Director Lambertson.

A. Cossa 5/92



Dedication audience.

A. Cossa 5/92



Great Swamp Refuge's ORP McFadden with tour group.

A. Cossa 5/92



Realty Specialist Leahy discussing land acquisition with New Jersey Conservation Foundation Director Moore and Trust for Public Land Director Parker.

A. Cossa 5/92



Oh, . . . We are so proud! Regional Director Lambertson, RM Pelizza, and Senator Lautenberg.

A. Cossa 5/92

Lunch was served to the 200 plus individuals who attended the ceremony. People were welcomed to browse through the various displays erected in the main building. Organizations present included the Service; Trust for Public Land; New Jersey Conservation Foundation; New Jersey Fish, Game, and Wildlife Division; High Point State Park; the New York/New Jersey Trail Conference; Trout Unlimited; and the United Bowhunters of New Jersey.

A bus tour of the Refuge acquisition boundary and walking tour were also available to the public in the afternoon.

Special thanks went to Robin Jess for her artwork which was specifically designed for Wallkill's invitation. The Kattermann Farms Nursery was also recognized for their consideration in loaning the flowers and shrubs to decorate the stage.

RM Pelizza attended a two week training session associated with the Women's Executive Leadership (WEL) Program from January 5-17. The session entitled Core Training II consisted of topics such as coaching, mentoring, leadership skills, personnel management, ethics and legal issues, cultural diversity, civil service 2000, and team building.

During the week of January 21-24, RM Pelizza traveled to Minneapolis, Minnesota to conduct an executive interview (another component of the WEL program) with Barbara Milne, ARD for Human Resources.

The Wildlife Biologist Workshop at the Eastern Shore of Virginia NWR in Cape Charles, Virginia on February 24-28 was attended by the RM.

On April 20, RM Pelizza attended a Regional Conference Committee meeting at the Dulles Airport Ramada Renaissance Hotel. The committee decided on the Ramada as the best location for the upcoming conference.

RM Pelizza attended a Compatibility Training course in San Antonio, Texas from April 27-30.

On March 22-25, RM Pelizza traveled to Bethesda, Maryland to attend the WEL Program cluster group presentations. Her 3-hour presentation was performed on March 24.

Realty Personnel Axel Larsen, Dan Leahy, and Gib Chase, and RM Pelizza met with Township Officials from Wantage and Vernon on March 26. The purpose of the meetings was to introduce the RM to the officials and discuss concerns they may have over the establishment of the Refuge.

RM Pelizza met with a New York Times reporter on May 14. The reporter gathered information to help her portray the history of the Refuge, acquisition processes, and future management schemes. Information on the RM was also included in the article.

Close-Out week and the Graduation Ceremony for the WEL Program were attended by RM Pelizza in Bethesda, Maryland on May 17-22. RM Pelizza was the graduation speaker for her class.

On May 26, RM Pelizza began her 30-day assignment with the U.S. Forest Service's Wildlife Division in Washington, D.C. This assignment was one of the required components of the WEL Program. The assignment had not been completed before graduation because of time constraints.

RM Pelizza traveled to Trenton, New Jersey on June 3 to attend a meeting with New Jersey Fish, Game, and Wildlife representatives. Waterfowl banding, censusing and management objective were discussed. Refuge staff from all New Jersey refuges were in attendance.

Central ZB Pelizza acting for RM Pelizza attended another meeting with the New Jersey Fish, Game, and Wildlife Division on June 24. This meeting was initiated by the proposal to close archery deer hunting at Supawna Meadows NWR. ARD Donald Young and RF/N Wildlife Associate Manager Don Frickie were also in attendance. The implementation of deer hunting on Wallkill was discussed.

July 17 marked the last day of RM Pelizza's 30-day assignment with the U.S. Forest Service's Wildlife Division. It was also the official last day of the FY 91 WEL Program.

RM Pelizza attended Small Purchases/Contracting Authority training from August 3-7 in Philadelphia, Pennsylvania.

A meeting was held with representatives from the NY/NJ Appalachian Trail (AT) Conference, U.S. National Park Service, and New Jersey State Parks on August 12. Concerns about management objectives for the Liberty Sod Farm where the AT crosses the Refuge as well as cooperative agreements were discussed. Rerouting the trail was an option that may be beneficial to all those involved.

RM Pelizza traveled to the Regional Office on August 13-14 to attend a Regional Conference Committee meeting.

During the week of August 24-27, RM Pelizza attended the RF/N Project Leader's meeting at the Montezuma NWR.

RM Pelizza attended a two day Regional Conference Committee meeting on September 9 and 10 in the Boston RO. Another was held in Calais, Maine at Moosehorn NWR on October 6-7, and still another on October 22 in the FWE Office in Pleasantville, New Jersey.

RM Pelizza conducted a tour of the Refuge for Patuxent Research Biologist Dennis Jordy on October 27. Information was gathered by Dennis to help him become better acquainted with the Refuge to further enable him to determine how Patuxent could best benefit Refuge operations.

The final Regional Conference Committee meeting for the year was attended on November 23 and 24 at the Dulles Ramada Renaissance Hotel.

F. HABITAT MANAGEMENT

2. Wetlands

The wetlands of the Wallkill River Refuge can be divided into two major ecological systems: (a) riverine and (b) palustrine. The riverine system is limited to the main freshwater river channel and tributary systems. The palustrine wetlands are represented by three major types: (a) emergent wetland, (b) scrub-shrub, and (c) forested wetlands.

Palustrine emergent wetlands (marshes) occur along the margin of the Wallkill River. Common marsh plants characterizing this wetland type include reedgrass, spike rushes, sedges, and cattails.

Moist soil management capabilities on the Liberty Sod Farm, a 500 plus acre parcel, are extremely great. A natural spring is found on the property which sustains a volume of 500 gallons per minute. Underground irrigation pipes run along the eastern boundary of the farm, and irrigation ditches can be found throughout the tract. Reversible water pumps are located in the ditches closest to the River. The entire area is also diked. Very little manipulation of the land would be required to convert this tract into several moist soil management units.

With this in mind RM Pelizza traveled to Brigantine NWR on September 6 to gain insight on their moist soil management schemes as they conducted a tour for moist soil advisors Leigh Fredrickson and Murray Lauben.

On September 7, Leigh and Murray visited Wallkill with Central ZB Pelizza and RM Pelizza. Areas with moist soil management capabilities were toured and information gained. They were most impressed with the management potential of the Liberty Sod Farm. This tract will hopefully be purchased in FY 93.

One of the purposes for which the Refuge was established is to protect and enhance the water quality of aquatic habitats within the Refuge boundary. One way to accomplish this task would be to eliminate point sources of pollution.

Within the Final Environmental Assessment to establish Wallkill, two surface water discharges suspected of degrading water quality were the Sussex Borough Sewage Treatment Plant and the Sussex County Municipal Utilities Authority (SCMUA) Sewage Treatment Plant. Both are located upstream of the Refuge boundary. A third point source is the Ames Rubber Plant referenced in the Level II Pre-Acquisition Contaminants Survey dated December 1990. See Section C.1 for information regarding the rubber plant.

