

ERIE NATIONAL WILDLIFE REFUGE
Guys Mills, Pennsylvania

ANNUAL NARRATIVE REPORT
Calendar Year 1979

NATIONAL WILDLIFE REFUGE SYSTEM
Fish and Wildlife Service
U.S. DEPARTMENT OF THE INTERIOR

MAR 30 1981

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Review and Approvals

William J. McEly
Submitted by

William H. Hutchinson
Area Office

3/10/81
Date

3-26-81
Date



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PERSONNEL

1. William J. McCoy, Refuge Manager, GS-11, EOD 11/21/77, PFT
2. Daryle R. Lons, Assistant Refuge Manager, GS-7, EOD 1/28/79, PFT
3. Janet Marvin, Refuge Clerk, GS-5, EOD 11/6/66, PFT
4. Robert Granda, Maintenance Worker, WG-7, EOD 4/20/60, PFT
5. Robert Battin, Maintenance Helper, WG-5, EOD 3/14/77, PPT

YCC Staff - Temporary Appointments

1. Joseph Frelick, Camp Director, GS-9, EOD 6/17/79, Terminated 8/7/79
2. Kenneth Bender, Group Leader, GS-5, EOD 6/17/79, Terminated 8/6/79
3. Leland Dorchester, Group Aid, GS-3, EOD 6/17/79, Terminated 8/3/79
4. Carol Hirsch, Group Aid, GS-3, EOD 6/17/79, Terminated 8/3/79
5. Rhoda Jane Melvin, Group Aid, GS-3, EOD 6/17/79, Terminated 8/3/79

20 YCC enrollees

YACC - Temporary Appointments

Staff

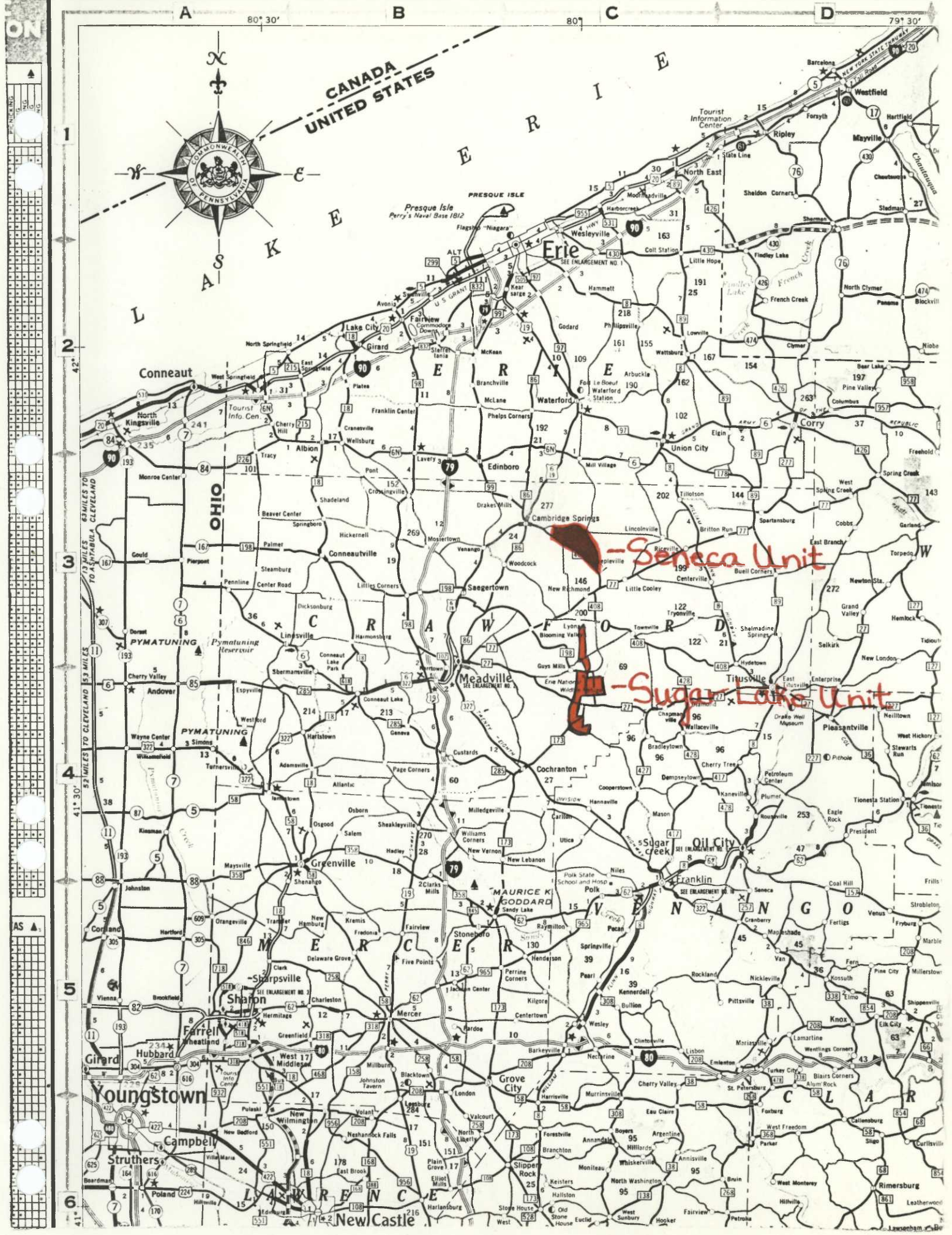
Susan McMahon, Group Leader, GS-5, EOD 5/21/78, Excepted Appointment

Enrollees

- | | |
|---------------------|------------------------|
| 1. Rick Anthony | 17. Clyde Kennelley |
| 2. Tina Bratek | 18. Sam Logan |
| 3. Don Bowes | 19. Luanne Lynch |
| 4. Jeff Collins | 20. Julie Marvin |
| 5. Connie Copeland | 21. Mark Norcross |
| 6. Ken Dinger | 22. Sheryle Piccirillo |
| 7. Dan Findlay | 23. Craig Scherrbaum |
| 8. Dan Goodwill | 24. Sue Sheriff |
| 9. Donna Granda | 25. Dana Sležak |
| 10. Gary Granda | 26. Seona Smith |
| 11. Dave Hanes | 27. Dave Smithers |
| 12. Mike Harrington | 28. Diana Stitt |
| 13. Laura Hawkins | 29. Kim Stover |
| 14. Debbie Hays | 30. William Thompson |
| 15. Judy Hetrick | 31. Melvyn Watson |
| 16. Ralph Hopkins | 32. Dale Woods |

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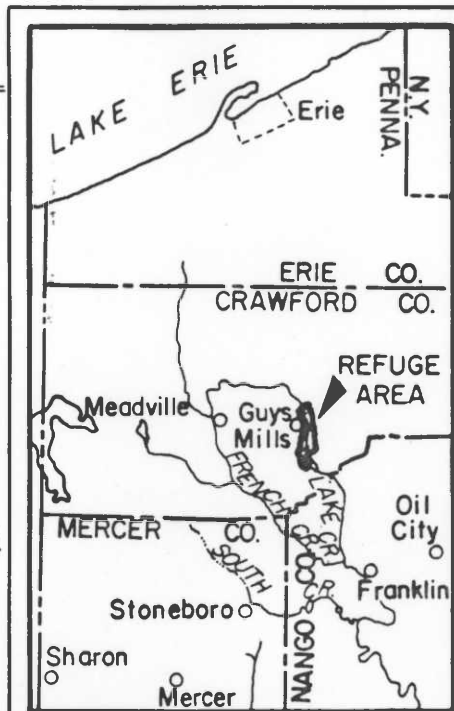
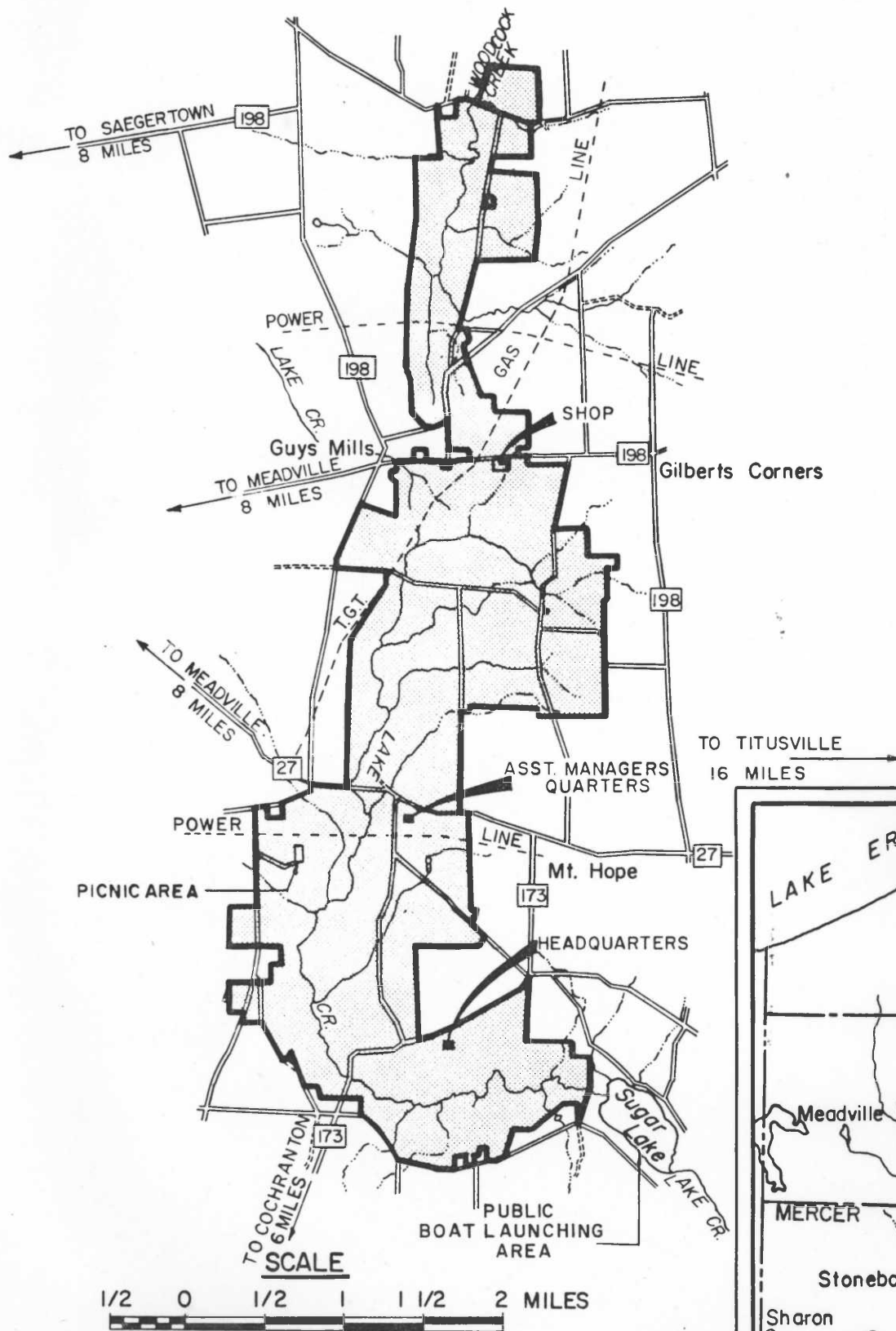


