NISQUALLY NATIONAL WILDLIFE REFUGE

Olympia, Washington 98506

ANNUAL NARRATIVE REPORT

Calendar Year 1985

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

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INTRODUCTION

The Nisqually Delta, site of the Nisqually National Wildlife Refuge, is situated at the southern end of Puget Sound in Washington State (Thurston and Pierce Counties). Interstate 5 crosses the Delta and is the southern boundary of the Refuge. The Interstate Highway links the Refuge to the Seattle-Tacoma metropolitan area 15 miles to the northeast and the Olympia area nine miles to the west. The Olympia and the Sea-Tac area are both growing rapidly toward the Refuge.

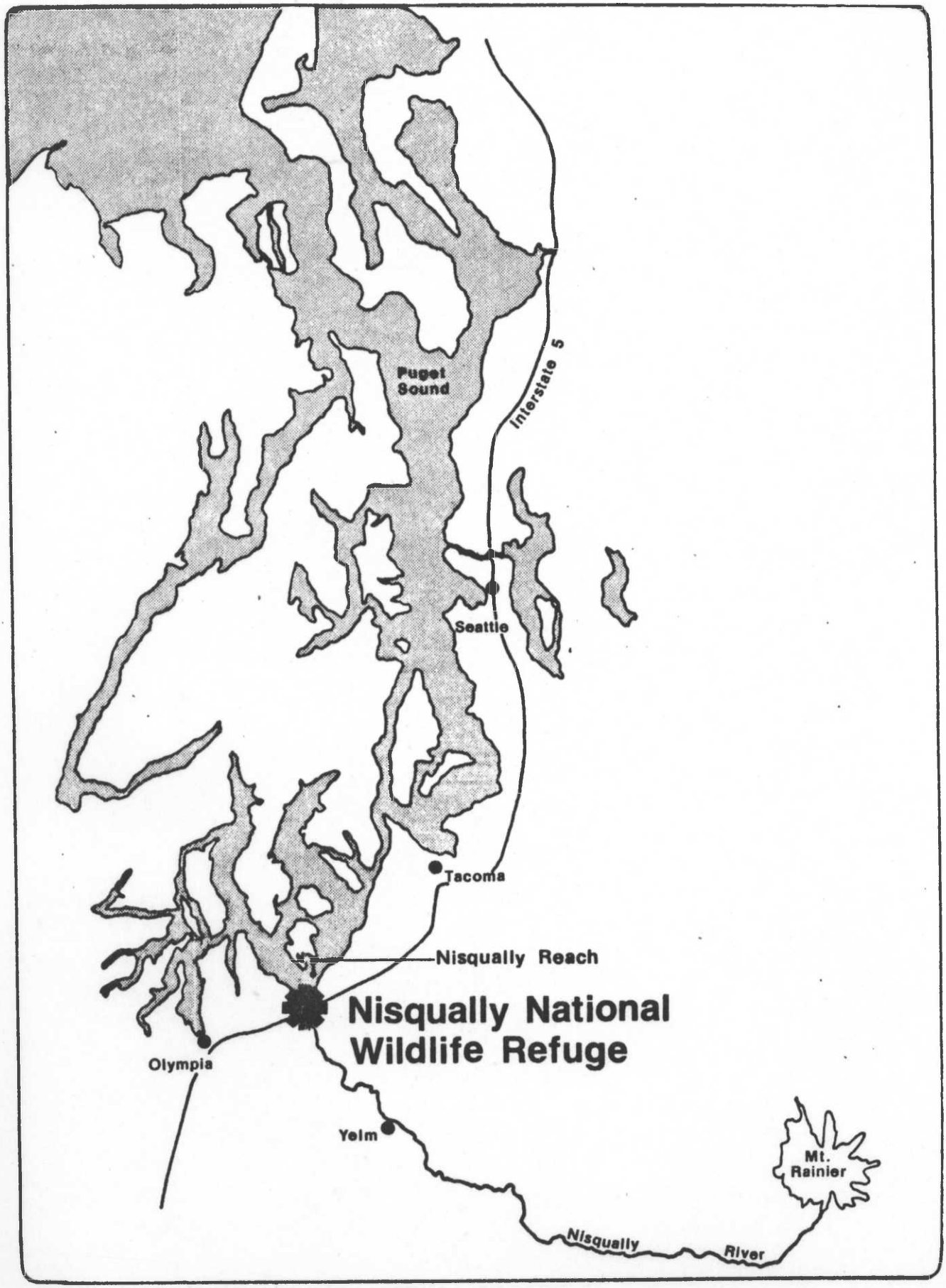
The Nisqually River, starting on the southern slopes of Mount Rainier 75 miles away, empties into open saltwater at the Nisqually Delta (Figure 1). Refuge lands consist of the flat river delta which rises no more than 20 feet above mean sea level, and upland bluffs with elevations reaching 200 to 300 feet. On the mudflats are depressions of varying depth (2 to 10 feet) and some small ridges formed by the ebb and flow of tidal currents.

Over the past 20 years the Nisqually Delta's importance in the Pacific Northwest has changed. Once viewed as a rich riverbottom farmland, the Delta is now recognized as a valuable habitat for fish and wildlife. By the mid-60's farming within the Delta was economically waning and a proposal by the Port of Tacoma to build a deep water port facility near the mouth of the Nisqually River catalyzed public concern. The public concern has continued and still represents a viable force in management of the Delta. Interest in preserving the Delta, originally generated by Margaret McKenny and the Nisqually Delta Association, led to a series of legislative and governmental actions aimed at protecting the Delta from resource degradation.

By 1967 the Washington State Department of Game purchased holdings of approximately 616 acres of Delta tidelands and salt marshes. In 1970 the Governor of Washington created the Nisqually River Task Force to obtain information in preparation of a plan for preserving and protecting both the Nisqually River and Nisqually Delta. In 1971 the United States Secretary of the Interior designated portions of the Nisqually Delta as a National Natural Landmark. In 1972 the Task Force recommended that the entire Nisqually River Basin from Mount Rainier to Puget Sound be managed as a total glacier-to-ocean environmental system, and specifically, that the Delta be set aside as a wildlife refuge. In January 1974, acquisition of the Nisqually National Wildlife Refuge was approved by the Migratory Bird Conservation Commission and established for management by the U.S. Fish and Wildlife Service.

The Nisqually Delta was chosen for refuge status because of its diversity and uniqueness of habitats, its existing importance for waterfowl in the Pacific Flyway, and its potential for habitat enhancement. The wetlands of the Nisqually Delta form one of the largest remaining undisturbed estuaries in western Washington supporting an abundance and variety of plant and animal life. Twelve major habitat associations ranging from open saltwater to forested uplands exist within the Refuge's proposed 3780 acres. This includes a unique

Figure 1. Location Map



combination of independent fresh and salt marsh habitats adjacent to each other. A large number of waterbirds are attracted by the diverse combination of aquatic plants and invertebrate organisms supported by the Delta. The plentiful food supply and shelter from most of the winter storms make the Delta a natural resting and wintering area for migratory birds.

The waters of the Nisqually River, McAllister Creek, and Red Salmon Creek serve as either spawning, rearing, or passage areas for anadromous fish. The fisheries resources of the Nisqually Basin are an important component of the Puget Sound fisheries.

Table 1 depicts the representative habitat types for the total proposed acreage for the Refuge and Figure 2 illustrates the arrangement of habitats with major associated species.

Table 1. Habitat Types of Nisqually Delta

	Acreage	% of Refuge
Total Refuge Acreage	3,780	100
Habitat Types:		
Open Water - Fresh	70	1.85
Open Water - Salt outside Refuge boundary		---
Mudflats	1360	36
Freshwater Marsh	35	1
Salt Marsh	715	19
Mixed Conif-Decid. Forest	160	4.2
Deciduous Woodland	90	2.3
Shrub	15	0.4
Grassland	465	12.3
Cropland	70	1.85
Transition Area	600	15.8
Tidally Influenced Fresh/Salt Water	200	5.3

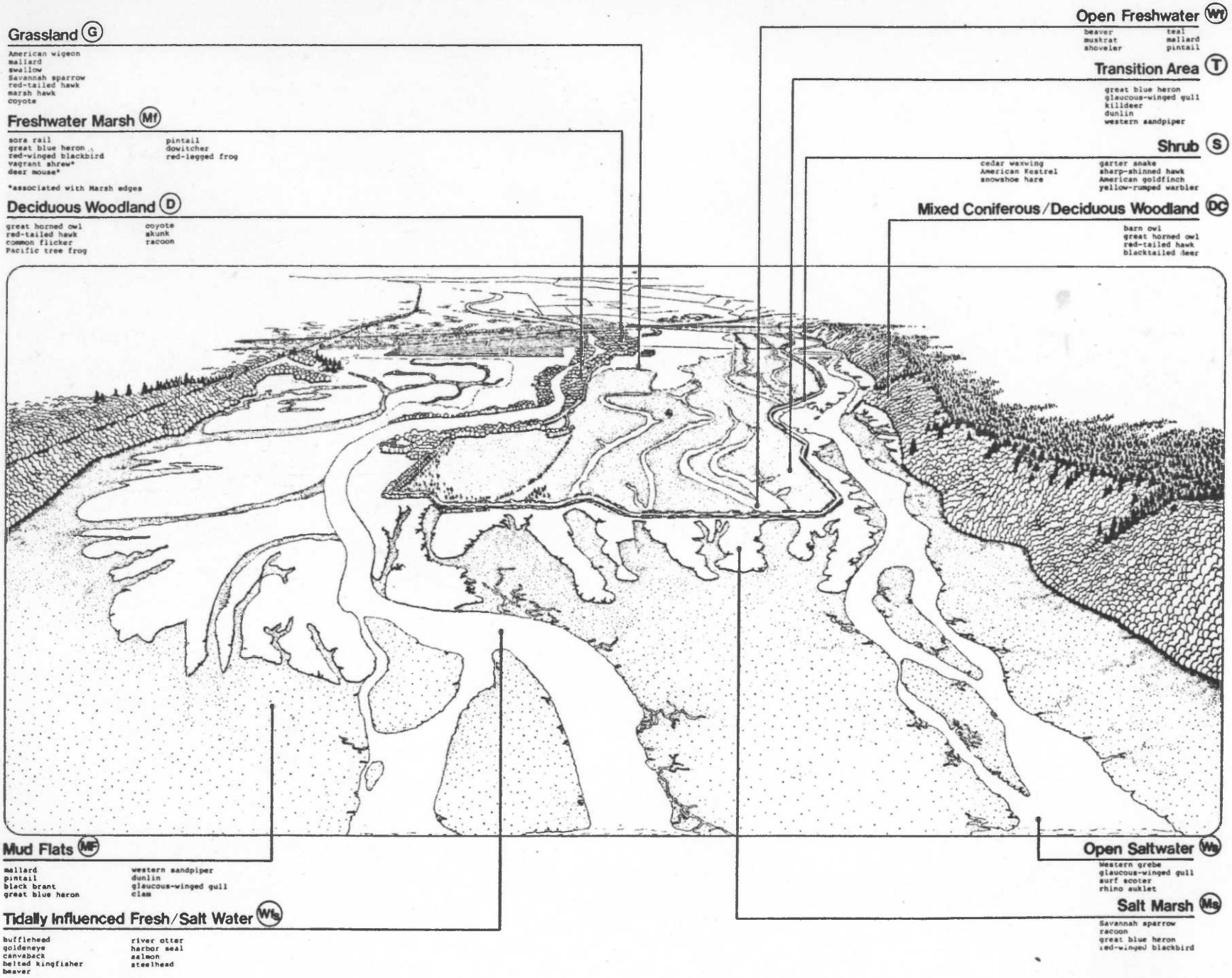


Figure 2. Habitat Types

REVIEW AND APPROVALS

NISQUALLY NATIONAL WILDLIFE REFUGE

Olympia, Washington

ANNUAL NARRATIVE REPORT

Calendar Year 1985

Refuge Manager — Date: 2/20/86

Refuge Supervisor Review — Date

Regional Office Approval — Date: 3/27/86

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APPENDIX A - Mini-Narrative Protection Is.

A. HIGHLIGHTS

- Several personnel changes during 85 (E-1).
- Highly successful Duck Stamp sales (H-6).
- A VIP tour of the Nisqually Refuge (H-2).
- Transfer of Refuge into the Complex (J-3).
- A banner year for volunteers on the Refuge (E-4).
- The weather broke several records (B).
- Communications system becomes a reality (I-5).

B. CLIMATIC CONDITIONS

Several weather records were broken in the Nisqually/Olympia area during 1985. The year started with the driest January on record with a -8.21 departure from normal (DFN). February followed with a record low of 11°. Dry weather continued through May with June showing a one day 1.60 inch rainstorm on the 6th, the rest of the month continued dry as did the months of July and August. On the 28th of August Olympia shared the coldest temperature in the nation (37°) with Hibbings, Minnesota. September and October showed above normal rainfall +5.47 inches. In November we recorded the coldest average temperature on record with 33.8° and snow (Figure 3). December continued with below average dry weather (-6.20 DFN) and was very, very FOGGY almost all month.

Figure 3. An unusual 8" snow blankets the Refuge. 85-BH

The dry weather kept refuge ponds low all year and even with continual pumping from our wells the levels were below desired minimum levels. The haying permittee did not have a good crop due to the excessive dry weather. Also, the lack of water in the interior deprived the Refuge of many use-days by waterfowl. The graphs below show the variation of this years temperature and the rainfall over the last three years (Figures 4 & 5).

C. LAND ACQUISITION

1. Fee Title

No tracts of land were acquired in 1985. The present acreage in fee title and easement totals 2817.93 acres and total acreage within the proposed boundary is approximately 3,800 acres. Eight parcels remain to be acquired to round out the approved acquisition.

A Land Protection Plan was drafted early in 85 and then was not required. It was hoped that this document would provide a focus on the additional acquisition needs and the FWS would expedite the acquisition process. The FWS has started to receive a few questions on what is taking so long and why we are not implementing our Conceptual Plan for the Refuge.

On May 21, Dick Moore from ACQ in Portland and Hesselbart met with Ken Braget and his attorney in Puyallup to discuss acquisition of the Braget parcel. Braget wanted to select his own appraiser and wanted FWS to pay for it. At years end we are still at an impasse with Braget on acquisition. The Braget parcel is a key component to implementation of the program defined in our Conceptual Plan.

We are still concerned over adequate buffering from the Hawks Prairie Development. The FWS should acquire the 155 acres from Cheney Lumber Company (Figure 6).

2. Easements

Two easements totaling .55 acres on the bluff along the McAllister Creek and a lease with Washington Department of Transportation for 26.51 acres along the SW boundary are included in the total Refuge acreage.

