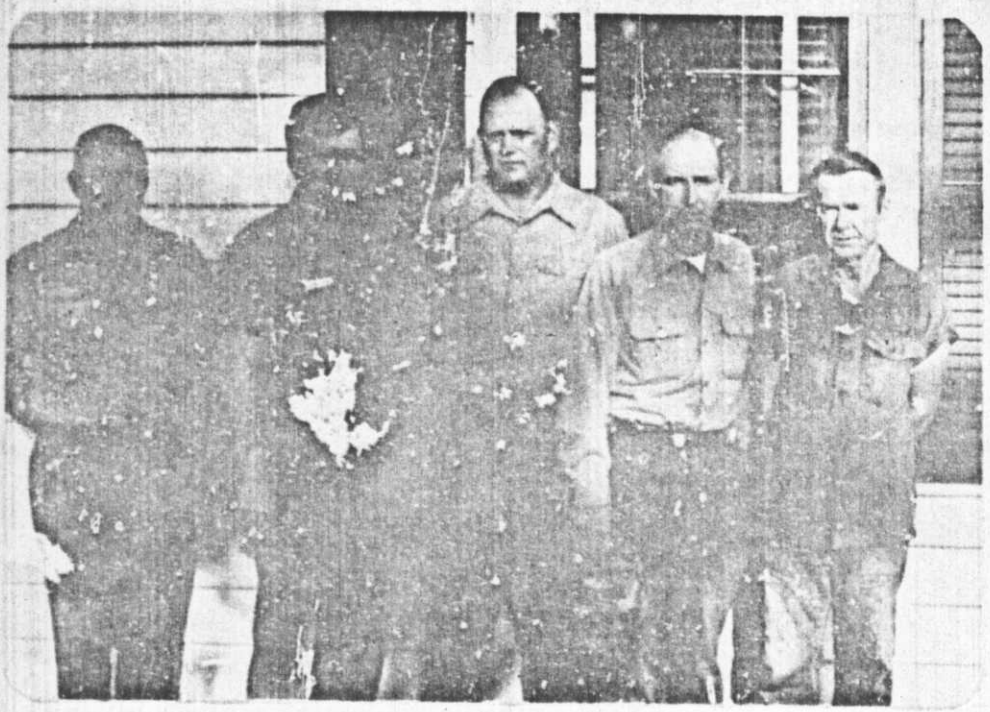
RG 22 Narrative Report Necedah NWR 1976

1976



STROM Pers. Photo Aug. 1976

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Personnel

1. Gerald H. Updike*	Refuge Manager	GS-11	PFT
2. James M. Carroll, Jr.**	Refuge Manager	GS-11	PFT
3. Dennis W. Strom	Ass't Refuge Mgr.	GS- 9	PFT
4. Vern E. Rudolph	Clerk (Typing)	GS- 6	PFT
5. Harold R. Carter	Maintenance Worker	WG- 7	PFT
6. Paul E. Woggon	Maintenance Worker	WG- 6	PFT
7. Marvin D. Jones***	Laborer	WG- 2	PS

* Transferred to Crab Orchard NWR, IL - 4/19/76
** Transferred from Ottawa NWR, OH - 8/15/76
*** Permanent Seasonal - NTE 4/1/76 - Furloughed 11/2/76

Review and Approvals

James M. Carroll, Jr. 2/4/77

Submitted by Date
James M. Carroll, Jr.

NECEDAH NWR, WISCONSIN
Refuge

Area Office Date

Robert L. Barber 2/7/77

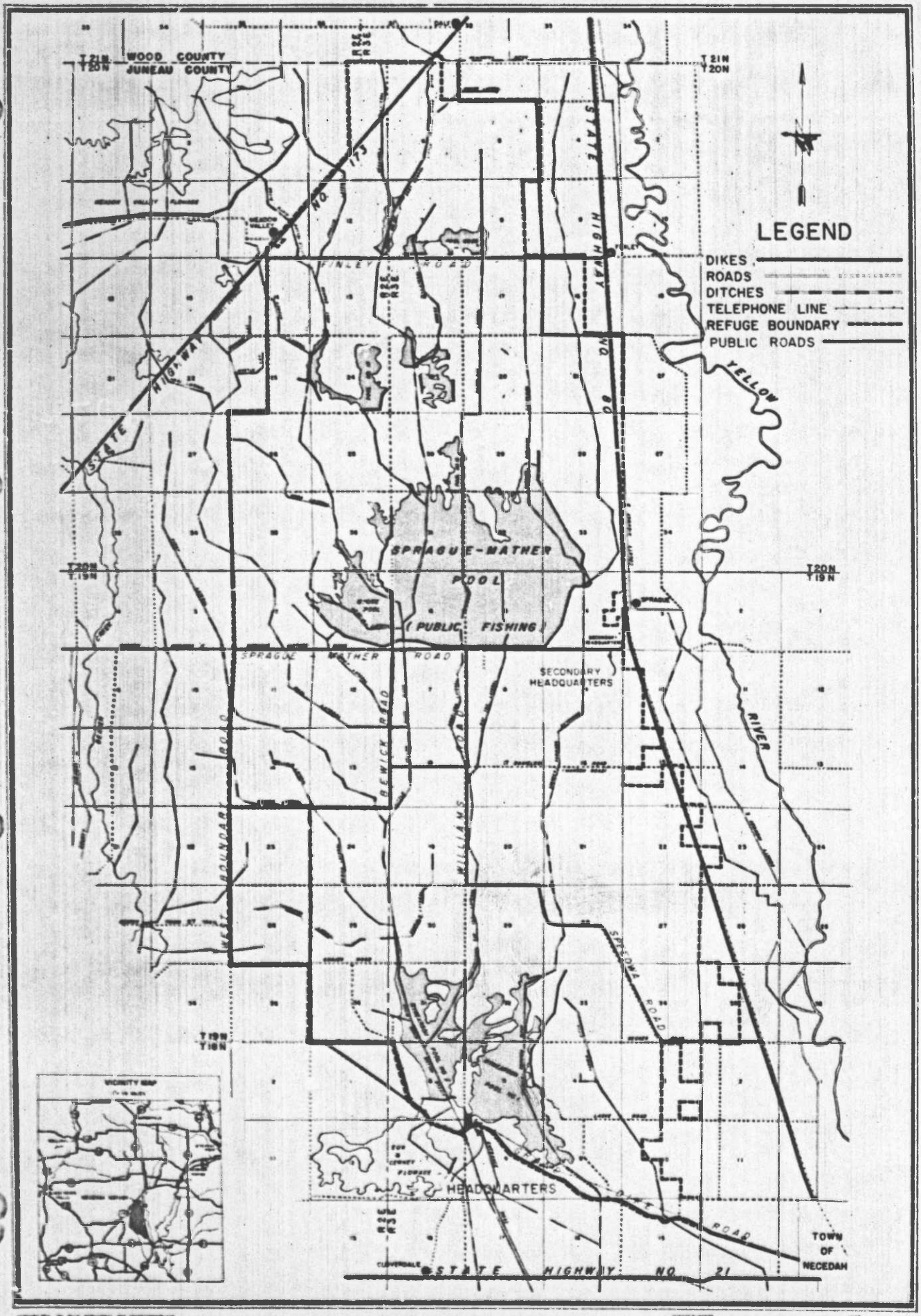
Regional Office Date

NECEDAH NATIONAL WILDLIFE REFUGE

JUNEAU COUNTY, WISCONSIN

UNITED STATES DEPARTMENT OF THE INTERIOR

FISH AND WILDLIFE SERVICE
BUREAU OF SPORT FISHERIES AND WILDLIFE



COMPILED IN THE DIVISION OF ENGINEERING

MINNEAPOLIS, MINNESOTA JANUARY, 1962

FOURTH PRINCIPAL MERIDIAN

TOWNSHIP DIAGRAM

MEAN DECLINATION 1960

SR WIS. 274 409

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I. GENERAL

A. Introduction

The Necedah National Wildlife Refuge is located in Juneau and Wood counties in west-central Wisconsin. The 39,607 acre refuge lies in the lake bed of glacial lake Wisconsin. The area is characterized by poorly drained sandy soils dominated by jack pine and oak woods.

Necedah Refuge has been partially developed to enhance waterfowl production and to provide habitat for migrating waterfowl. The area supports good populations of resident forest wildlife species.

The drought conditions of 1976 greatly influenced work activities. The extremely dry conditions permitted access and construction possibilities in areas to wet to work in for the last ten years. Rehabilitation monies made possible much needed water facility and access repair.