ERIE NATIONAL WILDLIFE REFUGE

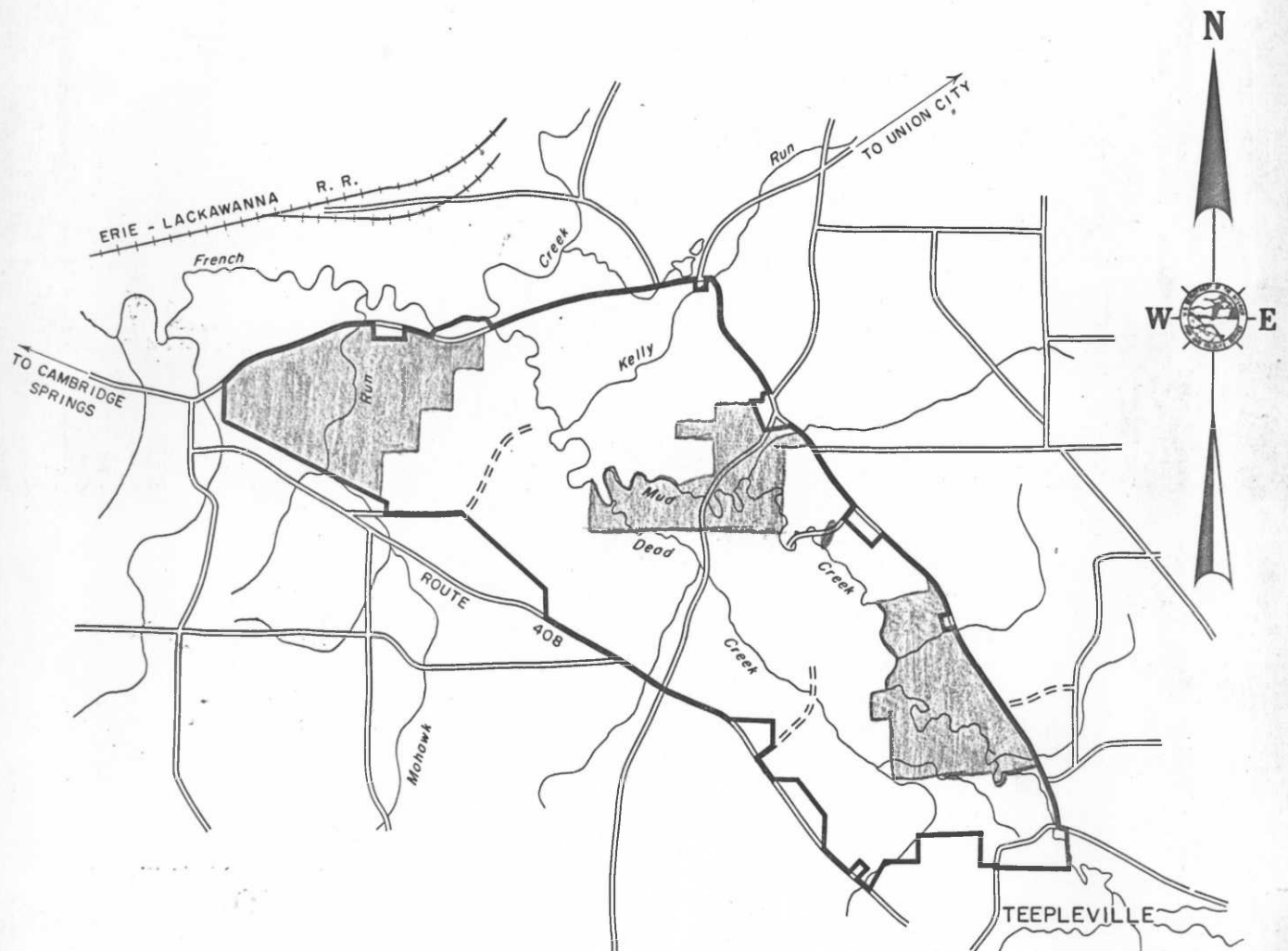
CRAWFORD COUNTY, PENNSYLVANIA

U. S. DEPARTMENT OF THE INTERIOR

BUREAU OF SPORT FISHERIES AND WILDLIFE



ERIE NATIONAL WILDLIFE REFUGE
SENECA DIVISION
CRAWFORD COUNTY, PENNSYLVANIA



I. GENERAL

A. Introduction

The 7,993 acre Erie National Wildlife Refuge consists of two units approximately ten miles apart in Crawford County, Pennsylvania.

1. Sugar Lake Unit

The Migratory Bird Conservation Commission approved Erie NWR on March 11, 1958. Establishment of the refuge occurred on May 22, 1959 when the first tract was purchased. Under the original and subsequent approvals, 105 tracts totaling 4,966.66 acres were acquired at a cost of \$560,087.78. Approximately 167.8 acres remain to be acquired.

2. Seneca Unit

The Seneca Division was approved by the Migratory Bird Conservation Commission on June 6, 1967. Nineteen tracts totaling 3,027.15 acres have been acquired at a cost of \$341,350.00. Approximately 1,321.85 acres remain to be acquired.

Contrary to popular belief, the refuge is not on the shores of Lake Erie. As the crow flies, the Seneca Unit is twenty-five miles south and the Sugar Lake Unit is thirty-five miles south of Lake Erie.

The name, Erie, comes from the Erie Indians. This small tribe resided along the shores of what is now known as Lake Erie. In the mid 17th century, the Seneca Indians defeated the Eries and the tribe ceased to exist as a distinct group. In 1969, the refuge was officially named after this extinct Erie Indian tribe. Unfortunately, the name, Erie, is more closely associated with the area north of the refuge because of Lake Erie, the city of Erie and Erie County. This causes much confusion especially when the public is trying to locate the refuge for the first time.

B. Climatic and Habitat Conditions

According to data collected at the official U.S. Weather Bureau Station in Meadville, Pennsylvania, total precipitation amounted to 48.70 inches. Total snowfall for 1979 was 98.7 inches. Temperature extremes were -19°F on February 12 and 88°F on July 16. The last freezing temperature in the spring occurred on May 6 and the first killing frost occurred on October 26.

Freeze-up occurred on November 30 but a warm front with heavy rains on December 25 opened all impoundments for the rest of the month. The refuge weather station recorded a low temperature of -35°F on February 12. As it turned out, February was the second coldest on record. Even though March was unseasonably warm with most snow gone by March 4, the thick ice cover of up to 24 inches delayed break-up on large pools until late in the third week of March.

Old farmstead apple orchards on the refuge produced a light crop. This was attributed to the after shock effect resulting from an extensive pruning program carried out by the YACC's in 1978. These trees should produce an abundant yield in 1980, weather permitting. Beechnuts and walnut production was down but oak acorn production appeared excellent.

Pool and marsh conditions were normal. Crop production was good to excellent. The refuge share of corn was heavily used by upland game and songbirds through the winter months. Spring use by wood ducks, mallards and Canada geese was greater than fall use.

C. Land Aquisition

Nothing to report.

D. System Status

1. Objectives

The major objectives of Erie Refuge are to provide ducks and Canada geese with nesting, brooding, feeding and resting habitat. Production goals have higher priority than migration use objectives with ducks having priority over geese.

Secondary objectives are to provide habitat for wildlife other than waterfowl and provide opportunities for wildlife oriented public recreation and environmental education.

Objective levels were established in 1971 and have never been updated. The following highlights were accomplished according to directions provided by the Annual Work Plan Advices:

--Preparation of the Fire Management Plan and Station Sign Plan was initiated.

--The non-toxic shot waterfowl hunting program was continued.

--The 125 acre area encompassing the Beaver Run Nature Trail was closed to public hunting to minimize conflicts between hunters and non-hunters.

--Refuge Manager William McCoy attended a four week law enforcement training session at Glynco, Georgia.

--Assistant Manager Daryle Lons attended a nine week law enforcement training session at Glynco, Georgia.

--Enforcement of the regulation calling for gun deer hunters to wear 400 square inches of fluorescent orange material was continued.

--The deer hunt permit/report card system was continued to collect accurate information on hunter use patterns, buck-doe harvest ratio and total deer harvest.

--The preseason banding quota of 200 wood ducks was reached.

--No major changes in public use occurred and no facilities were added to increase public use.

With the current high inflation rate, it seems meaningless to address the N.F.I.O. level for FY-86. The refuge will obviously be in caretaker status with reduced staff and deteriorating facilities.



This GMC diesel stake truck was a BLHP acquisition.