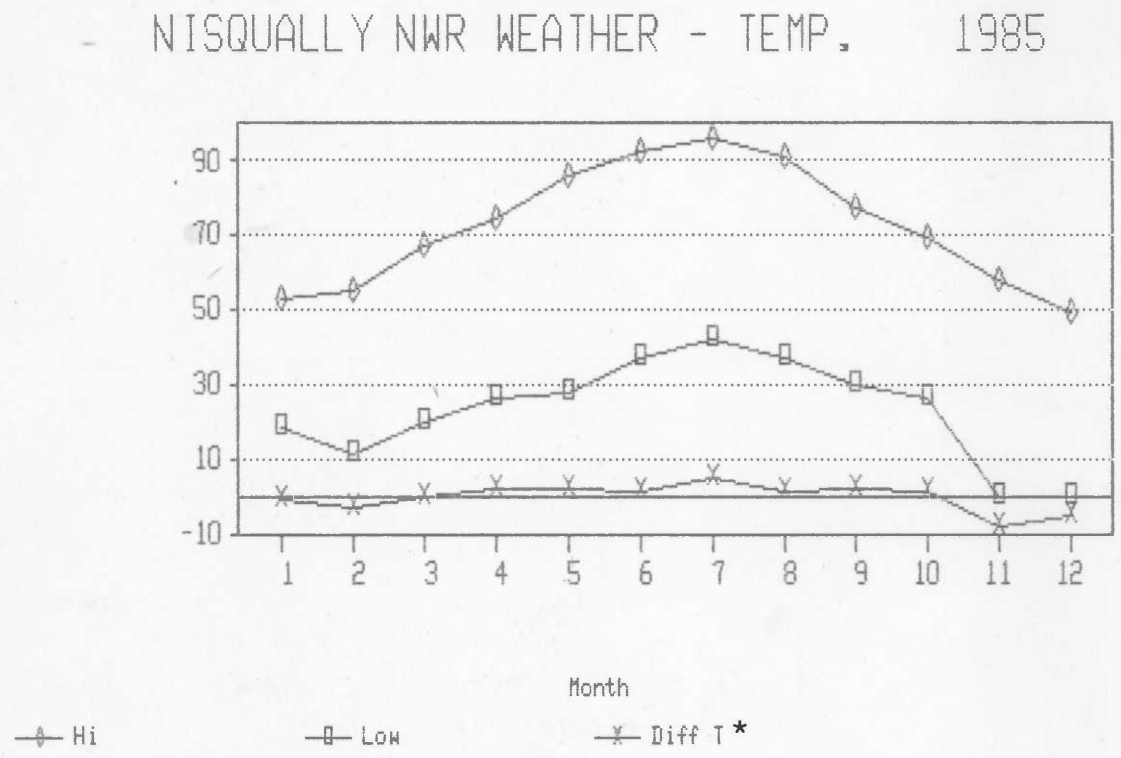
D. PLANNING

2. Management Plan

The Wildlife Inventory Plan for the Nisqually NWR Complex was completed and approved. The plan represents a strong commitment by the staff and to be fully implemented will require the assistance of some volunteers.

The Water Management Plan was completed for Nisqually Refuge. The plan outlines the methodology for water level manipulation and provides rationale for each of the recommendations on impoundment management.

Figure 4.



*Diff T = The departure from the normal average month temperature.

Figure 5

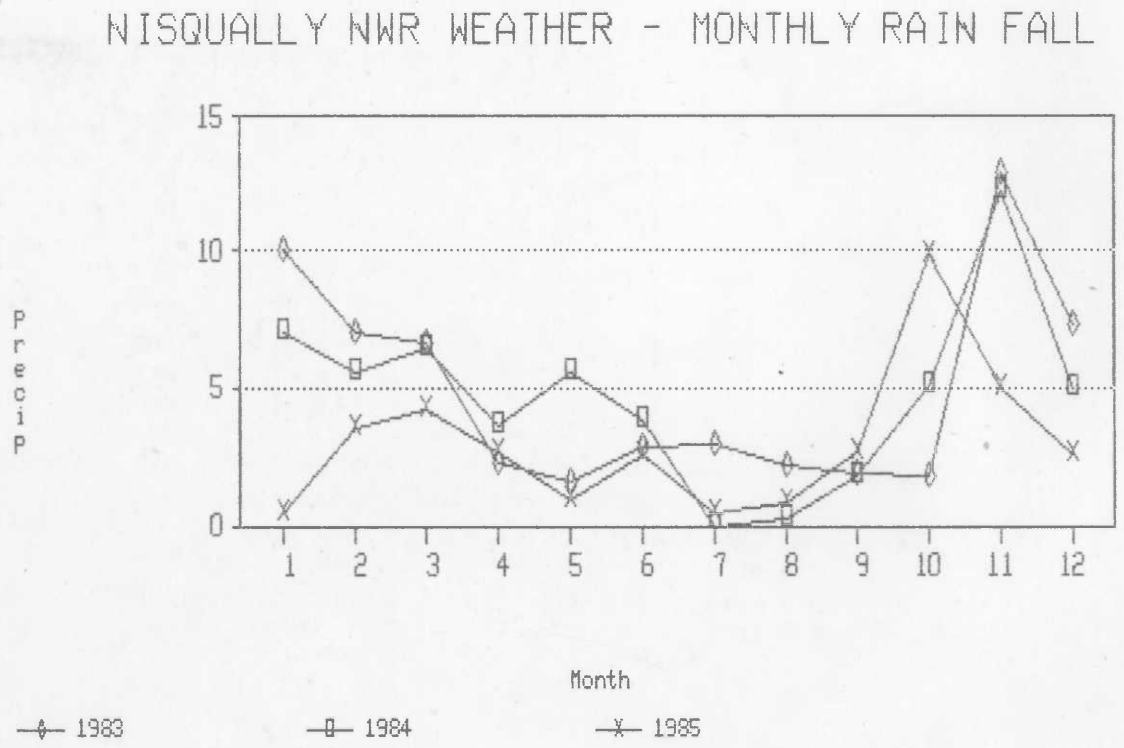


Figure 6. Land Development Proposals

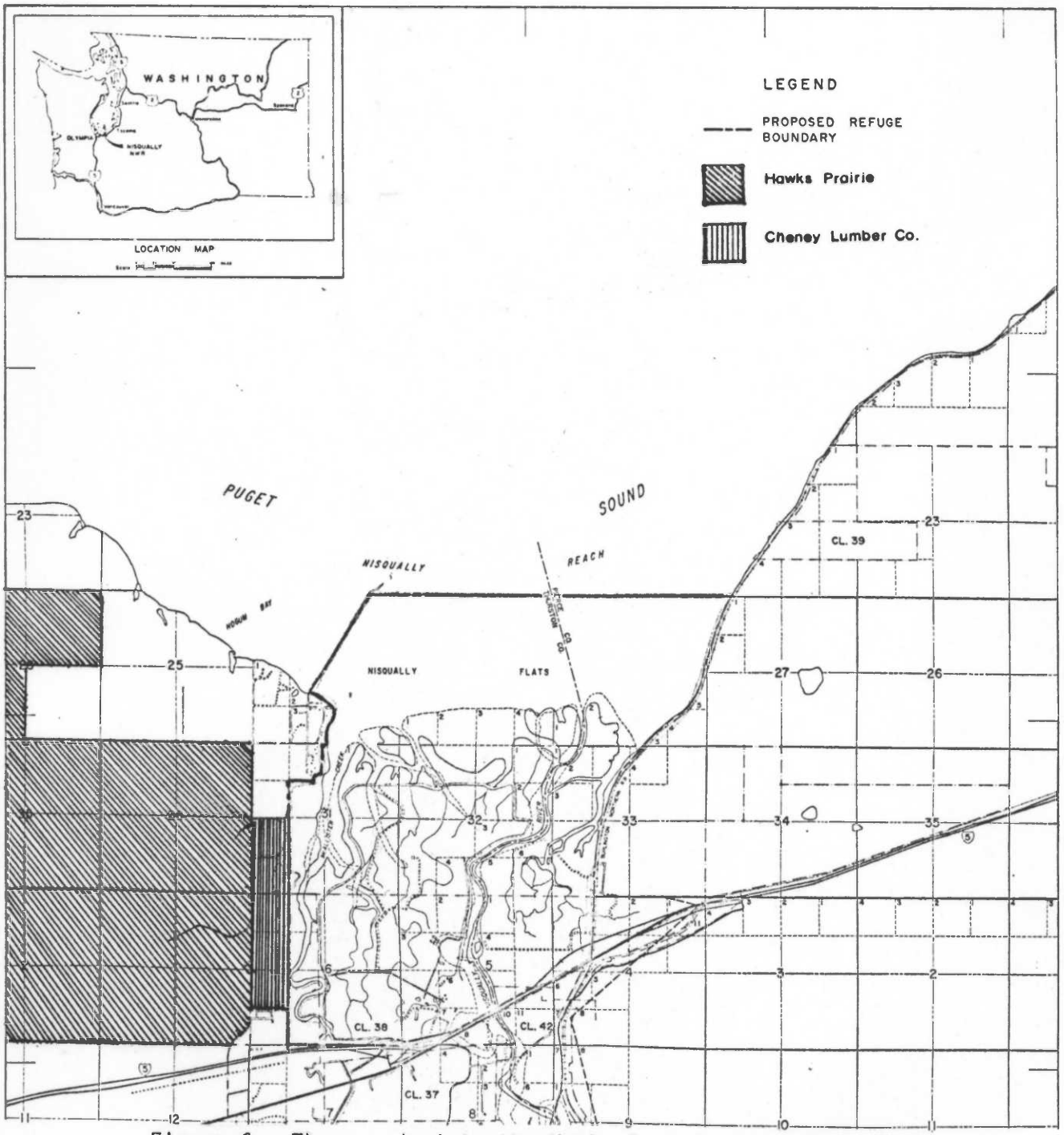


Figure 6. The map depicts the Hawks Prairie Area which includes all of sections 35, 36, and 1 3/4 of sections 2 and 26. The Cheney land is shown between Hawks Prairie and Refuge boundary. The Hawks Prairie area is a planned community development with light industry, schools, etc. They are projecting 20,000 people in twenty years. Meridian Road which runs between Cheney and Hawks Prairie would be a logical location to have the Refuge boundary to enable the Refuge to be adequately buffered. The Cheney land is 155 acres of timber and supports excellent wildlife diversity.

A station Safety Plan was completed and approved.

The Refuge District Supervisor outlined a planning schedule for the Complex indicating due dates for various parts of the Management Plans for all the Refuges in the Complex. Hopefully, some significant progress will be reported in 1986.

The Outdoor Classrooms section of the Nisqually Public Use Plan was also completed this year.

4. Compliance with Environmental and Cultural Resource Mandates

A review of the program Section 7 evaluation for Nisqually was conducted at the request of the Regional Office and the documents were found to be adequate.

An "Archaeological/Historical Consultation Request" form was submitted to the SHPO in May for the proposed dismantling of the clubhouse and outbuildings on the Nisqually Farms, Inc. land (Tract 20). The buildings were found to not be significant examples of construction and were not associated with significant persons or events. Removal of some of the buildings is planned in 1986.

5. Research and Investigations

The following research activities occurred in 85 under special use permits:

1. Nesting, Reproduction and Fledging of Red-tailed Hawks -

   Investigator, Kathy Siggins. The purpose was to provide useful information to management for the benefit of nesting red-tailed hawks. We are awaiting the final report.

2. Foraging Behavior of the Northern Harrier - Investigator, Dr. Terry Mace. The purpose of the study was to describe and quantify the foraging behavior of northern harriers on Nisqually - thus leading to accurate assessment of habitat requirement. We are awaiting a final report.

3. Hybridization in Western and Glaucous-winged Gulls - Investigator, Douglas Bell. To determine the extent of hybridization between the above mentioned gulls. We are awaiting a progress report.

E. ADMINISTRATION

1. Personnel

The overall staff structure did not change this year but we did have considerable transfers in and out of the Complex (Figure 7).

8 11 10 9 7

Figure 7.

6 3 1 5

PERSONNEL - 1985

1.	Willard B. Hesselbart, Refuge Manager	GS 12 PFT
2.	Ralph D. Webber, Ass't Ref. Mgr. (Trans.8/3/85)	GS 9 PFT
3.	Mike McMinn, Ass't Ref. Mgr. (EOD 8/18/85)	GS 9 PFT
4.	Steven P. Thompson, Wild. Biol.(Trans. 8/18/85)	GS 11 PFT
5.	Ulrich Wilson, Wild. Biol. (EOD 10/1/85)	GS 11 PFT
6.	Eleanor Henke, Outdoor Rec. Planner	GS 9 PFT
7.	K. Nadeen Haworth, Ref. Ass't	GS 5 PFT
8.	Rollin R. Watson, Maintenance Worker	WG 8 PFT
9.	Darryl G. Wilkins, Maintenance Worker	WG 8 PFT
10.	Vernon K. Wray, Operations Supervisor	WG 10 PFT
11.	Max J. Krueger, Park Technician (Seasonal)	GS 5 PPT
12.	Robert Horn, Maintenance Helper (EOD 12/23/85)	WG 5 TI
13.	Duane K. McDermond, Wild. Biol. (Trans. 3/11/85)	GS 5 TFT

Other:

Ernest Bean - TYSS Enrollee (JPTA Program) 6/5 - 8/14/85
Debbie Richeldorfer - TYSS Enrollee (JPTA Program) 6/5 - 8/14/85

Ralph Webber.....August 5 to Turnbull NWR
Steve Thompson.....August 17 to Stillwater NWR
Ken McDermond.....March 7 to Hawaiian Is. NWR

Michael McMinn.....August 18 from Chincoteague NWR
Ulrich Wilson.....October 1 from Willapa NWR
Robert Horn.....Dec. 23 Emerg. hire: oil spill

The following illustrates and compares the current and past staff power on a fiscal year basis.

	Permanent			
	Full time	Part Time	Intermittent	Temporary
FY85	8	1	1	
FY84	8		1	1
FY83	8			2
FY82	6			1
FY81	5	1		
FY80	5			2

Six permanent full time employees are stationed at Nisqually NWR. One permanent part time, one permenent full time and intermittent are stationed at Dungeness NWR.

Max Krueger, part time Park Technician, received a Special Achievement Award of $250 for his efforts this year. Of special note was the implementation of a volunteer litter control program and the excellent record keeping on the public use and resource use at Dungeness NWR. When not on the payroll Max donated considerable time as a volunteer.

2. Youth Programs

Nisqually hosted its ninth annual YCC program this year consisting of seven enrollees and one group leader (Figure 8). With a budget of $11,900 we calculated a benefit/cost ratio of $3.06 per dollar spent.

On June 21 the orientation meeting for YCC enrollees and their parents was held at the Twin Barns. Introduction of staff and issuance of safety gear was accomplished as well as enrollees meeting each other.

Noted projects this year were:

- Noxious weed control
- 725 feet of decorative split rail fence
- 180 feet of elevated board walk over the east marsh (Figure 9).
- Trail bench construction
- Numerous maintenance and refurbishing of facilities (Figure 10).

Figure 8. Crew Leader Lew McAllister and his faithful servants. 85-EH

Figure 9. YCC's did a fine job constructing new boardwalk. 85-RW

Figure 10. Ten seconds later the photographer got drenched. 85-RW

One injury accident occurred while backing a vehicle. A pickup truck pinned the crew leader causing a serious bruise to the thigh. Luckily the only time lost was the day for treatment and that the injury was not long lasting or more serious. Human error was at fault and all learned from the experience.

4. Volunteer Programs

The Nisqually Complex had a very successful volunteer program this year. A total of 25 volunteers did approximately 2,000 hours of work for the Refuge, ranging from 320 hours spent on a college internship to an afternoon of trail building by cub scout Den 6. Eighteen volunteers worked at Nisqually NWR while the remaining seven worked at Dungeness and Protection Island. These volunteers did a wide variety of projects, including:

1. Volunteer Lucy Anderson has helped in the office 2-3 days a week beginning in October. She helped with typing, filing, answering the phone, and was even brave enough to tackle labeling and organizing boxes of slides for the photo file (Figure 11).

2. Jack Lalor came once a week to help mist-net and band songbirds, do wildlife census work, and help with water management adjustments.