The Sussex Borough Sewage Treatment Plant is currently not in compliance with most of its discharge permit effluent limits, because it is receiving flows for treatment greater than its design capacity, especially during storm events. During such events, the plant releases raw sewage into Clove Brook which is a tributary of the Wallkill River. Under an Administrative Consent Order from the New Jersey Department of Environmental Protection and Energy (DEPE), the plant has until January 15, 1993 to correct this inflow problem and treat all effluent to permit limits. The order also requests that a new plant be on-line by January 1997. The plant presently in operation was constructed in 1910.

Regarding this issue, FWE Biologist Craig Moore and RM Pelizza met with SCMUA representatives at the Great Swamp NWR on August 21. Several New Jersey DEPE representatives were also in attendance. SCMUA presented their plan to dissolve the Sussex Borough Treatment Plant which would in turn eliminate raw sewage from entering the Wallkill River. This would involve expansion of the SCMUA facility, construction of a five mile pipeline to connect the two facilities, and construction of a pumping station in Sussex Borough.

Implementation of this proposal would require an increase in permitted discharge from the SCMUA facility from 2.5 MGD to 3.0 MGD, which the Service expressed some concerns over. SCMUA and their consultants believe, however, that despite the increase in discharge the loading levels could be maintained at the currently permitted 2.5 MGD level. The project would be completed by 1997.

FWE Contaminants Biologist Moore, RM Pelizza, and Regional Environmental Coordinator Ralph Abele met with State DEPE representatives on September 22 to discuss concerns over SCMUA's plan to expand their facility and the loading levels. The expansion called for upgrading the chlorine treatments to ultra-violet, a big plus. The loading levels caused quite a concern. The SCMUA plant had failed to meet permit limits for effluent concentrations of ammonia-nitrogen and total residual chlorine in the past. According to SCMUA, the levels were not realistic. They claimed the State had set limits on the ammonia-nitrogen discharge and "biological oxygen demand" stricter than the capacity in the plant's design which had previously been approved by the State.

After an independent study was ordered by SCMUA, the permit was revised in March 1991 by the State DEPE, but the levels were still below those originally allowed. In a June 1991 Administrative Consent Order, the DEPE finally admitted that the units were incorrect. The plant was then allowed to continue operating temporarily at its existing levels.

At the September 22 meeting, Service personnel were asked to evaluate the situation and approve the State's proposal to issue a permit modification. After much discussion and evaluation of the facts, we gave our approval to modify the permit and allow the SCMUA expansion. The change in the permit loading limits would not degrade the water quality. As an added assurance, Service personnel asked for monitoring of the River at points above and beyond the discharge area for the SCMUA plant. The permit modification had not been completed by year's end.

RM Pelizza met with the Superintendent of the SCMUA Treatment Plant located in Hardyston on October 23. A tour of the plant was conducted and information gathered on their sampling techniques as well as their loading limits. The effluent being discharged into the Wallkill River looked very clean. RM Pelizza was assured it met "drinking water" standards.

At a December 7th meeting, the Sussex County Water Resource Management Policy Advisory Committee decided

they needed more information before making a recommendation to the Sussex County Freeholders on how to meet Sussex Borough's sewer needs. SCMUA representatives reported it would cost \$6.2 million to upgrade the SCMUA Plant with a pumping station in Sussex Borough as opposed to \$6.6 million to build a SCMUA operated Sussex Borough Plant.

The Mayor of Sussex Borough was also holding a meeting this same date regarding the plant issue. At this meeting, a \$5 million bond ordinance for the five mile sewer pipeline was rejected. The Mayor said the Borough was looking for additional State aid, but if the Borough waited any longer to approve the bond ordinance, it would lose previously approved aid. He also stated that the Borough had already paid \$50,000 - \$60,000 in fines and could be fined up to \$50,000 per day by the State if the Borough Treatment Plant was not upgraded. The issue had not been resolved by the end of the year.

The New Jersey Division of Water Resources notes that the effects of nonpoint pollution in the Wallkill River Watershed are increasing. They also note a shift in nonpoint sources from agricultural sources (i.e., crop production, pasture land, and animal holding yards) to those created by increased urbanization. The agricultural sources cause excessive nutrient loading in Clove Brook and Papakating Creek which, in turn, affects the water quality of the Wallkill River.

Other categories of known/potential contaminant sources to the Wallkill River include: proposed expansion of Routes 15 and 23 through Sussex County causing increased residential, commercial, and industrial development; spraying of the river flood plain by the Sussex County Department of Health for mosquito control; the Elizabethtown Gas Company pipeline which follows Route 565 through the proposed Refuge area; and, allegations of overuse of pesticides/herbicides on onion/sod farms in the northeast area of the Refuge boundary.

The full impact of these point and nonpoint sources is evident by the Division of Water Resources' inclusion of the Wallkill River and Papakating Creek on a list of State impaired waters. The Wallkill River and Papakating Creek are also identified as being fishing and swimming impaired from a combination of point and nonpoint sources.

7. Grazing

Since grazing has become an issue with land acquisition and in some cases may hamper the acquisition process, an Interim Direction has been developed. The Interim Direction will enable Refuge staff to deal with the issue until a Compatibility Determination/Review is conducted. It will also enable Realty staff to respond to questions on the subject as well.

Therefore, as lands are purchased for the Wallkill River Refuge, the following Interim Direction will be in effect:

- 1) From the date of closing, the landowner/tenant may be issued a SUP to continue grazing on the property as they have done in the past so long as degradation to the land is not occurring. If this is the case, the RM has the authority to add restrictions to the permit and/or discontinue all grazing activities on the property. The SUP will be issued for the current growing season (ending December 31) with no rental fee.
- 2) A second year (January 1 - December 31) may be permitted with some restrictions and a grazing fee which is customary and reasonable for the local area. Restrictions may include number of animals, exclusion from wetlands, reduced acreage etc. A second SUP will be issued at this time.
- 3) The following years will be subject to the Compatibility Determination/Review. If the Compatibility Determination concludes that grazing is not compatible and/or will not benefit Refuge objectives, grazing will be discontinued.

If grazing is determined a potential management tool and is in compliance with all applicable laws, regulations, and policies, the RM has the authority to permit or discontinue grazing depending on the management objectives for a particular parcel of property.

This Interim Direction is valid until December 1993 at which time the Compatibility Determination/Review should be completed. All land acquisition after December 1993 will be subject to the Compatibility Determination/Review.

Two tenant farmers, one sheep farmer and one dairy farmer, were issued a SUP to graze on the Refuge during 1992.

G. WILDLIFE

2. Endangered and Threatened Species

a. Federally Threatened and Endangered Species.

In the State of New Jersey, 29 federally listed threatened and endangered species have been noted. None have been found to utilize the Wallkill River NWR. The opportunity does exist, however, for observation of a bald eagle or peregrine falcon during migration.

b. State of New Jersey Threatened and Endangered Species.