B. Climatic and Habitat Conditions

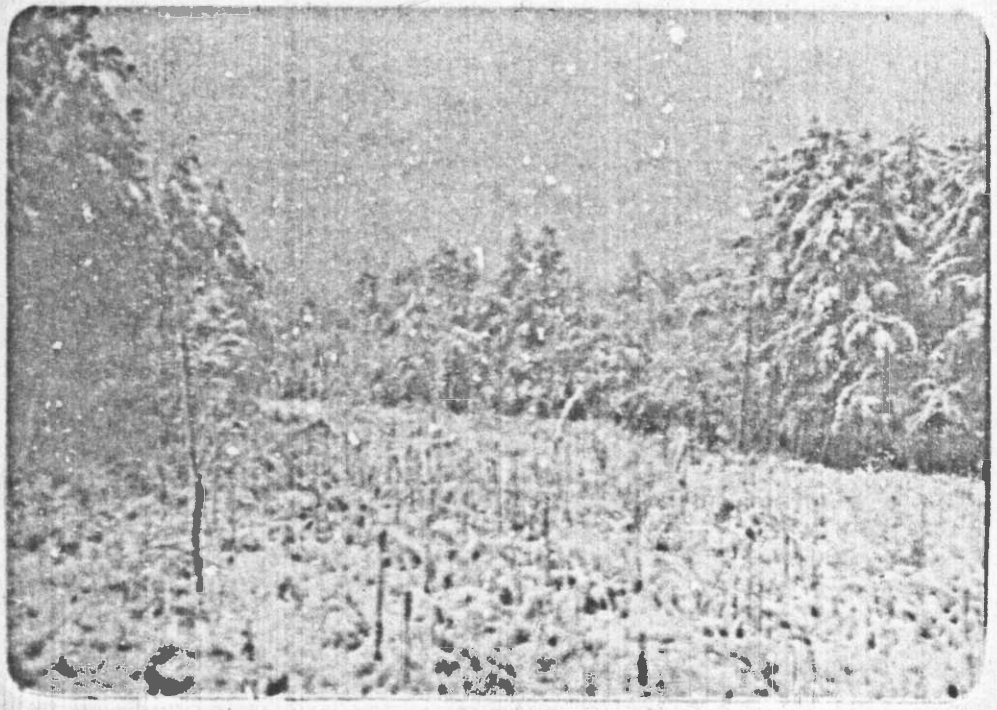
The ground was barely covered with snow at the beginning of 1976. Frequent snows occurred in January but warm February days melted most of this. March was warmer than usual with ice leaving the pools on March 25. May began a long period of drought that extended to year's end resulting in a deficit in annual precipitation of 16.64 inches. No precipitation was received in November which is the first time this has happened for any month since record keeping began in 1939. At the end of December the ground was covered with six inches of snow.

Water conditions were at or above desired water levels until about mid-June when the rain ceased. Water conditions steadily deteriorated until early August when all major pools were dry. Only #2 Rynearson held 40 - 80 acres of water. The Sprague-Mather pool held some water along the borrow areas in front of the dam, but the water was 3 - 4 feet below the bottom of the pool. No fall rains materialized and the lone Pool #2 froze up during the first week in November.

Refuge crops were not fully utilized in 1976 by migrating waterfowl. Lack of water prohibited the flooding of seeded millet. Refuge corn was not completely eaten by waterfowl but was being utilized by deer as 1976 closed out. Buckwheat fields were used extensively by Sandhill cranes and geese.

The 1976 burning program provided excellent browse for deer by resprouting in burn areas. Summer deer use was high in the new burn areas. The blueberry crop was almost a complete failure due to extreme dry weather in late June that dried up developing berries. A real bright spot in wild foods was the second

excellent crop of oak mast. The acorn crop success was wide spread in central Wisconsin. At year's end deer were pawing through 4 - 6 inches of snow to get at this excellent food source.



Heavy, wet March snow

March - 1976 Strom: Personal photo

C. Land Acquisition

Nothing to report.

D. System Status

1. Objectives

This sub-section will deal primarily with FY 76 even though this report is for CY 76. Included is the interim period 7/1/75 - 12/31/75, the Transition quarter, and the first quarter of FY 77. Although a hybrid this year, discussing the previous fiscal year, ex. FY 76 - CY 76, has advantages for future reports. It will be only three months out of phase, will allow time for print outs to be received, and will allow time for analysis and reflection on this information.

In most instances Necedah was able to comply with the FY 76 AWP Advice with the following exceptions. Training for pesticide applicator certification was not offered in this area during the year, however, our applicator was scheduled for initial training on January 5, 1977. Neither law enforcement training nor environmental education training were available during the year. Field station and community EE inventories were not completed.

Several sources of funds other than O&M combined to upset the stations AWP. This was pleasantly disruptive as it allowed us to broaden our maintenance and rehabilitation activities.

MARS - Structures 1 and 13 were repaired for about half the estimated amount. The remaining funds were used to acquire three, much needed, pre-cut wooden vehicle bridges and some road gravel.

6810 - The AWP provided for refilling our forester position. Since this was not accomplished, the salary amount was used to replace the foresters vehicle and acquire gravel for forest roads. This was a timely acquisition as the price of gravel has since doubled.

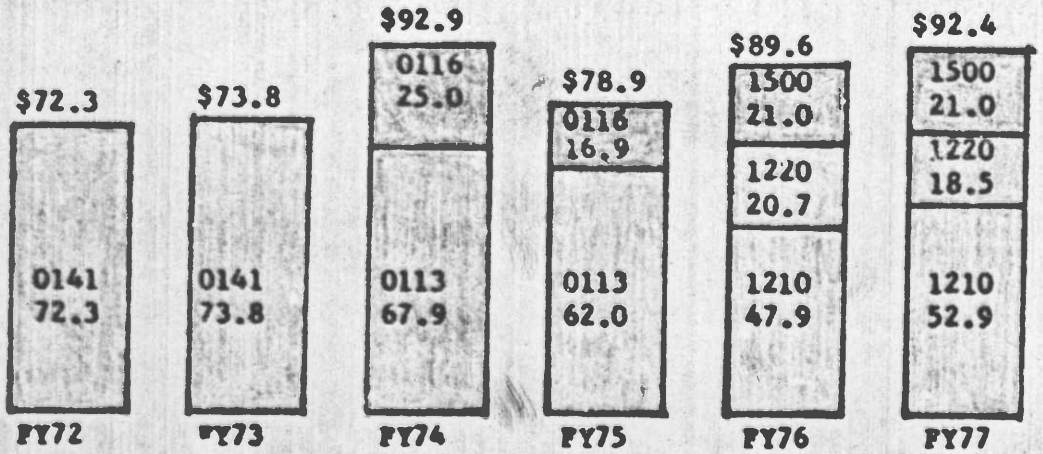
8722 - These funds were used to control oak wilt, primarily in the form of monleys.

Title X - This program was a great asset to station maintenance but required a considerable amount of unplanned administrative time.

YCC - The mechanics of including activities of this program in the AWP were being developed.

2. Funding

O&M Funding, Necedah NWR



Funding and Manpower, Necedah NWR

	FY72	FY73	FY74	FY75	FY76	T-Qtr	FY77*	MPIO	FY83
Man Days									
FFT	1560	1560	1560	1480	1250	295	1300	520	1820
Other	270	305	170	135	150	65	370	495	625
Total	1830	1865	1730	1615	1400	360	1670	1015	2445
Funding O&M									
1210									
0113									
0141	72.3	73.3	67.9	62.0	47.8	37.2	52.9		
1220					20.7		18.5		
1500									
0116			25.0	16.9	21.0	2.6	21.0		
Total	72.3	73.8	92.9	78.9	89.6	39.8	92.4	72.4	162.0
Funding Rehab.				16.0	54.0			20.0	212.0
Res. Mgmt. Total	72.3	73.8	92.9	94.9	143.6	39.8	92.4	92.4	374.0
Construction Total									58.3
Funding, Other									
6810									
0830	12.0	14.0	14.0	25.0	30.0	7.5	21.1	27.2	27.2
8722									
2720		3.0	3.6	3.6	3.0				
0170	3.3	3.5							
Title X					38.8				
TCC			21.0	25.0	25.0		26.1		
Total	15.3	22.3	38.6	53.6	98.8	7.5	47.2	27.2	27.2
GRAND TOTAL ($)	87.8	96.3	131.3	148.3	242.4	47.3	139.6	119.6	459.5

*Projected, $ in thousands

II. CONSTRUCTION AND MAINTENANCE

A. Construction

The station received $54,000 in MARS money in 1976. Through the luck of low bids this money was stretched to cover several projects.