3. Evergreen State college interns Susan Bird and Aimee Greenburg spent many hours setting up studies of the Natural Succession Area and observing northern harriers (Figure 12).

Figure 11. Lucy Anderson has done an outstanding job for the Refuge. 85-EH

Figure 12. Aimee inspects a successful hatch. 85-SPT

4. Vicki Horton helped prepare news releases about San Juan Islands NWR and how the public can avoid disturbing wildlife.

5. Sarah Emery came to us as part of the Retired Senior Volunteer Program. She helps Ellie as a recreation assistant.

6. Bill and Chris Schaff spent many hours doing hunter bag checks at Luhr Beach. Bill is an LE credentialed port inspector and is doing volunteer work for the Refuge in addition to his regular duties.

7. Bill and Suzanne Sterling have agreed to live on Protection Island as volunteer caretakers.

All in all, our volunteers are making a significant contribution to the Refuge and are greatly appreciated.

5. Funding

Total budget this year was:

1260	=	$349,350
1270	=	400
1520	=	8,540
		$358,290

Figures 13 and 14 show staff days and dollars for the last few years.

A base funding analysis was conducted in early December to illustrate the extent of the operational deficit with the exclusion of the station's ARMM monies. With the removal of all earmarked dollars, there was not enough money left to meet station salaries. The funding of new thrusts/programs has severly eroded the base operational dollars.

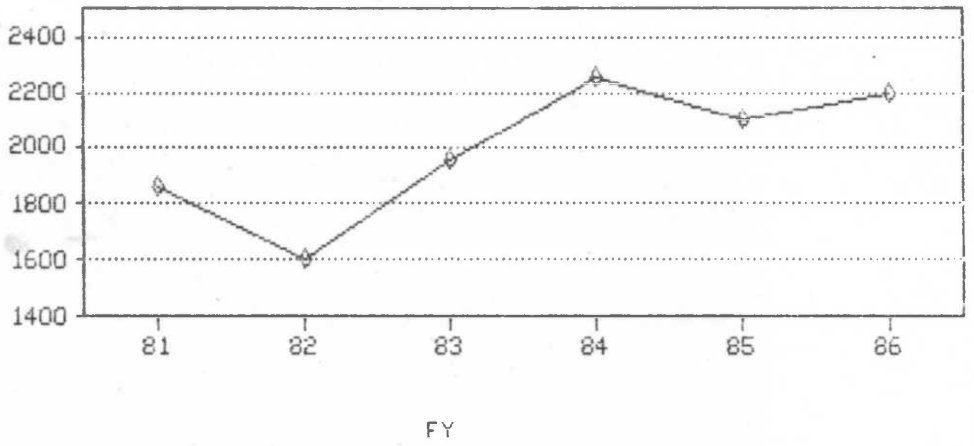
6. Safety

In July the staff noted a petroleum odor to the potable water in the office. The water is pumped from a free flowing artesian well near the shop area (Figure 15). A new pump house, piping, and storage tank was installed this year. The first water sample was taken in July and the test showed 8.8 to 9.3 mg oil in the water. The human nose can detect 3-5 ppm. A second sample was sent and no polynuclear aromatic hydrocarbons were found. Another sample was sent out and found < 25 ppm hydrocarbons.

To eliminate shallow ground contamination as the source we extended the suction to 40 feet down in the open artesian. We also flushed the system with ½ gallon clorox. No odor was noticed for several months. We now detect an occasional very slight odor. We suspect it is from the coating on the pipes used in the rehab work. We will either continue to flush the system or replace all the metal pipes this year.

NISQUALLY NWR COMPLEX STAFF DAYS

Figure 13.



NISQUALLY NWR COMPLEX FUNDING

Figure 14.

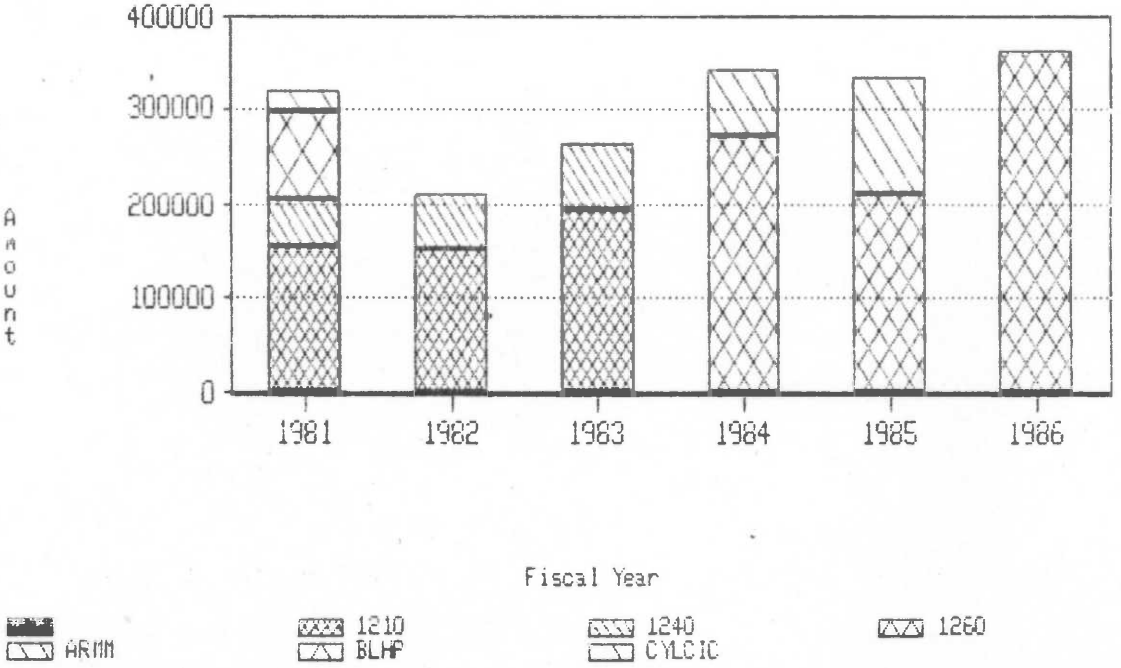


Figure 15. This 10" artesian well is the source of Refuge drinking water. 85-BH

An annual station safety inspection was completed by McMinn. The storage of paints and flammable liquids was of primary concern. New storage areas were found but the condition of security of all the maintenance areas is poor.

7. Technical Assistance

On July 16, at the request of Sandy Wilbur, RDS, OR/WA, Thompson and Hesselbart toured the Mima Mounds Prairie Area in Thurston County to analyze and assess its potential for some type of set-aside/preservation program. The area is unique but does not fit any criteria which would qualify it to become part of the NWR system.

In early February, Hesselbart attended a public briefing held by the County Weed Control Authority and the County Commissioners on the pesticide use programs in Thurston County.

F. HABITAT MANAGEMENT

1. General

An over-all assessment of the habitat condition is fair to good. A continuing trend of improvement has been noted since the implementation of the water management plan. Management actions used to enhance habitat productivity are wetland manipulation, grassland haying, and burning of both grasslands and wetlands. These actions promote high quality forage and loafing sites for wildlife. A mixture of habitat is

left in non-use status deferred from any form of management to encourage various stages of habitat succession for wildlife diversity.

2. Wetlands

A new water management plan was implemented this year and it is too soon to project how it will work. With only one growing season (with dryer than normal weather) we are encouraged by the response of the plant community. The main points of the plan are the spring draw downs and the effort to maintain a constant flow of water through the Refuge (Figure 16).

Figure 16. The six-inch Shannon Slough well provides adequate flow for water level maintenance. 85-SPT

This will help to improve the quality of water that is loaded with iron and from the salt that leaks in through the dike. We will also be using a Gradall to open up portions of each of the ditches to provide more diversity/edge to attract waterfowl. Long term monitoring of the plant communities will be needed to make adjustments to the plan as necessary.

A constantly reoccurring problem is the back up water caused by beaver dams. Efforts to trap and move the animals failed when non-target species were affected. ADC offered the use of a repellent that has worked well on the water control structures. We are monitoring the effects of the back up caused by ditch dams; but the jury is still out.

On February 6, Thompson, Webber, Hesselbart, and Troester from Regional Office attended a demonstration of the "Cookie Cutter" at Fort Lewis, (Figure 17). One of these machines would be nice to have in a regional equipment pool for use on refuges.

Figure 17. Chomp! Chomp! Gulp! Wow! 85-SPT

5. Grasslands

The management goal is to maintain a diverse mixture of grasslands at different successional stages. This attracts a diversity of wildlife species by providing a wide spectrum of habitat characteristics. Successional diversity is achieved through extensive use of management practices such as haying, burning, and non-use deferment. The apple orchard was not mowed this year and was used extensively by goldfinches, warblers, and a variety of song birds.

8. Haying

The haying program consists of both greenchop and haying by one cooperator. Haying operations are done to minimize the impacts to nesting species and provides the most habitat for grassland type species. The main beneficiary of this program would appear to be the raptors which feed on the small birds and mammals that are very numerous throughout the year.

The cutting area was reduced this year to approximately 177 acres, down from 312 last year. The greenchop and haying netted the cooperator 310.87 tons of a Refuge share value of $1743.29 plus the value of the late cuttings which have not been tallied yet. This will be exchanged for the site preparation and planting of cereal grains on the 30 acres north of the Twin Barns (Figure 18). This is the start of an experimental planting program aimed to increase the amount of high quality winter forage on the Refuge.

Figure 18. Fall wet weather halted the cereal grain ground preparation. 85-MM

9. Fire Management

No prescribed burns were made this year due to staff changes and weather conditions.

Most of the staff passed the step test which was administered in April.

Emergency presuppression money (1510 = $2856) was used to fill out the Complex fire caches.

10. Pest Control

Management of pest species is oriented toward control of noxious plants and those plants encroaching on sites where their presence is undesirable. Both manual and chemical treatment are employed to check expansion of tansy ragwort, scotchbroom, and blackberry.

12. Wilderness and Special Areas

All lands of the Nisqually Delta outside the Brown Farm dike are designated as a National Natural Landmark.

An annual report is submitted to the National Park Service on the status of these lands. A non-threatened status was reported for this past year.

The northeast corner of the Refuge within the Brown Farm Dike has been set aside as a natural succession area. TESC intern Susan Bird completed a vegetative survey of the area.

G. WILDLIFE

1. Wildlife Diversity

A primary objective for Nisqually places emphasis on management of habitat for wildlife diversity (Figures 19 & 20). Intensive management of the wetlands and grasslands has stressed creation of edge and maintenance of quality. Adding cereal grains to our list of habitats available, hopefully, will expand the diversity on the Refuge.

2. Endangered and/or Threatened Species

Bald eagles continue to be common during the winter, feeding on waterfowl and anadromous fish. Peregrine falcon sightings were common again this winter. It appears that we have started a well-received tradition that started just last year.

The Mid-Winter Bald Eagle Survey was flown this year. Covering the Puget Sound south of Seattle (excluding Hood Canal) 25 bald eagles were seen. Poor weather prevented the crew from completing the northern areas.

Manager Hesselbart and Biologist Wilson attended a meeting on censusing/research, etc. on the peregrine falcon. The meeting was hosted by Steve Herman of TESC and involved all people actively involved in falcon monitoring. The meeting was an attempt to break down the barrier of hoarding information and sharing knowledge of the species.

3. Waterfowl

For the 84/85 waterfowl season aerial surveys were flown over the Refuge. Attributable to the lack of funds, we only flew one Puget Sound waterfowl survey. However, we have again started the monthly flights at the beginning of the 85/86 season. The results of the Refuge aerial surveys are in Table 2.

We still have not compiled all the data from the previous winter aerial surveys. A volunteer has begun the job of tackling the stack of raw data. When done, we hope to translate the data into an analytical data base program to start the process of looking for trends and setting up a baseline for future work in the Sound.

Wood duck nesting box use was the same as last year with two pairs nesting successfully. Enough broods were seen this year to indicate that natural nesting is occurring. One female in box #4 was banded last year in this same box with the same number of eggs - 13.

Also nesting on the Refuge are mallards, American wigeon, gadwall, pintail, cinnamon teal, northern shoveler, and Canada goose (Figure 21).

Figure 19. Tidal salt marsh is one of the more productive habitats. 85-MM

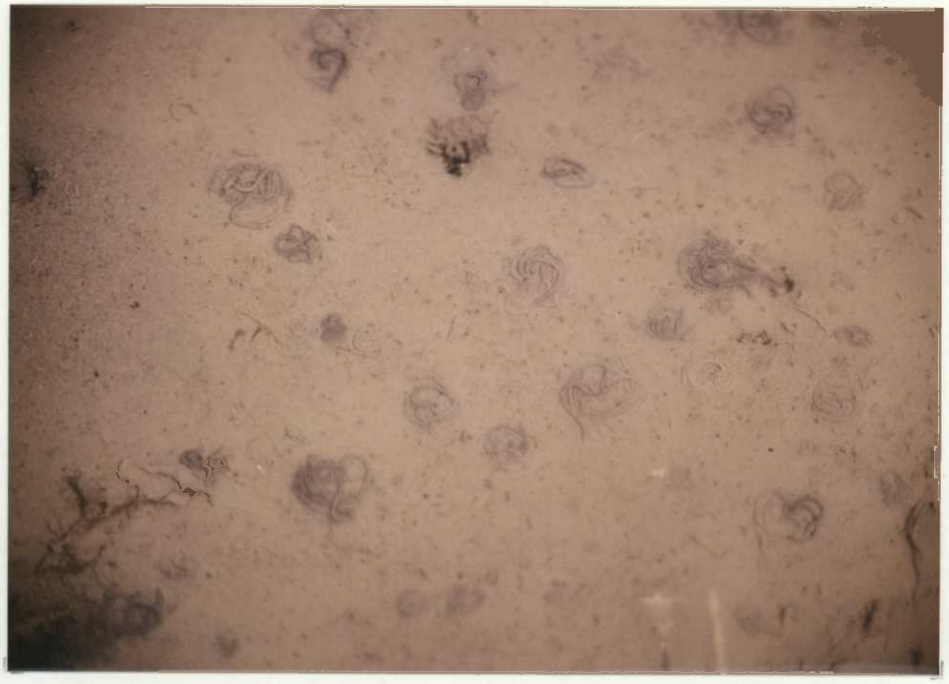


Figure 20. Mud flats abound with invertrebrates. 85-SPT

Table 2. Results of Aerial Surveys of Nisqually NWR. 84/85

Species	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Tundra Swan						No Survey
TOTAL SWAN						
Snow/Ross Goose		1				
Canada Goose					25	
Brant						
TOTAL GEESE		1			25	
Mallard	1330	1955	715	875	575	
Gadwall				220	150	
Wigeon	8000	9585	2910	3830	1570	
G-W Teal	1840	1525		725	225	
B-W/Cinn. Teal						
N. Shoveler	50	225				
N. Pintail	500	1940	275	175	85	
TOTAL DABBLERS	11,720	15,230	3,900	5,825	2,605	
Canvasback		25			35	
Scaup	25	80	15	85	20	
Ringneck						
Goldeneye		10	10	80	85	
Bufflehead		140	15	145	190	
Ruddy Duck						
TOTAL DIVERS	25	225	40	310	330	
Surf Scoter	100	100	35	340	180	
W.W. Scoter		77	10	410	105	
Oldsquaw						
Harlequin						
Merganser	5	10	10	25	35	
TOTAL SEA DUCKS	105	187	55	775	320	
TOTAL W.FOWL	11,850	15,673	3,995	6,910	3,280	

Figure 21. Always popular with visitors. 85-SPT

4. Marsh and Water Birds

With the abundance of open-water, wet, near wet, and nearby to wet areas we attract large numbers of diverse species of birds. The great blue heron colony on McAllister Creek is still doing satisfactorily even though the numbers were half that of last year, but closer to the annual average (Table 3).