Nineteen State-listed threatened and endangered species are known to utilize the Wallkill River bottomlands. Eleven of these species have been found and confirmed within the Refuge boundary. These species include the short-eared owl, barred owl, red-shouldered hawk, Cooper's hawk, northern harrier, savannah sparrow, sedge wren, bobolink, great blue heron, wood turtle, and bog turtle.

It is also likely that two additional listed species, the red-headed woodpecker and upland sandpiper, are present on the Refuge. Breeding red-headed woodpeckers have been recently reported as well as migrating upland sandpipers. These reports are, however, in need of confirmation.

The barred owl, a State threatened species, is known to nest within the Refuge boundary.

The Refuge also offers excellent potential to support breeding and migrating osprey, a threatened species in New Jersey.

Refer to Table 5 for a list of the New Jersey State threatened and endangered species utilizing the Wallkill River bottomlands.

3. Waterfowl

During migration, the Wallkill River bottomlands attract large numbers of waterfowl, including the following:

Black duck*
Mallard*

Ruddy duck
Lesser scaup

TABLE 5: LIST OF NEW JERSEY THREATENED AND ENDANGERED SPECIES
UTILIZING THE WALLKILL RIVER BOTTOMLANDS

<u>Species</u>	<u>Threatened</u>	<u>Endangered</u>
Barred owl* <u>Strix varia</u>	X	
Short-eared owl* <u>Asio flammeus</u>		X
Red-shouldered hawk* <u>Buteo lineatus</u>	X	
Cooper's hawk* <u>Accipiter cooperii</u>		X
Northern harrier* <u>Circus cyaneus</u>		X
Bald eagle <u>Haliaeetus leucocephalus</u>		X
Osprey** <u>Pandion haleaetus</u>	X	
Savannah sparrow* <u>Passerculus sandwichensis</u>	X	
Grasshopper sparrow <u>Ammodramus savannarum</u>	X	
Vesper sparrow <u>Pooecetes gramineus</u>		X
Bobolink* <u>Dolichonyx oryzivorus</u>	X	
Sedge wren* <u>Cistothorus platensis</u>		X
Red-headed woodpecker** <u>Melanerpes erythrocephalus</u>	X	
Great blue heron* <u>Ardea herodias</u>	X	
Pied-billed grebe <u>Podilymus podiceps</u>		X
American bittern <u>Botaurus lentiginosus</u>	X	

<u>Species</u>	<u>Threatened</u>	<u>Endangered</u>
Upland sandpiper** <u>Bartramia longicauda</u>		X
Wood turtle* <u>Clemmys insculpta</u>	X	
Bog turtle* <u>Clemmys muhlenbergii</u>		X

Source: Endangered and Non-game Species Program, New Jersey
Division of Fish, Game and Wildlife

- * Confirmed within the Refuge boundary
- ** Potential to exist within the Refuge boundary

Green-winged teal
Blue-winged teal
Wood duck*
Canada goose
Common merganser
Hooded merganser

Ring-necked duck
Gadwall
American wigeon
Northern shoveler
Bufflehead

***Identifies National Resource Species**

The area was also important for the northern pintail, an early migrant. With wetland restoration and improved wetland habitat management, the Refuge may be able to attract this species again.

Nesting species include the black duck, mallard, green-winged teal, blue-winged teal, wood duck, pintail, hooded merganser, common merganser, and Canada goose.

6. Raptors

A variety of raptor species utilize Refuge habitat resources for nesting and/or feeding. The great horned, barn, and screech owl are known to have nested on or near the Refuge acquisition boundary. Long-eared and saw-whet owls are winter migrants.

Red-tailed hawks and American kestrels are the most predominately sighted raptors. Most likely because they are resident species. Other raptors include: the sharp-shinned hawk, goshawk, rough-legged hawk, broad-winged hawk, and merlin.

Turkey and black vultures are resident species.

7. Other Migratory Birds

The Wallkill River Refuge provides important nesting breeding, feeding, and/or migratory habitat for the following National Resource Species: black duck, wood duck, mallard, American woodcock, and great blue heron.

This internal Service designation is used to focus management direction on selected species because of their endangered status, economic value, declining population and habitat trends, public use demands, human/wildlife conflicts, or legal and administrative responsibilities.

Wallkill also provides important nesting and migratory habitat for many passerines and upland bird species of management concern in the northeast. These species

include the pied-billed grebe, American bittern, least bittern, golden-winged warbler, and the Cerulean warbler.

8. Game Mammals

Furbearers of economic importance inhabiting the Refuge include beaver, muskrat, mink, and raccoon. Muskrat, beaver, and raccoon are plentiful along the Wallkill River and its tributaries. Beaver primarily occupy bank lodges and generally do not create flowages within the Refuge boundary.

Deer sign is abundant throughout the Refuge. State deer biologists estimate a deer density of approximately 35 animals per square mile in Sussex County's Deer Management Zone 2, of which Wallkill is a part. This is slightly higher than the Statewide 1992 mean preseason density of 31 deer per square mile. The deer population in the area is stable at the present time.

10. Other Resident Wildlife

Numerous small mammals such as voles, shrews, and mice are common in the upland fields and shrub habitat types. These small mammals form a large component of the raptor forage base in the local area.

Black bear and bobcat are also known to occur occasionally on the Refuge. It is felt that animals sighted are usually transitory, traveling between large wooded areas lying to the east and west of the Refuge.

11. Fisheries Resources

The New Jersey Division of Water Resources biennial 1988 State Water Quality Inventory Report classifies the Wallkill River as nontrout waters except for that segment starting at the confluence of Sparta Glen Brook, in Sparta just north of Route 15, downstream to the Route 23 bridge which is classified as trout maintenance.

Papakating Creek is classified as trout maintenance down to the Route 629 bridge in Frankford Township and nontrout for its remaining length down to the Wallkill River confluence.

The classification of the waters within the Refuge acquisition boundary are therefore considered nontrout.

The Wallkill River does, however, support a warmwater fishery for largemouth bass, pickerel, perch, sunfish, and bullhead.

H. PUBLIC USE

1. General

Historically, consumptive recreational uses of Wallkill's natural resources included waterfowl and deer hunting along with a limited amount of trapping. Fishing activities were limited because of restricted and/or lack of access.

Current non-consumptive recreational uses on parcels within the acquisition boundary include canoeing, wildlife observation, bicycling, photography, horse-back riding, ATV use, cross-country skiing, and snowmobiling.

An Interim Public Use Plan will have to be developed while compatibility determinations, section 7's, and an EA are completed for public use activities. Many individuals are concerned about their ability to continue horseback riding, canoeing, and ATV riding after the Refuge acquires property.

Holidays and weekends will have to be monitored for use as public use plans begin to develop. On Labor Day alone, RM Pelizza encountered 1 ATV and 3 off-road motorbikes on the old railroad bed within a span of 15 minutes.