Kynsaresn Pool No. 1 water control structure was renovated with patching of deteriorated concrete, installation of a four foot square lift gate in the middle bay, replacing hand rails, installing metal grates over stop log openings. New stop logs were installed.

Water control structure No. 13 had a down-stream wingwall poured to replace the badly deteriorated existing wall. The upstream wing walls were raised 21 inches to provide for better water control. The refuge crew constructed and rip-rapped an emergency spillway at this structure.

The contract for these two structures was $24,600 and was awarded to Finger Brothers, Mauston, Wisconsin.

A section of the badly washed Williams Dike (2,100 feet) was rebuilt to about a 5 to 1 slope, and covered with 6 inches of topsoil. A small portion of the dike (300 feet) was rip-rapped to prevent erosion. The dry conditions in late summer aided this dike work. About 5,400 cubic yards of fill was placed along the dike. New gravel was placed on top of the dike. The contract was awarded for $10,077 to Olson Excavating, Camp Douglas, Wisconsin. The slope area was seeded and mulched by the refuge crew in the fall of 1976.

Three wooden bridges were secured under a low bid from Dant & Russell, Inc., Portland, Oregon for $11,450. One complete bridge with piling and the accessories was designated for the Camp Road, and two new deck tops were received for the Hanson Road bridges (Rat-tail and Spencer-Robinson Laterals). The Hanson Road bridge tops were installed by refuge personnel in October and November 1976. The road was partially rebuilt to afford access into this area for fire control and forestry work.

Over 4 miles of access roads around the Sprague-Mather pool were graveled with expense for sales money. Two thousand seven hundred and fifty yards of gravel were hauled and dump spread by Arthur Overgaard, Inc., Elroy, Wisconsin for $6.23/yd. totaling $17,132.50. Gravel does not come cheap in this sand country. The surfacing of the roads will permit early spring access into these areas to aid in the prairie restoration effort around the Sprague-Mather Pool.

If gravel prices continue to increase, the cost of further graveling of access roads will be prohibitive.

B. Maintenance

New fire-retardent roof shingles were placed on Quarters 1 and Quarters 8. The garage and chicken house were also re-shingled at the secondary residence. Leaky roofs are no longer a problem.

The D-7 tractor received a major overhaul of the tracks and clutch system. This tractor again broke down in September and if a suitable replacement can't be secured from surplus property, it will have to be repaired.

Interior refuge road sides were mowed to reduce brush encroachment to facilitate travel and possible use as temporary fire breaks. Several miles of intermittently traveled roads were also mowed to keep them clear of brush for access and possible use as fire lanes in the event of wildfires.

Interior roads were graded several times during the year to keep grass from graveled surfaces.

C. Wildfires

No wildfires occurred on the refuge in 1976 in spite of one of the worst fire seasons in central Wisconsin history.

Two major fires started in the vicinity of the refuge and only the chance direction of the wind kept them out of the refuge. The refuge staff under a cooperative fire fighting agreement with the Wisconsin DNR helped on both.

The first major fire started on May 9 burning 6 1/2 miles before hitting the Petenwell Flowage and running out of fuel. It burned about 5,000 acres and was the worst fire in Wisconsin in the last eight years.

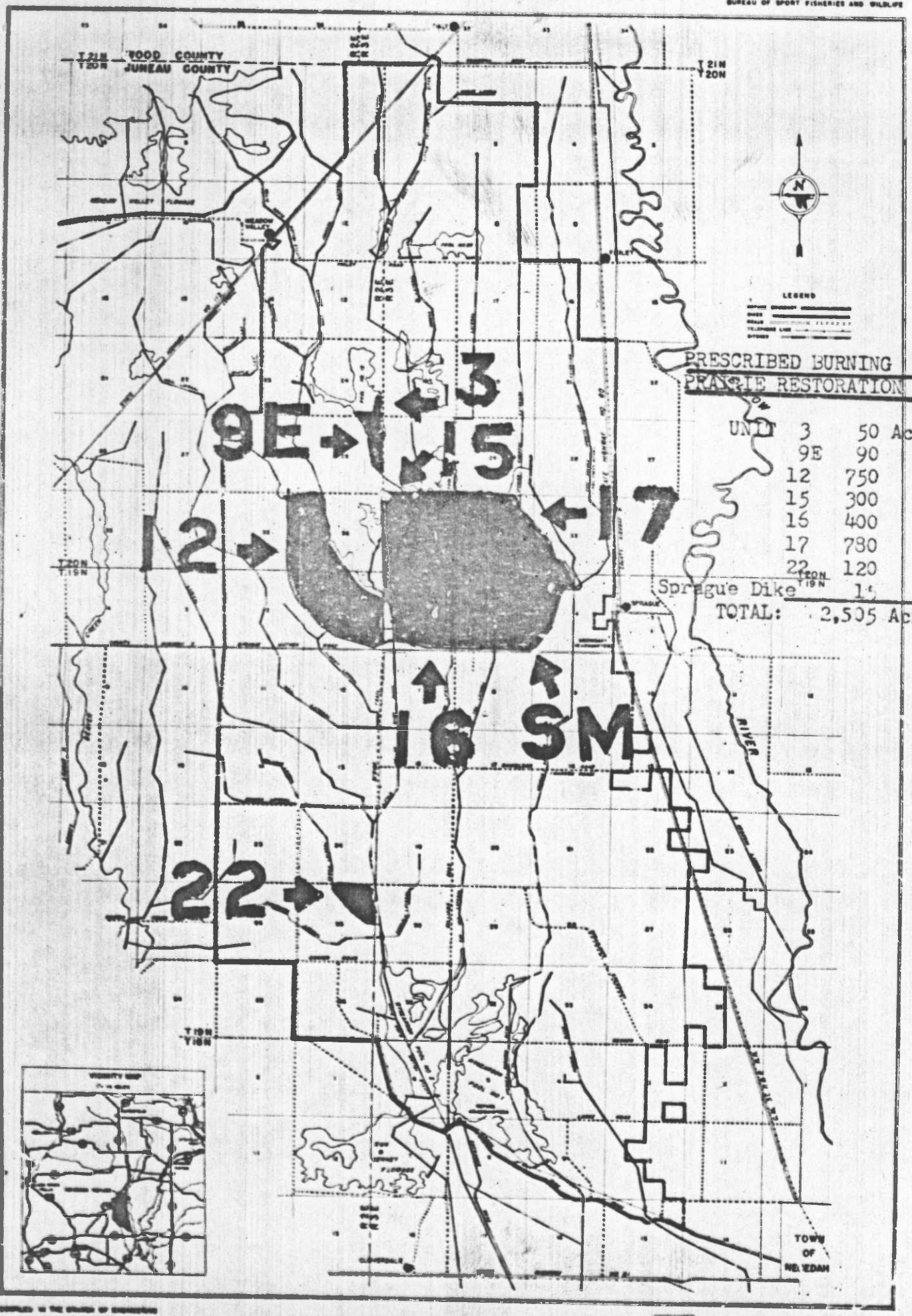
The second major blaze broke out near the southern city limits of Necedah on August 28th. It burned 16 trailer houses and one home before burning out in the Yellow River bottoms. The refuge crew spent considerable time on this 2,600 acre fire.

III. HABITAT MANAGEMENT

A. Croplands

Cultivated foods for migratory waterfowl, cranes and resident wildlife were provided in the form of 30 acres of corn, 30 acres of buckwheat and 30 acres of millet.

JUNEAU COUNTY, WISCONSIN



PRESCRIBED BURNING 1976
PRAIRIE RESTORATION AREAS

UNIT		
	3	50 Acres
	9E	90
	12	750
	15	300
	16	400
	17	780
	22	120
Sprague Dike		15
TOTAL:		2,505 Acres

FOURTH PRINCIPAL MERIDIAN

TOWNSHIP DIAGRAM

SR WIS 274 405

Refuge corn was treated with Atrazine for quackgrass and Lasso for nutsedge. The subsequent lack of moisture after planting decreased the effectiveness of the Lasso and the corn yield suffered from nutsedge competition.

Buckwheat provided good food for waterfowl although it was thin due to drought conditions. About 40 bushels of buckwheat were harvested from one strip to provide for next years seed. Sandhill cranes made good use of the buckwheat fields.