D. Lons

2. Funding

The funding for the Erie Refuge for the past five fiscal years is as follows:

	Fiscal Year					
	'76	TQ'76	'77	'78	'79	'80
Migratory Birds						
O&M	67,000	2,000	61,000	73,000	88,000	90,000
pay act funds				3,000	3,000	4,000
Rehabilitation			5,000	12,000	7,400	
Construction & Anad.			37,200			
Fish Supplemental						
Mammals & Non-	6,000	12,000	5,000	8,000	11,000	11,000
Migratory Birds						
O&M						
Interpretation &						
Recreation						
O&M	7,000	9,000	13,000	16,000	19,000	18,000
pay act funds						2,000
Young Adult				116,000*	**	**
Conservation Corps						
Title X Funds (Job	33,400					
Opportunity Program)						
Youth Conservation	23,600		24,000	26,000	21,000	30,500
Corps						
Totals						
O&M	80,000	23,000	84,000	100,000	121,000	125,000
Rehab.			5,000	12,000	7,400	
YCC	23,600		24,000	26,000	21,000	30,500
Other	33,400		37,200	116,000		

* estimated YACC funds expended for materials, supplies, equipment and salaries

** unknown

3. Staff

The staffing pattern during the past five years has been as follows:

	Staff/Fiscal Year				
	'76	'77	'78	'79	'80
Refuge Manager PFT	1	1	1	1	1
Assistant Refuge Manager PFT	1	1	1	1	1
Biological Technician PFT					
Clerk PFT	1	1	1	1	1
Maintenance Worker PFT	1	1	1	1	1
Maintenance Helper PPT	1			1	1
Laborer PPT		1	1		
Summer Aid Temporary	1	1			
Biological Technician Temp.					
Recreation Aid Temporary					
<u>Title X</u>					
Laborer Leader Temporary	1				
Laborer Temporary	3				
<u>YCC</u>					
Camp Director Temporary	1	1	1	1	1
Group Leader Temporary	3	3	4	4	4
Enrollees	20	20	20	20	21
<u>YACC</u>					
Group Leader Temporary			2	2	1
Enrollees			1-24	1-20	1-16

II. CONSTRUCTION AND MAINTENANCE

A. Construction

The BLHP provided \$250,000 in FY 1978 for construction of the 110 acre Pool 1 impoundment.

On September 18, 1978, Anderson Construction Company of Greenville, Pennsylvania was accepted as the low bidder for Pool 1 at \$243,780. The Section 404 permit was not issued by the U.S. Army Corps of Engineers due to a request by the Soil Conservation Service in Harrisburg, Pennsylvania for more information on the environmental assessment. The information was provided and the S.C.S. dropped their objections on 2/8/79. After further review by the E.P.A. in Philadelphia, the Section 404 permit was issued on April 30, 1979.

Actual construction of the Pool 1 dike and access road started on June 18, 1979. On July 10, all work was suspended due to unstable sub-soil conditions. Borings were taken to determine the load bearing capacity of the subsoil. Cernica Associates in Youngstown, Ohio analyzed the soil samples and recommended piles be driven to support the dam structure. Because of the increased cost, the Regional Office engineers decided to cancel the project. The contract was terminated on October 5, 1979. The contractor was paid \$60,512.82 for work performed prior to the Notice of Termination, materials delivered to the Government and work performed as a result of termination.

Attempts will be made in 1980 to locate a new site for the dam structure upstream from the original site. Borings will be taken to determine if an alternate site is feasible.

The Bicentennial Land Heritage Program provided funding in FY 1980 for two construction projects - \$538,000 for a Headquarters/Maintenance Complex and \$308,000 for the 30 acre Pool 4 impoundment.

Funds for the impoundment project were originally approved to rehabilitate the dike and control structure of the existing 30 acre Reitz Pond which was identified as Pool 10 in the 1965 Erie Master Plan. This site was changed because road flooding was not as serious a problem here as in three other locations. Also, Ecological Services advised that State Highway 173 should be raised to serve as the dike instead of constructing the dike on the marsh edge as planned.

The State Highway Department was not interested in a cost-sharing arrangement at this site and the BLHP funds available were insufficient to cover the entire cost of the project. Two of the three other sites also involved State Highways 173 and 27. The remaining site was on Township Road 473 (Shaffer Road). This site seems most feasible from a funding standpoint and, hopefully, in 1980, necessary arrangements can be made to let a contract for dike and water control structure work.

The site selection process for locating the Headquarters/Maintenance Complex was initiated in November, 1978, and continued into May, 1979. The original site identified in the 1965 Erie Master Plan could not be considered since the land had not been acquired.

The site selected for the office/visitor center facility is south of the existing shop, approximately 1600 feet south of State Route 198 and a half mile east of Guys Mills. The building is to be situated between the elevations of 1390 feet and 1395 feet on the southwest slope of an old pasture knoll along Route 198. The north slope of this gravelly knoll was once used as a gravel pit but was filled in, sloped and seeded when the refuge purchased the land. The parking lot area, just to the west of the building, is on an old farm field. The topsoil was stripped from this field area in the 1960's to provide topsoil for two small pond dikes just to the west of the field.

Access to the area is on the old haul road built when the gravel pit was in operation. The building site will affect approximately two acres and so will the parking area.

The site selected for the maintenance facility is located 300 feet west of Township Road 740 (McFadden Road) and less than one-half mile south of State Route 198. This site is about 1000 feet east of the office site only at a higher elevation and separated from the office by woodlands. The building will be located on the north end of a seven acre hay field. The YACC headquarters building is located at the south end of this field. The field is on a well drained high gravelly ridge which runs in a north-south direction. The building and service yard will affect two acres.

Of ten sites considered for this project, those selected offered the following:

- (1) The office/visitor center, the maintenance and the YACC work areas would be in close proximity but separated from each other by woodlands. This would allow for efficient operation of refuge programs while at the same time keeping them visually and physically apart so they would not conflict. Also, the YACC building could readily be utilized as a part of the refuge shop complex should the YACC program be discontinued.
- (2) Concentration of refuge buildings in one area would tend to minimize environmental disturbance and enhance security.
- (3) Security should be good, especially with a burglar alarm system. Not only are the areas in close proximity, but they are visible from State Route 198 and McFadden Road and from neighboring private houses. Fire protection should also be good.
- (4) An all season blacktop highway would provide access for staff, emergency personnel and visitors. The site would be easily located and visitors coming through Guys Mills would have no trouble finding it.

- (5) Passive heating and lighting systems could be provided by sky lights and solar panels slanting to the south. This along with other design features would mitigate an energy poor northern exposure. Utility access would be good.
- (6) Ponds, grasslands, croplands and mixed forest types provide good aesthetics in the area. However, the village of Guys Mills and some private housing are visible in the distance, and this may, depending on one's viewpoint, detract from the scenery.

During the final stages of the site selection process, the number of potential sites was narrowed to three. Five features were given a weighted numerical value based on their relative importance to the intended function of the facility and used to analyze the suitability of each of the prospective sites. The five features were 1) access, 2) physical features, 3) aesthetics, 4) energy efficiency, and 5) impacts. The outcome of this methodical approach was the selection of the sites described herein. Problems with the other sites were more objective in nature and could only be remedied through greater expenditure of funds (roads and security) or not at all (location in relation to refuge operations).

There has been no controversy over this proposed project. A public meeting was held on May 22, 1979 at the Randolph Elementary School in Guys Mills. Seventeen people attended this meeting. The consensus of this group was to locate the refuge headquarters at the Route 198 site and the shop at the McFadden Road site. They expressed the following as good reasons: 1) paved road access, 2) fire protection, 3) easier utility access, 4) visitor association of the refuge and its location relative to Guys Mills. As a result of this meeting, the final site selections were made.

Among others, refuge staff also consulted or coordinated with the following: Soil Conservation Service; Crawford County Planning Commission; Interagency Archaeological Services; U.S. Fish and Wildlife Service Harrisburg Area Office; and U.S. Fish and Wildlife Service Regional Office to include the Divisions of Environment, Engineering, and Refuges and Wildlife Resources.

An advertisement for bids on the architect and engineering design work of the Headquarters/Maintenance Complex was made in July, 1979. In October, 1979, the A&E firm of Sargent-Webster-Crenshaw and Folley of Syracuse, New York was selected to complete design work of this facility. On December 11, 1979, a meeting was held at the refuge office to discuss "Phase A - Site Investigation Concept Design" of the Headquarters/Maintenance Complex. Participants included refuge staff, A&E representatives and Regional Office staff. The design concept plan is due on January 10, 1980.

During July, 1979, Wood & Barco Construction Company entered a low bid of \$7725.25 for rehabilitation of ten parking lots and two refuge roadways.

Parking lot work consisted of removing one foot of top soil where necessary and placing and spreading one foot of bank run gravel topped with six inches of crushed gravel. These parking areas varied in size to permit from ten to twenty cars to park depending upon the amount of visitor use expected in any one location. This project greatly enhanced visitor safety by permitting visitors, primarily hunters, to park off the road in places where they would not get their vehicle stuck. The two roadways serve as public entrances to the proposed YCC residential camp site at the Group Picnic Area and the Pool 9 fishing area.

During June, 1979, Joe Arendash Construction Company entered a low bid of \$3500.00 to bulldoze and root rake ten acres of brush and tree stumps from two five-acre parcels on the east and north borders of Meyer's Pond. Altogether, twenty acres in this area will be seeded to warm season native prairie grasses to provide dense nesting cover for waterfowl.

Also in June, 1979, Clint Brown Construction entered a low bid of \$640.00 to excavate muskrat and beaver burrows along 430 feet of Meyer's Pond dike. In addition, 200 cu. yds. of clay were trucked in to reduce the angle of the slope on the face of the dike. In July, 160 cu. yds. of rip rap was purchased by the YCC and dumped on the dike slope. YCC enrollees hand spread the sandstone on the new dike face so future problems from burrowing animals should be eliminated.



Meyers Pond dike before the contract and YCC work.

