

CONBOY LAKE NATIONAL WILDLIFE REFUGE

Glenwood, Washington

ANNUAL NARRATIVE REPORT
Calendar Year 1984

U.S. Department of the Interior
Fish and Wildlife Service
NATIONAL WILDLIFE REFUGE SYSTEM

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REVIEW AND APPROVALS

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<u>Harold E. Cole</u>	<u>4/15/85</u>	<u>John W. Finicheloe</u>	<u>4/15/85</u>
Refuge Manager	Date	Refuge Supervisor Review	Date
		<u>Harford R. Wilton</u>	<u>5/17/85</u>
		Regional Office Approval	Date



#1-Eastern portion Conboy Lake NWR, lake in foreground, Glenwood, right center, Mount Adams background. 84 HEC

INTRODUCTION

Conboy Lake National Wildlife Refuge is located in the northwest corner of Klickitat County, Washington. Headquarters is located eight miles southwest of the small ranching and logging community of Glenwood.

The Glenwood valley, formerly known as Camas Prairie lies on the eastern slope of the Cascade mountains at approximately 1,800 feet elevation. High ridges that surround the valley and 12,286 foot Mount Adams, 17 miles north of headquarters, give an illusion of much greater elevation. The refuge includes much of the lakebed of historic Conboy Lake which occupies the southern portion of the valley. The lake was drained in the early 1900s.

Currently the refuge owns 5,500 acres of lakebed and surrounding uplands. Originally, over 10,000 acres were approved for purchase by the Migratory Bird Conservation Commission in 1964. That figure has been reduced to approximately 9,000 acres by later administrative decisions. Land ownership remains in a broken pattern and large scale habitat restoration plans remain on hold pending future acquisition or consolidation. Acquisition history has been stormy, with some land being condemned. Court actions brought by previous owners were judged in favor of the Government, but political pressure resulted in a decision to re-vest condemned lands.

The area was primarily established for migratory waterfowl but the diversity of habitats gives the area outstanding potential for a variety of species. Additional planned acquisition along with habitat restoration and development, would further enhance diversity as well as improved waterfowl habitat.

	Page
INTRODUCTION	
TABLE OF CONTENTS	1
A. <u>HIGHLIGHTS</u>	4
B. <u>CLIMATIC CONDITIONS</u>	5
C. <u>LAND ACQUISITION</u>	
1. Fee Title.....	6
2. Easements.....Nothing to Report	
3. Other.....Nothing to Report	
D. <u>PLANNING</u>	
1. Master Plan.....Nothing to Report	
2. Management Plan.....Nothing to Report	7
3. Public Participation.....Nothing to Report	
4. Compliance with Environmental and Cultural Resource Mandates.....	7
5. Research and Investigations.....Nothing to Report	
6. Other.....Nothing to Report	
E. <u>ADMINISTRATION</u>	
1. Personnel.....	7
2. Youth Programs.....	7
3. Other Manpower Programs.....	12
4. Volunteer Program.....	14
5. Funding.....	14
6. Safety.....	16
7. Technical Assistance.....	16
8. Other.....Nothing to Report	
F. <u>HABITAT MANAGEMENT</u>	
1. General.....	16
2. Wetlands.....	17
3. Forests.....	19
4. Croplands.....Nothing to Report	
5. Grasslands.....	20
6. Other Habitats.....Nothing to Report	
7. Grazing.....	20
8. Haying.....	20

9.	Fire Management.....	20
10.	Pest Control.....	21
11.	Water Rights.....	23
12.	Wilderness and Special Areas.....	23
13.	WPA Easement Monitoring.....	Nothing to Report

G. WILDLIFE

1.	Wildlife Diversity.....	23
2.	Endangered and/or Threatened Species.....	23
3.	Waterfowl.....	24
4.	Marsh and Water Birds.....	25
5.	Shorebirds, Gulls, Terns and Allied Species.....	30
6.	Raptors.....	30
7.	Other Migratory Birds.....	30
8.	Game Mammals.....	31
9.	Marine Mammals.....	32
10.	Other Resident Wildlife.....	32
11.	Fisheries Resources.....	32
12.	Wildlife Propagation and Stocking..	Nothing to Report
13.	Surplus Animal Disposal.....	Nothing to Report
14.	Scientific Collections.....	32
15.	Animal Control.....	33
16.	Marking and Banding.....	Nothing to Report
17.	Disease Prevention and Control.....	Nothing to Report

H. PUBLIC USE

1.	General.....	33
2.	Outdoor Classrooms - Students.....	33
3.	Outdoor Classrooms - Teachers.....	34
4.	Interpretive Foot Trails.....	34
5.	Interpretive Tour Routes.....	34
6.	Interpretive Exhibits/ Demonstrations.....	Nothing to Report
7.	Other Interpretive Programs.....	35
8.	Hunting.....	35
9.	Fishing.....	35
10.	Trapping.....	Nothing to Report
11.	Wildlife Observation.....	35
12.	Other Wildlife Oriented Recreation.....	35
13.	Camping.....	36
14.	Picnicking.....	Nothing to Report
15.	Off-Road Vehicleng.....	36
16.	Other Non-Wildlife Oriented Recreation.....	36
17.	Law Enforcement.....	36
18.	Cooperating Associations.....	Nothing to Report
19.	Concessions.....	Nothing to Report

I. EQUIPMENT AND FACILITIES

1.	New Construction.....	Nothing to Report	
2.	Rehabilitation.....		37
3.	Major Maintenance.....		38
4.	Equipment Utilization and Replacement.....		38
5.	Communications Systems.....		40
6.	Computer Systems.....		40
7.	Energy Conservation.....		40
8.	Other.....		40

J. OTHER ITEMS

1.	Cooperative Programs.....	Nothing to Report	
2.	Other Economic Uses.....	Nothing to Report	
3.	Items of Interest.....		42
4.	Credits.....		42

K. FEEDBACK

A. HIGHLIGHTS

Greater sandhill cranes produced two young to flight stage on the refuge this year. This pair had the only known successful nest in Washington state this year, and may have produced be the first young in the state during this century. (Section G.4).

The Lower Columbia River Refuge Complex was the first Federal agency to participate in the Nature Conservancy's Register of Natural Areas program for Washington state. Conboy NWR had three sites placed on the Register. (Section F.12).