Table 3. GBH Nesting Summary

Year	Number of Great Blue Heron Nest
1985	25
1984	53
1983	28
1982	17
1981	11
1980	0

Over most of the country the American bittern has been under close scrutiny due to continually decreasing populations. Nisqually has a healthy population each year (Figure 22 & 23).

Virginia rails also nest each year on the Refuge (Figure 24).

Figure 22. Secretive bittern was caught in the open. 85-RR

Figure 23. Bittern chicks are well protected - hidden deep in the cattails. 85-RR

Figure 24. Stalking through the cattails for a meal.
85-RR

5. Shorebirds, Gulls Terns and Allied Species

Nisqually is not famous for its shorebird migrations or as a major wintering area but that does not stop the avid bird watcher from having an enjoyable day out near the tideflats. With several square miles of tideflats, a view through a spotting scope will yield many interesting species. In February 2500 dunlin were reported. In March the greater yellow legs were moving through. July saw the peepings of western and least sandpipers. Fall brought the black-bellied plovers out to the tideflats along with several long-billed dowitchers on the salt marsh.

6. Raptors

With an abundant supply of crippled waterfowl and small mammals in the grasslands we have a high concentration of raptors including: red-tailed hawk, rough-legged hawk, northern harrier, peregrine falcon, merlin, American kestrel, short-eared and great horned owl, and barn owl. During the winter it is impossible to look out onto the Refuge without seeing a raptor of one type or another (Figures 25 & 26).

In order to ensure enough perches for the birds, Jack Davis, a local supporter, donated seven cedar snags and provided the help in placing them around the Refuge (Figure 27). Also mounted on several of the snags are American kestrel boxes.

Figure 25. Rough-legged hawk. 85-SPT

Figure 26. Short-eared owl. 85-SPT

Figure 27. An inviting place to sit. 85-MM

Figure 28. This harrier chick is a rarity in western Washington. 85-SPT

A regional species of concern, the northern harrier breeds on the Refuge (Figure 28). There are only three reported records of the northern harrier breeding west of the Cascades; two at Nisqually and one on Protection Island.

Also nesting on the Refuge are great horned owl, and red-tailed hawk.

7. Other Migratory Birds

Thompson and Webber completed the first annual passerine breeding bird survey on the Refuge.

Occurring at more than 25% of the 20 stations were: great blue heron, red-tailed hawk, willow flycatcher, tree, barn, and cliff swallows, common crow, black-capped chickadee, marsh wren, American robin, starling, yellow warbler, common yellowthroat, red-winged blackbird and the Savannah and song sparrow.

Sensitive species willow flycatcher and the yellow warbler are both breeders at Nisqually NWR. Their favored habitat appears to be low shrubs and willows (Figure 29). Extreme care should be taken with management actions such as mowing and herbicide/pesticide use. Important plants appear to be: black cottonwood, willow, red alder, coast black gooseberry, western crabapple, wild rose, Himalayan blackberry, vine maple, big-leaf maple, and creek dogwood.

It is very likely that the Refuge has in excess of 70 willow flycatchers and 30 yellow warblers within the 110 acres inside the Brown Farm dike.

Figure 29. Bill inspects yellow warbler habitat.
85-SPT

9. Marine Mammals

Small groups of harbor seals haul out on driftwood and exposed salt marsh near the mouth of the Nisqually River. They can usually be observed in the spring and fall (Figure 30). Seal lions are occasionally seen (Figure 31).

11. Fisheries Resources

McAllister Creek and the Nisqually River sustain important fisheries which are harvested commercially by tribal members. These river systems also support an important sport fishery. Searun cutthroat trout as well as coho and chum salmon return annually to McAllister Creek for spawning. The larger Nisqually River system maintains a population of searun cutthroat and steelhead trout. It also has chinook, coho, and chum salmon.

Adult steelhead returning to the Nisqually average 5000 fish annually. Many of these are native fish which makes this system one of the most important and largest native runs in southern Puget Sound.

14. Scientific Collections

Refuge Biologist Thompson aided Dr. Chuck Henny of the Patuxent Wildlife Research Center Environmental Contaminant Program in collecting surf scoters from Elliot and Commencement Bays. (Figure 32). The study is an evaluation of the influence of environmental contaminants on migratory birds in Puget Sound. At the end of the year Assistant Manager McMinn assisted Dr. Henny in collecting 20 western grebes from Commencement Bay.

The quota of 100 mallards needed for the Nisqually lead poisoning study was reached after the hunting season ended. Fifty five birds were shot by hunters, 27 were shot by the Refuge staff after the season ended, and 18 were captured in a swim-in trap. Also included were 46 green-winged teal.

Following are the results of the lead poisoning study:

Showing 2ppm lead in liver	41% mallards 35% GW teal
Showing 8ppm (toxic)	7% mallards No teal
Having 1 or more ingested lead shot	16% mallards 0 GW Teal

15. Animal Control

As a result of an Animal Damage Control complaint Thompson and Webber assisted ADC Gary Oldenburg to capture a female Canada goose and goslings near Barnes Lake and brought her to the Refuge.

See F. 10 for beaver story.

Figure 30. Aerial photography is a valuable tool for censusing marine mammals. 85-BH

Figure 31. Sea lions lounge on Nisqually Reach. 85-SPT

Figure 32. Chuck Henny with a full bag limit. 85-SPT

16. Marking and Banding

Post hunting season waterfowl banding was completed with a total of 27 mallards, 12 green-winged teal, and 4 American wigeon trapped; 18 mallards were used for the lead shot study, 3 were re-traps and 6 were banded.

Volunteer Jack Lalor banded approximately 50 other migratory birds (17 species).

H. PUBLIC USE

1. General

After several years of rapid growth public use at Nisqually seemed to begin stabliizing this year. Following a record high of 52,000 people using the Refuge in 1984, 1985 saw a slight decrease to 40,000 visits. Peak use usually comes in April, May and June when schools take fieldtrips and families seem to enjoy taking short trips close to home before school ends for the summer. Most of the visitors spend their time walking the trails and observing wildlife. Public use counts for the Refuge are extrapolated from an electronic eye counter on the Nisqually River Interpretive Trail. In November we also purchased a car counter for the entrance road, but further observation is needed to interpret what the car counter numbers mean in terms of actual visits.

Special visitors this year included Tony Page, Senior Advisor to the British Parliament. The Refuge also hosted a meeting of the Nisqually River Task Force Steering Committee in October.

The saga of the Refuge memorials continued this year. During 1984 a group of local citizens proposed establishing various memorials in honor of those responsible for having the Nisqually Delta set aside as a National Wildlife Refuge. Following lengthy negotiation as to which memorials were appropriate a ceremony was held to dedicate a "Memorial Grove" of trees near the Twin Barns. In 1985 a bronze plaque was mounted on a large stone and placed in the grove (Figure 33). A short gravel pathway leads visitors through the grove and two wooden benches provide a place where they can sit and enjoy their surroundings. The Memorial Committee also supported developing a brochure about the founding of the Refuge, and Henke completed a final draft in December. It will be printed during 1986.

Figure 33. The memorial grove is a nice place to sit.
85-EH

Nisqually NWR also began participation this year in a program to test new fiberglass signs. Test stations were established both at Nisqually and at Dungeness NWRs and the signs will be evaluated for durability every six months for three years.

2. Outdoor Classrooms - Students

About 1970 students used the Refuge outdoor classrooms this year, a slight decrease from 2050 students in 1984. The highest use periods are in April, May, and June. Teachers are expected to lead their own fieldtrips, but the Refuge provides many resources to help them. Twenty seven different slide shows were checked out from the Refuge and shown to approximately 2550 students, generally as pre-fieldtrip orientation. The most popular slide shows were "Birds of Nisqually," "Animal Babies,"

"Animal Tracks and Signs," "Life of a Dead Tree," and "Animal Homes." The Refuge also has a variety of other learning materials available for classes to use, including several different wildlife oriented board games, bird guides, and a few sets of army surplus binoculars.

The theme of this year's National Wildlife Week was "Soil, We Can't Grow Without It." The Wildlife Week teachers packets are becoming harder and harder to get hold of but the National Wildlife Federation was able to send us enough to send 142 packets to 85 local schools and day care centers.

ORP Ellie Henke completed the Outdoor Classrooms section of the Nisqually Public Use Plan this year, and it was approved by the Regional Office. The Plan calls for various measures to protect the resource, including continuing to require reservations and teacher orientations, identifying specific study areas that may be used by school groups, and limiting the collection of samples. The plan also identifies several themes on which Refuge education programs should focus:

A. A variety of habitats supports a wider variety of wildlife species than a single habitat type.

B. Habitat destruction is leaving fewer and fewer places for wildlife around Puget Sound. Problem areas include tidal wetland losses, urban development, degradation of wetlands, oil spills, and human disturbance.

C. Managed land is capable of supporting more animals than unmanaged land.

D. Nisqually NWR is only one stopping place out of many on the Pacific flyway.

E. Estuaries are among the most productive areas on earth.

F. Salmon and steelhead use the Nisqually River and estuary in various parts of their life cycle.

The Refuge will then provide various resources and facilities to help teachers develop their own fieldtrips and lessons.

3. Outdoor Classrooms - Teachers

One hundred and ten teachers had some kind of training at the Refuge this year, including orientation sessions, Project Wild, and Project Learning Tree workshops (Figure 34). Ellie met with many teachers to discuss their learning objectives and lesson plans and to make them aware of the learning materials available for them to use.

On February 2 the Association of Outdoor Educators held a conference in the Twin Barns and toured the Refuge.

Figure 34. Teachers learned how to test soil at a Project Learning Tree workshop. 85-EH

Figure 35. Cispus participants learned group involvement skills. 85-EH

Ellie attended the staff training for the Interagency Workshop at Cispus in January, and then participated as part of the workshop staff in March (Figure 35). This week long workshop helps participants plan education and public involvement programs and develop skills for working with groups. It brings together a variety of people from resource agencies and the education system. Ellie was also involved in developing new lesson plans and a promotional slide show for the Interagency Workshop.

4. Interpretive Foot Trails

The Nisqually River Trail was used by about 19,000 people this year. This trail is a half-mile loop winding through the riparian woodland along the Nisqually River and crossing several fluctuating tidal sloughs. It's heaviest use is in the spring and from October through January and when the Brown Farm Dike Trail is closed for hunting season. The trail and interpretive brochure are frequently used by school groups as part of their fieldtrips.

6. Interpretive Exhibits

The new information kiosk installed in 1984 has been an effective source of information for Refuge visitors. It is located near the parking lot and has panels telling about the habitats and wildlife found on the Refuge. There is also a panel on what to do at the Refuge as well as a rack for brochures.

Several "you are here" signs were installed around the Refuge at the same time the kiosk was built. These were made from enlarged aerial photos embedded in fiberglass. They have been resistant to vandalism, but the aerial photos are beginning to lose their color and turn blue around the edges in only a year and a half (Figure 36).

The theme of this year's Puyallup Fair booth was "What Can Wetlands Do for You?" Lynn Childers and Elaine Rybak from the Ecological Services office helped Ellie build a new counter and display panels for the booth, and they developed a rear-projection system to show slides at the booth. Employees from the Refuge and the Ecological Services office staffed the booth for 17 days and sold $1,672.50 worth of duck stamps. Once again over a million people visited the Fair.

7. Other Interpretive Programs

In October Henke gave a talk about the Refuge to the Native Plant Society.

8. Hunting

Although no hunting takes place on Nisqually NWR, the Refuge staff does monitor hunting on adjacent Washington Department of Game land. Bag checks were done at Luhr Beach on most weekends by volunteers Bill and Chris Schaff. They counted 615 ducks and 5 Canada geese taken by 325

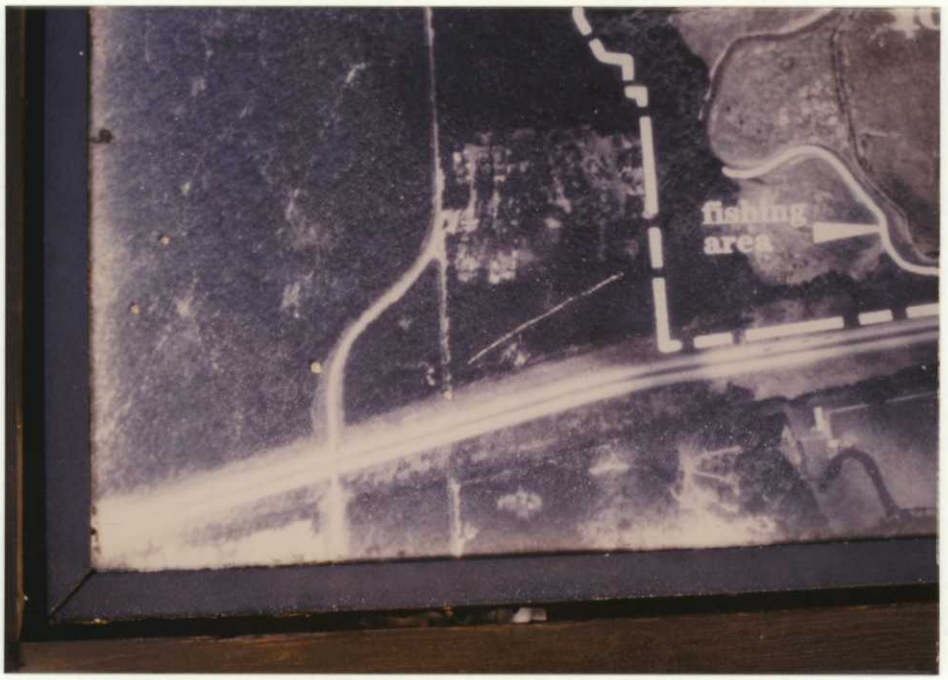


Figure 36. The aerial photos are already beginning to fade. 85-EH

hunters for a seasonal average of 1.9 birds per hunter. They reported that hunting groups averaged 2.1 hunters per group. Early in the season mostly wigeon and teal were taken while later it was a mixed bag comprised mostly of wigeon and a wide variety of other species, including green-winged teal, mallard, pintail, shoveler, bufflehead, goldeneye, scaup, and scoters. This is the first year that geese were taken on the Nisqually Delta.

9. Fishing

Anglers may fish from their boats or use two bank fishing areas, one along the Nisqually River and the other along McAllister Creek. Most sport fishing is for salmon and steelhead, and the Nisqually Tribe runs a fishery for salmon. Fishing success is not being monitored at this time. Other visitors dig clams and ghost shrimp on the mudflats near Luhr Beach.

11. Wildlife Observation

The Refuge trails offer many wildlife observation opportunities and take visitors past most of the major habitat types in the area. The observation deck at the Twin Barns offers a good view of freshwater marshes and grasslands, and several snags have been artifically installed nearby to attract raptors in to closer view. The Refuge also has three photography blinds that are frequently used by visitors. A register near the office allows visitors to record their observations and to find out what other visitors have seen (Figure 37).

Figure 37. Visitors can record their wildlife observations outside the office. 85-EH

12. Other Wildlife Oriented Recreation

Many visitors enjoy watching wildlife while canoeing and kayaking in waters around the Refuge. Most put in at Luhr Beach and paddle McAllister Creek and across Nisqually Flats.