D. Lons



Meyers Pond dike after the work was completed.

D. Lons

This same contract called for the excavation of a 30' x 30' building footer 30" deep and two feet wide while removing one foot of topsoil from the interior floor area of the building. This work was done in preparation for constructing the foundation and floor of the proposed residential YCC bathhouse. A pit seven feet deep was also dug to expose soil horizons for sewage permit inspection purposes.

The refuge received \$10,000 in startup funds to prepare a residential YCC camp for 1980. The design of the bathhouse building was completed by refuge staff and forwarded to R.O. Engineering for approval. After receiving approval, the funds were expended by the end of August for building materials. The refuge maintenance staff and YACC Group Leader completed the bathhouse foundation work in early September. The rest of the building will be constructed by refuge staff in the spring of 1980.

During September, 1979, a low bid of \$1096.00 was accepted from Marshall's Home Improvements to scrape, prime and paint Quarters 176. This job was completed on October 1, 1979.

During October, 1979, the hot water heating system in Quarters 176 was converted by refuge maintenance staff into an electrical and wood heating system. Baseboard electric heaters, 200 amp service box, triple wall, UL listed, stainless steel chimney and a Defiant wood stove were installed. The conversion was made to eliminate the problem of frozen hot water heating pipes that had occurred three times in the past several years.

On August 17, 1979, a low bid of \$3413.00 was accepted from William Granda Construction Company to provide materials and install a new roof on the refuge headquarters building. This included 29 squares of 240 wt., fiberglass, Class A, UL listed shingles and 10 rolls of 15 lb. wt. roofing felt.

Construction Inspector, Ed Massey, completed the YACC Shop Building inspection on January 25, 1979. The YACC crew officially moved into their new building on February 23, 1979.

The following major vehicle and equipment purchases were made in 1979. A Dodge 1/2 ton 4x2 pickup was delivered on April 25, 1979 to replace a 1971 Dodge pickup. A GMC diesel stake body dump truck was delivered on March 23, 1979. This vehicle replaced a 1963 Chevy stake dump truck that was transferred to Bombay Hook Refuge on June 11, 1979. A 4x4 3/4 ton pickup was ordered on February 5, 1979. This truck will be fitted with a Meyers snow plow to handle refuge snowplowing chores.

On November 9, 1979, a 110 watt Motorola Mitrek Mobile radio was delivered for installation in the 1979 Volare station wagon. This radio, costing \$1095.00, was ordered with the Crawford County Sheriff Department frequency of 45.10 mhz to give the refuge twenty-four hour contact with local police departments for emergency purposes.

On August 22, 1979, scaffolding was ordered from Bil-Jax, Inc. at a cost of \$842.98. It consists of three sections across, each 5' x 7', double layer high with panel guard railings all around. This equipment will soon pay for itself in rental money saved for the considerable number of refuge building and maintenance projects where it is needed.

On September 28, 1979, a trailer with battery operated hydraulic system for raising and lowering the bed was ordered. This unit, known as the Trailevator, has a 2000 lb. capacity and costs \$2050.00. It is used primarily for hauling the riding lawn mower, snowmobile and garbage cans. However, it is excellent for hauling any heavy object because it is so easy to load and unload.

On August 24, 1979, a Butler Grain Bin was ordered for \$984.00. It is fifteen feet in diameter and seven feet high with a 1206 bushel capacity. This storage bin solved the annual problem of having shelled corn available for waterfowl banding. Corn is obtained from the refuge crop share planted by Refuge Co-op Farmers.

On March 14, 1979, four Armstrong 8 ply tires, size 16.9/38 with tubes, were purchased for the 1978, 90 H.P. John Deere tractor. With one pair of snap-on wheels and sealant added during installation, the cost was \$1853.84. It is hoped that these large size tires with dual wheels will eliminate the problem of getting the tractor stuck so often.

On April 17, 1979, two Model 290 Wilson Gas Pumps with one automatic nozzle were installed by Agway for a cost of \$737.95. These cabinet pumps replaced two Tokheim pumps that were installed in 1977. The Tokheim pumps never worked right and finally became inoperable. Unfortunately, the company that supplied and installed the Tokheim pumps went bankrupt soon after making the installation and we were left holding the bag.

Based on the recommendation of local Pennsylvania Game Protectors, two Hancock Beaver Live Traps were purchased on August 24, 1979 for \$101.00 each. These traps will be used along with the three Bailey Live Traps for nuisance beaver control. The Hancock Trap requires baiting and beaver castor to lure the beaver into the trap pan. It is more versatile than the Bailey Trap in that it can be set just about anywhere. If you miss the first time, however, that is usually the last chance with that particular beaver.

A truck bed tool box was purchased and installed in the 1979 Dodge 4x2.

B. Maintenance

On April 12, 1979, garbage pickup service was initiated with a local refuse company. A dumpster is provided for \$25.00 a month. This alleviated a long standing problem of how to get rid of refuge waste. The rats are now hard pressed to find a good hideout.

In August, 1979, twelve sheets of plexiglass 3/16" thick and 40" x 40" square were purchased for \$333.33. These sheets were for installation in the two new Visitor Contact Station bulletin boards constructed by the YACC's. However, the sheets were stolen from the refuge shop before they could be installed.

The steel pipe gate at the entrance to the Group Picnic Area was torn apart with a four-wheel drive in early August. A picnic table was burned and the water fountain stolen within one week. A new gate was installed that should thwart any four-wheel drive vehicles in the future.

The 1979 Dodge pickup was delivered without power steering. A power steering unit was installed for \$290.00. This new Dodge pickup and the GMC Stake-Dump truck received a Ziebart rustproofing treatment in July, 1979.

The 1974 International 4x4 pickup required a new gas tank and gas line in June.

The electric wiring harness for rear lights on the old trailer were replaced in August.

A 32" x 80" steel door and frame was installed in place of the rotted wooden door on the outside basement entrance to Quarters 176 in August.

In November, a Key Control System cabinet was installed at the refuge office to lock up and secure all refuge keys. A check out system is now used for dispensing refuge keys.

In March, twenty-eight Master Locks, all master-keyed, were purchased to replace the old locks on refuge gates and buildings. These locks cost \$145.88.

In July, two 7x35 Bausch & Lomb binoculars were sent to Mirakel Optical for cleaning, lubricating and alignment.

C. Wildfire

No wildfires occurred during the year.

Cooperative Fire Agreements between the Service and the Pennsylvania Department of Environmental Resources and the local Randolph Volunteer Fire Department were prepared and forwarded for signatures.

The Fire Management Plan and Environmental Assessment of the Plan were prepared and forwarded to the Harrisburg Area Office for review and approval.

III. HABITAT MANAGEMENT

A. Croplands

In 1979, there were eight Cooperative Farmers on the Sugar Lake Unit farming 305 acres. Crop acreages were as follows:

corn	-	157
oats (nurse crop)	-	34
hay	-	114

There were five Cooperative Farmers on the Seneca Unit farming 183.5 acres. Crop acreages were as follows:

corn	-	86
oats (nurse crop)	-	46.5
hay	-	51

The refuge collected soil samples in the fall of 1978 and provided the test results to the farmers. Meeting lime and fertilizer requirements is the Cooperative Farmer's responsibility. If sufficient amounts are not applied, the farm contract may be terminated.

All farmers follow a five year crop rotation as follows:

corn	
corn	
oats/grass-legume	
hay	
hay	

The refuge takes one-fifth of each corn and oats crop. Most refuge corn is left standing in rows of four and the oats are traded for equal value shelled corn at the local Farm Co-op. The shelled corn is used for duck banding operations.

Herbicide use is minimal with most farmers using atrazine on corn crops and MCPA amine on oats nurse crops. The larger farm operations are converting more and more to minimum or no-till corn and requests are increasing to use other chemicals such as Paraquat or Banvel for weed control. Minimum and no-till corn farming certainly reduces soil erosion and improves soil structure but we have resisted most requests because of the necessary reliance on chemicals for weed control. Based on the guideline that all alternative means be used before using chemicals, we will continue to discourage no-till corn plantings.

A problem that we have in dealing with farmer requests for chemical use is that the Agricultural Extension Service Agents promote the use of chemicals as the most efficient way to farm. For instance, the Penn State Agronomy Guide recommends Banvel instead of 2-4-D for control of milkweed and dogbane in minimum or no-till corn. However, the Banvel label does not specifically name milkweed or dogbane on the label. Based on this, we will not permit its use even though the State Agricultural College recommends its use. Farmers have a difficult time accepting our guidelines and it's easy to understand why. But, then, someone has to set an example.

Wildlife use of the refuge corn share is excellent. Upland game, furbearers and songbirds make extensive use of the corn during the winter months and waterfowl including wood ducks, mallards and Canada geese use it in the fall and spring. If the refuge continues to insure that the Co-op Farmers leave the one-fifth refuge share, waterfowl use is expected to increase as they come to expect this bonus food supply.

The refuge did not plant any crops in 1979. However, in anticipation of the completion of Pool 1, the refuge did provide twenty ton of lime at a cost of \$370.00 on a ten acre upland strip adjacent to the Pool 1 site. The field had been fallow for many years and the lime requirement was four tons per acre. A Co-op Farmer was willing to open ten acres of the thirty acre field for corn but did not want to bear the cost of forty tons of lime. Normally when a farmer takes on a new field with a high lime requirement the refuge will forfeit its share the first year to help cover the high lime cost. Since, in this case, we wanted the refuge share left in the field, the refuge provided half the lime. From that year on, however, the Co-op Farmer must bear the total lime cost and leave the refuge share. As it turned out, Pool 1 was not constructed but waterfowl did find and use the refuge share of corn.

B. Grasslands

Maintenance staff bush hogged 157 acres of old grassland that was reverting to brush. Many refuge fields have grown up to brush so much that they can no longer be bush hogged. The YACC crew manually cleared approximately ten acres of these overgrown fields near Pool B and another three acres on the eastern shore of Pool 9. Ten acres adjacent to Meyers Pond were also contracted to be cleared with a bulldozer.