B. CLIMATIC CONDITIONSTABLE ICLIMATOLOGICAL DATA - 1984

MONTH	HIGH	LOW	PRECIPITATION	SNOW "
JANUARY	55	0	2.38	1+
FEBRUARY	53	19	3.73	1+
MARCH	65	19	3.25	T
APRIL	70	18	3.09	2
MAY	86	20	2.45	0
JUNE	84	22	0.74	0
JULY	94	30	0	0
AUGUST	93	29	0	0
SEPTEMBER	85	22	1.14	0
OCTOBER	77	16	1.69	0
NOVEMBER	51	17	8.78	16 1/2
DECEMBER	53	-14	2.00	20 1/2

TOTAL	--	--	29.25	41+
EXTREMES	94	-14	---	---

The above table shows weather conditions through the year. Information is courtesy of Mr. and Mrs. George Hathaway, official weather service observers at Glenwood.

Precipitation was 4.75" below the average of 34". Continued rain through May kept the lake level up for migrant use. Lack of snow during January, February and March gave us an 'open' winter (usually 18" to several feet fall during that period). November and December brought over 3', compared to over 4' last year. Total snowfall was 31" below 1983.

Cold November temperature brought ice up by mid-month and the refuge continued to be frozen through December.

C. LAND ACQUISITION

1. Fee Title

No action was taken to purchase additional land this year. An environmental assessment to acquire additional land and develop the refuge was reviewed by AWR DeBates and approved. The approval clears the way to begin public involvement although the process will be delayed until 1985.

Basically, the EA proposes the use of land exchanges to consolidate ownership for short term solution to the management problems. The long range goal still will be to acquire the lands within the MBCC-approved boundary.



#2-ARD DeBates and Complex Manager Kincheloe reviewing proposed development sites on refuge. 84 HEC

Near years end, a local landowner, Mrs. Grace Conboy Avery approached the FWS with a proposal to donate her undivided half interest in a 320 acre tract which juts into the southeastern part of the refuge. The land has belonged to her family since the valley was settled in the 1870's and she wants it to be part of the refuge to protect it from development or sale. We are currently investigating the process necessary to receive such a donation.

D. PLANNING

4. Compliance with Environmental Mandates

Routine maintenance was performed on the Whitcomb Cabin, our National Register of Historic Places site.

E. ADMINISTRATION

1. Personnel

Current staff consists of Refuge Manager Harold E. Cole, GS 9/4, PFT.

2. Youth Programs



#3-Youth Program - 1, 2, 3, 4, 5, 6, 7, 8.

1. YCC - Dennis Washburn
2. YCC - Robert Boyes
3. Refuge Manager Harold E. Cole, GS 9/4, PFT
4. YCC - Michelle Smith
5. YCC - Matt Campbell
6. YCC Leader - Dick Christensen
7. YCC - Lisa Porteus
8. YCC - Jenny Lorenz

The seventh year of YCC at Conboy saw many 'odds and ends' job completed. Fence repair, trail maintenance, boundary posting and grounds maintenance were but a few of the projects. The program has been popular with the local youth, their parents and community members. The distance to other potential work sites make jobs for high school aged youths particularly hard to obtain.

This year a six-person crew was recruited. Leader Dick Christensen, in his seventh year as YCC leader at Conboy, stimulated work efforts on the many jobs assigned to the crew. His background as Glenwood High School science and math teacher was helpful in promoting environmental education activities. Having a small crew made field trips more practical and several were taken to broaden the crew's knowledge.

Over the years YCC has been invaluable in getting needed work accomplished on this refuge. Without their hard work, many jobs would simply not be done.



#4-YCC Enrollee Washburn removing fresh 'plug'
from beaver dam. 84 HEC



#5-YCC's on slope of Mt. St. Helens - Environmental Education fieldtrip. 84 HEC



#6-Replacing steps to headquarters residence 84 HEC



#7-Environmental field trip to Willapa NWR.
Jack Serwold explaining tidal flats to
combined Willapa and Conboy YCC Crews.
84 HEC



#8-YCC's Boyce and Washburn checking coot nest they
found while repairing ice-torn fence. 84 HEC



#9-YCC crew getting "hands on" training in use
of heavy equipment. 84 HEC

3. Other Manpower Programs

The refuge participated in the Washington Conservation Corps (WCC) program this year. Sponsored by various state agencies (in our case the Washington Department of Agriculture) the program provides work experience to unemployed youth, 18 to 25 years old of the state. Salary was paid by the state and other costs by the refuge.



#10-Washington Conservation Corpsman Ohnemus
84 HEC

A local young man, O. Justin Ohnemus, was hired for a six month stint. We paid for first aid training and supplied boots, gloves and a hard hat. He was given basic instruction in the operation of the refuge backhoe and spent the majority of his time cleaning weed and silt-closed ditches. When Justin quit in late September to attend college, he was an 'experienced hand' on the backhoe. His two and one-half months were certainly a benefit to the refuge and hopefully gave him a job skill that will help pay for further education.

We hope to use this program next year if local youth are available and the program receives continued funding.

4. Volunteer Program

Linda Cole provides vounteer assistance whenever needed. She spends considerable time answering the telephone, tending the radio, shuffling vehicles and providing that 'extra hand' that is often needed.

Lack of local housing and supervisory staff has prevented development of a larger 'volunteer' program. Local valley residents haven't shown any interest in doing volunteer work on the refuge.

5. Funding

Funding is included in the Lower Columbia River Refuge Complex (LCRRC) budget.

The complex office serves as the administrative body for nine refuges including Conboy Lake NWR. The complex manager and assistant assume or supervise many of the administrative and planning duties for each refuge. The assistant complex manager transferred in September and the position remained vacant at the end of the year. The outdoor recreation planner plans I&R activities, coordinates public involvement and assists with planning. Planning, budgeting, accounting, typing, clerical and property matters are handled at the complex level, with input from each station manager. All of the above costs are not included in specific charges listed below.

TABLE II

ACTIVITY	AMOUNT
1260	51.8 K
1994	3.0 K
6860	.2 K

	55.0 K
1520 (YCC)	7.0 K

TOTAL	62.0 K

6. Safety

There were no lost time accidents or reportable accidents on station during the year.

SAFETY is discussed at each staff meeting and always of prime concern when working.

Efforts were made to bring aviation SAFETY requirements up to current standards by purchasing the necessary helmets, communication gear and clothing for all personnel flying in air craft on FWS business.

All heavy equipment that will be kept for use on the refuge was equipped with approved rollover protection. The cost was considerable per vehicle (\$2,000-4,000) and payment resulted in curtailment of some other activities. It does, however, bring all equipment up to current SAFETY standards and puts the units back 'on line'.

7. Technical Assistance

One of our haying permittees asked for information on wood duck nest boxes. He had several pairs on his property and wanted to try and attract them to stay and nest. We supplied him a copy of plans and even gave him an old nest box to start him off.

F. HABITAT MANAGEMENT

1. General

Over one mile of the Cold Springs ditch was cleaned by WCC Enrollee Ohnemus. Clean ditches will facilitate water movement especially during early summer months when a refuge neighbor turns the flow of springs on his property into the ditch. It had been 20 years since portions of this ditch were cleaned.