Japanese millet and white proso millet were planted on freshly broken ground which is normally floodable during the fall. The extreme dry fall along with a leaky control structure combined to make this food source unavailable for fall waterfowl. Our hope is that sufficient spring moisture is available in 1977 so this food will be utilized by the returning spring waterfowl.

B. Grasslands

In May 19 acres in the Carpenter prairie restoration unit were planted to switch grass to provide nesting cover for nesting waterfowl. This was an old farm field that had been planted to fall wheat browse for geese. The field was sprayed with Atrazine 80% at 1 - 1 1/2 lb/ acre to reduce quackgrass competition with the switch grass. Switch grass was seeded at 6 - 8 lbs per acre. The summer drought affected this seeding very much, but the seed did sprout in some areas and even produced seed. Time will tell on the seeding success. Future quackgrass control will most likely be necessary to help the establishment. The unit then will be managed by the controlled burning program.

Future plans call for more seeding of this grass in areas that can be managed by fire to provide high quality nesting cover.

The prairie restoration effort was most intense in the Sprague-Mather Pool area in 1976. Seven spring burns totaling 2,505 acres were successfully accomplished. This total includes a first time burn in Unit 12 of 750 acres. Native grass and forb species have responded well to the restoration effort but brush encroachment is a continuing problem. Costs averaged $.76/acre burned in 1976.

Date	Unit No.	Acres	Temp	Wind	MH	Cost	Cost/Acre
3/25	12	750	52-60	SE 8-10	30-50	$ 486	.65¢
4/2	15 & 16	700	50	NE-10-15	40-55	385	.55
4/2	S-M Dike	15	55	SE 0-5	45	33	2.20
4/3	22	120	65	W-SW-6-10	35	210	1.40
4/7	17	780	59	NE-5-10	35	265	.34
4/9	3 (E. Part)	50	60	SW-5-10	25	320	6.40
4/13	19E	90	60	NE-SW-5-10	25	215	2.39
		2,505				$1,914	.764¢ Ave.

The grass strips between the buckwheat and corn fields were mowed in late July and August to provide browse for geese, but the lack of rain produced very little regrowth.

C. Wetlands

Water control manipulation to achieve desired spring water levels was completed by mid-April. There was no major run-off after that to present problems.

The #1 Pool draw-down was completed in late June to facilitate water control structure work. Excellent stands of wild millet and Bidens developed.

In late June Pool 13 was drawn-down and 1 foot of water was let out of the Sprague-Mather Pool to facilitate structure rehabilitation on Structure #13 water control.

These were the only planned major draw-downs but as discussed in I-B, the drought eliminated almost all refuge water by mid-September. Moist food species developed excellent stands on receding pools and should provide excellent sources of food if water returns in the spring.

D. Forest Lands

During the period six special use permits were in force for timber removal. Three permits were for clear cutting mature jack pine. Jack pine clear cuts provide excellent openings and re-seed rapidly greatly benefiting resident game species. Benefits could be increased if the slash can be converted in controlled regenerative burns, but fire lines are not always available to initiate controlled burns in forested areas.

One permit to upgrade a red pine plantation stand of 53 acres was in force. This thinning permits ground cover to establish in an otherwise "biological desert".

Two salvage permits were issued to utilize wood blown down by August 1973 storms and dead aspen for wood chips.

Several oak wilt areas were treated by removing diseased trees. This disease problem is quite severe in some red oak areas and the drought this summer compounded the problem. More work needs to be done.

With the fuel shortage, local interest in fire wood supplies has turned toward refuge lands. We initiated a permit system to remove dead and down timber along refuge roads. The system has worked well so far.

E. Other Habitat

Nothing to report.

F. Wilderness and Special Areas

1. Research Natural Areas

No management was done in the Necedah Jack-Oak Natural Area (100 acres).

2. Scientific Areas

No management was done in the Necedah Oak-Pine Forest Management Area (240 acres). The area was scheduled for a spring controlled burn but weather conditions prevented it and fall conditions were to explosive to consider a burn.

3. Wilderness Areas

None

G. Easements for Waterfowl Management

None

IV. WILDLIFE

A. Endangered and Threatened Species

Osprey again used the nesting structure built in the old heron rookery in the Sprague Pool. A nest check in early July revealed no evidence of young, although a pair of birds had been noted in the immediate area and on the nest since mid-April. The pair was observed carrying branches to the nest, but apparently were unsuccessful in producing young.

B. Migratory Birds

1. Waterfowl

a. Swans

The spring whistling swan migration peaked on 3/30 with 200 birds noted. One John Hopkins University collared swan (J 383) was observed in a group of 30 in the Sprague-Mather Pool on 3/26.

No swans were noted in the fall migration in the waters of Necedah. The virtual lack of surface water accounts for this. Two swans were noted flying over the refuge on 11/2 heralding a rapidly approaching winter.

b. Geese

The first spring migrant geese were noted on the refuge on 2/28/76. Mild weather continued and by March 15 the goose migration was well under way. The March 25th spring break-up date was two weeks earlier than in 1975. The Canada goose migration peaked around 3/30 with 3,000 geese using the refuge.

Few snow geese were noted in the spring migration. Six white-fronted geese were observed on the Sprague-Mather Pool from 4/18 to 4/25. These are the first spring records of this species on the refuge.

The fall Canada goose migration started on September 17th when about 2,000 geese arrived. The population peaked at about 6,900 birds on October 22. The geese did not fully utilize the refuge crops this year. A delayed hunting season, due to the high fire danger allowed the geese to establish flight patterns out of the refuge. They fed on the many harvested fields near the refuge and by the time the hunting season opened on October 20th, they were by passing these fields on longer feeding flights. The limited water areas on the refuge froze over on 11/8 ending the fall migration.

Ten different Canada goose broods were observed on the refuge. An estimated 70 birds were produced to flight stage.

c. Ducks

Duck production was estimated as follows:

Breeding Pairs	X	Average Brood Size	X	Hatching Rate	=	Production
790	X	6.4	X	25%	=	1,264

Breeding pairs observed was about 50% of last year's when water areas were abundant around the refuge. Not all wood duck boxes were checked for usage in 1976. In February all boxes were inspected and nesting material placed as necessary. Nest boxes were checked in July and August in conjunction with YCC projects. A total of 34 boxes were checked indicating 13 successfully hatched wood duck broods. The general increase in wood duck usage has been influenced by box placement and moving boxes out of high starling use areas.

The spring duck migration peaked the third week in April and dropped off rapidly. The fall migration never really started, the extremely poor water conditions from June until freeze-up saw a continual decrease in duck numbers. No major fall build-up occurred on the refuge.

Pre-season banding was completed as follows:

		AHY-M	AHY-F	HY-M	HY-F	Total
Wood Duck:	Quota	50	50	50	50	200
	Banded	64	14	22	17	117
Mallard :	Quota	100	100	100	100	400
	Banded	28	17	20	28	93

d. Coots

The spring peak of 800 birds occurred the third week of April. No nesting was noticed on the refuge. The fall migration peaked at 150 birds in mid-September.

2. Marsh and Water Birds

The first cranes were noted on 4/22/76 in the middle Canfield Unit. The Greater Sandhill cranes continue to increase in central Wisconsin. Two observations of Sandhill cranes with young were made in the #1 and #2 Rynearson Pool areas. On 6/4 a pair of Sandhill cranes with two 12" - 15" tall young were noted on the Williams Dike road. On 6/8 a pair with a single larger young was noted by the upper pool on the Williams Dike road.

The refuge had a good summer population of Sandhills. Thirty-four were noted in Rynearson #1 on June 14th when this pool was being drawn down. Over 100 Sandhills were noted on 8/4 using the refuge as a roost area.

The fall migration peaked at 440 cranes which were observed flying out of the roosting area in #2 on 10/17.

On 7/8 an uncommon observation was made of a common loon flying over #2 pool.

3. Shorebirds, Gulls, Terns and Allied Species

Nothing significant or unusual.

4. Raptors

Road killed deer placed on a hill between #1 and #2 Rynearson Pools again attracted a large number of eagles from early October to late November. A peak of 20 eagles were noted in the immediate vicinity of the deer pile on 11/9. An interesting aspect of this is that only 1 bird was an adult bald, the rest were immature birds.

A golden eagle was sighted several times in the same vicinity in the fall.

Other notable observations included a goshawk on 1/13 on the southwest side of Pool #1 and a turkey vulture on 4/18 on #19 road.

3. Other Migratory Birds

a. Doves

1:00 doves per stop were recorded on the annual coo-count through Oakdale, Wisconsin. This figure is down from the 1:45/stop in 1975.