It is planned to establish warm-season native grass stands in these fields that have been cleared. The native grass should provide excellent nesting cover for ducks.

The following native grass seed was ordered for planting approximately fifty acres in 1980:

- 192 lb. Certified Blackwell Switchgrass
- 132 lb. Certified Kaw Big Bluestem
- 20 lb. Certified Blaze Little Bluestem
- 99 lb. Certified Holt Indiangrass

The low bid for this seed was received from Horizon Seed Company (Miller Bros.) in Lincoln, Nebraska for \$2239.79.

In addition, 150 pounds of NY4006 Switchgrass seed was obtained from the Agricultural Research Station in Big Flats, New York. The District Conservationist of the Soil Conservation Service in Meadville, Pennsylvania assisted in our obtaining this eastern variety of switchgrass. We are anxious to compare the growth results between the eastern and western varieties of switchgrass. It is hoped that the western variety will be comparable to the eastern variety since a reliable source of supply for eastern seed varieties is hard to come by. The Penn State Agronomy Department and Pennsylvania Game Commission are also experimenting with warm season grasses for summer beef cattle pasture and upland game bird nesting cover.

There was no grazing or prescribed burning during the year. However, two controlled burns were made in the spring to remove brush piles and other plant debris from the north and east fields bordering Meyers Pond. The first burn was conducted over six acres on March 22 between 1:00 and 3:00 p.m. This fire was very hot and consumed most of the smaller downed brush. On May 2, the eleven acre east field was burned between 10:15 a.m. and 2:30 p.m. This fire went much slower and also achieved the objective of consuming much woody plant debris. Roads and ponds served as fire breaks and YACC enrollees were on hand with fire tools and backpacks to assist the refuge staff in completing these burns.

Perhaps the most useful result gained from the successful completion of these two early spring burns was the proof that prescribed burning of native grass stands within a three to five year cycle is feasible even in this rather wet climate. If initial stands of warm season native grasses can be established, prescribed burning will become an important tool in maintaining these stands against brush encroachment. Hopefully before then, though, the refuge will be able to obtain a portable truck pumper and small dozer to more adequately prepare for such action.

C. Wetlands

There are approximately 2500 acres of wetland habitat on the entire refuge. On the Seneca Unit, stream channels and beaver floodings make up an estimated 1400 acres. No man-made impoundments are on this unit. On the Sugar Lake Unit, there are twelve manageable impoundments, six pools without water control structures and nearly thirty potholes. The twelve impoundments with water control structures total 295 acres at MML. The balance of wetland on this unit include creeks, beaver floodings, natural marsh, swamp, and seasonally flooded meadows.

A total of 20 inches of well interspersed rainfall fell from May through September. The sufficient amount of precipitation maintained good conditions in the natural wetland areas on the refuge. There was no drought or serious flooding problems in any of the manageable impoundments.

Refuge impoundments were lowered prior to spring melt and then raised to MML during the last week of March.

Pool 9 was lowered two drop boards from mid-June until the first week in October to promote the growth of emergent vegetation.

Meyers Pond was drained in the summer of 1978 in order to make necessary repairs to the water control structure. At that time, it was noticed that there was extensive muskrat and beaver burrowing in the dike. Even after the water control structure was fixed, the pool was not refilled. It was left empty over the winter in an attempt to inhibit the spread of spatterdock in the pool. In June of 1979, a contractor dug out and repacked all badly burrowed areas in the dike. YCC's then rip-rapped this portion of the dike. The pool was reflooded in September.

Reitz Pond was lowered in June to allow YCC's to wade in and manually cut spatterdock. This was an experiment to see if the physical cutting of the plant would inhibit its growth during the next year. Application of 2,4-D in past years had proven unsuccessful in killing the plant.

A large beaver dam creating approximately ten acres of wetland on Woodcock Creek broke in the spring and was abandoned by the beavers apparently because of a poor food supply. This allowed the wetland to drain and the water returned to the normal creek channel.

D. Forestland

There are approximately 2265 acres of forestland on the refuge. The Sugar Lake Unit has about 1500 acres and the Seneca Unit has about 765. The most common species of trees on the refuge are beech, sugar maple, red maple, black cherry, aspen, yellow birch, and hemlock. Basswood, tulip poplar, white ash, sycamore, American elm, red oak, white oak, shagbark hickory and white pine are also present. There are also several old Christmas tree plantations on the refuge.

No timber was harvested during the year.

E. Other Habitat

Not applicable.

F. Wilderness and Special Areas

There are five designated Natural Areas on the refuge. They total 2456 acres. Muddy Creek Research Natural Area and Kelly Run Public

Use Natural Area are located on the Seneca Unit. Jacob Guy Research Natural Area, Lake Creek Research Natural Area and Lake Creek Public Use Natural Area are on the Sugar Lake Unit.

G. Easements for Waterfowl Management

Not applicable.

IV. WILDLIFE

A. Endangered and/or Threatened Species

Refuge personnel occasionally sighted bald eagles on the refuge from the end of March through the end of October. Most sightings involved single mature or immature birds. However, one sighting was made of a pair of eagles on March 30. No eagle nesting has ever occurred on the refuge.

All three known eagle nests in Pennsylvania are located within twenty-five miles of the refuge. During 1979, none of these nests produced hatchlings. In response to this, the Pennsylvania Game Commission and the U.S. Fish and Wildlife Service cooperated with each other in successfully introducing an eaglet to one nest site at the Pymatuning Waterfowl Management Area. This was the first eaglet introduction ever attempted in Pennsylvania.

Throughout the warmer months, refuge staff made occasional osprey sightings. The first sighting was made on March 2 and the last on September 10.

B. Migratory Birds

1. Waterfowl

Generally, the refuge waterfowl population showed no significant change from recent years. Seventeen black ducks were the first observed migrants of the year. This sighting was made on February 28, when the ducks were observed on Lake Creek near Route 173.

One hundred and fifty Canada geese were regularly observed on Unit IV throughout February and March. This has not been the case in past years. Winter use has increased significantly since the refuge began enforcing the share terms of the cooperative farming agreements. The geese that make use of the refuge corn throughout the winter months are believed to be part of the refuge flock that normally winters at the Pymatuning WMA.

The estimated peak of Canada goose population was 650 during the second week of November.

The extremely cold month of February caused an unusually heavy ice cover on refuge impoundments. Even with an unseasonably warm March, refuge impoundments did not open up until the last week of the month. This resulted in the peak duck migration being about one week later than usual. The peak of 2,075 ducks occurred on March 27.

Estimated waterfowl production to flight stage in 1979 was as follows:

Canada Goose	176
Mallard	160
Blue-winged Teal	225
Wood Duck	493
Hooded Merganser	140
Black Duck	20

The Canada goose production figure of 176 was a 25% increase over the previous year.

The wood duck nesting box program had its most productive year in 1979. Data from the 133 nesting boxes was as follows:

	<u>% boxes used</u>	<u>% successful nests</u>
Wood Duck	55	79
Hooded Merganser	13	69
	<u>% hatch success</u>	<u># hatched eggs</u>
Wood Duck	60	437
Hooded Merganser	55	72
	<u>average # young/successful nest</u>	
Wood Duck	7.5	
Hooded Merganser	8	

A total of 509 ducklings were hatched from the boxes. This is an increase of 200 birds from 1978, and 87 from the previous high of 422, recorded in 1975.

The refuge's pre-season banding quota was 200 wood ducks; 50 of each age and sex. Trapping was begun on Pool 7N, where all trapping was done in 1978. This site, however, was not very productive this year. Raccoons caused a problem when they began eating bait corn at the site. The raccoons, however, did not cause any duck mortality. People were also a problem. Someone stole the decoys which were placed near the traps.

One large V-shaped swim-in trap was soon constructed on a back bay of Reitz Pond. Even though there was little time left to pre-bait the new trap site, it proved to be a very successful trapping location. Canada geese did not enter the site area. Mallards were not as dominant here as at Pool 7N.



Blue-winged teal were frequent visitors to the wood duck banding site.

H. Schuster

The following is a summary of the ducks banded at Erie NWR in 1979:

	<u>HY-M</u>	<u>HY-F</u>	<u>AHY-M</u>	<u>AHY-F</u>	<u>Total</u>
Wood Duck	81	67	34	23	205
Mallard	23	27	1	3	54
Blue-winged Teal	9	20	5	-	34
Green-winged Teal	-	-	2	-	2
Black Duck	2	-	2	-	4
Pintail	-	-	1	-	1

2. Marsh and Water Birds

The great blue heron is the most common species in this category. The overall number of herons on the refuge has not changed significantly in recent years. Even so, there has been a reduction in the Seneca Unit population and an increase in the Sugar Lake Unit population. The Seneca Unit rookery has dwindled drastically, with only eighteen active nests observed this year. A small rookery of four nests, however, was established on the Sugar Lake Unit at Pool 7N.

No significant population changes were observed in any other species. Refuge personnel recorded twelve different species during the year.

3. Shorebirds, Gulls, Terns and Allied Species

In this group, fourteen species were recorded. Woodcock are the most prevalent species. Several peenting ground censuses were made during the spring along roads which intersect the refuge. These counts indicated a peak population of 200 birds.

The remaining species in this group are most commonly seen during their spring migrations. Because of the refuge's predominant upland habitat types, there are no major concentrations of these birds throughout the year.

4. Raptors

Fifteen species of raptors inhabited the refuge this year. Red-tailed hawks, American kestrels and turkey vultures were the most commonly observed species.

5. Other Migratory Birds

Six double-crested cormorants were sighted at Pool 9 on May 2. This was the second sighting of this species on the refuge. A single bird was seen at Pool 9 in 1971.

The bluebird population was high this year, with sightings being very common. The YACC's built and placed 70 new nesting boxes. There are now about 150 boxes on the refuge. Exact production figures are unknown, since there was no inspection of the boxes during the nesting season. Winter box cleanouts indicated much use by bluebirds as well as wrens, tree swallows and mice.