Several beaver dams were removed or broken to allow water to be turned onto portions of the lakebed.

Spoil banks on the Bird Creek system were spread and smoothed, providing easy maintenance access for the backhoe or three-wheeler.



#11-Beaver dams, like this one, can provide beneficial water control - or be a real nuisance. 84 HEC

2. Wetlands

Areas where water has been held year round or as long as possible, particularly in the eastern portion of the refuge, have begun to revert to aquatics. Bulrush, sedges, smartweed and rushes are replacing Reed's canarygrass and dryland species that had invaded the lakebed over the past 70 or so years since it was drained.

The water still cannot be held as high as we would like, partly due to lack of control structures and partly due to broken ownership patterns. As changes occur on the areas we can control, we are confident that people will see and recognize the possibilities that full ownership and development would provide. Lack of such development in the past caused problems when we tried to justify purchase of the refuge to congressmen and the public. We didn't have any areas to show the true potential of a completed refuge.



#12-Water control has allowed native aquatics
to begin to out-compete canarygrass. 84 HEC



#13-Pile of native aquatic seeds that drifted from flooded area. This area had extensive waterfowl use. 84 HEC

3. Forests

A small amount of timber was removed along the headquarters road by YCC. The trees were removed primarily to improve vision of people driving the road but should result in stand improvement as well.

Several areas on the refuge are experiencing rapid reforestation. Meadows near Willard Springs and several places on the east end are being invaded by dense stands of lodgepole and some Ponderosa pine. They provide cover, but there already may be adequate forest cover. The matter will be addressed in the next year or so before the seedlings get too large to handle quickly.

5. Grasslands

The upland grasslands are being allowed to recover from years of overgrazing.

7. Grazing

Consideration is being given to a proposal from the SCS and the local soil conservation district to re-introduce grazing as a management tool on the refuge. The canarygrass meadows typically show 6-12" of regrowth following haying. This regrowth is not utilized by geese in the fall and could be grazed until frost kills it. The succulent new growth would make spring pastures more desirable to migrant geese. The SCS proposal calls for a trial that would last four years and utilize various grazing times and intensities, as well as rest and haying, to determine the proper rate of use to achieve habitat goals. We will continue to work with the SCS and district and may implement the trial on a limited area by summer 1985.

8. Haying

All designated haying units were cut this year. Most of the units are primarily Reed's canarygrass with some mixed native species. On 1,385 acres, 11 permittees cut approximately 1,838 tons for a yield of 1.32 tons per acre. At \$5/ton this activity brought in approximately \$9,200.

9. Fire Management

There were no wild fires or prescribed burns on the refuge this year. An agreement with the Washington Department of Natural Resources provides fire protection for refuge lands. Cost of this protection for 1984 was \$3,030 (\$.55/acre). The Glenwood fire district provides protection to buildings although this may be marginal since they are eight miles away and have a volunteer department. As part of a 1985 ARMMs package we plan to upgrade our domestic water system to provide basic fire suppression capability until Glenwood unit could respond.

A new 1984 Dodge one ton pickup with a slip-in pumper unit was delivered in May. This unit will provide us with 'initial response' capability for wildfire suppression. Our fire cache now includes a portable pump unit which would aid suppression by allowing water to be pumped from any canal or irrigation ditch.

10. Pest Control

Knapweed is the pest of most concern to the refuge at this time. There are approximately 80 acres of diffuse knapweed in the south central portion of the refuge. Part of the infestation was sprayed with Weedmaster in 1983, but the presence of Long-bearded Sego Lily, a state sensitive species and Federal Register candidate prevented spraying on the remainder of the area. Dr. Gary Piper, Washington State University, entomologist, advised us of the availability of biological control species and, based on his knowledge and suggestion, we implemented a bio-control program in July. This was, of course, preceded by the preparation and approval of a pest control plan. Dr. Piper supplied the species, a seed head gall-forming fly (Urophora sp.), at no charge and shipped them weekly for release. No chemical control was attempted to prevent possible damage to the bio-control agent.



#14-Refuge volunteers Jon, Linda and Heather Cole releasing Urophora flies on knapweed infestation.

84 HEC

Dr. Ben Roche, WSU entomologist & knapweed expert, visited the area with the county extension agent and county weed control supervisor. Suggestions were made on possible combinations of control techniques that might be effective. Fertilization to stimulate natives, chemical control, use of fire and biological control were topics discussed. For the time being, we will monitor the bio-control and plan for additional measures if they are needed or time and manpower are available.

A visit to the refuge by C.D. Littlefield, crane expert Malheur NWR and Steve Thompson, biologist, Nisqually NWR, to review the status of sandhill cranes resulted in some discussion of the control of crane predators. In order to maintain the number of cranes using the area and increase survival of any young produced it may be necessary to reduce the numbers of ravens and coyotes.



#15-C.D. Littlefield, Susan Lindstedt and Steve Thompson looking over potential sandhill crane habitat. 84 HEC

11. Water Rights

An appeal by the Yakima Indian Nation to the Ninth Circuit Court of a 1977 water rights suit decision resulted in the matter being returned to the local Yakima court for further resolution. This suit could effect "ownership" of all waters in the Glenwood area. The original decision (1983) invalidated the tribal attempt to control the water via a 'water code' on a technicality. The Ninth Circuit said that was unsatisfactory and wants the District Court to rule on the merits of the case. Time will tell - maybe!

12. Wilderness and Special Areas

In June an agreement was signed with the Washington Natural Heritage Program adding three sites on the refuge to their Washington Registry of Natural Areas. This was a result of two years work between refuge staff and heritage personnel. The three sites are Willard Springs, Camas Prairie and Laurel Road. Each site was chosen because of populations of sensitive (on state or federal lists of concern) plant species. They include: Long-bearded sego lily, Oregon coyote thistle and Ames milk vetch. Inclusion in the registry strengthens the protection given the area but does not prevent refuge management activities. This action was the first participation in Washington by a Federal agency in the registry program.

The Whitcomb Cabin on the National Register of Historic Places, received routine maintenance from YCC. Woven wire was placed over doors and windows to prevent access by porcupines and large 'critters'. Pack rat nests were removed.

G. WILDLIFE

1. Wildlife Diversity

No specific action was taken. A variety of refuge habitats, from wetlands to uplands to forestlands, provides good natural diversity.

2. Endangered and/or Threatened Species

Bald eagles are usually present during fall, winter and spring. Their presence coincides with waterfowl concentrations. Cold fall temperatures caused ice in late November which combined with snow cover to keep both eagle and waterfowl numbers below normal.