14. Picnicking

Although the Refuge offers no picnicking facilities, many visitors bring lunches to eat along the trails while they are hiking. Others also enjoy picnics in the orchard and sitting on the observation deck at the Twin Barns.

16. Other Non-Wildlife Recreation

Fruit picking continues to be a popular activity in late summer and fall. Visitors may pick up the windfall apples and pears from the orchard, but are not allowed to climb the trees or use ladders. Many people bring ingenious apple picking devices on long poles to reach fruit on the upper branches without damaging the trees. Blackberries are also a fall favorite and make wonderful pies and jelly.

17. Law Enforcement

Manager Hesselbart and Biologist Thompson participated in "Operation 9" and the Refuge was found to be clean of marijuana patches.

During the early part of the year the Refuge visitors were subject to a rash of thefts from parked vehicles. We cautioned visitors and alerted the Thurston County Sheriff's Office.

For several years the level of enforcement has been low-key in nature, i.e. numerous verbal warnings versus citations. There were 63 citations issued in the previous ten years. This year Wilkins completed FLETC training and McMinn EOD'd already a Refuge Officer. Without putting in too much time they made the following cases:

Hunting out of season	1
Hunting with an unplugged gun	9
Hunting without duck stamp	6
Hunting without a license	1
Carrying a gun on Refuge	9
Littering	3
	29

Washington State opted to cut two weeks out of the middle of their hunting season to comply with the federally mandated shorter season. This was a first for local hunters and many did not pay attention to the radio, TV, newspaper or hunting regulations. Contacts were made with several hunting parties as they attempted to take migratory waterfowl during a closed season. One man had his limit already and left little choice but to enroll him in the Justice systems hunter education course.

Trespass in the closed areas of the Refuge during the hunting season still remains a problem. Visitor safety and protection of the sanctuary areas is the primary concern. The following are the most common reasons given for being in the closed areas:

"But it's such a nice day and we....."
"I don't care if there are hunters, they don't bother me."
"I didn't hear any guns, I thought it was clear."
"I think it's stupid to close this, I like to walk the dikes."

The problem is, these people are normally staunch supporters of the Refuge who are not intentionally trying to abuse the Refuge but have acquired the attitude that we should not place any restrictions on their activities. AREA CLOSED signs mean nothing. Several unsympathetic warnings were issued this year which may or may not do any good. Next hunting season, warnings will be few and far between.

I. EQUIPMENT AND FACILITIES

1. New Construction

The following construction projects were completed in 1985:

- The new pumphouse initiated in 1984 was completed.
- A culvert was installed on pond 3-C to improve water management capability.
- The deck/porch on the existing office was framed in to provide office space for ADC. The work was completed force account.
- A new boardwalk was constructed on the eastside of the Refuge.

2. Rehabilitation

The following rehab projects were completed in 1985:

- The office parking lot was re-furbished with new barriers and the configuration was changed to reduce parking spaces.
- The Twin Barns received a face-lift (Figures 38 ¢ 39).
- The Euclid cat and Galion road grader were overhauled and ROPS were installed on both pieces of equipment.
- The pump for the septic system at the office was replaced and the septic system pump at the Twin Barns was made functional. The contractor had never wired the pump.
- The sill plates on the south windows of the Twin Barns were replaced with treated wood and new treated studs for vertical support were installed.
- Some old routed regulatory signs were replaced on trails with new silk-screened signs.
- The YCC tool bin in the south barn was expanded to improve access and storage capability.

Engineering from Portland R.O. contracted with an engineering firm (Sverdrup and Parcel and Associates, Inc.) to determine the extent of seepage problems in the Brown Farm Dike along McAllister Creek and to prepare a report on potential methods of correcting the problem. The final report was completed in October, 85 and the alterations are presently being assessed.

3. Major Maintenance

The following maintenance projects were completed in 1985:

- The floors of the bathrooms in the EE Center were painted.
- The channels on some risers were properly aligned and new stop logs were installed.
- The gravel roads were bladed on an as-needed basis.
- Force account mowing was done on roadsides and along trails. A reduction in mowing to enhance wildlife diversity was implemented.

Figure 38. You wanted the window where? 85-RW

Figure 39. New doors on the twin barns. 85-SE

- Windows and doors of office and EE Center were caulked and weather stripped as per energy retrofit recommendations.
- Some particle insulation was installed in the loft of the shop to improve heat retention.
- Maintenance to equipment was above average because of the equipment being stored outdoors and unprotected from the elements.
- The hull was patched on the Boston Whaler and the tarp was repaired.

The old clubhouse on Nisqually Farms, Inc. was identified as being a potential hunter check station and VCP on the eastside of the Refuge. Engineering from Portland R.O. conducted a structural evaluation of the building in April. The analysis was very revealing to the tune of approximately $75K to bring the building up to reasonable standards.

4. Equipment Utilization and Replacement

During 1985 we acquired, via the excess property method, a Galion grader and Euclid cat through Fort Lewis (Figure 40). Both items were in fair shape but needed ROPs installed. A fire truck was also acquired (Figure 41).

We acquired a new S-10 pickup from the GSA Fleet Management Center. This vehicle represents an addition to our fleet. The additional Protection Island NWR will dictate that FWS have a vehicle on the Island.

Our Saxon 301 copy machine began giving off unbearable fumes while operating. It was replaced with a new Sharp copier.

5. Communications System

The two-way radio system purchased with ARMM dollars became operational in 1985. The total cost of the system which includes base station and repeater was approximately $25K. The radio system provides capability to communicate throughout Puget Sound and San Juan Islands

6. Computer System

The Complex has no computers. The ES office in Olympia, WA transferred an IBM word processor to our office. With the transfer of ADC to USDA it is hoped we will move up on the computer purchase priority list and may be scheduled to receive a new computer in 1986/87.

7. Energy Conservation

The energy consumption for the last six years is displayed below in KWH:

1980	1981	1982	1983	1984	1985
57,756	48,879	46,650	35,130	77,720	87,990

The year of 1985 was exceptionally dry so we had to run the pump for maintaining water levels as per management plans. Hopefully, the consumption will be lower in 1986.

Figure 40. Watson checks out the new Euclid. 85-BH

Figure 41. This fire truck will be used on Protection Island. 85-BH

8. Other

The acquisition of property from BPA and Fort Lewis continued as in the past. Several thousand dollars worth of supplies and materials were acquired on excess. The items may not be usable at Nisqually but may end up at some other Refuge or hatchery.

The activation of the property disposal center at Auburn, WA has worked very well for us. Equipment, etc., that is no longer of use to FWS is transferred to Auburn and we are immediately relieved of accountability.

J. OTHER ITEMS

1. Cooperative Programs

National Wildlfe Refuge Permits (R1-95) were issued to the following individuals in 1985:

Name	Purpose
Peter Roberts	Filming for education film
Phillip Johnson	Photos for wilderness magazine
Linda Kunze	Environmental investigations for extension class
Ian Hutchinson	Vegetative survey to study regional variation.

These permits are issued because the activities/purposes dictate that the applicant be allowed access into closed portions of the Refuge.

3. Items of Interest

Formal training and workshops were attended by staff for the purpose of career development. Session topics, locations and dates are presented below by staff.

Staff	Session Topic	Location	Date
Hesselbart	EEO	Nisqually NWR	1/16
	Fred Pryors Seminar	Tacoma, WA	1/23
	Pesticide Applicator	Tacoma, WA	2/5
	Administrative Seminar	Portland, OR	3/20-3/21
	Interagency Workshop	Tenent Lake	5/7
	Project Leaders Meeting	Reno, NV	7/22-7/25
	Pinch Hitter Flight Tng.	Olympia, WA	12/10
Henke	Cispus	Randle, WA	1/22-1/27
	NAIN Conference	Seattle, WA	5/8-5/10
Watson	Pesticide Applicator	Tacoma, WA	2/5

Staff	Session Topic	Location	Date
Haworth	EEO	Nisqually NWR	1/16
	Administrative Seminar	Portland, OR	3/20-3/21
	GSA Services	Auburn, WA	3/7-3/8
	Telephone changeover	Seattle, WA	5/15
Thompson	Invertebrate Workshop	Turnbull NWR	4/23-4/26
Wilson	Pacific Seabird Grp.Mtg.	Sacramento, WA	12/3-12/7
Webber	Invertebrate Workshop	Turnbull NWR	4/23-4/26
	Interagency Workshop	Tenent Lake,WA	5/7
Wilkins	FLETC	Glynco, GA	July-Sept.
McMinn	Pinch Hitter Flight Tng.	Olympia, WA	12/10
Wray	Pinch Hitter Flight Tng.	Olympia, WA	12/10

Manager Hesselbart conducted a few meetings throughout the year with the Adopt-A-Refuge Committee consisting of a representative from each of five Audubon Chapters around Puget Sound. The purpose of the committee is to report back and coordinate projects to be completed by the Chapters on refuges. I think some very worthwhile projects can be accomplished but it takes a commitment of time in the initial phases.

We supplied technical assistance with efforts to clean up after an oil spill on Whidbey Island in the north Puget Sound.

A couple meetings were held early in the year with city officials from the City of Dupont regarding the Comprehensive Plan for Dupont. A proposal was made by an adjacent landowner to incorporate the Refuge land owned in Pierce County into the City of Dupont. Our position was not in favor of being incorporated into the city because of additional administrative layers.

Hesselbart attended the dedication ceremony for the John Wayne Marina near Sequim.

Henke and Hesselbart were requested by personnel from Department of Ecology to serve on committees selected to implement Substitute House Bill 323. This State legislation directs a study and evaluation of a comprehensive management plan for the Nisqually River from the glacier on Mt. Rainier to Puget Sound. The legislation recognized the river as being of statewide significance and being in need of comprehensive planning to assure perpetuation of the values associated with the river. Several meetings were held in fall of 85 and the work will continue in 1986.

Manager Hesselbart was selected or requested to be a candidate interviewed by the National Team that was conducting an evaluation of the Service's planning. Some excellent discussions occurred and it is hoped that some of the field input will be implemented.

Manager Hesselbart was interviewed by Bob Wethern (outdoor writer) for an article on history of waterfowl hunting on the Nisqually Delta.

McMinn and Hesselbart attended the semi-annual meeting of the Bluebird Nesting Committee at Fort Lewis.

Though not directly involved McMinn attended a meeting of the newly formed Puget Sound Estuary Program.

Webber and Hesselbart attended the State/Federal Interagency Workshop on 5/7 & 8 to discuss resource issues of common concern. The workshop was hosted by Tom Reed of Washington Department of Game and was held in Ferndale, WA. These meetings provide excellent opportunities for field level people of federal and state agencies to exchange information and critique each others activities.

Manager Hesselbart was invited by National Audubon to attend the Board of Directors of National Audubon hosted reception in Seattle on April 25. It was a very nice reception and provided an excellent opportunity to initiate some dialogue on interaction of Audubon with FWS.

The Washington Islands NWR was transferred from Willapa NWR to the Nisqually NWR Complex. The effective date of transfer was October 1, 1985. Since the seabird biologist position is located in Sequim, WA and the seabird activity occurs on San Juan Islands and Protection Island it made sense to have all jurisdictional authority for seabirds in Washington under our office and also travel time to Washington Islands from Sequim is a little more cost effective than from Willapa NWR. Personnel from Willapa NWR were very helpful in the transition and provided files and briefings on current issues.

4. Credits

Staff receiving credit for writing, editing, graphics, typing and photography of this report are:

Bill Hesselbart (BH)	Introduction A. Highlights C. Land Acquisition D. Planning I. Equipment and Facilities J. Other Items Editing
Mike McMinn (MM)	E. Administration F. Habitat Management G. Wildlife J. Other Items Graphics
Ellie Henke (EH)	E. Administration H. Public Use Appended News Releases Graphics Editing/Assembly

Nadeen Haworth	Typing/Assembly B. Climatic Conditions

Steven P. Thompson (SPT)
Ralph Webber (RW)
Rick Rocco (RR)
Sarah Emery (SE)

APPENDIX A

MINI-NARRATIVE FOR

PROTECTION ISLAND

1985

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

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COVER PHOTO

Figure 1. Sunset on Protection Island
85-SPT

I. BACKGROUND

A. Location

The 364± acre Protection Island is located near the mouth of Discovery Bay in the Strait of Juan de Fuca in Jefferson County, Washington. Kanem Point, that point of the Island closest to the mainland, is situated 1.4 miles due north of Diamond Point (Figure 2).

The location of Protection Island subjects it to some weather extremes. The two most important factors affecting weather in the Protection Island area are the marine environment and the Olympic Mountains to the west. Weather data from Sequim, Washington shows an annual average temperature of 48.9°F with a maximum temperature of 91°F in August and a minimum of 15°F in February. Low precipitation is probably the most significant weather feature of the area. Sequim receives approximately 16 inches annual precipitation, while 70 miles west on the ocean side of the Olympic Mountains, Forks, Washington received 125 inches. The explanation for the differential is referred to as the "rain shadow effect." Storms originating offshore move northeastward and encounter the Olympic Mountains which force the moisture laden clouds upward. This rapid ascent results in a decrease in temperature and great quantities of precipitation fall on the windward side of the mountains. As the clouds descend on the leeward side, the temperatures increase and lesser amounts of moisture are released.

Protection Island is subject to frequent winds which are usually in the range of 5-20 miles per hour. Winds can exceed 60 miles per hour during storms and sweep directly across the Island, generally from a southeast direction.