C. Mammals and Non-Migratory Birds and Others

1. Game Animals

White-tailed deer numbers remain high. The Wisconsin DNR still estimates the deer herd in central Wisconsin at 25 - 30/square mile. The present deer hunting seasons on the refuge appear to be cropping antlered deer at about maximum. Very few bucks are taken with over 3 points on a side. The spike or fork horn are common.

This heavy harvest does not appear to interfere with reproduction because spring and summer observations indicate a high incidence of twin fawns and one observation was made this summer of triplets.

Raccoon numbers remain high in spite of intensive trapping pressure from refuge trappers. Beaver continued to present problems in water control structures, culverts and one ditch on the north end of the refuge where a series of dams kept a woolgrass meadow wet. The extreme dry summer and fall will have an adverse affect on winter survival of these wildlife engineers. A total of 38 beaver were removed during the February season.

Muskrat numbers remain low and the drought should have but a short term effect.

Coyote numbers appear to be increasing on the area. Sign is noted throughout the refuge. The refuge permit trappers removed 12 coyotes during the fall.

2. Other Mammals

Nothing significant to report

3. Resident Birds

The ruffed grouse population on the refuge continued to recover from it's 1974 low.

Wild turkey observations increased dramatically this spring.

Fourteen observations of turkeys were made before mid-June when a brood was noted on the lower Canfield Road. This is the first brood noted on the refuge in several years. A large group (9 - 10) of turkeys were noted at the Hanson Road and Spencer-Robinson Ditch bridge on 11/9.

4. Other Animal Life

Quite a few small Northern pike were taken during the first two weeks of the season (June 1 - 15). All aquatic wildlife species were adversely affected by the drought conditions. The fish population was essentially gone by late November. A good carp kill was noted on the Sprague-Mather Pool. Whenever water levels return to normal carp numbers should be low for at least a couple of years, but no means are available to restrict reinvasion from the upper watershed of the refuge.

V. INTERPRETATION AND RECREATION

A. Information and Interpretation

1. On-Refuge

The basic I&R facilities on the refuge are self-guided activities. The one mile nature trail along with the observation tower overlooking Rynearson #1 Pool receives most of the intensive public use. This area is used as a point of first contact with the visiting public. Here they can obtain leaflets or what the refuge offers. The auto tour route leaflet is dispensed here for the self-guided route through the refuge.

These facilities are designed to handle the general public with a minimum of refuge staff time involved. Groups are taken out by the refuge staff by special request. Seven of these groups totaling 188 people toured the refuge in 1976. This activity has been held to a minimum whenever possible and groups are encouraged to use self-guiding facilities.

2. Off-Refuge

Manager Updike and Strom presented a 2 hour class on prescribed burning to 60 students of a fire ecology class at the University of Wisconsin, Green Bay on January 20.

Assistant Manager Strom presented a slide program on the refuge to the Tomah Garden Club on January 22.

The refuge staff participated in "National Wildlife Week" by presenting 19 film programs in local schools to 1,430 students. Educators liked these programs very much and welcomed our efforts.

Assistant Manager Strom participated in the SCS water bank screening program in 1976.

Manager Carroll, Assistant Manager Strom, and Maintenance Worker Carter served as fire arms safety instructors in the local Wisconsin fire arm safety classes held at the Necedah high school. Twenty students participated in the class this year.

B. Recreation

1. Wildlife Oriented

The blueberry crop was a disaster. A few hundred people came to look for berries the opening weekend in July but almost everyone went home with an empty bucket. Public use associated with this activity was down dramatically.

The early bow and arrow season for white-tailed deer was delayed to comply with a State ordered closing of the hunting and fishing season resulting from extreme fire danger conditions. When the season opened on October 20th, the large influx of hunters usually associated with the early bow season did not materialize.

The nine-day deer gun season ran from Nov. 20 to Nov. 28. The usual condition of too many hunters in the woods on opening day occurred. Car count figures indicated 35 hunters per square mile on opening day which was a Saturday and 30 hunters per square mile the second day. On Monday the figure dropped to 5 hunters/sq. mile and reached 11 hunters/sq. mile on the second Saturday. The State of Wisconsin is in the process of trying to develop methods of spreading out this hunting pressure over the season.

The late archery season lasted from Dec. 4 to Dec. 31, and due to the very cold conditions, did not attract many hunters. The quality of this season has increased significantly since regulation changes were made in the early 1970's to eliminate artificial deer concentrations which drew crowds from all over the state.

2. Non-Wildlife Oriented

Snowmobiling is a very popular winter activity in central Wisconsin. It is legal on township roads through the refuge. One established trail on the township roads is heavily used. So far snowmobilers have been content to run the roads, although they would like to go where ever they wish. No major problems have been encountered with machines wandering off the road right-of-ways.

C. Enforcement

One of the more common types of violation that seems to be

increasing is hunting resident game, in particular ruffed grouse, on refuge lands. The refuge is surrounded on 3 sides by the Meadow Valley Wildlife Area which is open to resident game hunting. A problem of differentiation of refuge and DNR lands exists. Although the lands are posted differently some people don't take the time to check out these differences.

Many out-of-state hunters come to this area to hunt because of all the State lands open to hunt. Unfamilarity with the area along with the growing trend in road hunting for grouse gets many hunters into trouble. New State laws making road hunting illegal and some possible changes in posting may help solve this problem.

The use of flagad cable gates along township roads and physical barriers on others have reduced off-road vehicle trespass problems.

Three hunters were apprehended hunting grouse off township roads in the refuge during 1976. The disposition of these cases is unknown at this time.

VI. OTHER ITEMS

A. Field Investigations

Mr. Tom Bluett, U. of Wis., Madison, completed field work at the refuge on a study of vegetative changes in the Necedah prairie restoration areas.

An attempt was made to band Sandhill cranes on the refuge in September by two U. of Wis., Stevens Point students doing continuing research on these birds. Very limited success was achieved. Only five cranes were captured and marked.

B. Cooperative Programs

The refuge again hosted a 20 person non-resident Youth Conservation Corps camp. The eight week camp went from June 21 to August 12.

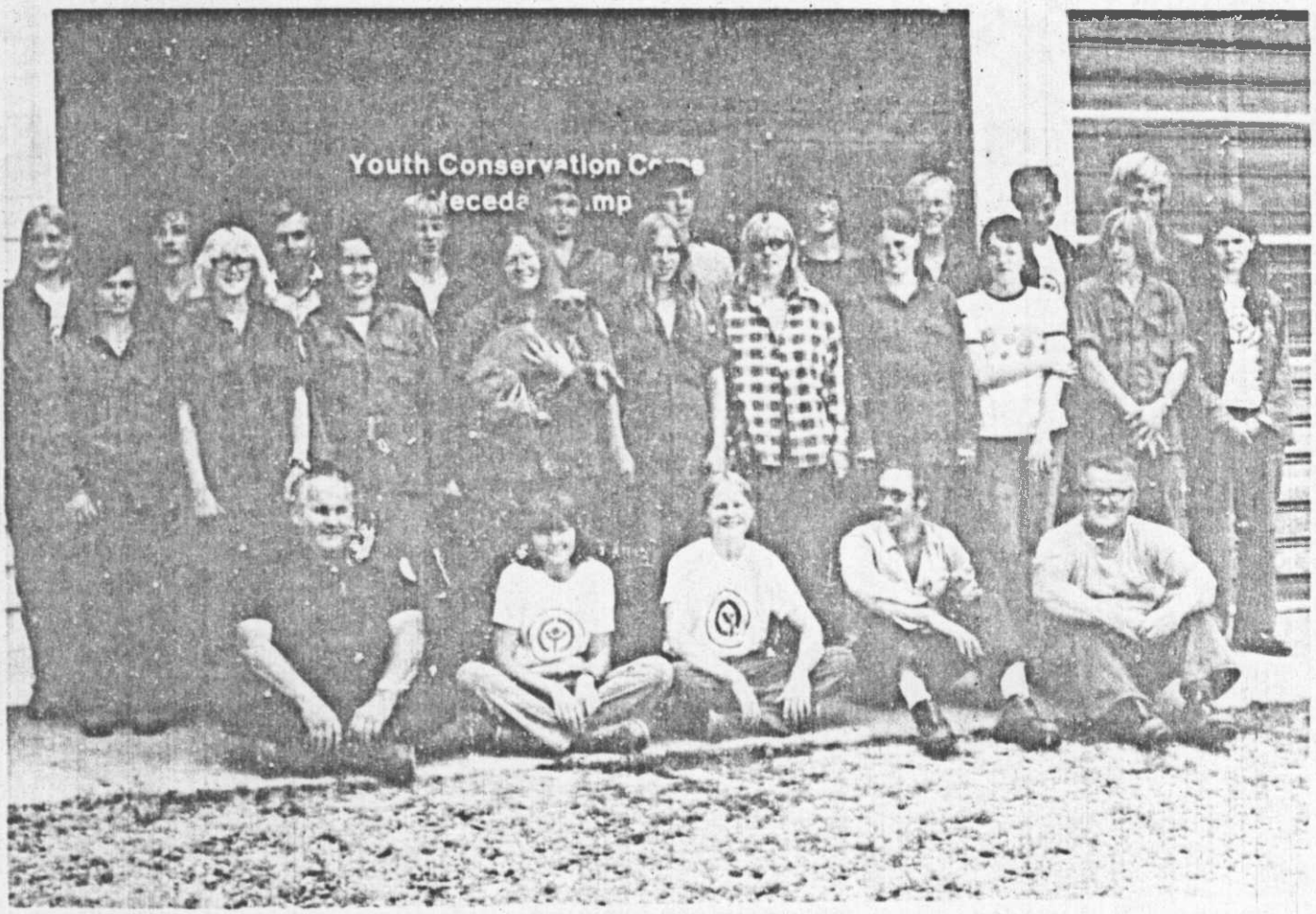
The refuge contracted with George Williams College to provide staff for the camp. No major problems occurred during the camp and a third camp was completed without a time-loss injury.