Long-bearded Sego lily, a plant on the Washington State

Threatened Species list and a candidate species for inclusion on the Federal Endangered Species List, occurs on several sites on the refuge. We collected seeds from several plants to send to Washington Natural Heritage botanists for attempted propagation. As mentioned above (Section F.12), one Segoe lily site (Camas Prairie) was included in the Washington Register of Natural Areas. Oregon coyote thistle and Ames milk vetch sites were also included in the registry.



#16-Reid Schuller, Washington Natural Heritage Program plant ecologist, and Susan Saul, Complex ORP, examining a mixed stand of Segoe lily and knapweed. 84 HEC

Greater sandhill cranes which are on the Washington endangered species list nest and rest on the refuge. (Section G.4).

3. Waterfowl

Tundra swan numbers peaked at 396 in February. This is down over 300 birds from 1983's all time high of 700 birds.



#17-Tundra swan with Mount Adams _ Views like this
attract many visitors when the swans are present.
84 HEC

Goose numbers peaked at 4,650 and ducks (combined species) at approximately 8,000.

Waterfowl and water bird production on the refuge has generally increased over the past 3-4 years. This is primarily due to increased brood habitat made available by better water control, mainly on the eastern portion of the refuge. Water is now available into August and broods have a much better chance of survival to flight stage. There are no detailed surveys to provide statistics (due to manpower constraints) but our observations indicate an increase which points out the potential if future development can be achieved.

4. Marsh and Water Birds

Greater sandhill cranes made history on the refuge this year. One pair of adults produced the first young to flight stage in Washington state since at least 1941 and perhaps since the 1800's.

Cranes historically nested in the valley (1890's) and a nest was recorded at Signal Peak northeast of the valley in 1941 (unknown if it was successful). In 1979 a pair successfully nested on the refuge but the young did not survive.

This year's nest was built in a wetland area behind a low dike constructed several years ago. Water had begun to flood out canarygrass and naturale aqautics had increased significantly. We believe this is indicative of what will happen on much of the lake bed if we can overcome acquisition problems and get on with development.

Our joy over this event was tempered by the loss of one adult sandhill (only three adults were present at the start of the breeding season) to a power line collision in early August. This reduced the population from 5, including 2 young, to 4. Within a week, however, another adult joined the population. We suspect this bird came from the Yakima Indian



#18-Crane on nest in center foreground with
Mount Adams. 84 HEC



#19-Crane on nest. Note presence of bulrush in
both photos-results of holding water on the
area for prolonged periods. 84 HEC



#20-Crane nest with eggs-Mount Adams in background. 84 HEC



#21-Close view crane eggs. Note composition
of nest (aquatics). 84 HEC



#22-WCC Justin Ohnemus with dead sandhill
where it was found. Note powerlines
overhead-the bird hit them. 84 HEC

5. Shorebirds, Gulls, Terns and Allied Species

A lone dunlin was sighted in May feeding with a flock of Wilson's phalarope. This is a new species for the refuge. Other common species include killdeer, common snipe, lesser yellowlegs and black tern.



#23-Is it a shorebird or an allied species?
Very young killdeer at refuge HQ. 84 HEC

6. Raptors

A Northern harrier pair nested on refuge lands this year. Several pairs are usually present thru the summer months and nesting was suspected but had not been confirmed until now.

Other raptors common to the refuge include: red-tailed hawk, American kestrel and great-horned owl. Less common are Cooper's hawk, goshawk, rough-legged hawk, short-eared owl, screech owl, and saw whet owl.

Bald eagle are present from fall through early summer whenever waterfowl are present.

7. Other Migratory Birds

Mourning dove use upland portions of the refuge for nesting and move into hayed canarygrass in late August. Bandtailed pigeon visit the area occasionally to feed on ripe elderberries.

8. Game Mammals

Blacktail deer use uplands and timbered portions of the refuge. Numbers vary from 10-25. Black bear occasionally are seen on the area.

Elk have been increasing on and around the refuge. A peak count of 17 was made this year (13 in 83, 6-8 in 82), but reports of 23 to 25 were received. The animals spend much of the summer in timber interspersed with meadowland in the south central portion of the refuge. They move onto privately-owned timbered ridges and hay meadows as the mood strikes them. Washington Game Department personnel don't want to see a large herd build up for fear of competition with deer and potential problems with orchards south of the valley. The majority of local residents want to see a small herd maintained in the area.



#24-Part of the elk herd 100 yards from
Headquarters building. 84 HEC



#24A-Tracks made by 'other wildlife'.
84 HEC

10. Other Resident Wildlife

Coyotes and beaver are common residents. The coyote population apparently was lower than normal based on numbers seen and amount of howling heard. Fewer coyotes may have played a part in our having a successful sandhill crane nest.

River otters are sighted occasionally. Many species of small mammals, over 140 species of birds and numerous reptiles and smphibians reside on the refuge.

11. Fisheries Resources

Brook and rainbow trout and bullhead catfish are present in refuge waters. A small public fishing area provides recreation to visitors.

14. Scientific Collections

The sandhill crane found dead along a valley road was sent in for a lab analysis. Results aren't available at this writing.

15. Animal Control

No depredation complaints were received this year. Most local residents handle any problems, primarily in new seedings by harassing the geese with dogs or shots fired in the air (spring geese are apparently very good eating).

H. PUBLIC USE

1. General

Two requests for information about the refuge were a little out of the ordinary. Both were from students in Poland and both were written in Polish. We contacted friends of friends that were able to interpret their requests and we sent both young people packets of information about Conboy NWR and other refuges nationwide.

A Public Use Management/Development Plan was completed by Complex ORP Susan Saul and refuge staff. It was reviewed and approved by RO. This document addresses objectives and goals for public use on the refuge and describes a course of action for development, operation and maintenance of the public use program.

2. Outdoor Classrooms - Students

The refuge hosted field trips for several area schools this spring. Each group was given a short guided tour on the Willard Springs trail and a brief talk about wildlife and refuges.



#25-School group from Hood River, Oregon waiting for a tour along Willard Springs Trail. 84 HEC

3. Outdoor Classrooms - Teachers

As part of YCC orientation, Refuge Manager Cole and Crew Leader Dick Christensen attended a Project Wild workshop at Ridgefield, Washington. This brief review of Project Wild books and methods should encourage better environmental teaching habits and techniques. As more local teachers get experience with this method we expect to see more teacher conducted field trips.

4. Interpretive Foot Trails

The Willard Springs foot trail provides refuge visitors an opportunity to view habitat representative of the whole valley. It parallels the Cold Springs ditch and offers views of the valley floor and Mount Adams. A viewing platform build by YCC in 1983 has been well received by the Trail users.