C. Mammals and Non-Migratory Birds and Others

1. Game Mammals

The white-tailed deer population was in good condition during 1979 even though a late winter aerial survey did not support this fact. On a scheduled flight in early March with Special Agent Pilot Greg Stover, personnel did not observe any deer on the refuge. This, however, came as no surprise. No snow cover was left and deer had

already dispersed from their winter yarding areas prior to the flight. These conditions made it next to impossible to spot deer.

Nevertheless, many deer were observed throughout spring, summer, and fall. Hunter report cards showed 32 buck and 15 doe were taken on Sugar Lake Unit during the two week antlered deer season (Nov. 26-Dec. 8) and the two day antlerless deer season (Dec. 10 and 11). The deer hunting permit/report card system is not used for Seneca Unit. Refuge personnel estimated an additional harvest of 20 deer on this unit.

Data collected from the Season Permit/Report Card was as follows:

Permits issued	402
Actually hunted	344
Permits outstanding	10
Deer harvested	
Shotgun/rifle	
Buck	32
Doe	14
Muzzleloader	
Buck	0
Doe	1
Archery	
Buck	0
Doe	0
Deer hit but escaped	15

Eastern cottontails were almost non-existent on the refuge during the year. Rabbit populations throughout Pennsylvania and much of New England are extremely low. Although there is no known single reason for the current population level, the severity of the past two winters is undoubtedly a contributing factor.

The 1979 trapping program was a cash bid system. This was the second year that this system was used. The number of units was reduced from fifteen to eleven. Total revenue amounted to \$1,080.86. Most of the trappers' anti fee sentiment of the previous year dissipated before the 1979 season. It is evident that the cash bid system provides a high quality trapping program. In summary, furbearer management objectives are more easily met, law enforcement problems are reduced and trappers enjoy a better trapping experience.

Field observations during the year indicated a high population of predatory furbearers. Numerous road-killed raccoons, sightings of red fox, and evidence of destruction of 75% of the refuge's known ground-nesting duck nests justified the need for furbearer management of the refuge.

Raccoon and fox trapping was permitted on all units south of Route 27. Hunting was permitted north of Route 27. Seven fox hunting permits and thirteen raccoon hunting permits were issued in 1979. Hunters reported taking five foxes and fifty-two raccoons.

A beaver census was conducted in the forepart of October. The survey indicated thirty-three active lodges with an estimated one hundred and thirty-four beaver. Despite a trapper harvest of thirty-four beaver in 1978, there was an increase of eight active lodges during 1979.

This year, trapping regulations allowed a harvest of forty-five beaver from nine of the eleven trapping units. Refuge trappers actually removed forty-one. In addition, two beaver were live trapped and transferred to other parts of the state by PGC Game Protectors.

Muskrat trapping was permitted on all units. Although the muskrat population was not high, it was at a harvestable level. Trappers of the previous year did not report any diseased muskrats and it was hoped that the outbreak of disease that began in 1975 had run its course. In 1979, however, one trapper reported catching a diseased muskrat. Unfortunately, the trapper did not bring the carcass in to be examined.

Data of species trapped during the 1979 season is as follows:

Muskrat	547
Raccoon	61
Red Fox	2
Mink	3
Opossum	24
Skunk	17
Beaver	41

2. Other Mammals

A porcupine roadkill was observed on Route 27 in July.

A very high number of woodchucks are present on the refuge.

3. Resident Birds

A small population of wild turkey resided on the refuge during the year. Turkey hunting is prohibited on Sugar Lake Unit. At least three birds, however, were reported illegally taken during the fall hunting season from the north end of the unit.

Ring-necked pheasant are present on the refuge in small numbers. Most of these birds are either stocked near the refuge by the Pennsylvania Game Commission or are escapees from a nearby private shooting preserve.

Ruffed grouse are a common refuge inhabitant. Their population was at a fairly high point in its cycle during 1979.

4. Other Animal Life

Allegheny National Fish Hatchery stocked four hundred brown trout in the refuge section of Woodcock Creek that is open to public fishing. The Pennsylvania Fish Commission stocked approximately six hundred trout in the same location.

V. INTERPRETATION AND RECREATION

During 1979, the total number of refuge visits was 16,222 with a peak visitation of 3,300 in November and the least number of visits, 197, in March.

A. Information and Interpretation

1. On-Refuge

Seven groups visited during the year for environmental education purposes. These groups included:

- April - Fredericksburg Elementary School - 40 students
- May - Allegheny College - Biological Sciences class - 21 students
- June - Randolph-East Mead Elementary School - 60 students
- September - Allegheny College - Entomology class
- September - Tri-County Intermediate Unit - 9 elementary teachers visited to review E.E. opportunities for enrichment classes
- October - Pennsylvania Alliance for Environmental Education - 12 members attending the annual meeting at nearby McKeever Environmental Learning Center
- October - Lakeview High School - 10 seniors studying conservation

On March 16, 1979, Dr. Edwin Michael, Professor of Wildlife Management at West Virginia University, visited the refuge with his class of wildlife graduate students. Dr. Michael was teaching a new course on wildlife agency planning and budgeting. Three hours were spent discussing U.S. Fish and Wildlife Service budgeting and long range planning and then they toured the refuge. Dr. Michael was very interested in participating in any wildlife research needs which we may identify in the future.

In May, Assistant Refuge Manager Lons met with a group of cub scouts to discuss wildlife conservation for merit badge purposes.

The Beaver Run Nature Trail received many public visitors throughout the year. As luck would have it, the beaver constructed a new lodge within fifteen feet of the boardwalk. The lodge, dam and food pile provided an outstanding attraction for people interested in observing the beaver at work.

YCC enrollees provided a new layer of wood chips over the entire trail length, cleared fallen trees and limbs and repaired boards on the overlook and boardwalk structures.

2. Off-Refuge

Assistant Manager Lons presented a talk on wildlife careers to fifteen students of the Environmental Science class at Mercyhurst College in Erie. Assistant Manager Lons also presented a program and showed wildlife films to a K-6th grade assembly at Cochran Elementary School and six classrooms at the Randolph-East Mead Elementary School during National Wildlife Week.

Refuge Manager McCoy presented a refuge slide program to forty-three people attending the Crawford County Deputy Game Protector's meeting on November 14.

Update reports on refuge programs were presented at the monthly meetings of the Black Ash Sportsman's Club and the Crawford County Sportsman's Council.

Manager McCoy and Assistant Manager Lons attended the annual Crawford County Sportsman's Council banquet on March 31.

Refuge Manager McCoy attended the Northwest Division meeting of the Pennsylvania Trappers Association held at Meadville on April 22.

On May 22, a public meeting was held at the Randolph-East Mead Elementary School to discuss the selection of the site for the proposed office/visitor center facility. Seventeen members of the public attended this meeting and agreed that the site east of Guys Mills was the best choice considering the selection criteria.

Refuge Manager McCoy attended the FWS I&R Conference and annual Association of Interpretive Naturalist's Conference held in Minneapolis on February 12-16.

B. Recreation

1. Wildlife Oriented

Fishing accounted for 3642 visits in 1979. This included warm water fishing for bass, panfish and bullheads and cold water fishing in Woodcock Creek for stocked trout. Ice fishing was permitted by permit only on Pools K and 9. The largest fish reported was a six pound bass taken on opening day, June 9, from Pool K.

Hunting was permitted for whitetail deer, upland game and waterfowl. See Hunting Map leaflet on back page for details on refuge regulations. The most popular hunting activity was for the whitetail deer. Figures tabulated from the Season Permit/Report Card showed 344 deer hunters made 1,195 visits to harvest 47 deer on the Sugar Lake Unit. Figures for the Seneca Unit are unknown but much use occurs on this area as well.

Compliance with the permit system and the wearing of 400 square inches of fluorescent orange while deer hunting was very good. However, the refuge did receive a Congressional Inquiry from Representative Mark Lincoln Marks concerning the fluorescent orange regulation. Apparently some constituents who did not want to be identified filed a complaint that the refuge had no right to make the wearing of certain colors of clothing mandatory for a person to hunt on the area. We replied with supporting data showing that wearing fluorescent orange reduces hunting accidents and this apparently resolved the problem as no further action was requested.

Deer hunting was considered normal but small game and waterfowl hunting use appeared to be down. This was expected since rabbit populations remained low and ducks, particularly wood ducks, did not concentrate in the waterfowl hunting area as they did last year.

Night hunting for raccoons was permitted by permit only on the north half of the Sugar Lake Unit. The high population of raccoons made for a successful season with thirteen permittees harvesting fifty-two raccoons during sixty-five visits. The abundance of den trees and hemlocks provides much escape cover for raccoons and their overall population remains high based on signs noted during the winter thaw. No permit is required on the Seneca Unit but the extensive swamp provides a formidable deterrent that limits raccoon hunting on this area.

Fox hunting is also permitted by permit only on the north half of the Sugar Lake Unit. This activity occurs primarily in the bottom-land thickets where the gray fox provides most of the action. Fox hunters with their hounds usually pursue this sport late in the year after most hunters have called it quits for the season. Five of the seven permittees actually hunted and harvested five gray fox during thirty-one visits.

For the second year, trapping was permitted on a cash bid system. Eleven permittees, each with a helper, enjoyed another successful season although the take was down somewhat on muskrat and raccoons.

2. Non-Wildlife Oriented

The only authorized public use on the refuge in this category occurs at the Group Picnic Area. Reservations were required to use the picnic area between May 15 and October 15. Most use occurred on weekends with July being the most popular month with 530 of the total 950 visits.

Use consisted almost entirely of organized groups and family gatherings. Only half the area was maintained with twenty-three picnic tables around the one pavillion. We are reluctant to completely close the area because the basic facilities are already there, it costs little to maintain, the setting amongst mature hemlock trees is beautiful and it does not conflict with refuge objectives. One of the main reasons people like to use the area is the privacy and peacefulness of the site. Perhaps the best answer is to record the use as wildlife-oriented picnicking.