The enrollees were recruited from the local area, Tomah, New Lisbon, Elroy, Mauston and Necedah. A cooperative agreement was worked out with the Volk Field Airbase, where they provide a bus to transport enrollees. The bus made a 40 mile route twice each day which served our camp well as we could recruit from a larger group of students for the program.

A variety of projects were completed with the continued renovation of the boundary line being the major task. Other major projects included painting, transplanting wild celery, building permanent banding blinds, bridge work on Hanson Road, wood duck boxes, and timber disease work.

The George Williams staff did an excellent job of interjecting environmental education on all phases of the work projects. This really involved enrollees in their work and usually answered the basic questions as to "why?". We had quite a bit of local enthusiasm for the YCC program at Necedah and local recruiting is the obvious cause.

No YCC pictures have appeared in past reports. Photographs from the three camps, 1974, 75, and 76 are being included for historical record.

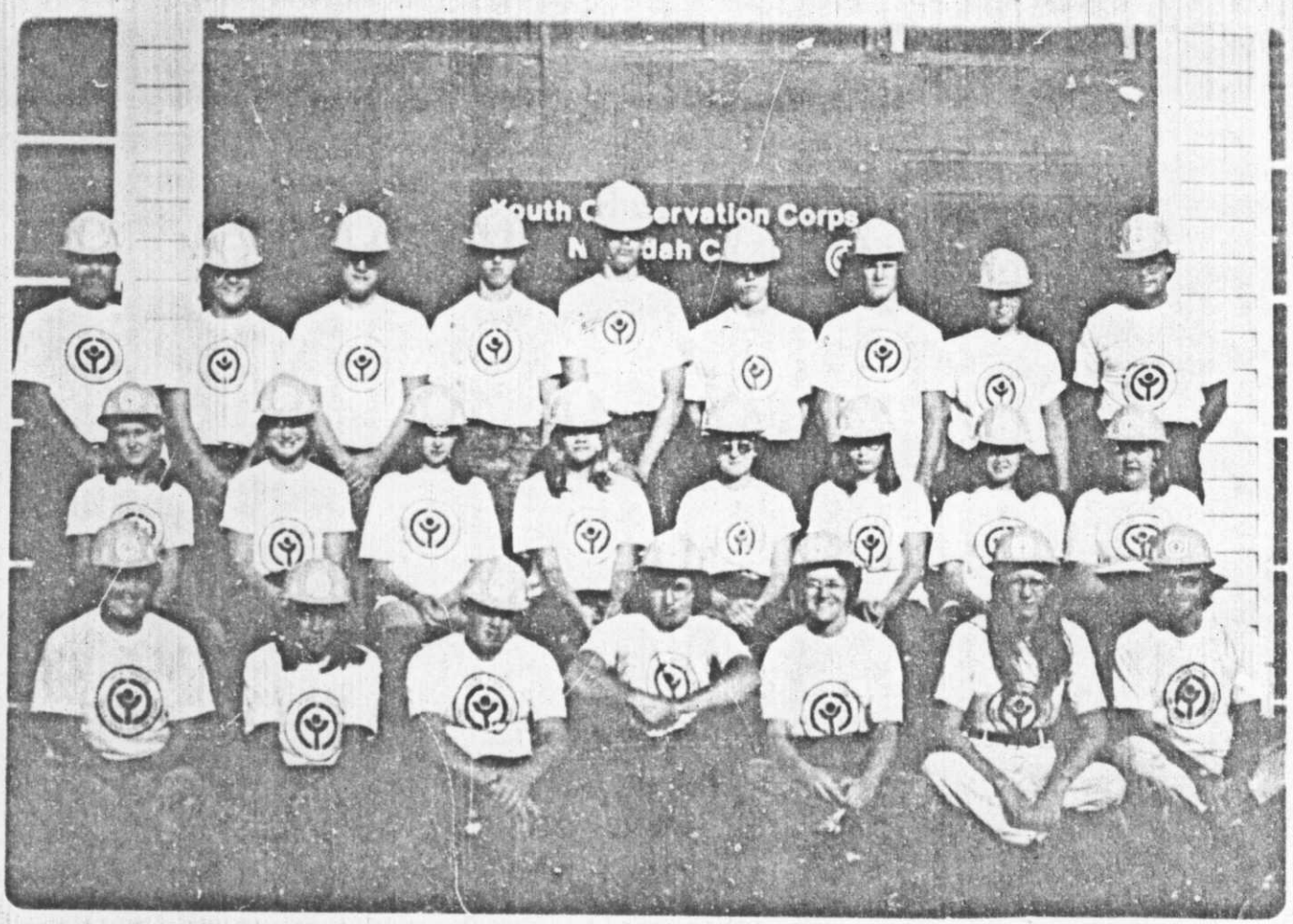


1974 YCC Staff and enrollees

Roll No. 4 Exp. 17 August 1974 By Updike

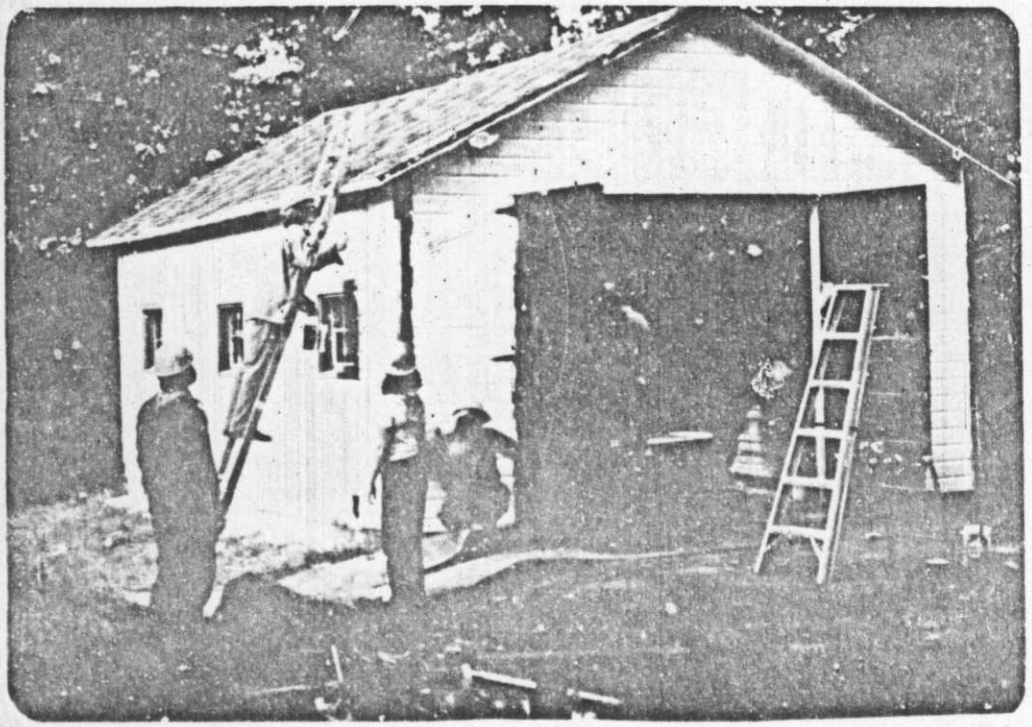
Volk Field Airbase Bus provided transportation to and from camp.