5. Interpretive Tour Routes

No formal tour route exists. Roads around the valley and across the lakebed provide good vehicle access for viewing wildlife and scenery. A parking lot build by YCC in 1983 has received a lot of use by visiors traveling between Glenwood and White Salmon.

7. Other Interpretive Programs

Several presentations on Duck Stamps were made this year. Programs were given at the Glenwood school, the Camas Washougal Wildlife League and the Columbia Gorge Coalition/Friends of Indian Heaven annual meeting. Posters were put up and displayed in post offices in all area towns. The White Salmon Enterprize did a feature story on the Duck Stamp Anniversary, including how the refuge fit into the picture. All programs were well received. Many people expressed favorable comments about the film Wildlife, Wetlands and You - The Duck Stamp Story.

8. Hunting

Waterfowl hunting was severely limited by weather conditions this year. There was no thaw, as usually occurs, at the end of the 83-84 season so hunters did poorly overall. Fall water conditions brought several hundred birds into the area for the early part of the season and hunting was good for a short time. Freeze up in mid-November continued through the season's end in mid-January. Birds only occasionally used the area and hunter success was poor.

No attempt is made to keep records for all hunters and their bags. Spot checks are conducted whenever time allows. The area is open to walk on hunting with no assigned blinds, permits, etc.

Very few hunters pursue dove, ruffed grouse, quail or deer on the public hunting area. No deer were taken this year.

9. Fishing

One quarter mile of Camas Ditch-Outlet Creek is open to fishing for trout and bullheads.

11. Wildlife Observation

Wildlife observation is best from late February thru May when the most waterfowl are present and vegetation is short enough to see them. Most of the refuge is visible from adjacent county roads.

12. Other Wildlife Oriented Recreation

Photographers continue to use the area both for brilliant fall colors and the opportunity to photograph wildlife with Mount Adams in the background.



#26-Fall colors, wind clouds and dead trees... 84 HEC

13. Camping

Camping is prohibited on the refuge. Several Department of Natural Resources campgrounds are available within a few miles of the refuge.

15. Off-Road Vehicles

ORV's are prohibited. One neighbor allowed his children to cross a corner of refuge land to reach state owned lands where they could legally ride. Both the children and parents were contacted and warned that it was a violation of refuge regulations. No citation was issued.

16. Other Non-Wildlife Oriented Recreation

Such use is discouraged. We get several requests yearly for permission to launch canoes in Camas Ditch or the lake, but such requests are denied to prevent disturbance to waterfowl.

17. Law Enforcement

Waterfowl enforcement was minimal due to cold weather and resulting freeze up.

The presence of a 'resident' elk herd made up for any slack from waterfowl enforcement. Like last year, several elk (4 bulls, 4 cows and 1 calf) spent the first few days of the either sex elk season in a closed area, often within plain sight of hunters passing on adjacent county roads. Extensive patrol prevented any problems for awhile. A week into the season several persons decided they couldn't wait any longer for the elk to leave the area. About 9 p.m. on a bright moonlight night they shot a cow elk on the refuge, forced open a gate and drove onto the area and removed it.

Extensive investigation by Refuge Manager Cole, Special Agent Wickersham and WA. Dept. of Game Wardens was necessary before all facts could be determined. Charges still have not been filed at this writing. Several search warrants were served, evidence was seized, including a pickup truck and tips investigated. Hopefully, a strong case will result in substantial penalties.

A few days after the elk incident, two subjects were apprehended coming out of the same closed area the elk had been using. Both subjects were written for trespass (investigation suggested this charge rather than a more severe one) and each forfeited \$50 bail.

While investigating the elk incident, three subjects were contacted just off refuge lands by Manager Cole and State Game Agent Al Sutton. They had loaded weapons in the vehicle and a bag of fresh deer meat. Two of the three were cited and paid over \$1,500 in fines.

Several other cases were made by state agents, with minor assistance from the refuge officer, adjacent to refuge lands, including taking a doe deer during closed season, hunting w/o a license or tag and loaded firearms in a vehicle. All of this activity was encountered without an increased emphasis on patrol. Calls from local citizens brought two of the incidents to our attention; the others were encountered on routine patrol. It is unknown why such an apparent increase in activity occurred this year.

Refuge Manager Cole attended 40 hours LE Refresher at Sacramento, California in May and requalified in Portland, Oregon.

I. EQUIPMENT AND FACILITIES

2. Rehabilitation

The refuge residence received some much needed rehabilitation during the year. Concrete foundation blocks and supports were placed under the older portion of the building. A new foundation had been planned but engineering

determined that due to the construction methods (it had been added onto 2 or 3 times without proper attachment of additions) such a move might create more problems than it would correct. Hopefully, the supports will stabilize any movement. The older parts of the house are 70+ years old. Insulation was added to all crawlspace walls to keep cold air out. YCC rebuilt two steps leading to the house.

Over one mile of ditch, primarily Cold Springs ditch, was cleaned. Most of this was done by WCC enrollee Justin Ohnemus. Portions of the Bird Creek ditch were also cleaned. No spoil spreading was performed since neither refuge CAT had adequate ROPS until the end of the year.

Annual rehabilitation of boundary fence, particularly ice damaged fence in the lakebed was performed by YCC enrollees and refuge staff.

3. Major Maintenance

Several loads of gravel were placed on HQ parking area to stabilize muddy areas.

4. Equipment Utilization and Replacement

ROPS approved rollover systems were installed on the D-6 Cat and Austin-Western grader in December. The D-4 Cat will be completed in early 1985. This will put all these units on line for next year's field season.



#27-Austin-Western grader w/new ROPS installed. 84 HEC



#28-D-6 Cat with new ROPS installed. 84 HEC

The clutch on the grader was replaced in December. The ring gear on the D-6 will need replacement before next year.

A new 1984 Dodge, one-ton, 4x4 pickup with a slip-in pumper unit was purchased and delivered in early spring. This vehicle replaces a 1973 International 2WD pickup and a 1967 Dodge, 1/2 ton, 4x4 (both were excessed).

The 1956 International semi-tractor was replaced with a 1973 International tractor from elsewhere in the complex. This is a significant improvement since the old unit had a six cylinder engine and needed repairs.

5. Communications Systems

A new Phoenix programable radio was purchased for the refuge pickup. It allows communication with the Klickitat County Sheriff's dispatcher 24 hours a day. Other complex frequencies have also been added allowing communications with those units. A base station will be installed in 1985 to allow radio contact with the complex office and other field stations.

A porta-mobile on Sheriff's frequency was also purchased. These capabilities provide a SAFETY factor for law enforcement activities and convenient communications between stations.

6. Computer Systems

Improvements in the complex computer system provide ready access to budget, equipment inventories and greatly assist typing (wordprocessing) assignments.