On July 23, it was discovered that vandals had torn down the locked gate on the picnic area road with a 4-wheel drive vehicle. They snapped off the water foundation, pulled up barrier posts, burned a picnic table and littered the area with beer cans. This was the first vandalism on the site since the gate was installed in the spring of 1978. Within a week we had a local welder repair the gate in such a way that a 4-wheel drive vehicle will no longer be able to tear it apart.

C. Enforcement

Five violation notices were issued as follows:

Trespassing on a closed area:	\$50.00
Trespassing on a closed area:	\$50.00
Fishing in a closed area:	\$50.00
Hunting in a closed area:	\$50.00
Hunting in a closed area:	Pending

One illegal trap was seized on November 19. When the owner was confronted with the evidence, he stated that someone had stolen some of his traps and this must be one of them. We'd been had.

Five refuge decoys were stolen from the Pool 7N duck banding site on August 23.

On July 7, two boys were apprehended shooting frogs with a .22 rifle off Shaffer Road. They were given a warning.

On August 27, a work crew of the Pennsylvania Highway Department dumped several loads of dirt from a ditch cleanout job over the road bank onto refuge property. The County Road Supervisor was notified and he assured us it would not happen again.

Various acts of vandalism such as already described at the picnic area and destroying refuge signs and information bulletin boards occurred throughout the year. As usual, no one was apprehended.

On November 21, Refuge Manager McCoy joined the Crawford County Crime Clinic. This group is made up of law enforcement personnel from throughout the county. Meetings are held once a month for the primary purpose of encouraging better communication and cooperation between the agencies.

Refuge Manager McCoy qualified with his service revolver under the guidance of Pennsylvania Game Protector, Will Wingo, a Certified Firing Range Instructor.

VI. OTHER ITEMS

A. Field Investigations

Dr. Donald B. Snyder, a Biology Professor at Edinboro State College, continued his study entitled Breeding Bird Census during 1979. He has been working on this study at the Muddy Creek Research Natural Area on the Seneca Unit since 1976.

B. Cooperative Programs

Erie NWR operates a weather station in cooperation with the Pennsylvania Department of Environmental Resources. The weather data is reported daily to the Pennsylvania DER during spring and fall fire seasons. A DER fire danger sign is also maintained by refuge staff during the fire seasons.

The refuge also collects weather data at the maintenance shop in cooperation with the U.S. Army Corps of Engineers at Woodcock Dam. The Corps' personnel call daily to obtain this data which is used in the operation of their flood control reservoir.

The YACC program completed its first full year at the refuge. In February, the YACC's moved from the refuge's maintenance shop into their own building. The program began the year as a twenty enrollee camp with Susan McMahon as Group Leader and Andy Bell as Assistant Group Leader. As a result of the YACC reduction-in-force actions, however, Andy Bell was terminated on June 24. The YACC program was also reduced to a ten enrollee camp. The enrollee hiring freeze which started in the latter part of 1978 was not lifted until September, 1979. By this time, the crew enrollment had dropped to one person.

YACC budgetary restrictions and a reduced crew hampered the operation of the program. Nevertheless, the YACC's completed many beneficial projects during the year. Some of these projects included: constructing wood duck and bluebird nesting boxes, pruning apple orchards, collecting samples of agricultural field soils, clearing brush along agricultural field borders, picking up refuge litter, thinning pine tree plantations, clearing refuge boundary lines, cutting firewood, removing beaver debris from water control structure, and mowing refuge facility lawns.



YACC enrollees thinning overgrown pine tree plantations.

S. McMahon

Erie NWR's fourth YCC camp began on June 25 and ended on August 3 - six weeks instead of the normal eight weeks because of budget restrictions. As in years before, it was a non-residential 20 enrollee camp. The staff consisted of a GS-9 Camp Director, a GS-5 Environmental Awareness Coordinator and three GS-3 Group Aids.



1979 YCC enrollees.

W. J. McCoy

Major work projects were as follows: wood chipping the Beaver Run Nature Trail, rip-rapping the western portion of Meyers Pond dike, constructing stone deflectors in Woodcock Creek to improve fish habitat, constructing and erecting wood duck boxes, and making vegetative transects on Pool 9.



YCC's rip-rapping Meyers Pond.

D. Lons

C. Items of Interest

Assistant Refuge Manager Daryle Lons transferred to Erie NWR from Great Meadows NWR on 1/29/79.

Refuge Manager William McCoy attended FLETC at Glynco, Georgia from January 15 to February 10, and Assistant Refuge Manager Daryle Lons attended from October 2 to December 7.

HAO Staff Specialist Hutchinson and Assistant Staff Specialist Wilson visited the refuge on March 21 and 22 to examine several proposed refuge headquarters and residential YCC camp sites.

Refuge Manager McCoy and Assistant Manager Lons attended the Area II Project Leaders Conference on March 27-29.

Eugene McNamara, State Forester from Harrisburg, and James Hall, Regional Forester from Warren, visited the refuge on March 30 to discuss prescribed burning activities on the refuge.

Ted Perdos, local State Forester, presented a forest fire fighting program to refuge staff and YACC's on April 9.

HAO Administrative Officer Verdella Tabor visited the refuge on April 23.

Regional Office Realty Specialist Charles Adsit visited on April 23 to perform a rental evaluation of the refuge residences.

Bill Branigan, SCS Soil Conservationist, visited the refuge on May 10 to make suggestions on refuge dike rehabilitation.

On June 1, one eight inch board was pulled from the Cooper Marsh water control structure because of a complaint received that the marsh water level was raising the water table and flooding the bottom of newly dug graves in the Union Cemetery just east of Guys Mills. The water level was dropped even though we felt the complaint was unfounded.

Regional Office Classification Officer Joe Collins visited the refuge on June 18 to perform a desk audit of Clerk Marvin's position.

Assistant Manager Lons attended an "Introduction to Supervision" course in Pittsburgh on June 25-29.

Clerk Marvin participated in an administrative workshop at the Regional Office on June 25-27.

HAO Staff Specialist Bob Wilson conducted a field station inspection on July 11-13.

Clerk Marvin attended a Retirement Workshop at the Regional Office on July 10-12.

Assistant Manager Lons, Clerk Marvin, Maintenance Worker Granda, and Maintenance Helper Battin attended a Defensive Driver Training Course at Montezuma NWR on July 24.

On July 19-20, John Langan, Youth Conservation Programs, conducted a YCC camp inspection.

Refuge Manager McCoy attended the HAO program review session on August 8 and 9.

Assistant Manager Lons participated in a waterfowl banding seminar hosted by the Pennsylvania Game Commission at the Middle Creek Wildlife Management Area on August 21 and 22.

Dave Morrison and Ed Denim from the Bombay Hook YACC camp visited the refuge on August 28 and 29 to meet with YACC Group Leader McMahon and refuge staff.

Clerk Marvin accompanied Dave Putnam from the State College Ecological Services office on August 20 while he was working on a 404 permit at Conneaut Lake.

In August, National Fuel Gas Company notified the refuge that they were planning to bury a four inch natural gas line in the berm of a state highway which passes through the refuge. Refuge Manager McCoy advised them that an Easement Permit was required. National Fuel Gas representatives suggested that the refuge manager look the other way and disregard the permit requirement since, "Nobody would know". The refuge prepared the necessary Environmental Assessment, R.O. Realty expedited the review process and the Regional Director issued an Easement Permit on September 20. The gas line was installed in October. Many local citizens felt the refuge caused an unnecessary delay in the project. However, after the project was approved, the U.S. Congressman wrote to one of the more vocal citizens and informed him that the U.S. Fish and Wildlife Service had handled the matter as expeditiously as possible.

Regional Office Landscape Architect Marvin Armstrong visited on September 11 for site planning work on the BLHP office/shop complex.

Refuge Clerk Marvin participated in an OPM course in Office Management at Charleston, West Virginia on September 5 and 6.

Refuge Manager McCoy attended an OPM Performance Evaluation course held at Harrisburg on October 16-18.

On October 25, a Congressional Inquiry was received from Representative Mark Lincoln Marks concerning the Richard D. Alexander lot abutting the Robert G. Holcomb Tract (231) on the Seneca Unit. Mr. Alexander has claimed since the boundary posts were set in 1976 that the lines were not properly marked. The steel corner posts disappeared and new boundary monuments were set by Regional Office Land Surveyor, Pasquale Volpe in September, 1978. To settle the issue, the description of Mr. Alexander's lot in his deed to Mr. Holcomb and the survey and deed descriptions of the abutting refuge lands were compared and found to be in agreement regarding our common boundaries. This information was forwarded to the Congressman along with a statement that the refuge would level a nearby field knoll that Mr. Alexander claimed blocked his view of approaching traffic when entering or exiting his driveway. The knoll was leveled and this seems to have settled the issue once and for all.

Refuge Manager McCoy was selected as the Team Leader along with Jay Hammernick of Denver R.O. and Robert Delaney of Kodiak NWR to write the chapter on Natural Area Management - 9RM11 for the new Refuge Manual. After communicating with team members, Refuge Manager McCoy wrote the draft chapter and forwarded it in October to the Washington Office for review and approval.

Regional Office Engineers, Frank Sullivan and Brian Hodgkins, visited on November 27 to survey BLHP project sites. Also present was Richard McCoy, from State College Ecological Services, who conferred with the engineers on the projects.

Refuge Manager McCoy met with personnel from the Pennsylvania Bureau of Water Quality Management, Crawford Conservation District and a Randolph Township Supervisor on December 28. They discussed a soil erosion problem on the refuge. This problem was caused by the township's Shaffer Road rehab project. The township agreed to resolve the problem in the spring.

Refuge Manager McCoy participated in the Great Swamp NWR deer hunt program on December 3.

Maintenance Worker Bob Granda had wrist surgery on December 20 to correct a tendonitis condition. Bob was off work from the latter part of October 1979 through February 1980.