B. History

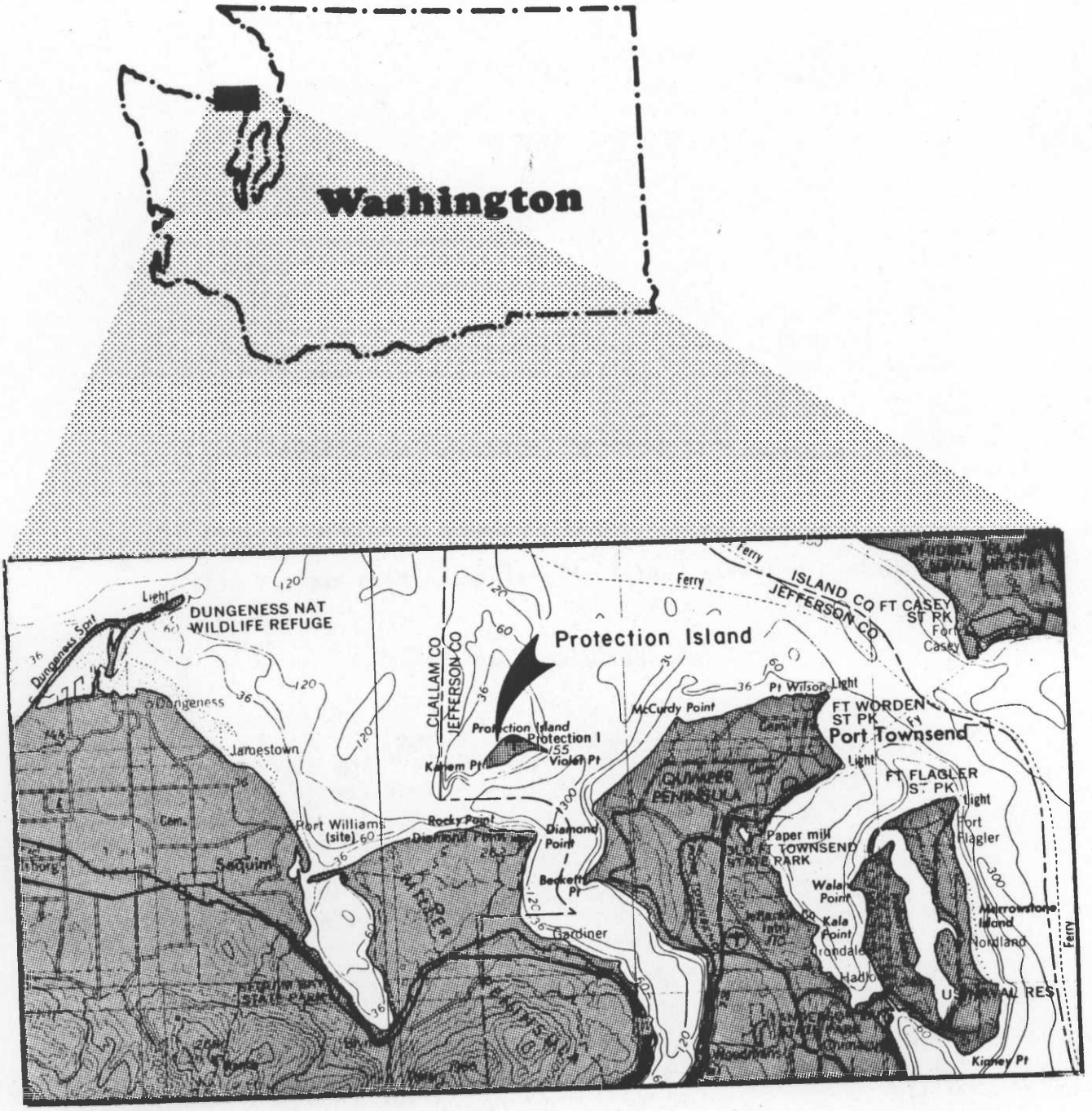
The earliest published records for Protection Island were from Captain George Vancouver in 1792. He described the landscape as an enchantingly beautiful, elegantly finished, pleasure ground, like the best in Europe. He wrote about a beautiful variety of extensive lawns covered with luxuriant grasses mixed with an abundance of flowers. To the northwest was a mixture of pine trees and shrubs of various sorts.

In 1859 Suckley, an early naturalist, referred to Protection Island as a favored breeding ground of the rhinoceros auklet.

The lands of Protection Island were patented by the United States from the public domain to private ownership through presidential actions from 1861 to 1865.

The island apparently retained the appearance described by Vancouver until about 1887. Sometime between 1888 and 1912 sheep severely overgrazed many portions of the island. The sheep completely destroyed the grass cover in some areas. In these areas the wind had blown away all of the top soil leaving only unstable sand dunes and stones resting on hardpan.

Figure 2.



Regional Location

Protection Island National Wildlife Refuge

From 1939-42 a ring-necked pheasant research project released at least two cats on the island to observe the effect of this predator on the isolated pheasant population. Although sheep were not on the island during this period, much of the habitat was still recovering from past overgrazing. About 30 percent of the island was intensively farmed for wheat, alfalfa, and potatoes during this time.

At least two major fires burned much of the island between 1944 and the 1950's.

Prior to 1969 Protection Island passed through several ownerships. The major land use during this time was farming, with various other uses such as hunting and research. In 1969, subdivision and development of the island for residential-recreational homes was initiated. The destructive sheep overgrazing was stopped and much of the rhinoceros auklet breeding habitat began to recover.

Although the developers did stop the overgrazing, their new activities such as lot development, road construction, and gravel pits destroyed some valuable rhinoceros auklet breeding habitat. Also, an increase in human presence adversely impacted some species.

The historic human uses of Protection Island have had various effects on the resident wildlife. Obviously, it is difficult to reconstruct the impacts to all species, but the above examples show some general habitat impacts that have affected the rhinoceros auklet.

Authority to establish the Protection Island National Wildlife Refuge (NWR) is vested in Public Law 97-333, the "Protection Island National Wildlife Refuge Act," which was signed by President Reagan on October 15, 1982. Congress found that "(1) Protection Island provides nesting habitat for 72 per centum of the entire seabird population of Puget Sound and the Strait of Juan de Fuca; (2) this island also provides refuge for other species, including the threatened bald eagle and the harbor seal; and (3) this island is a nationally significant environmental resource threatened with destruction through residential and related development." The Secretary of the Interior was given permission, therefore, to acquire lands and waters within the proposed refuge boundary "to provide habitat for a broad diversity of bird species, with particular emphasis on protecting the nesting habitat of the bald eagle, tufted puffin, rhinoceros auklet, pigeon guillemot, and pelagic cormorant; to protect the hauling-out area of harbor seals; and to provide for scientific and wildlife-oriented public education and interpretation."

C. Natural Values

Within the marine waters of the Puget Sound Basin, approximately 70 percent of the breeding-age seabirds nest on Protection Island. The combination of soil conditions suitable for burrow-nesting, freedom from predators, and limited human disturbance make Protection Island one of the most significant rhinoceros auklet and tufted puffin breeding areas in Washington, Oregon, and California. (Figure 3)

Figure 3. Typical burrowing habitat on the exposed cliffs of P.I. 85-SPT

Figure 4. Approximately 17,000 pairs nest on P.I. 85-GDA

The rhinoceros auklets that nest on Protection Island represent about one-half of this species breeding population in the contiguous United States. (Figure 4) The glaucous-winged gull colony is believed to be the largest in the State of Washington. Within the Puget Sound Basin, the tufted puffin nests only on four other islands and the pelagic cormorant on ten islands.

The island is used by about 250 harbor seals for hauling out, approximately 90 seals use Violet Spit as a site to give birth.

The bald eagle, a threatened species, has successfully nested on the island within recent years and peregrine falcons, an endangered species, occasionally use the island during migration.

D. Status

Although the island is only 364± acres in size, its ownership patterns are complex. The land below mean high tide belongs to Washington State and is administered by the Department of Natural Resources. Forty-eight acres on the west end of the island are owned and managed by the Washington Department of Game as the Zella M. Schultz Seabird Sanctuary. The remainder of the island is divided into 831 lots with 110 acres of community property (Figure 5).

The 831 lots plotted on the island represent ownership by 528 separate individuals or entities. Many of the owners have not been back on the island since they originally purchased the lot. Activities of lot owners include collecting mushrooms and peafowl feathers, camping, beach walking, photography, bird watching, gardening, fishing, crabbing, and clamming. Some residents keep dogs on the island. The neighborhood currently has no public utilities or potable water.

II. ACQUISITION

A. Donations

Acquisition was off to a good start in 1982 with the donation of six lots to FWS by several Audubon Society chapters. Through most of 83 and 84 the acquisition process was static due to landowner uncertainty and unwillingness to sell their lot.

B. Progress

The reasons for the slow progress in acquisition can probably be explained by the following statements:

1. The independent appraisal completed in 1983 declared all lots to be of equal value ($2,000) and several landowners had paid 3 - 6 times that much for their lot.

2. The FWS could not pay dues to the Beach Club because a commitment to pay dues was based on future appropriations. The Beach Club would not release the lien for dues so FWS could not attain clear title to any lots.

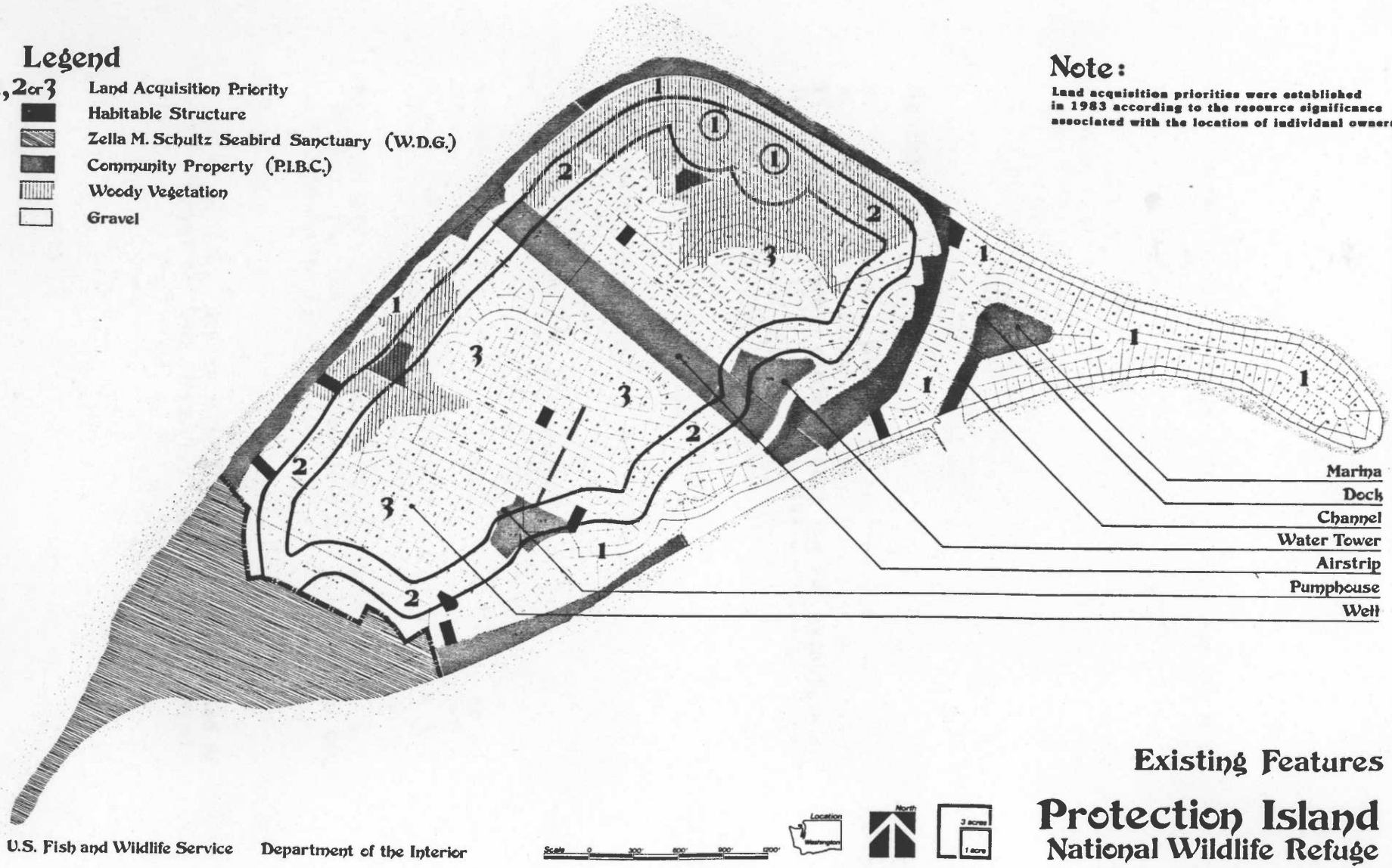


Figure 5.

Existing Features

Protection Island
National Wildlife Refuge

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

3. The landowners were waiting to see what the Master Plan said about future management and use of the island before deciding to sell.

Once the above noted issues were clarified/resolved and the Master Plan draft was circulated the landowners (several of them) decided what to do. The majority would not sell. Through much of 1985 the FWS acquired lots from willing sellers and at the year's end held title to approximately 200 lots, which meant the FWS still had approximately 600 lots to acquire. The legislation directed the Service to attempt to purchase from wiling sellers for a couple years from the date of the Act. The FWS decided to file a "Declaraction of Taking" for the remaining lots to put all land in fee title.

III. ACTIVITIES

A. Cooperation

In the interim phase between passage of the Act and the filing of the D.T. the management of the Island has been very complex. The donation of the lots to FWS by Audubon dictated that the FWS establish a profile on the Island. During 1983 and 84 the FWS had Student Conservation Association volunteers living on the Island during the summer gathering baseline wildlife information.

Congress charged us with providing life use associated with the habitable structures on the Island. FWS has determined there are nine habitable structures on the Island. The FWS was also charged with considering extended use for owners of unimproved lots on the Island. The planning team was directed to draft up a set of guidelines for extended use so people could make a choice on whether or not they would request it. The extended use guidelines are pretty conservative and will protect the integrity of the Refuge and its purpose.

Of the nine habitable structures, it has been determined, or by choice of the landowner, that only six are eligible or will request life use and approximately 16 have requested extended use associated with their lot (Figure 6).

The FWS has negotiated a Memorandum of Agreement with the Washington Department of Game and the Protection Island Beach Club to cover our management presence during the last few years.

B. Management Activities

During the summer of 1985, due to budget restrictions, we had no SCA's on the Island. Personnel from Nisqually and Dungeness worked on the Island on an intermittent basis to gather wildlife data and provide public information/enforcement.

Wildlife research activities by students from two universities continued during the 1985 field season.

Figure 6. Phil Vorvick's habitable structure is one of the nicer homes on the Island. 85-WBH

Figure 7. Discussing the issues on-site with Island caretaker. 85-WBH

A few meetings were held throughout the year with Protection Island Working Group and some landowners to resolve issues of concern regarding extended use (Figure 7). The issues were never totally resolved to the satisfaction of the landowners.

The FWS was able to recruit a volunteer couple during CY85 that are willing to live in one of the habitable structures on the Island (Figure 8). They are anxiously awaiting the filing of D.T. so they can move to the Island.

Several meetings were held this year with Washington Department of Natural Resources and Washington Department of Game regarding the FWS proposal to close tidelands and bottomlands around Protection Island. The FWS is recommending establishment of a 200-yard buffer to be closed to public entry (Figure 9).

The FWS made contact with Rocky Charters regarding boat tours around Protection Island. We had reports that the tours were going close to the Island and harassing wildlife. We encouraged them to stay 200 yards off-shore.

Bill Hesselbart was interviewed by KIRO-TV (Channel 7) in early December for a story on the Refuge establishment progress.

In November, a tour of the Island was made with Regional Fire Management Coordinator Troeşter and representatives of Washington Department of Natural Resources to negotiate a cooperative fire management agreement with DNR.

The FWS is negotiating the terms of an agreement for 15-year use permit for Walla Walla College. The FWS made a commitment to allow a 15-year use from the date of acquisition. WWC owns a lot on the Island with two trailers for living accommodations. The trailers are located right below the bald eagle nest. The FWS will reimburse WWC for having the trailers moved to a mutually agreeable site on the Island. The 15-year use permit does not guarantee WWC unlimited research. They must submit proposals and be issued SUP for conducting research.

Steve Thompson took Ross Newcombe and Gene Kridler to the Island in July to get their impressions on our management approach. Ross did a master's thesis on the Island in 1939 and Gene Kridler is retired FWS employee who lives within sight of the Island.

C. Resource Information

During 1985, the Fisheries Assistance Office from Olympia compiled a report on the history and distribution of Pacific sand lance in relation to Protection Island. The sand lance is one of the primary foods of rhinoceros auklet.

The Secion 7 evaluation was completed in 1985 as part of the master planning process. The internal consultation contains some very specific conservation recommendations which will guide our management activities.

Figure 8. The habitable structure which will be occupied by volunteers. 85-WBH

Figure 9. These types of activities encourage us to secure control over waters and lands within 200 yards. 85MJK

Dr. Charles Henny (FWS) collected some cormorant eggs from Protection Island to analyze for contaminant problems.

Four boat counts were completed on Protection Island in 1985 by Wildlife Biologist Steve Thompson. The results of the 1985 biological censusing are displayed in Table I.