7. Energy Conservation

Insulation of crawlspace walls in HQ residence should cut down on heating costs.

Every effort is made to keep vehicle use to a minimum. Distance from complex HQ., 100 miles one way, and layout of refuge (it is easy to put on 30 miles just to check the area) dictate more mileage per year than one might expect from a single small refuge.

Most all of the available energy saving techniques have been used on the residence and shop. Insulation, weatherstripping, vapor barriers, etc. have been in place for several years.

8. Other

Representatives from the RO (Kuehner, etc), the complex (Susan Saul) and the refuge met to discuss development of a HQ site plan for Conboy. A preliminary drawing was prepared and will be discussed during 1985. With plans to place a fuel and hazardous equipment storage facility and widen the entrance road (both in 1985), we felt it was time to develop such a plan to prevent having to move roads or buildings in a few years.

The Klickitat PUD removed over 1 1/2 miles of overhead powerlines supplying refuge HQ. These had to be replaced with underground line in 1983. This will be a benefit to all geese, ducks, other birds and also removed an unsightly object in the visitors view.



#29-Down go the wires....

84 HEC



#30-Out go the poles.....

84 HEC

J. OTHER ITEMS

3. Items of Interest

Several people, not already mentioned, both from the FWS and other agencies visited the refuge during the year. They include:

B.H. Powell, Division of Wildlife Refuges, Washington Office toured the refuge (in the worst snow storm of the year - we call that 'snowing' in the W.O.) and was briefed on the history and our future plans for the area. Blayne Graves from the RO accompanied him and provided background on some of the issues involved.



#31-B.H. Powell & Blayne Graves discussing the merits of...a good snowfall. 84 HEC

Larry DeBates, Assistant Regional Director, Portland R.O., visited the refuge to review the Environmental Assessment for Development. He toured the refuge and was briefed on future plans.

Sandy Wilbur, new Refuge District Supervisor for OR/WA, stopped by for a brief tour and rundown on the refuge.

Nationally known butterfly expert Bob Pyle spent a day on the area with Reid Schuller, plant ecologist with the Washington Department of Natural Resources Natural Heritage Program. Bob captured a sampling of the butterflies present and identified them for us.

Tara Zimmerman, non-game biologist with the Washington Department of Game, toured the area and discussed the sandhill crane population.

Laura Smith, field representative with The Nature Conservancy, spent a day looking at proposed sites to be added to the Registry of Natural Areas and learning more about the refuge.

Dan Spatz, editor of the White Salmon Enterprise, visited the area to learn more about the sandhill cranes.

We enjoyed the opportunity to meet the visitors to the refuge and explain our history and future plans. Everyone that visits the area seems to come away impressed with what they have seen and especially with the potential to improve the area with future acquisition and development.

4. Credits

This report was written by Refuge Manager Cole. Reviewed by complex staff and typed and assembled by Joan Goodson.

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CHEMICZNYCH "CHEMIX" W KRAKOWIE

CONBOY LAKE NATIONAL
WILDLIFE REFUGE BOX 5
GLENWOOD, WASHINGTON 98619



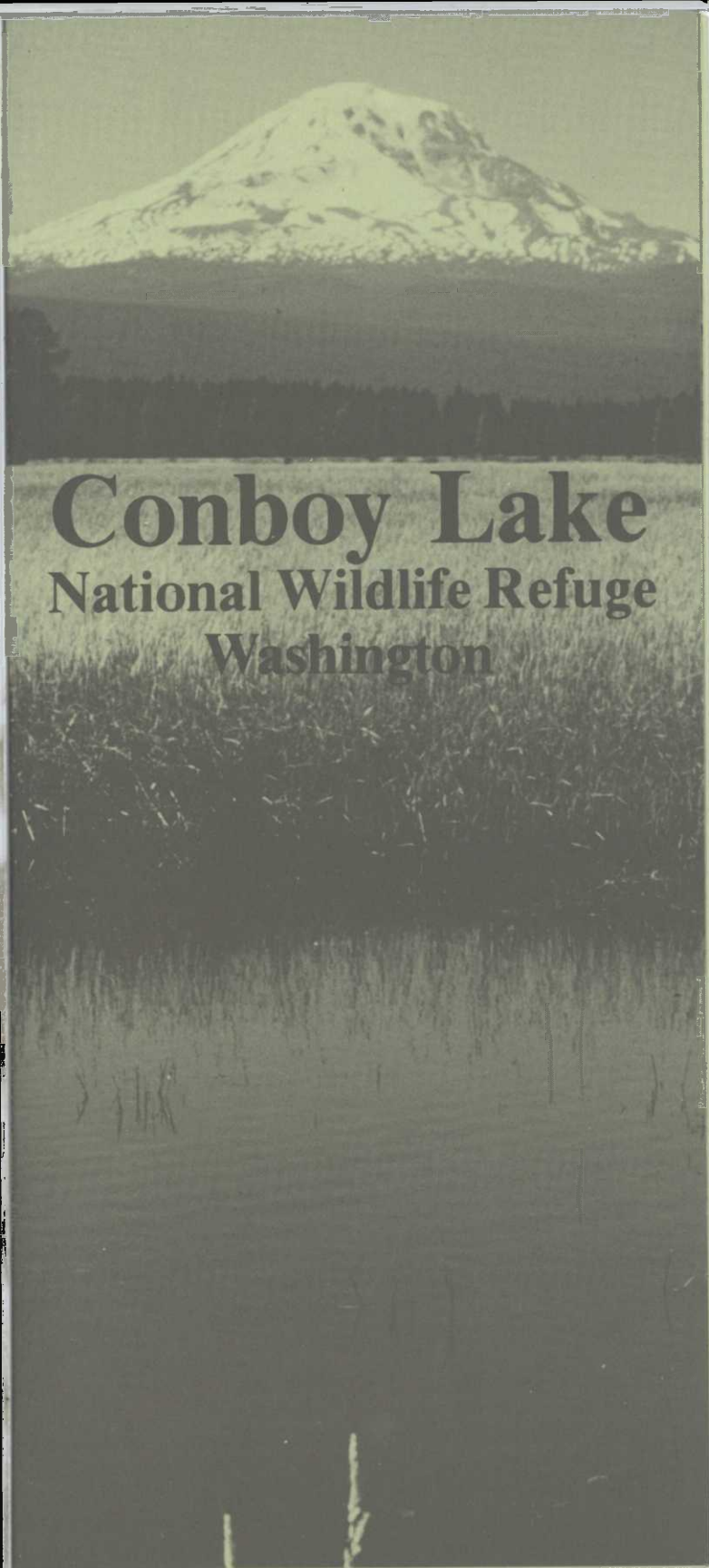
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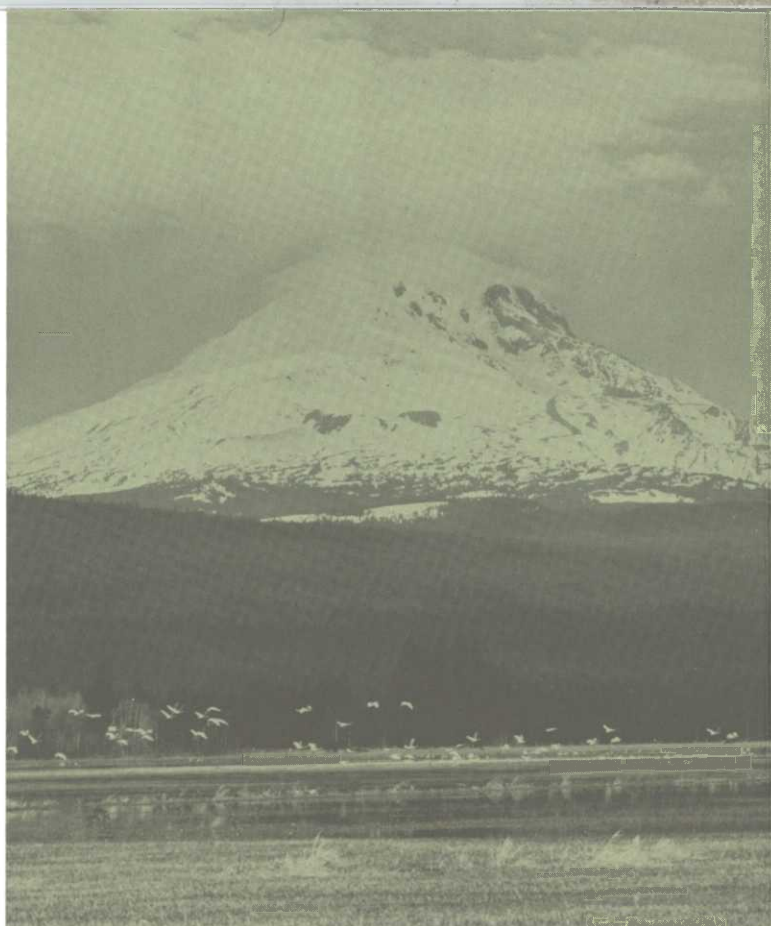
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Conboy Lake
National Wildlife Refuge
Washington