6. Interpretive Exhibits/Demonstrations

The Service and Wallkill River Refuge were represented at an Earth Day event in Vernon Township on April 26. RM Pelizza staffed an exhibit at the request of the Vernon Environmental Commission.

7. Other Interpretive Programs

On April 1, RM Pelizza presented a program on the Wallkill River acquisition project and management schemes to the Wallkill Valley Drainage Improvement Association in Pine Island, New York.

RM Pelizza was approached by the Washington Office of Human Resources to present a program on endangered

species and the laws and policies pertaining to threatened and endangered species for a group of high school Native American students. The program was part of a two week natural resources event sponsored by the Service at the Haskell Indian Junior College in Lawrence, Kansas. RM Pelizza traveled to Haskell on June 14-16 to conduct the program.

On September 19, the Refuge hosted an annual Associated New Jersey Environmental Commission (ANJEC) retreat at the West Valley Sports Club (Tract 51). Environmental Commissions from the neighboring townships gathered together to discuss "environmental issues". This same afternoon, RM Pelizza conduct a tour of the area and discussed Refuge management.

RM Pelizza traveled to Newton, New Jersey on September 11 to conduct a program on Refuge acquisition and future management schemes for the Sussex County Bird Club. Many were concerned about existing public use activities being stopped such as canoeing. The majority were in support of the Refuge and the Service.

A program on Refuge acquisition activities and future management objectives was presented to the Appalachian Trail Management Committee on December 9. RM Pelizza was also asked to become a member of the Committee which is made up of all the entities responsible for management of the trail in New Jersey.

8. Hunting

A hunting plan for white-tailed deer and associated paperwork was completed. See Section D.2 for additional information.

17. Law Enforcement

RM Pelizza completed the law enforcement physical requirement on February 14.

The annual law enforcement refresher class was attended from April 13-18 at the Eastern Shore of Virginia NWR. This year, transitional training for the new semi-automatic pistol was completed. Pistols that were available were issued to qualifying personnel.

Regualifications occurred on October 20 in Basking Ridge, New Jersey with staff from the Great Swamp NWR.

Law enforcement support was provided for Great Swamp NWR's annual deer hunt on December 3-5.

In our more visible areas, especially the old railroad bed, many of the lathes used by the surveyors to mark property boundary have been taken out or broken. These areas will have to be posted as soon as possible.

I. EQUIPMENT AND FACILITIES

4. Equipment Utilization and Replacement

The Refuge's first vehicle was delivered on March 12. The Dodge 4x4 pickup truck was stored at the Great Swamp NWR for a few months before it could be brought to Wallkill due to limited space at the "office".

In December, the Dodge had to be towed to the dealer in order for them to repair the u-joint on the drive shaft. The u-joint broke while moving furniture into the new interim office. The dealer did not seem very surprised at all when the truck was taken in for repair. All repairs were under warranty.



S. Pelizza 11/92

A Chevrolet Suburban (4x4) was delivered on May 12. No repairs were needed during the year.



S. Pelizza 11/92

Excess furniture and equipment were available from the RO during December because of their move to Amherst. On December 19, RM Pelizza and Central ZB Pelizza traveled to Boston to pick up furniture that had been set aside for Wallkill. A much needed copy machine was the "prize package". Since Wallkill did/does not have very much storage space nor an office, only a small supply of excess furniture was requested. Half of the request list was unavailable or had been set aside for other programs. The following is a list of items actually received:

- 1 Savin 7230 copier and stand
- 1 computer desk
- 1 filing cabinet
- 1 portable typewriter table
- 1 telephone stand/table
- 1 small refrigerator
- 1 water cooler
- 2 lamps

6. Computer Systems

Two excess computers were transferred to Wallkill during the year. A Compaq Deskpro 286e and keyboard were transferred from Mason Neck NWR. A PC TOO computer, monitor, and keyboard came from the FWE Office in Pleasantville, New Jersey. Each has its own problems. The Compaq keyboard has keys that stick while the monitor on the PC is hardly legible. The hope is to get a working system for word processing. The complete University System Computer purchased with end of the year money in FY 91 can be utilized for all other functions.

8. Other

A GSA office space request was sent to the RO in December 1991. First contact by GSA was not made until June 1992. The delay was due to both the Service and GSA. The RO's move to Amherst tied up CGS personnel. GSA's people were unavailable because of scheduled annual leave.

On November 17, RM Pelizza finally met with GSA Realty Specialist Anthony Cogle to review potential office spaces. Seven locations were visited, but only three would be solicited. The importance of limiting the distance between the office space and the Refuge was expressed. Mr. Cogle estimated that we would not be into a space before May or June of 1993.

GSA sent the draft solicitation package to the RO during December. The package was misplaced because of moving activities and was not found until late January 1993. At that time, it was sent to RM Pelizza for review.

In the meantime, Wallkill's second employee was coming on board in December. Fortunately, a small one-bedroom house had been purchased along with a land parcel in August. This building has been converted to an interim office. Several days in late December were spent moving desks, files, computers, brochures, and boxes of miscellaneous items out of the RM's residence i.e., temporary office. On December 21, furniture being stored at Great Swamp NWR was picked up.

The RM's residence was used as a temporary office for 13 months.

J. OTHER ITEMS

3. Items of Interest

The Sussex County Department of Planning and Development has kept the Service appraised of development within and adjacent to the proposed Refuge boundary. Development such as the construction of a minor league baseball stadium, construction of a church, expansion of a service/gas station, and residential subdivisions has been proposed.

The baseball stadium and Hope Evangelical Free Church were both proposed on the Kuperus Farm, Tract 85. The property is presently an undeveloped parcel which would provide a valuable buffer for the sensitive habitats within the Refuge from urban, storm water runoff. The property, if left undeveloped, would help maintain the water quality of the Refuge. Unfortunately, the landowner does not want to deal with the Service at the present time.

In 1991, a Service biologist evaluated the preliminary project area for the baseball stadium and found that we had no federal regulatory jurisdiction pursuant to the Clean Water Act over the site, because it was primarily upland. The Service did, however, asked to be included in the planning stages of the stadium to provide technical assistance.

On March 17 of this year, the owners and consultants of the stadium revealed their project plan to the Wantage Township Planning Board and local citizens. Support for and against the stadium were split. Pro-stadium citizens looked forward to the job opportunities and increased income to the Township. Those opposed were concerned about the project's sewage treatment plans, chemical runoff, disturbance to wildlife, etc. because of the close proximity to the Refuge and Wallkill River. Someone asked if they knew they were within the Refuge boundary. They replied they did not.

This same date, a meeting was set for April 2 with the baseball stadium owner and engineering consultant to discuss the site plans in more detail. They welcomed our interest in providing technical assistance.

FWE Biologist Christine Haftner and RM Pelizza met with the baseball stadium owners, their lawyer and engineering consultant, and the Chief of Planning for Wantage Township on April 2. The project plans were reviewed, and several options as to the design for the sewage plant

and re-routing roads and parking areas to reduce run-off were discussed. A field tour of the area was also conducted. Several wetland areas were spotted which the consultant was not aware of. Ms. Haftner explained their need to consult with the State Permit Section.