Roll No. 4 Exp. 21 August 1974 By Updike

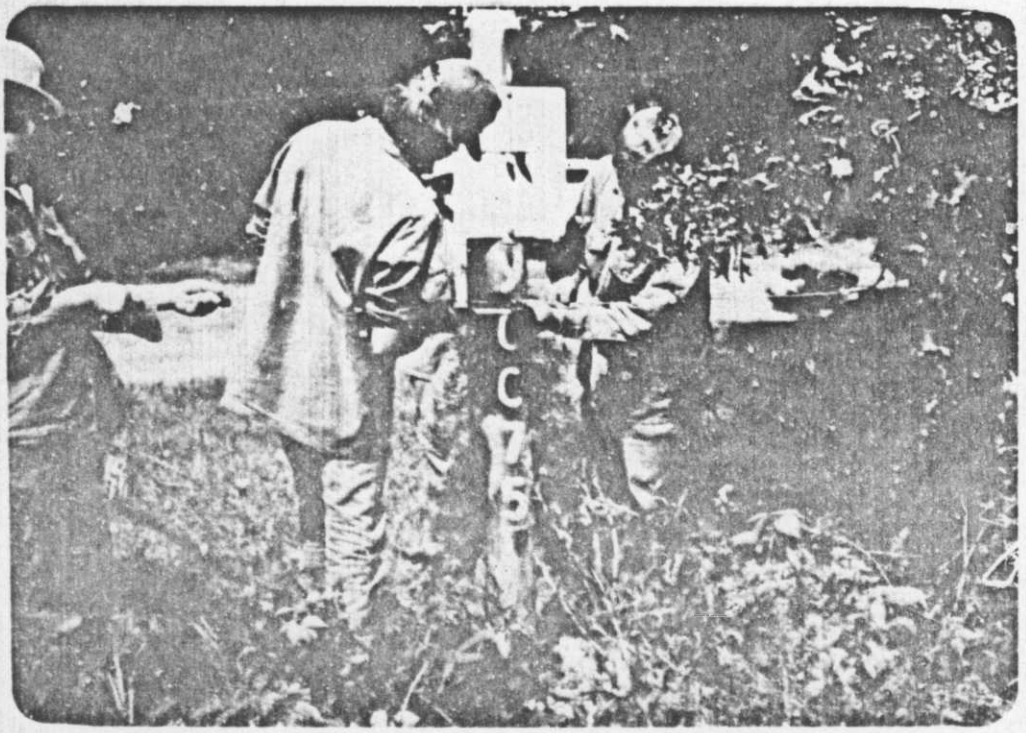


1975 Staff and enrollees Refuge Slide 5/7/75 Strom

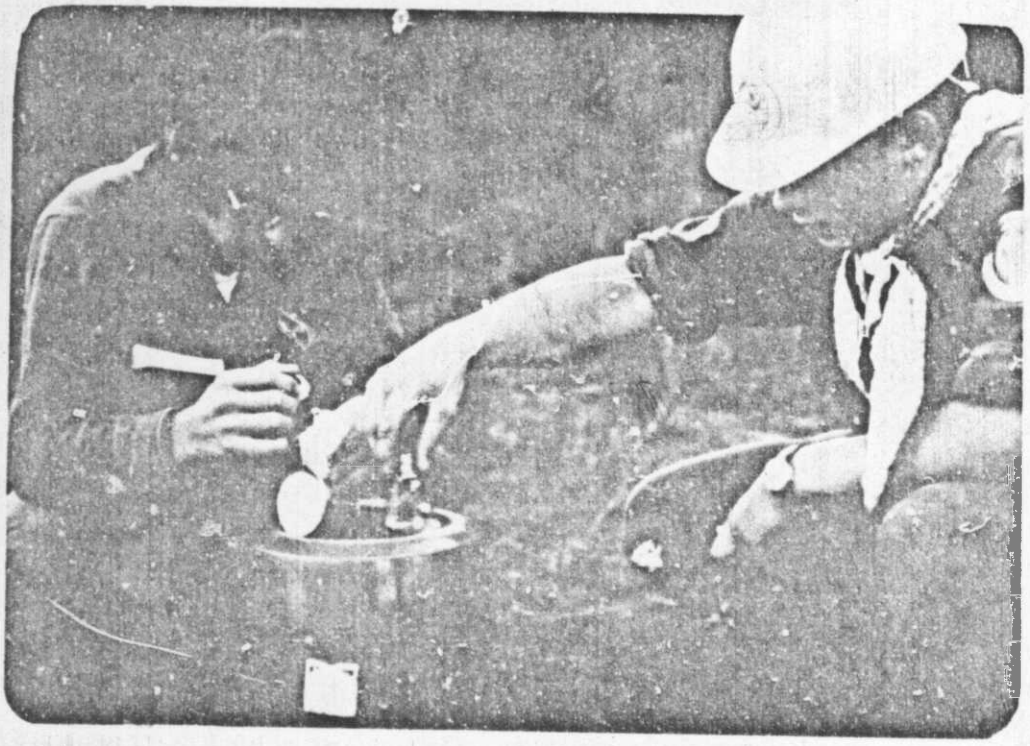
Enrollees washing their work van. Refuge Slide