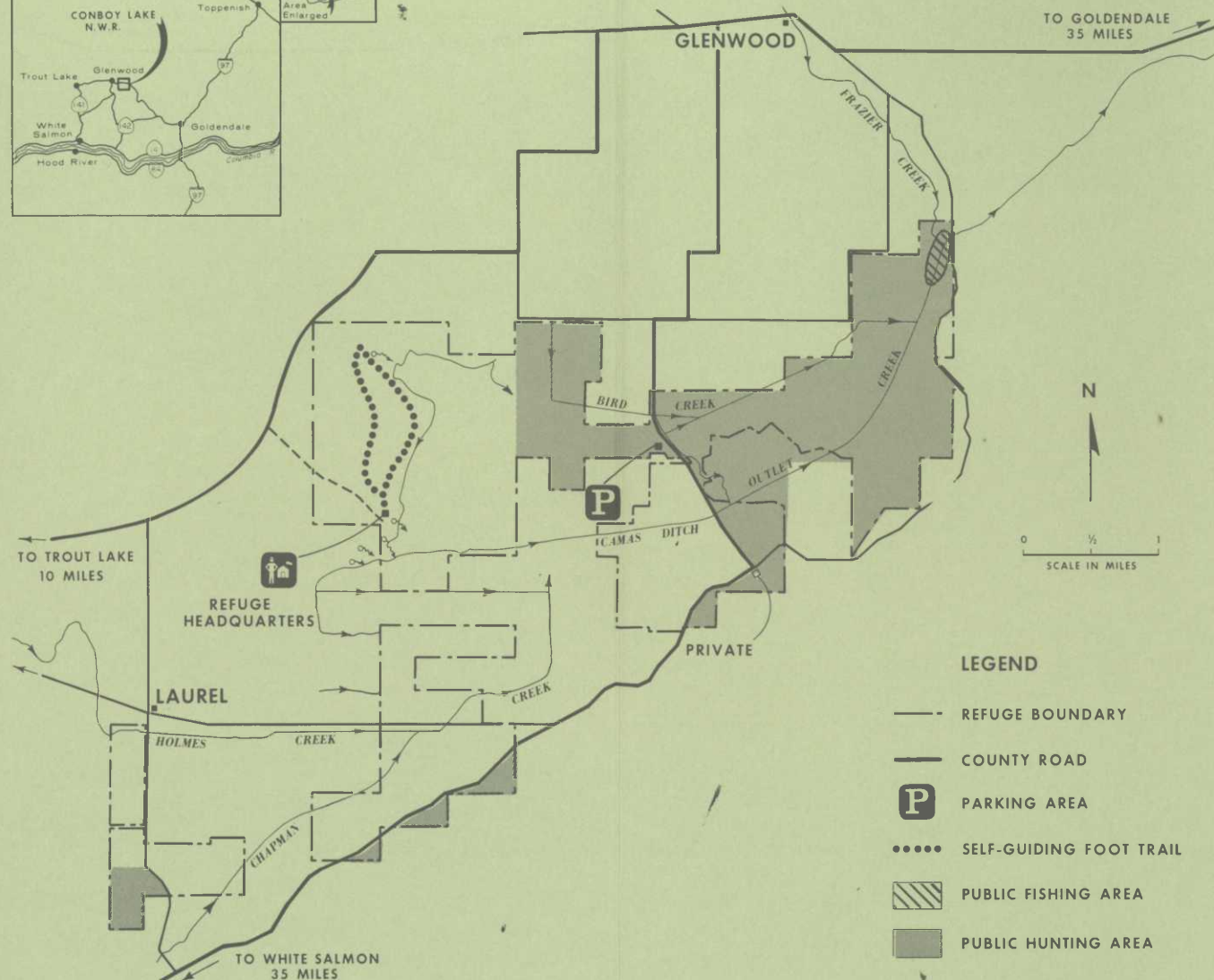
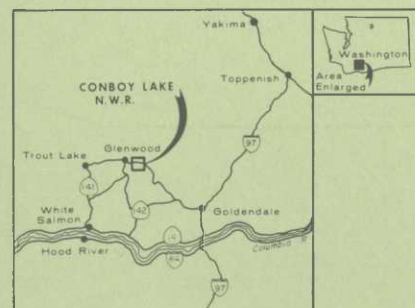


Mount Adams dominates refuge views.