On April 23, RM Pelizza was telephoned by a local news reporter claiming that the baseball stadium owners had decided to find another location for the ball field.

The New Jersey Herald ran an article on April 24 entitled "Ballpark Needs New Home". The owner of the baseball team stated he would not build the stadium at the site previously proposed because of wetlands and archeological considerations. To say the least, the property owner is very upset with the Service.

A new location for the Stadium had not been found by the end of the year.

The site plan for the Hope Evangelical Free Church was approved in December. Thirteen acres of the Kuperus Farm will be purchased. This had not occurred by December 31.

The proposed expansion of the BP Service Station is adjacent to the acquisition boundary and would affect the marshes on Tract 86. There is no buffer area between the service station and the marshes. The Sussex County Planning Department reviewed the station site plan in November 1992, but rejected it because it did not provide for an oil separator to remove hazardous wastes from the drainage system. The plan was still not approved by the end of the year.

It is also suspected that some work has been completed without the approvals. The Planning Department is looking into this matter.

The majority of properties along the eastern and western boundary of the Refuge have road frontage which provides potential for residential development. Two large tracts within the Refuge acquisition boundary have approved subdivisions.

Wallkill Farms (Tract 71), approximately 400 acres, is located along the western boundary of the Refuge. This property has 60 approved subdivision sites. The Service has been negotiating with the landowners, but an option has not yet been accepted. Since the subdivisions have been approved, the landowners can begin construction at any time.

The other parcel, Tract 24, is approximately 465 acres in size. The property is located on the eastern boundary of the Refuge and has been subdivided in three sections. Each section includes 50 units. TPL is negotiating for one of the sections at present.

Refer to Map 3 for the location of the developmental threats.

4. Credits

RM Pelizza wrote and edited the narrative. Office Assistant Reid typed and compiled the report.

Photographs were taken by RM Pelizza, Office Assistant Reid, and Great Swamp Volunteer Alan Cossa.



J. Reid 12/92

MAP 3: DEVELOPMENTAL THREATS WALLKILL RIVER NATIONAL WILDLIFE REFUGE

UNITED STATES
DEPARTMENT OF THE INTERIOR

SUSSEX COUNTY, NEW JERSEY & ORANGE COUNTY, NEW YORK

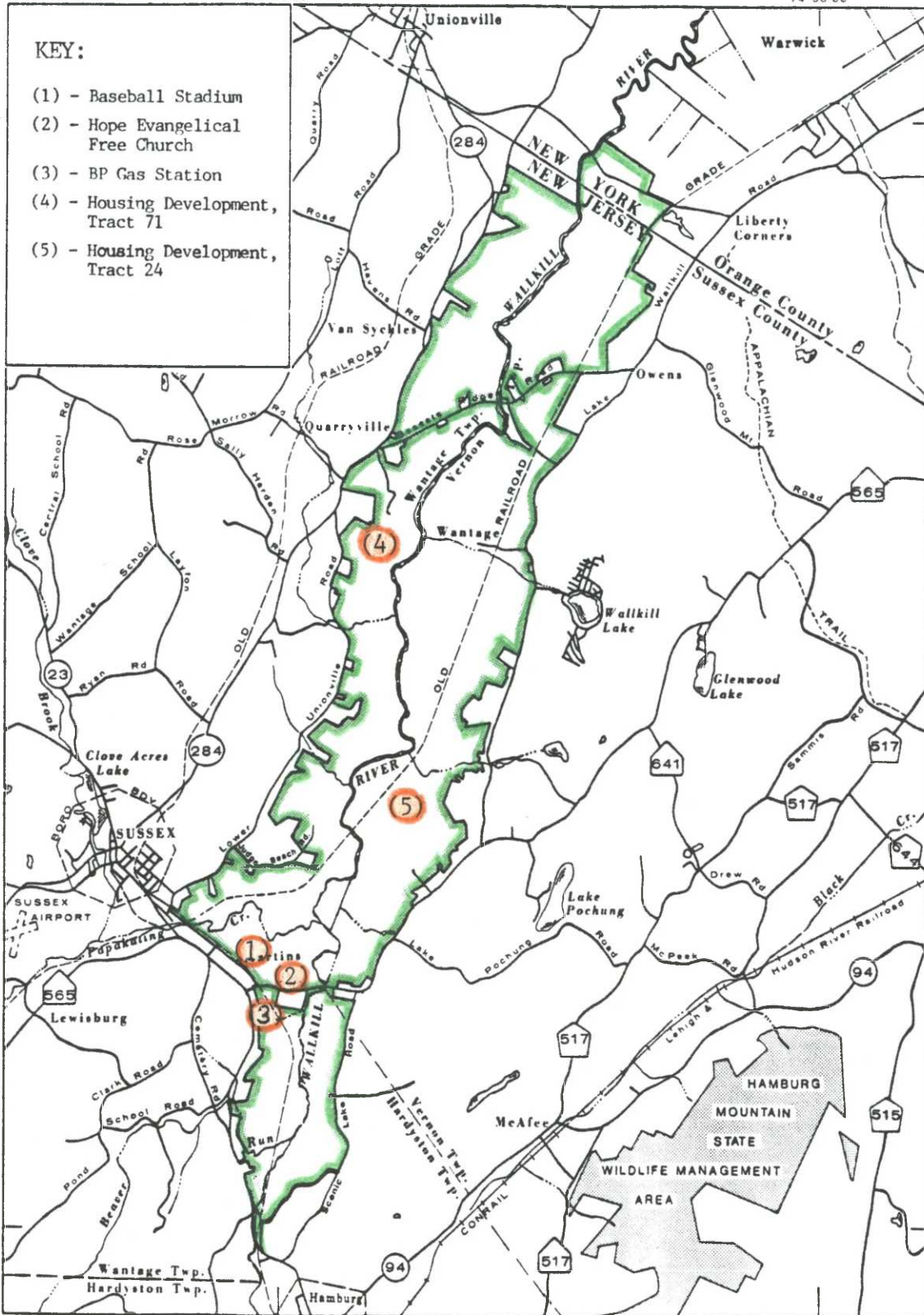
UNITED STATES
FISH AND WILDLIFE SERVICE

41° 17' 30"

41° 17' 30"

41° 10' 00"

41° 10' 00"



COMPILED IN THE DIVISION OF REALTY
FROM SURVEYS BY USGS AND USFWS

SCALE 0 3000 6000 9000 12000 FEET

0 75 150 225 30 KILOMETERS

NEWTON CORNER MASSACHUSETTS
MARCH 1980

74° 30' 00"
MEAN DECLINATION
1954



Fish &
Wildlife

Facts

U.S. Fish and Wildlife Service • Northeast Region

The Wallkill River National Wildlife Refuge

The Wallkill River National Wildlife Refuge was administratively approved in March 1990, and was authorized by Congress the following November.