Table 1. Boat Counts on Protection Island by Species

	Date				
Species	3/7	3/8	5/6	7/9	Nests
D.C. Cormorants	4	-	9	58	41
Pelagic Cormorant	39	15	460	626	500
Black Oystercatcher		3	11	19	-
Pigeon Guillemot	10	989	2365	1052	-
Tufted Puffin	-	-	30	45	-
Harbor Seals	146	312	110	93	
Gray Whale			2		

Twenty-two brant were tallied in early March feeding on eelgrass beds around Protection Island. There was activity at the bald eagle nest but no young were produced. The pair stayed in residence throughout the breeding season and late summer.

Biologist Thompson reported a rather unusual observation on a visit to the Island in July. A northern harrier was attacked by a swarm of gulls over Violet Spit and knocked into the water. He recovered the bird and released it but chances for survival were slim to none.

Two northern harrier nests on Protection Island produced young in 1985. Table 2 displays the results of aerial surveys for the Island.

Table 2. Aerial Surveys

	Dates of Survey			
	10/17/84	11/15/84	12/17/84	1/8/85
Species				
Surf Scoter	75	95	15	40
W.W.Scoter	20	25		
Common Loon	11	3	1	
Arctic Loon	15			
Western Grebe	200	7		
Common Murre	100			
Pigeon Guillemot	245	4		
Harbor Seal	280			190
Pelagic Cormorant	360	15	5	25
Goldeneye		92	15	
Bufflehead		280	25	60
Oldsquaw			5	
Harlequin		5	5	
Merganser		65	15	15
Red-necked Grebe		20		
Horned Grebe		2		
Unknown Gull		200		
Bald Eagle	1			

D. Master Planning

The master planning effort continued through most of 85 but was completed prior to the end of the calendar year. The process was a very comprehensive treatment of sensitive issues that had to be planned to a fairly specific level rather than being conceptual in nature (Figure 10). The public involvement level was fairly significant. The necessary support documents including Section 7 and EA were completed for the master plan.

The master plan for Protection Island is written with the thought that as conditions change or technology advances the plan will be flexible to accept modification of individual management concepts.

IV. THE FUTURE

A. Present Scenerio

The Declaration of Taking was signed by Regional Solicitor in late December, 1985 so we are anticipating filing of D.T. early in 1986. The original legislation indicated that the Secretary of Interior would establish the Refuge when enough land was acquired to be an administratively manageable unit. Hopefully, the filing of the D.T. will be accompanied by official establishment. This will be a new course for us after three years of being in the middle. Since there are several landowners that are probably going to challenge the taking (price and extended use provisions) in court it will probably be an interesting year ahead.

B. Credits

The entire report was written and edited by Willard B. Hesselbart.
Photos: SPT - Steven P. Thompson
GDA - Gordon D. Alcorn
WBH - Willard B. Hesslebart
MJK - Max J. Krueger

The following photo section depicts some of the scenery, facilities, activities, etc. on Protection Island.

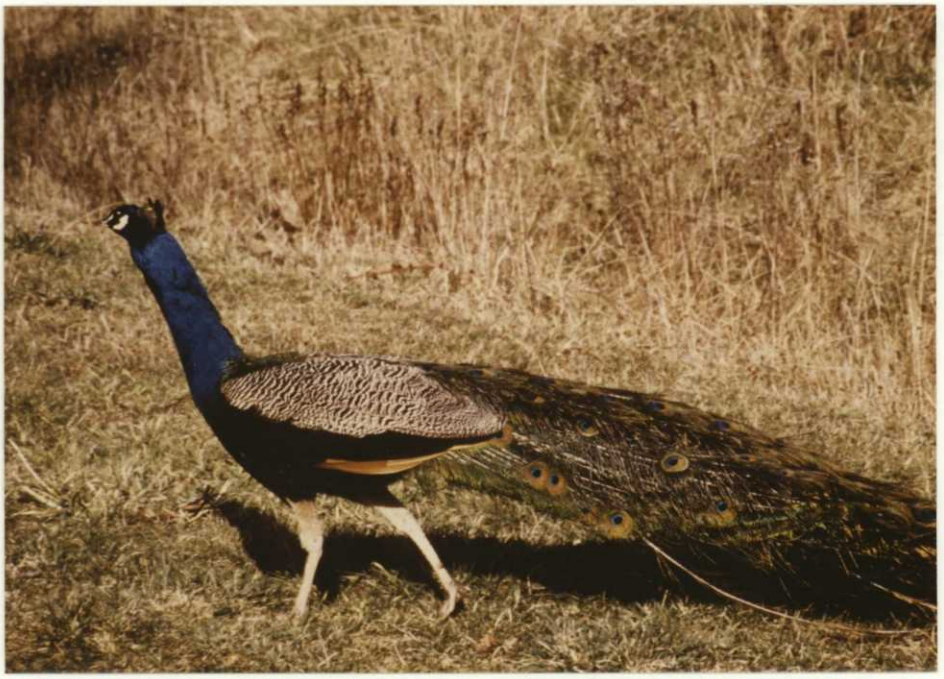


Figure 10. These island residents (the subject of much discussion) will have to leave. 85-SPT

PHOTO SECTION

Figure 11. One of the more scenic spots on the Island. 85-GDA

Figure 12. The remnants of Protection Island International Airport. The airstrip as a means of access will be closed. 85-WBH

Figure 13. The marina on the east end of the Island will provide access for lot owners with extended use and FWS personnel. 85-WBH

Figure 14. A pod of Orcas (killer whales) off P.I. 85-SPT

Figure 15. A classic example of hodge-podge development. This or these are not habitable structures and will be removed. 85-WBH

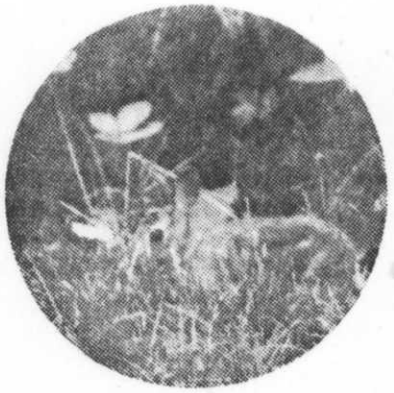
Figure 16. This habitable structure owned by Sound Properties, Inc. will become the on-site office for FWS personnel or volunteers. There will probably be no time to play. 85-WBH

Figure 17. Installing artificial burrows for rhinoceros auklets on P.I. to provide better monitoring of population and food habits. 85-SPT

Figure 18. The black oystercatcher is extremely vulnerable to disturbance. They nest on the gravelly beaches. 85-SPT

Figure 19. Pigeon guillemots nest in burrows or in the driftwood on the beaches. 85-SPT

Recommended Magazine, November, 1984



NISQUALLY
A Living Legacy

By Mary Ellen Melville

For the non-native or the lesser informed, the Nisqually Wildlife National Refuge is an incredible environment for a quiet walk and a "nature place." And for those who know about such things, the Nisqually Delta Area is rich with American History, Indian Culture, environmental controversy and

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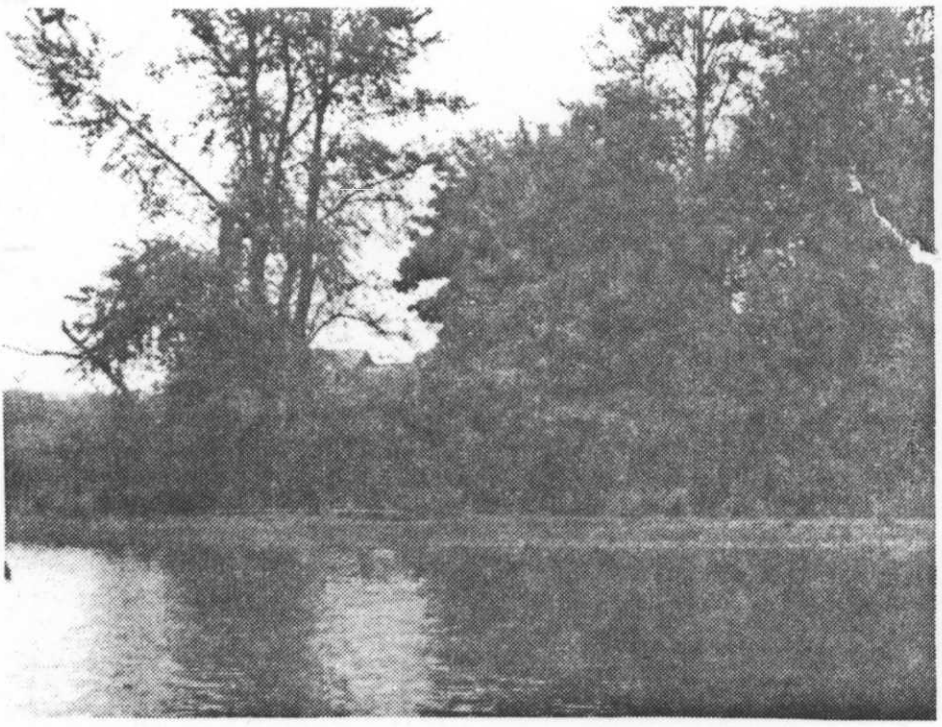

legislative ping pong. For the record, the Nisqually National Wildlife Refuge is a grand legacy of the most recent Ice Age—and a one-of-a-kind outdoor laboratory.

On the northeast corner of Thurston County bounded by Puget Sound, I-5 and the Burlington National Railroad, we are fortunate to have an unspoiled haven for a myriad of water fowl, migrating birds, wildlife and plant life. It officially became the Nisqually National Wildlife only ten years ago.

In 1832 the area was first settled by the Hudson Bay Company, as a fur trading post as well as a politically placed stronghold. Eighteen years later The Medicine Creek Treaty was signed, the first treaty council between the Indians and then Territorial Governor Stevens. The treaty set up monetary payments to the Indians for land ceded. Reservations were set up on Squaxin Island, on the mouth of the Nisqually River, and one was west of Commencement Bay near Tacoma.

In 1904 the property was purchased by Al and Emma Brown and became known as the Brown Farm. Even now one of the trails and a road retains the Brown name. The farm was notably productive raising crops, pigs, chickens and producing honey and butter. Later the property was sold for financial considerations, but retained the Brown name.

At one time the Port of Tacoma (with possible support from the Port of Olympia) wanted the delta for a super port. But Margaret McKeeny, one of the first conservationists to recognize the importance of saving the area from development, alerted friends and neighbors and formed the Nisqually Delta Association.

A special task force was established by Governor Dan Evans (1970) to study protecting the area (including the whole Nisqually River Area). A series of legislative attempts to protect the land did not succeed until 1974, when the Brown Farm was acquired for a National Wildlife Refuge.

The Refuge is a place for the casual observer to enjoy an afternoon walk down well marked paths. The half-mile Nisqually River Trail is thickly wooded and even provides fishing access to the river and to McAllister Creek. The river trail is a great place to spot little animals (racoons and beavers) as well as birds and much vegatation.

For the more adventurous there is a 5.6 mile Brown Farm Dike Trail that takes you out towards the Nisqually flats and through a variety of natural habitats. My early morning Sunday walk included a show by three seals, the flight of a red-tailed hawk—along with a few white tailed bunnies. My last trip featured huge, ripe blackberries and brambles that wanted to over-run the pathways.

The habitats of the Refuge vary from salt to fresh water, tidelands to mudflats, meadow to riparian—and more. The dike (not created by nature) has added to the variety. The estuary is an ever changing and magnificant feeding/breeding/resting ground for wildlife year round, and for a whopping 20,000 waterfoul that migrate through the refuge in the spring and fall.

The Refuge Center is open every day from sunrise to sunset. It is *free* and there is ample parking. The refuge office hours are from 7:30 am to 4:00 pm Monday through Friday. Educational opportunities are available to groups and teachers; reservations should be made in advance.

The Nisqually Refuge is strictly a day trip spot. There are no facilities for over-night camping, fires, pets or motor bike riding—so leave all that stuff at home. But do bring your children, friends and cameras (leave your jogging shoes at home—this place is for walking only) to enjoy a peaceful, interesting and fun visit in a world that is unique to the world.

Bill Hesselbart, Refuge Manager, says that by and large the public has been willing to respect the property and resources. It makes their job a lot easier when visitors do not leave garbage behind, when they leave their pets at home and when they stay on the trails.

If you are interested in making a difference and supporting the Refuge, here are some ideas:

1. Volunteer your time to the center. The needs range from providing general maintenance to identifying birds to visitors.
2. Buy a Duck Stamp. (sold at the Refuge) They are not just for hunters. The total cost of the stamp ($7.50) goes to the acquisition of wetlands across the United States. Part of the Nisqually Area was acquired through these funds.
3. Become part of an organization with environmental consciousness such as the Audubon Society or the Nisqually Delta Association.

Thurston County is indeed fortunate to have such a resource so close at hand.

For more information, please call 753-9467. R

Recommended Magazine, November, 1984

Jack Davis— *Conservationist*

by **T. Abel**

Jack Davis and his wife Ada have been involved in environmental issues for 20 years. They are founding members of the Black Hills Audobon Society, which they are quick to point out is a conservation group, not just birdwatchers. Their faces light up when they talk about the places they love in this area—the Nisqually Delta, Mima Mounds, McAllister Creek and the wetlands of Grays Harbor. I asked if there was any specific event that influenced Jack to become an environmentalist. Here is what he told me.

"I'm a dust-bowl Okie and shortly before my family left for California we lived on a wretched farm in central Oklahoma. It was the poorest time of the worst depression. As a teenager I lived in the Los Angeles Basin for six years—we moved there in 1935. I went to school in Orange County—Santa Ana, Garden Grove—places which in those days were extensive orange groves and clean air. The last day I worked down there in 1966 I was up on Mount Wilson training some young weather observers. It was one of the smoggiest days I ever saw. We were at 6,000 feet and through the day I watched the smog creep out of the basin and finally engulf the entire mountain. The next day we were heading for Olympia and then on to Alaska.

"Ada and I have been environmentalists for 19 years, however, it wasn't until we moved back to this area from Alaska that we became part of a local group with a formal approach to matters. Up until that time, it was a matter of writing letters to our senator, discussing issues with fish and wildlife departments and that sort of thing. But, during the time we were in Alaska, oil was discovered on the north slope and they wanted to build the pipeline to bring it down here. We immediately thought that was wrong. So that was a kind of departure point.

"We have been involved in distinct issues from that time on. When the Black Hills Audobon Society (BHAS) group formed, we were founding members.

"The most recent issue and the one that has raised the most attention was the Percival Creek Bridge. We also are involved in the environmental protection of Grays Harbor and Bowerman Basin—important migration stopovers between Alaska and Chili. The problem is that the cities in that area have filled in about 4,000 acres of Wetlands where the birds stop, and they are continuing to fill.

"Of course, the Nisqually Delta has been an important item for BHAS Nisqually is the last major unspoiled estuary in the Sound. It has been threatened by various proposals, among them land fill, a supper port for Tacoma and a seaport for Weyerhauser.

"Right now, I suppose, the concern over Puget Sound water quality ranks among the highest priorities. We see Sound polution as a threat not only to the environment, but to our way of life in Thurston County.

"A study has just shown that only the Nisqually Reach and Dana Passage could accept a load of effluent sewage of up to ten million gallons per day. They may seek to build another sewage plant near those last "double A" waters, as we call them. Those are the very best marine water in this state and we will seek to prevent that from happening. (This plant almost guarantees that the main area of growth will be out on the Johnson Point and Hawks Prairie area) There is no guarantee of a source of drinking water for the anticipated population, and until its determined that there will be sufficient water, we feel that the proposal for an additional 100,000 people is premature.