Mountain Oasis For Waterfowl And People

Nestled at the base of Mount Adams in the dry shadow of the Cascade Mountains, Conboy Lake is a large seasonal marsh in a land of dense pine and fir forests. For centuries, swans, geese, ducks and sandhill cranes have used this mountain oasis for nesting and for resting and feeding during spring and fall migrations.

Native Americans regularly visited the lake, which they called Quamash Prairie, to gather camas roots, berries and nuts, and to hunt waterfowl, deer and elk. Settlers arrived in the 1870's, attracted by explorers' tales of the broad valley and abundant resources.



Mountain bluebird is one of the many species that nest on the refuge.

ADDITIONAL INFORMATION —For more information, contact:

Refuge Manager
 Conboy Lake National Wildlife Refuge
 Box 5
 Glenwood, WA 98948
 Telephone: (509) 364-3410

Refuge Manager
 Lower Columbia River Refuges
 1309 N.E. 134th St.
 Vancouver, WA 98665
 Telephone: (206) 696-7796

Lake Altered For Agriculture

As settlement increased, ranchers began altering the lake environment to increase native pasture and hay production. They constructed a ditch to drain Conboy Lake and improve lake bed conditions for farming. Heavy rains and snowmelt supplied more water than the ditch could handle, however, and the lake remains full of water from mid-December through April.

Swans and sandhill cranes stopped nesting here before the turn of the century, and duck and goose nesting declined as agricultural development increased. Large numbers of ducks and geese continue to visit Conboy Lake during migrations.

Refuge Established To Preserve Wildlife Habitat

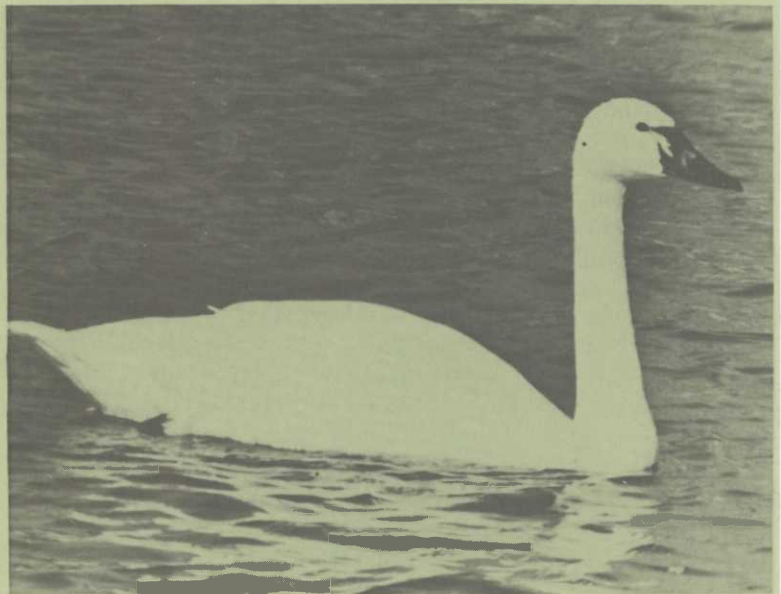
The Conboy Lake National Wildlife Refuge was established in 1964 to preserve the remaining wildlife habitat and to restore the lake as a nesting area for waterfowl and sandhill cranes. Approximately 5,500 acres of the proposed 10,000-acre refuge have been acquired.

A Whisper Of Past Richness

Since not all of the lake bed is in public ownership, management actions that involve lake restoration have been limited. Wildlife use of Conboy Lake remains only a remnant of what it was a century ago.

Nevertheless, as the warming sun melts the mountain snow, tributary streams, such as Bird, Holmes and Chapman Creeks, run high, flooding much of the original lake bed. Northward migrating swans, geese and ducks converge on the lake in February and March to feed on rich plant life and then move on.

School groups visit the refuge to learn about wildlife.



Tundra swans use Conboy Lake for resting and feeding.

The level of Conboy Lake drops through the summer until only the lowest parts of the lake bottom hold water. Ranchers cut introduced Reed's canarygrass and native marsh grasses for hay. Fall migration brings flocks of ducks and geese to the reduced lake for brief stops. Birds that spent the summer here move south, too. In the forests, berries and seeds ripen, while autumn rains increase the flow of water into the lake bed, changing it from a prairie back to a lake.

The first winter snow appears on Mount Adams, and soon freezing temperatures and snow blanket Conboy Lake. During warm spells, the ice and snow melt for a few days, and waterfowl wintering in the Columbia Basin move to Conboy Lake until the next storm freezes the lake over and the refuge again subsides into winter silence.

A few ducks and geese stay to nest, and the blooming camas paints the lake shore blue in early summer. Other nesting species, such as snipe, songbirds and sandhill cranes, arrive. The only known nesting pair of sandhill cranes in the State has been returning to the refuge annually since 1975.

In the pine forests of the refuge uplands, deer, and sometimes elk, raise their young. Occasionally, a black bear wanders through the refuge in search of food, while smaller mammals such as coyote and beaver are permanent residents.

Enjoying The Refuge

Conboy Lake National Wildlife Refuge invites you to explore and enjoy its environment and wildlife. The best times to visit to see wildlife are in spring and fall when flocks of migrating birds are present.

Refuge regulations help protect visitors and resources:



WILDLIFE OBSERVATION — See and photograph wildlife in their natural environments. Photographers find the scenic vistas of Mount Adams particularly attractive.



HIKING — The two-mile Willard Springs Trail follows the lake shoreline and passes through upland pine forests to provide a variety of wildlife viewing opportunities.



ENVIRONMENTAL EDUCATION — The refuge offers space and guidance to teachers and educational groups to conduct outdoor classroom activities.



HUNTING — Certain designated areas of the refuge are open to hunting of deer, pigeons, doves, geese, ducks, coots, snipe, grouse, pheasants, partridge and quail in accordance with State and Federal regulations. All other species are protected. Temporary blinds may be constructed but they must be available for use on a first-come basis on subsequent days. It is the responsibility of the person constructing the blind to remove it at the end of the hunting season.



FISHING — Fishing is permitted on Outlet Creek upstream from the bridge on County Road 163 for 1/4 mile in accordance with State regulations. Rainbow and brook trout and bullheads are commonly caught.



CAMPING — The refuge is open for day use only. Public campgrounds are located near Glenwood and Trout Lake.



DOGS — Dogs must be kept on leash except during waterfowl hunting. A good retriever will help locate and retrieve downed waterfowl that might otherwise be lost. Their use is encouraged.



DEPARTMENT OF THE INTERIOR
U.S. FISH AND WILDLIFE SERVICE



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