It was established for several reasons:

- ◆to preserve and enhance lands and waters so that the natural diversity of fish, wildlife, plants, and their habitats will be conserved for present and future generations
- ◆to conserve and enhance specific Refuge populations of fish, wildlife and plants, including populations of black ducks and other migratory waterfowl, raptors, passerines (songbirds) and marsh and water birds
- ◆to protect and enhance the water quality of aquatic habitats within the Refuge
- ◆to fulfill international treaty obligations of the United States with respect to fish and wildlife and their habitats
- ◆and to provide opportunities for compatible scientific research, environmental education, and fish and wildlife-oriented recreation.

At present, the Refuge has an approved acquisition boundary which will encompass approximately 7,500 acres along the Wallkill River in northwestern New Jersey, including parts of Vernon, Wantage and Hardyston Townships in Sussex County, and New Jersey and Warwick Townships in Orange County, New York.

New York City is within one hour's drive of the Refuge.

A Unique History

The Wallkill River area has been an important resource since the time of the very first settlers. Evidence indicates that the Paleo Indians gravitated there 8,000-10,000 years ago, shortly after the last Ice Age. As the Wallkill River wound a path through the retreating glacier, it created a huge lake. Eventually, the lake dried up and created a sea of reeds and rocky hills that were known by 18th century settlers as "The Drowned Lands." These "Lands" were actually part of the Wallkill River floodplain.

The Munsee, the northern bands of the Lenape or Delaware Indians, found a rich source of food in the Wallkill River valley, including venison, clams, turtles, waterfowl, and fish. Plentiful outcroppings of flint and chert were mined by the Munsee to create arrowheads and sharp cutting tools. (These same outcroppings were later used at the time of the American Revolution for flint-lock firearms.) Indian campsites dotted the valley and the remains were often uncovered by the early settlers as they ploughed their land. Longhouse Creek, a tributary of the Wallkill in Orange County, is said to have been named to remember an Indian longhouse that once stood on its banks.

The Indians were followed by an influx of Dutch settlers who followed the Wallkill up from the Hudson and then also settled along the river's edge. The name of the river itself comes from Holland's Waal River. By the 1750s, settlement development along the Wallkill was well underway.

Although the land along the river was fertile, frequent flooding only allowed farmers to use the land to graze cattle. The first serious effort to drain "The Drowned Lands" was in 1774, but the effort didn't succeed until 60 years later, when a large canal lowered the water table of the river and made farming possible. Mill owners, however, sought to keep

the lands flooded, and a battle ensued between them and the area's farmers who wanted the lands drained. The dispute was finally settled in the farmers' favor in 1871. With the meadowlands permanently drained, onions became an important cash crop. Farming remained a stable part of the local economy.



Great Blue Heron

The Topography

The Wallkill River Refuge lies within two physiographic provinces—the Appalachian Valley and Ridge Province which encompass the Kittatinny Mountain Range to the west and the Highland Ridge System Province to the east. The Wantage and Vernon terrains vary from the relative flatness of the river valley floor with an elevation of less than 400 feet above sea level to mountain peaks and ridges in excess of 1,400 feet elevation. Much of Wantage is rolling hills ranging between 500 and 900 feet. Vernon is a more mountainous region characterized by the Pochuck and Hamberg Mountain Ranges which transect the landscape in a northeast-to-southeast direction. The terrain steepens rapidly from the river bed to 1,100 feet above sea level about 1/2 mile east of Lake Wallkill in the Pochuck Mountains.

The Refuge will eventually protect 4,200 acres of wetlands and 3,300 acres of adjacent upland. Wetland habitat types include 1,600 acres of palustrine forest, 1,500 acres of emergent marsh, 600 acres of wet meadow, 400 acres of scrub-shrub marsh, and 100 acres of open water. The upland habitat includes 2,500 acres of farm land and 800 acres of hardwood forest.

Fish and Wildlife Species Within the Refuge

The Wallkill River bottomlands are unique in the large number (19) of State-threatened and endangered species utilizing the area. Few existing tracts in the northern part of the State harbor such a large concentration of species in need of protection. Confirmed State-listed species found within the boundary include the short-eared owl, barred owl, red-shouldered hawk, savannah sparrow, bobolink,

great blue heron, turtle, and bog turtle. It is also likely that two additional listed species, the sedge wren and the redheaded woodpecker, are present on the Refuge.

Five species considered of special importance by the Service also occur on the Refuge. These are the black duck, wood duck, mallard, American woodcock, and great blue heron.

The Wallkill River bottomlands are one of the few large areas of high quality waterfowl habitat remaining in northwestern New Jersey. During migration, it attracts large numbers of waterfowl including black ducks, mallards, green- and blue-winged teal, wood ducks, and Canada geese, among others. Extensive nesting habitat is provided for



Wood Duck

the black duck, mallard, pintail, green-winged teal, and wood duck. Lesser numbers of blue-winged teal, hooded mergansers, common mergansers, and Canada geese are found to nest on the tract.

The Refuge straddles two major migration corridors for waterfowl moving between eastern Canada and the Atlantic Coast, and the Delaware River and Hudson River corridors. Waterfowl from both corridors stop to rest and feed in the extensive wetlands along the Wallkill River. These migration corridors are particularly important to the black duck.

Colonial water bird species such as the great blue heron nest in a variety of habitats including marshes and shrub thickets.

A great variety of nongame birds, mammals, reptiles and amphibians inhabit the diverse habitats of the Refuge as well as game species such as the white-tailed deer, wild turkey, river otter, mink, red and gray fox, and coyote.

The Wallkill River also provides an excellent warm water fishery for largemouth bass, pickerel, perch, sunfish, and bullheads.



Mink

Joining the National Wildlife Refuge System

The Fish and Wildlife Service, part of the Department of Interior, is the principal agency through which the Federal Government carries out its responsibilities to conserve, protect, and enhance the nation's fish and wildlife and their habitats. One of the Service's responsibilities is to manage the Refuge system, and one of the newest Refuges will be Wallkill River (NWR).



Barred Owl

When Wallkill River NWR is dedicated on May 2, it will become part of the largest Refuge system in the world, currently consisting of over 480 wildlife Refuges -- a total of 91 million acres -- with at least one Refuge located in every state in the country.

The Wallkill Refuge will ultimately encompass approximately 7,500 acres along the Wallkill River - 4,200 acres of wetlands and 3,300 acres of adjacent upland. Refuge land is situated in parts of Vernon, Wantage, and Hardyston Townships of Sussex County in New Jersey, and Warwick Township in Orange County, New York.

Within the next six months, the Service will develop a Station Management Plan which will determine goals and objectives for the Refuge for the next 3-5 years, including public use, wildlife management, and habitat protection.

We will keep you informed as these plans take shape.

Land Acquisition

In January, the Fish & Wildlife Service purchased its first piece of land for the Refuge. To date, over 186 acres of land containing woodlands, wetlands, and pastures has been acquired.