Refuge Manager McCoy prepared Sections I, II, III. A, and V and edited the report. Assistant Manager Lons prepared Sections III. B, C, D, E, F, & G, IV and VI. YACC Office Aid Lisa Maginnis typed the report.



Refuge Clerk Janet Marvin received special recognition and a cash award in 1979 for outstanding support of youth programs.

W.J. McCoy

D. Safety

The safety committee met monthly and several staff safety meetings were conducted throughout the year.

There was one lost time accident during the year. Maintenance Worker Bob Granda inadvertently stepped on a yellow jackets nest and received stings in several places. He suffered an allergic reaction which required medical attention. Bob missed one work day as a result of this accident.

Only one other refuge staff accident occurred during the year. While Bob Granda was operating the 3010 John Deere tractor highlift, a hydraulic hose ruptured and sprayed fluid all over him. Bob was not injured mainly because he wore safety glasses and the fluid was not very hot.

YACC's recorded three minor accidents and the YCC's had one minor accident during 1979.

A hunting accident occurred on the refuge during deer season. A stray bullet struck a pickup, which was parked along Rt. 198, just as the occupant was getting out of the vehicle. The bullet entered on the north side through the passenger door and struck the ceiling on the drivers side. Fragments ricocheted and struck the occupant's hand and grazed the side of his head. His injuries were not serious although stitches were required. The hunter claimed he had no idea where the bullet came from. However, at the time of the accident, his sister was north of the road and a deer was being chased through the area.



Bullet-hole in victim's truck.

D. Lons

1979 REFUGE HUNTING REGULATIONS

SPECIAL CONDITIONS

GENERAL

Refuge areas closed to all hunting include the posted "Safety Zones" and 125 acres posted with CLOSED AREA signs surrounding Beaver Run Nature Trail.

Hunting is permitted from September 1 through January 31, subject to State and Federal regulations. Refuge hunting dates are the same as State hunting dates except woodchucks cannot be hunted until the opening of small game season on October 20.

Target practice or shooting at random is not permitted.

The use of alcoholic beverages is not permitted on the refuge when visiting for the purpose of hunting.

All vehicle travel is prohibited except on roads and parking areas designated for such use. Overnight camping is prohibited.

Only those species listed below may be hunted.

BIG GAME - White-tail Deer

Construction or use of permanent blinds, platforms or scaffolds is prohibited.

Entire refuge open to archery and firearm deer hunting except nature trail area.

All deer hunters, except archery hunters, are required to wear a minimum of 400 total square inches of a safety fluorescence color material.

A permit is required for all deer hunting. The permit may be secured at refuge headquarters and must be returned to the refuge within ten (10) days of the close of the respective season. Failure to return permit will result in loss of deer hunting privileges the following year.

SMALL GAME - Squirrel, Rabbit, Skunk, Opossum, Woodchuck, Ruffed Grouse, Quail, Pheasant

Hunting is permitted, except firearms are prohibited in the Restricted Hunting Area between State Route 27 and 173 until November 26.

SMALL GAME - Fox and Raccoon

Hunting of fox and raccoon is permitted only on that portion of the refuge located north of Route 27. All fox and raccoon hunters must have a Special Use Permit in possession when hunting on the refuge.

MIGRATORY GAME BIRDS - Ducks, Geese, Dove, Woodcock, Snipe and Rail

Hunting is permitted only between State Routes 198 and 27.

Field possession of migratory game birds is prohibited in areas of the refuge closed to migratory game bird hunting.

Report all injuries and accidents to Refuge Headquarters, Route 2, Box 191, Guys Mills, Pennsylvania, 16327, or phone (814) 789-3585.

**QUALITY HUNTING DEPENDS ON YOU
PLEASE RESPECT ALL REGULATIONS**

ERIE

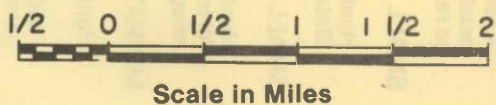
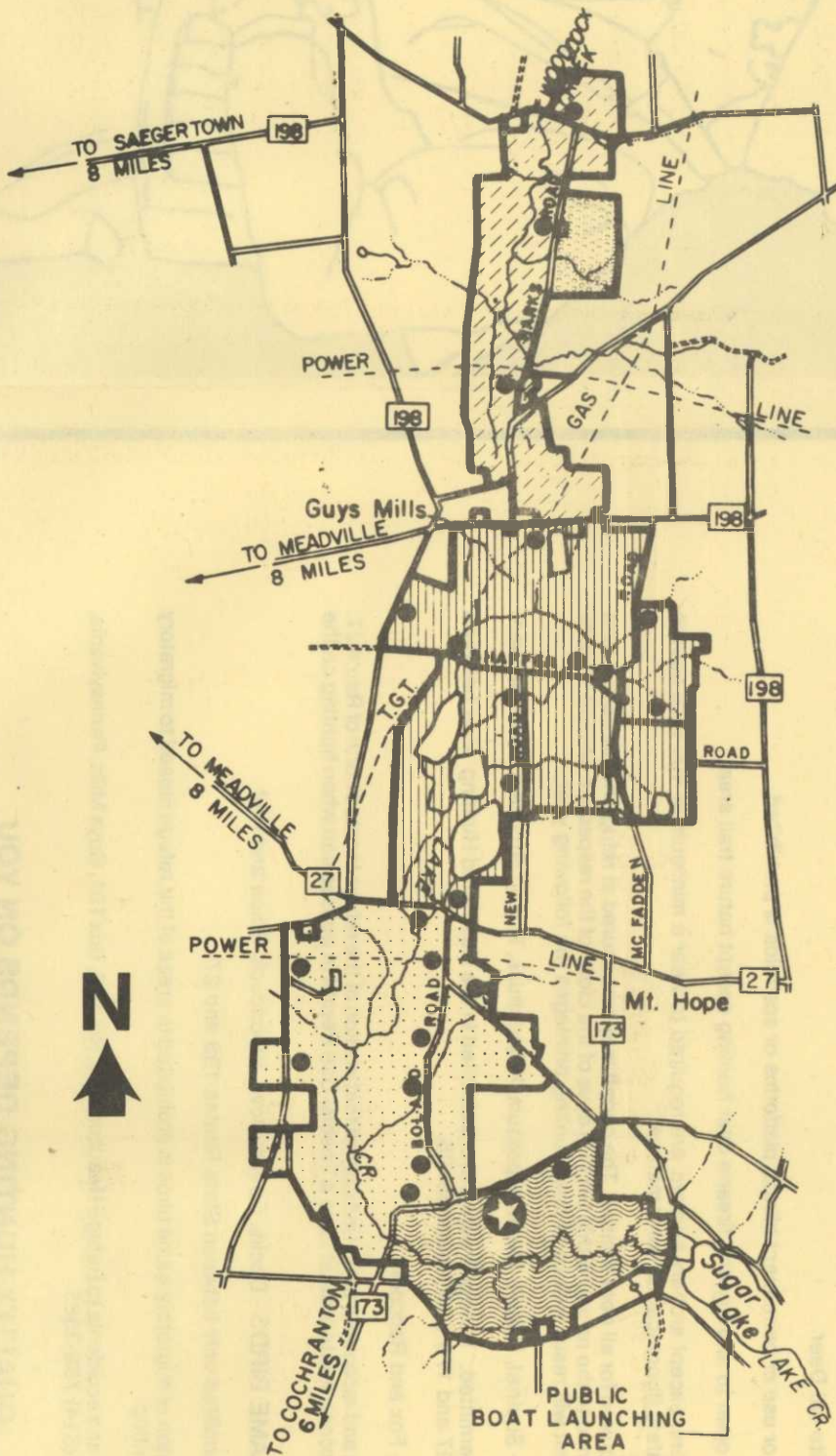
NATIONAL WILDLIFE REFUGE PENNSYLVANIA

HUNTING MAP AND REGULATIONS

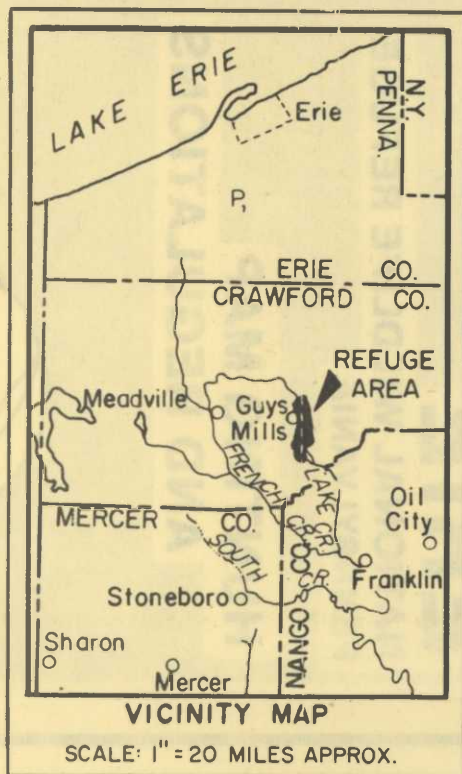


HUNTING MAP









REGULATIONS ON BACK SIDE OF MAP



UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE



LEGEND

-  Hunting Area for Deer and Small Game.
-  Beaver Run Nature Trail Closed to all hunting.
-  Hunting Area for Deer Small Game, Waterfowl and Migratory Game Birds.
-  Restricted Hunting Area for Deer and Small Game Except Fox and Raccoon. No Hunting with firearms before November 26.
-  Hunting Area for Deer and Small Game Except Fox and Raccoon
-  Water Impoundments
-  Refuge Headquarters
-  Parking Areas

REFUGE SIGNS — KNOW THEIR MEANING



REFUGE BOUNDARY
SIGN — ENTRY BY
PERMISSION ONLY



AREA OPEN TO
HUNTING AT
SPECIFIC TIMES



SANCTUARY AREA —
OFF LIMITS TO
THE PUBLIC UNLESS
OTHERWISE SPECIFIED