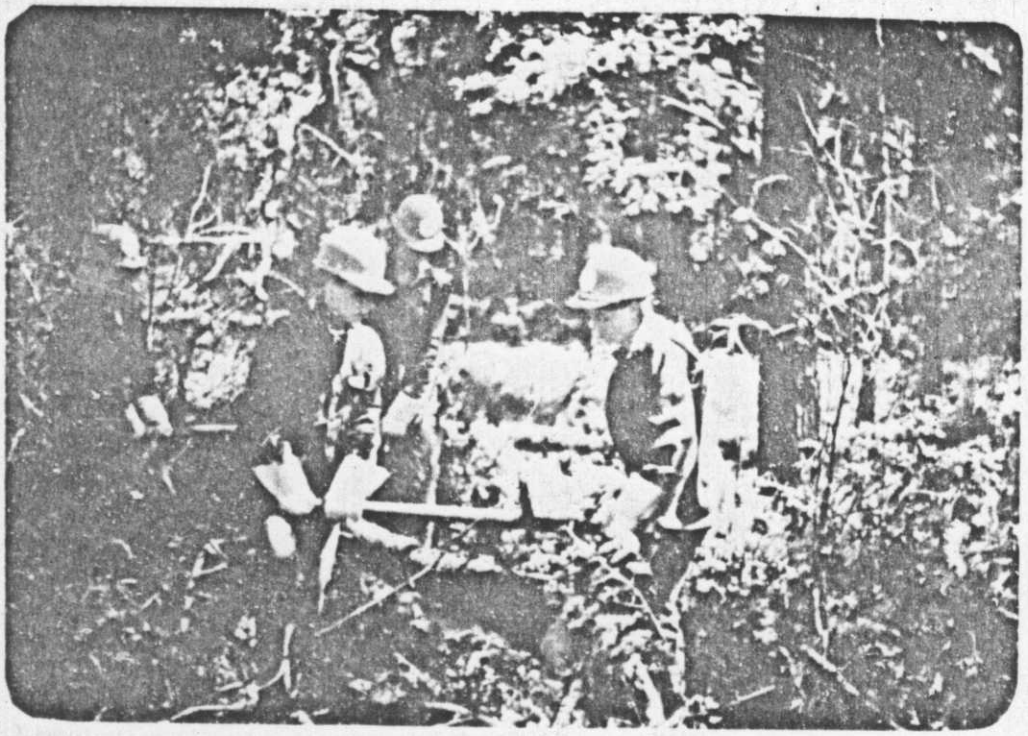
Building painting - 1975 Refuge Slide



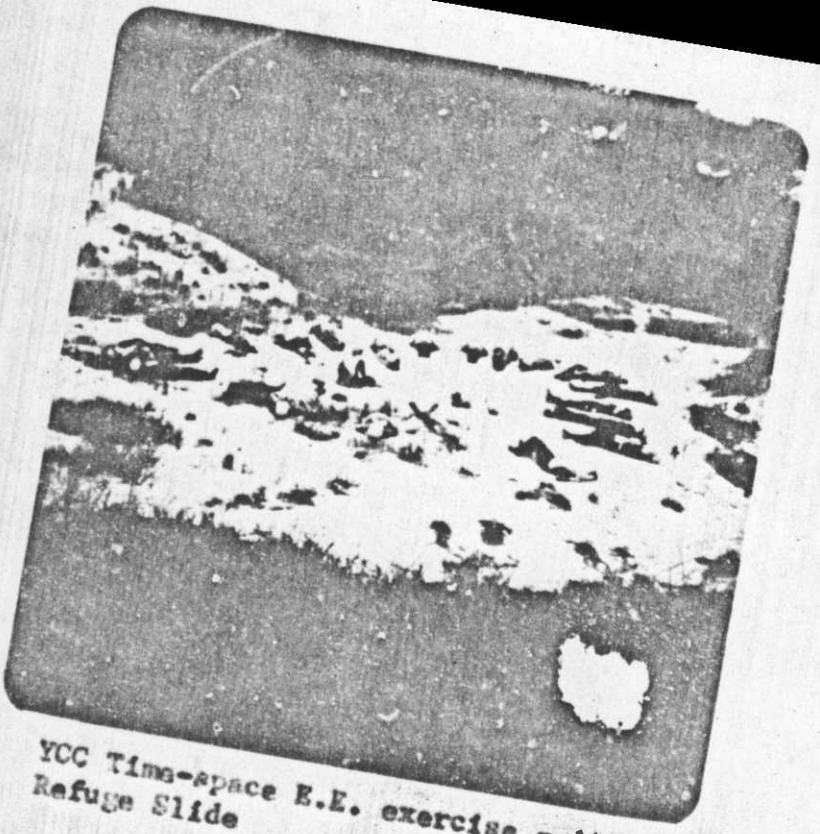
Refuge fence construction - 1975 Refuge Slide



YCC E.E. Activity - 1975 Refuge Slide



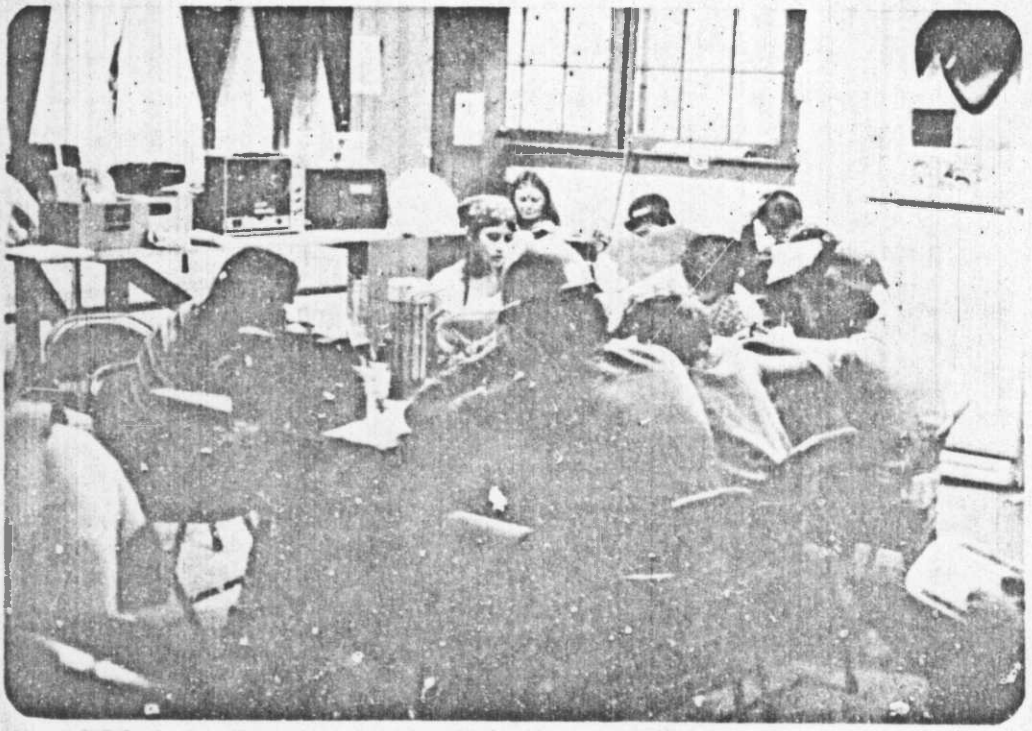
YCC Timber Stand Improvement - 1975 Refuge Slide



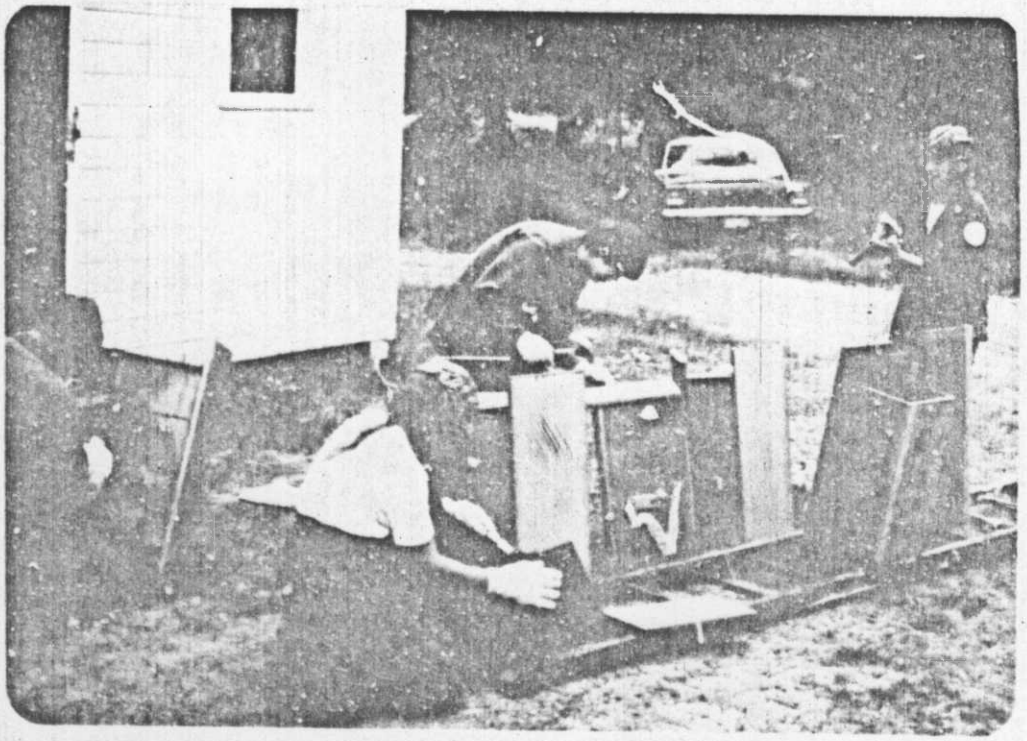
YCC Time-Space E.E. exercise - 1975
Refuge Slide

1976 YCC Staff and enrollees

Refuge Slide



YCC E.E. Exercise - 1976 Refuge Slide



YCC Wood duck box project - 1976 Refuge Slide

C. Items of Interest

Gerald H. Updike, Manager at Necedah since 1970 transferred to Crab Orchard NWR on April 19, 1976. Jerry will be missed, but we wish him the best in his new duties at Crab Orchard. Hope he finds someplace to get his smoke related vitamins.

James M. Carroll, Jr. reported for duty on August 16, 1976 as the new manager.

Vern E. Rudolph, refuge clerk, was presented his 30 year service award at the staff Christmas party.

Station personnel were actively involved in community affairs as follows:

Updike	:	Necedah school board secretary
Carroll	:	Necedah Lion's Club member
Rudolph	:	Necedah Volunteer Fire Department member, Necedah Lion's Club Treasurer, local VFW Post Adjutant, Board of Directors of Central Wis. Community Action Council member until April.
Carter	:	Necedah Volunteer Fire Department Chief, Village of Necedah Trustee, Deputy Sheriff of Juneau Co., Wis. DNR Special Conservation Warden

Assistant Manager Strom wrote the majority of this report. Clerk Rudolph wrote III. D., shared writing I. B. and III. B., typed and assembled the report. Manager Carroll wrote I. B., and shared the writing of V. C.

D. Safety

As of December 31, 1976, our safety record stands at 3,130 days since our last lost-time accident. The previous record was 1,687 days.

Safety meetings are regularly held each month.

A complete station electrical inspection was completed in October. Plans are being made to rectify problem areas encountered.