The Service is actively negotiating with a number of landowners for the purchase of their property, and it's anticipated that several hundred more acres will be acquired by the end of this year. The Service has a long-standing policy of working with willing sellers (those landowners who want to sell their land to the Government). Landowners within an acquisition boundary are under no obligation to sell their property to the Service. If a landowner offered a property to the Service, it would be appraised at fair market value, based on comparable sales of similar properties. Upon completion of an appraisal, an offer would be presented to the landowner by the Service.

Land is purchased from willing sellers as funds become available through the annual budget process. The Service also accepts donations of land or easements.

If you have specific questions regarding the acquisition program, call Daniel Leahy, Realty Specialist, at (617) 965-5100, ext. 270.

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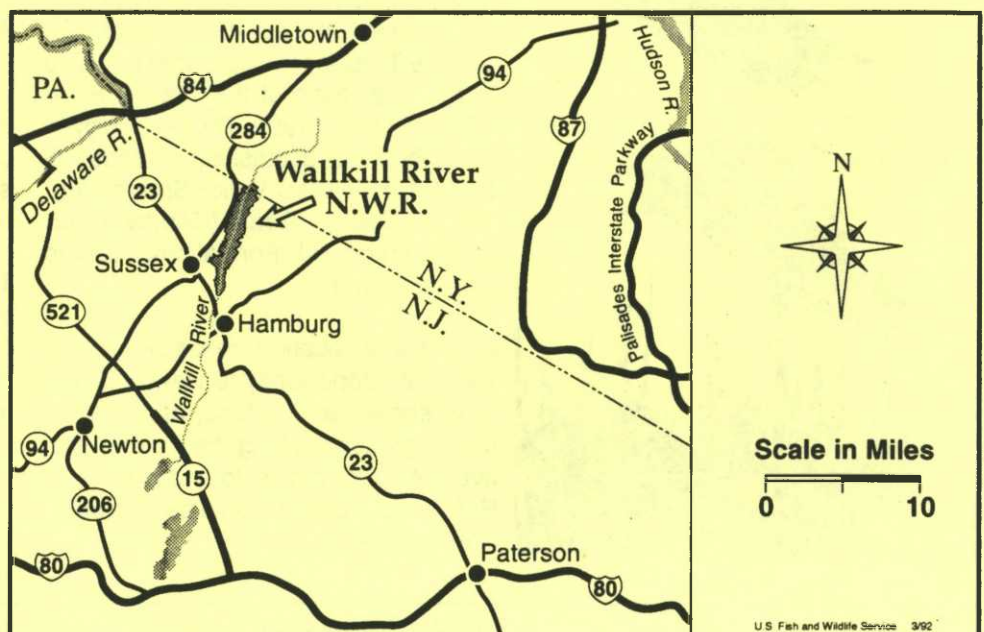
scientific research, environmental education, and fish and wildlife oriented recreation. All in all, the area is a prime and precious natural resource for both animals and people.

Publications/Maps Available

The following publications are available free of charge by writing to:

Wallkill River NWR
PO Box 383
Sussex, New Jersey 07461

- Northeast Region Visitor Guide and Directory
- Wallkill River NWR Acquisition Boundary Map
- A Legacy for the Future: The National Wildlife Refuge Acquisition Program - A Guide for Landowners
- Relocation Assistance for Owners, Tenants, and Businesses
- National Wildlife Refuges: Conserving Habitat and History
- Volunteers: U.S. Fish and Wildlife Service





Wallkill River National Wildlife Refuge Notes



A Word from Wallkill's Refuge Manager

Creation of the Wallkill River National Wildlife Refuge (NWR) is an exciting project, and a very busy one. To make sure I keep you up to date on the latest happenings, I created this newsletter. I hope to summarize the most important events on its pages, keep you informed on pressing issues, and give you an opportunity to give me feedback on your concerns. In a very real sense this is your Refuge; your input is vital to its success.

From my own viewpoint as the newly appointed Refuge Manager at Wallkill, I couldn't be more enthusiastic.

I have been with the Fish and Wildlife Service for 11 years, and worked at nine Refuges, from New Mexico to New Jersey. There is no feeling more exhilarating, though, than being part of a brand-new Refuge, a project that will affect the

quality of New Jersey's wildlife and human population for centuries to come. It means a lot of hard work, but the rewards will bring satisfaction to everyone involved.

In this first newsletter, I've tried to give background information on Wallkill River NWR and the Fish & Wildlife Service, as well as let you know what phase of development the Refuge is in. I will cover additional subjects in future issues.

I am trying to locate temporary office space in Sussex, and hope to increase Wallkill's staff of one very soon. Meanwhile, if you have questions about the newsletter or about the Refuge, please feel free to call me at (717) 296-4563.

I look forward to working with you.

Sylvia Pelizza

Who Needs A Refuge? We Do!

Refuges are established by law and are created for a variety of special reasons. Some Refuges protect an endangered species, some a vital natural resource, still others safeguard habitat that support migrating birds.

What makes the Wallkill River area special enough to become a Refuge?

Wallkill represents the first "river floodplain refuge" established in the Northeast Region. The Wallkill River bottomlands provide one of the few large areas of high quality waterfowl habitat remaining in northwestern New Jersey. The river floodplains are characterized by forest, open farmland, and wet meadow habitat which support an unusually diverse number of species. These include 19 species listed by the State of New Jersey as threatened or endangered. Eight of these 19 species have been found within the boundaries of the new Wallkill River NWR.

As a major watershed and wetland complex, the Wallkill River provides resting, nesting, and migratory habitat for the Atlantic flyway black duck population. (The Atlantic flyway is one of the four major aerial bird paths in the U.S.) Black duck numbers have been seriously declining over the last 30 years, and conserving land in the Wallkill River area will help rebuild this species.

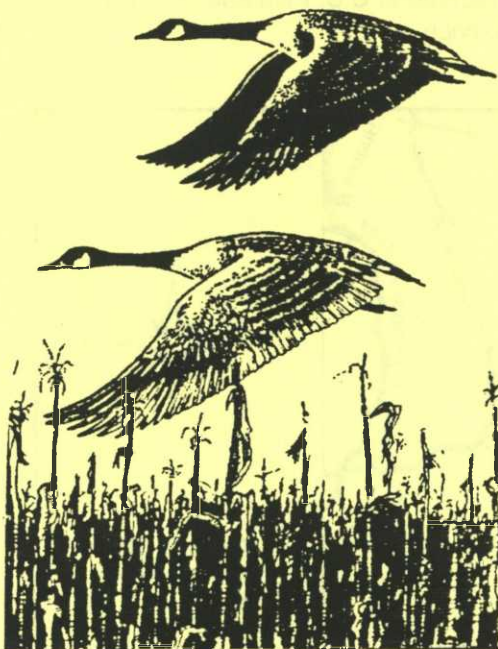
The area is also a key link in the State's planned Greenway system for northern New Jersey, a comprehensive plan to protect natural resources, offer recreational opportunities, enhance landscapes, and support local economic development.

The Refuge will provide opportunities for
con't other side

Dedication Set for May 2

The U.S. Fish and Wildlife Service, the New Jersey Conservation Foundation, and the Trust for Public Land invite you to the dedication of the Wallkill River NWR on May 2, 1992. The ceremony to mark the initial acquisition of lands will be held at the West Valley Sports Club, Owens Station Road (County Road 642), Vernon, NJ. Formal proceedings start at 11 a.m.

After the dedication ceremony, there will be an opportunity to view exhibits, slide shows, and videos, and time to take a guided walking tour along the river. A guided bus tour around the Refuge boundary will also be available. Hope to see you there!



Canada Geese

*Dedication of the
Wallkill River
National Wildlife Refuge*



*May 2, 1992
11:00 a.m.
Vernon, New Jersey*

Wallkill River National Wildlife Refuge (NWR)

Today, Wallkill River NWR joins more than 480 Refuges that comprise our national wildlife Refuge system – the largest in the world. The Refuge will be managed by the U.S. Fish & Wildlife Service, which is part of the Department of Interior. The Service is the principal agency through which the Federal Government carries out its responsibilities to conserve, protect, and enhance the nation's fish and wildlife resources.

Wallkill River NWR becomes the fifth Refuge in the State of New Jersey. Today's ceremony marks the initial acquisition of 290 acres of woodlands, wetlands, and pastures for the Refuge. When completed, the Refuge will protect 4,200 acres of wetlands and 3,300 acres of adjacent upland – 7,500 acres in all.

In addition to protecting species habitat, Wallkill River NWR will provide opportunities for scientific research, environmental education, and fish and wildlife oriented recreation.

Initial acquisition of land was made possible by a collaborative effort between the U.S. Fish & Wildlife Service, the New Jersey Conservation Foundation, and The Trust for Public Land.

Program

Welcome

Sylvia Pelizza
Manager, Wallkill River NWR

Presentation of Colors
Cub Scout Pack 183
Vernon, New Jersey

Master of Ceremonies

Ronald E. Lambertson
Regional Director
U.S. Fish & Wildlife Service

Remarks

David F. Moore
Executive Director
New Jersey Conservation Foundation

Franklin E. Parker
Director, New Jersey Field Office
The Trust for Public Land

James F. Hall
Assistant Commissioner for Natural & Historic Resources
New Jersey
Department of Environmental Protection & Energy

Honorable Frank R. Lautenberg
United States Senator

New Jersey Conservation Foundation

300 Mendham Road
Morristown NJ 07960
201-539-7540

The New Jersey Conservation Foundation, a private, nonprofit statewide land trust, was founded in 1960. At the request of public open space agencies, the Foundation purchases and accepts donations of land and holds them in trust until these agencies acquire the necessary funding to buy the land. The Foundation has been successful in preserving over 50,000 acres of New Jersey open space for the enjoyment of future generations.



The Trust for Public Land is a national, nonprofit land conservation organization that works closely with urban and rural community organizations and public agencies to preserve open space for public use and for wildlife habitat. Since its founding in 1973, TPL has protected over half a million acres of scenic, recreational, urban, rural, and wilderness land nationwide.

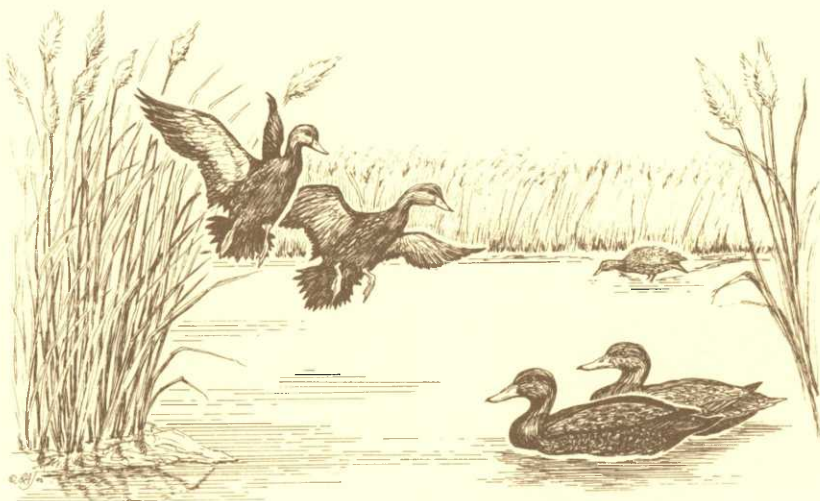
Special thanks to: Susan Somer of The Trust for Public Land; Pat Baxter and Mindy Lynch of the New Jersey Conservation Foundation; and the staff of Great Swamp NWR for their capable assistance in preparing for today's dedication.

Great blue heron illustration © Julien Beauregard







Department of the Interior • U.S. Fish and Wildlife Service

*Wallkill River
National Wildlife Refuge*



Dedication

Please join us for dedication activities which will include:

-  *Exhibit tables*
-  *A guided walking tour along the Wallkill River, or*
-  *A guided bus tour around the Refuge boundary*
-  *A video entitled "For Wildlife and People"*
(a finalist in the 1992 New York Film Festival)

*The U.S. Fish and Wildlife Service,
New Jersey Conservation Foundation, and
Trust for Public Land
cordially invite you to the dedication of the
Wallkill River National Wildlife Refuge*

on

Saturday, May 2, 1992

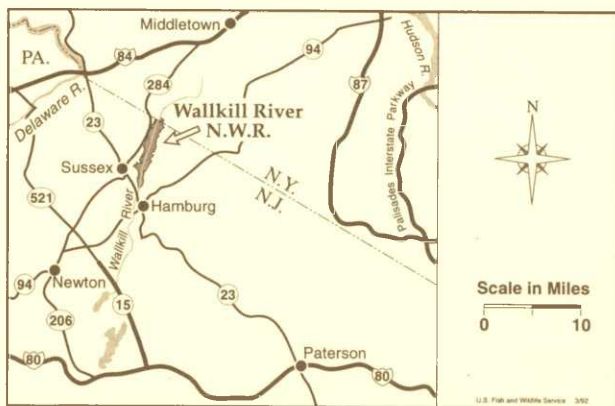
11:00 a.m.

at the West Valley Sports Club

Route 642

Owens Station Road

Vernon, New Jersey



Directions to the West Valley Sports Club:

From Route 23 South, make a left onto Route 284 North, and stay on road for 4 miles. Turn right onto Route 642 (which is also Owens Station Road) for 1 1/2 miles, then make a left hand turn into the West Valley Sports Club. (After you cross Bassetts Bridge/the Wallkill River, slow down and watch for turn off to the Club).

From Route 23 North, make a right onto Route 284 North, and stay on road for 4 miles. Turn right onto Route 642 (which is also Owens Station Road) for 1 1/2 miles, then make a left hand turn into the West Valley Sports Club. (After you cross Bassetts Bridge/the Wallkill River, slow down and watch for turn off to the club).



*New
Jersey
Conservation
Foundation*
300 Mendham Road
Morristown NJ 07960
201-539-7540



Cover illustration © Robin A. Jess, 1992