"Perhaps we will find ourselves in the situation that Los Angeles or San Francisco did, where we have to dam a pristin river in the mountains to furnish a water supply.

"So we think that all of these problems ought to be addressed before the decision to grow goes on.

"Now those are environmental constraints, but aside from that when people come here, they need to define what they like about this area. And most people like this area because of the environment. Also the automobile is not the dominating force. If we grow, that is going to happen. We should decide whether or not we want that kind of lifestyle before we commit ourselves to it.

"Those of us that are older see that we are repeating the mistakes of the past. We knew that no one in Southern California really expected the growth that occurred there. They didn't expect to have all the horrendous problems of congestion, smog, and water shortage. It just happened. They encouraged growth without anticipating the consequences of that growth. So we are at the public hearings, testifying that they're putting the cart before the horse. They should determine the limits of growth, both in lifestyle and environmental restraints, before they commit themselves to that kind of growth."

Jack and I talked a little longer about some of the places in Thurston County that were special to him. He stopped for a minute and thought. Then he added, "But it doesn't have to be anything special. When you drive from here to Yelm on any of these back roads, you see country that would look like parkland to most people . . . we just take it for granted." **R**

The Olympian, February 6, 1985

Battle lines drawn for future development rights along Nisqually River

By Mike Oakland
Olympian staff writer

The battle for future development rights along the 78-mile Nisqually River likely will put government officials and environmentalists against private land owners.

At least that's the way the testimony stacked up at a Tuesday afternoon public hearing in the Senate Parks and Ecology Committee.

Under discussion was Senate Bill 3472, legislation sponsored by Sen. Mike Kreidler and Rep. Jennifer Belcher, both Democrats from Olympia. The bill would authorize the Department of Ecology to do a $42,516, year-long study of the Nisqually.

The end result would be a coordinated management plan for future development along the river. A number of local government jurisdictions ranging from cities and counties to federal and state agencies and the U.S. Army. have conflicting rules governing development. The plan is an attempt toward joint planning.

But property owners fear the plan is the first step to take away their rights to develop and use their property as they see fit.

Testifying in opposition Tuesday was Don Chance, lobbyist for the Washington Forest Products Association and Ken Braget, a dairy farmer near the mouth of the Nisqually.

Chance said he sees the bill as a move by the state to usurp the rights of local government. But Thurston County Commissioner George Barner said he welcomed the bill coordinating planning. Chance said his concern is not with the Nisqually Delta and Weyerhaeuser's planned wood products facility, but with land owner's rights to harvest timber in the Nisqually watershed.

Supporting the bill were Tom Skjervold from the Nisqually Delta Association, Nancy Pearson from the League of Women Voters, and numerous members of the Audubon Society, Sierra Club, and Washington Environmental Council. The Department of Ecology welcomes the chance to do the study, according to Rod Mack.

After the hearing, Kreidler said, "We didn't see the real opposition to this bill here today. I think the timber companies are the real opponents. I did see Weyerhaeuser's lobbyist sitting in the back row."

Kreidler said the timber companies are a powerful lobby in the Legislature and are likely planning their strategy. Kreidler fears the timber lobby may get the bill side-tracked into another committee or killed in the Senate Rules Committee.

But 22nd District lawmakers planned their strategy over lunch Tuesday. Kreidler said he'll see if he has the votes to get the bill out of committee then work to get it to the Senate floor for passage.

The Olympian, February 4, 1985

House opens Nisqually negotiations

By Mike Oakland
Olympian staff writer

The Washington House of Representatives is prepared to open hearings Tuesday on a controversial bill aimed at protecting the Nisqually River watershed.

The bill allows the Department of Ecology to study the river system. The department would come back with defined river boundaries and could design a river management plan that will allow all government jurisdictions to jointly plan future growth and development.

Land use along the river concerns a number of lawmakers, including Rep. Jennifer Belcher, D-Olympia. For instance, every time there's a change in command at Fort Lewis, the policy on running Army tanks through the Nisqually River changes, according to Belcher.

Driving tanks through the shallow parts of the river plays havoc with fish runs and results in new rounds of discussions between private and public property owners on land use management along the Nisqually River.

The tanks in the river is just one example of why Belcher has introduced House Bill 323, a study bill that could lead to a coordinated plan for development along the Nisqually, the river that divides Thurston and Pierce counties.

Belcher sees the bill as a means of protecting the natural beauty and environmental system of the Nisqually. She said it means nothing to talk of Puget Sound clean-up without preserving the water quality of the Nisqually which dumps into the sourthern end of Puget Sound.

Others fear the bill is the first step toward statewide land use planning, or an attempt to ban all future development or logging along the banks of the river.

"It's a study bill, I don't know what people are afraid of. We have to come back to the Legislature to get anything done," Belcher said.

That study, expected to cost $42,516, would take about a year to complete.

Right now if the city of Yelm, for example, decided its laws allow a large shopping mall to be constructed at the river, those downstream, where the impacts would occur, have no say in the matter, Belcher

See Nisqually/back page

Nisqually—

From page one

said. She envisions a cooperative planning agreement between the multitude of federal agencies, the army, cities and counties that hold property along the Nisqually.

She said the bill would not preempt private property rights.

But Belcher wants to make certain the state's Shorelines Management Act, which declares the Nisqually an environmentally sensitive area, guarantees cooperation of all parties on future development.

Belcher's bill sailed through the House on a 97-0 vote last year, but died in the Senate Natural Resouces Committee, chaired by Sen. Brad Owen, D-Shelton.

There was talk that Senate Majority Leader Ted Bottiger, D-Tacoma, whose district is split by the Nisqually, opposed the bill.

Bottiger said today that is not true.

He said he wants developers to know ahead of time what is and is not allowed in environmentally sensitive areas.

"There's no question that the Nisqually Delta is an environmentally sensitive area. But how far that extends, I think, is an issue," Bottiger said.

Bottiger favors the Weyerhaeuser Co's. plan for a wood products export facility at Dupont, while many of his constituents oppose the dock.

This year, Belcher and her 22nd District seatmate, Sen. Mike Kreidler, D-Olympia, have worked to get the bill assigned to the Senate Parks and Ecology Committee, which Kreidler chairs.

Kreidler has moved quickly and the bill, just introduced last week, will have it's first hearing at 1:30 p.m. Tuesday in Senate Hearing Room 1.

The bill is "absolutely not" the first attempt at statewide land use planning as some senators fear, Kreidler said. "It represents the last opportunity in the lower 48 states to protect a river system from source to sea, from the glacier to the delta. If we don't act on it now, we're going to lose it for all future generations."

The Olympian, March 3, 1985

Nisqually River bill floating through legislature

Although only a study proposal, some property owners fear it will lead to state intervention

By Mike Oakland
Olympian staff writer

A bill to foster increased land use cooperation along the 78-mile Nisqually River is winding its way through the Legislature with a good chance of passage.

The bill, sponsored by Rep. Jennifer Belcher, D-Olympia, has put environmentalists against private property owners, large and small.

The large timber companies, with their considerable influence in the Legislature, could determine the final fate of the battle. But timber companies who testified against the bill in committee, now say they won't block its passage.

House Bill 323 is lauded by Belcher as a study bill, giving the Department of Ecology $42,516 to study the protection of the river guaranteed under existing laws.

Opponents like dairy farmer Ken Braget and the Washington Forest Protection Association, say they don't fear the study, but do fear what the study might lead to — statewide land use planning controls.

"Is this another move toward a statewide planning function? We don't know," says Jerry Harper, manager of governmental affairs for the Weyerhaeuser Co.

Weyerhaeuser owns thousands of acres along the river, most of it above Alder Dam. They fear the study might lead to a master control agency dictating development along the river and infringing on Weyerhaeuser's rights to harvest timber on its property.

Harper said Weyerhaeuser would not encourage the bill along. But he doubts whether the Federal Way-based forest products firm will actively work for its defeat.

"The bill is sort of innocuous," Harper said.

Don Chance, spokesman for the forest protection association, said the timber industry supports land use planning at the local, not the state level. What he fears is the state dictating to local governments on land use decisions.

> "Is this another move toward a statewide planning function? We don't know"
>
> **Jerry Harper** Manager of governmental affairs for Weyerhaeuser Co.

But like Weyerhaeuser, Chance says he does not foresee a fight to kill the bill.

Braget, whose ancestors diked and farmed the Nisqually flats 100 years ago, said the state wants to take away property owners' development rights but isn't willing to pay for those rights.

He, too, is afraid state-wide land use controls or the Nisqually Indians seeking to have Weyerhaeuser's Dupont property and other privately owned land declared sacred tribal property.

People who fear her study bill are "fighting with shadows" Belcher said.

The best thing that could come out of the study would be a Department of Ecology finding that there are adequate laws on the books to protect the river. The worst would be a finding that existing laws don't protect the river at all and any type of development is possible anywhere on the river, Belcher said.

"I suspect we're somewhere in between," she said. "What I'm hopeful comes out of this is not a huge package of proposed legislation, but a working agreement involving all those people who impact the river - a mutual cooperation pact, if you will."

With the various, county, city, state, federal and private ownerships lining the river, there is no joint discussion or review of land use decisions made upstream and the effect of those decisions downstream, Belcher said.

The Nisqually River:

- **Length:** 78-miles long, running from the glacier of Mount Rainier to the Nisqually Delta where it flows into Puget Sound near Interstate 5.
- **Ownership:** 36 percent private, 31 percent timber, 22 percent federal, 10 percent Department of Natural Resources and 1 percent local government.
- **Use:** 82 percent of the basin land is in forest, 7 percent in range, 6 percent in crops and less than 2 percent developed in residential or commercial.

The Olympian, March 3, 1985

At odds: development plans and environmental safeguards

Concern for valley galvanized in 1960s

By John Dodge
Olympian staff writer

If 20-year development plans come true, the Nisqually Delta would be flanked by more than 50,000 industrial workers, 27,000 residents and two sewer outfalls into Puget Sound.

Those kind of numbers send chills down the spines of the 1,300 members of the Nisqually Delta Association, who have a different vision for the future of north Thurston County and south Pierce County.

"The Nisqually Wildlife Refuge could be ruined by that kind of activity on both sides," said Tom Skjervold, president of the Nisqually Delta Association. "It wouldn't make any difference if you had a wildlife sanctuary there or not."

The association spends most of its time these days trying to preserve the only major "undeveloped" estuary on the West Coast south of Alaska. That means going to battle with such corporate giants as Weyerhaeuser on its plans for an export dock and other industry in Dupont and Hawks Prairie development by Weyerhaeuser and Burlington Northern.

Another source of concern to the association is a preliminary engineering study for the state Department of Ecology that says the area near where the river flows into Puget Sound is one of two acceptable places in the south sound for up to 10 million gallons a day of sewage.

"They talk about an eight-day flushing period for the Nisqually Reach," said Skjervold, 28 and a South Bay boatbuilder.

Paul Dunn The Olympian

Bucolic: The broad Nisqually River Valley, is dotted with farms, fish hatcheries and forests. While potential damage to wildlife, water quality and the sensitive river delta, development may also erode quiet of the countryside.

"But new studies are showing that the south sound doesn't flush that fast.

"You start getting that sewage in there and it builds up to the point where the state has to decertify more shellfish beds," Skjervold said.

It is time to start realizing that the south sound is limited in its ability to absorb wastes, Skjervold said. The day is coming where further sewerage discharge in the sound will be unacceptable.

Working on behalf of the delta habitat and wildlife is not a new thing. Discussion of a delta "super port" by Olympia and Tacoma or a huge Seattle garbage dump in the 1960s galvanized conservationists and led to the organization of the association in 1971.

The group fought for approval of the state Shoreline Management Act and succeeded in having the delta shoreline designated a shoreline of statewide significance.

The next successful venture was formation of the Nisqually National Wildlife Refuge in 1974, a 3,800-acre proposal that currently totals 2,818 acres.

The biological significance of the delta is exceeded only by Grays Harbor and Skagit Flats in this state, according to Jack Davis,

a member of the Black Hills Audubon Society.

More than 200 species of birds, 125 species of fish, 50 species of mammals and 300 species of higher plants have been recorded on the delta. Scientists have said the delta and its waters may produce five times as much protein as a wheat field.

Environmentalists view Weyerhaeuser's proposal to build a wood products export dock in Dupont as the biggest threat to the delta environment. The state Supreme Court reheard arguments in the case on Jan. 15.

Weyerhaeuser owns 3,200 of the 3,791 acres in the tiny Pierce County town. Most of the 1,000 acres designated for industrial use in the town's proposed comprehensive plan belongs to Weyerhaeuser.

The plan suggests that the town of 500 could grow to 14,588 people in the next 20 years, fueled by 16,649 jobs.

A few miles to the south near the Nisqually Crest, there is talk of Weyerhaesuer Real Estate Co. building Meridian Campus, which would total 1,150 acres, 7,000 residents and employment for 16,000 to 20,000 people. The project hinges on construction of sewers, among other things.

Burlington Northern owns another 1,200 acres in the Hawks Prairie area where i would like to build 2,424 dwelling units fo 6,000 people and develop an industria park employing 20,000 people over th next 20 years. That project needs utilities too.

While developers say then can mak their projects compatible with the environment, association members aren't convinced.

"The organization could easily b around for years and years, reacting to th proposed development on both sides of th delta," Skjervold said.

Nisqually: a river, a tribe, a home

By Andy Norstadt
Olympian staff writer

- Nisqually Tribe heritage/5A
- Land use study/5A
- Development vs. environment/5A

On a warm March afternoon, with the late winter sun crowding out the clouds, it's not hard to understand why the Nisqually River Valley is such an inviting place to live.

The few remaining farms in lower end of the valley color the landscape with rich, green pastures. Ducks wander through front yards and dogs bark at kids as they make their way home from school.

Despite the number of houses along the side roads, the valley retains a rural feel. It's this atmosphere that attracted many of the newer residents and keeps the older residents around.

"We love it here," said Judy Hines, who with her husband, Richard, and two children, lives on Seventh Avenue. "We were going to move but we decided to add on to the house instead."

The attractions of valley life are obvious. Olympia is less than 15 miles south yet Nisqually residents don't have to put up with many of the frustrations that come with suburban developments.

Hines, who has lived here for the past seven years, points to the quiet, the friendly neighbors, the open spaces for her children as just a few of the amenities.

"I don't want it," Hines said of more development in the valley. "If there is growth, then there is trouble." She added, however, that recently most of the new development has come in the hills bordering the valley rather than in the valley itself.

Jean Schols, who with her husband, Herman, operates one of the two remaining local dairies, is another who finds the valley's proximity to Olympia a plus.

"We're not isolated at all. It's a beautiful spot. It's real peaceful in the valley but we're also close to town," she said.

The Schols have owned the dairy for 22 years. They currently run about 140 Holsteins on 100 acres of prime land that Jean said has definitely increased in value over the years. If he wants to, Jean said their son will someday take over the farm.

A dairy cow produces more manure than milk and though it fertilizes the lush green fields surrounding the dairy, it also yields a noticeable odor that could be a source of contention with some of the Schols' newer neighbors. But that hasn't been the case, she said.

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"The people in the valley are really nice," she said. "If a cow gets loose or if one of the cows is having a calf in the field, they all stop to tell us. You'd be suprised, for city people, how helpful they can be."

There are those, such as Fred Gardner, who remember when the Nisqually Valley was more than a 15-minute hop to town.

Gardner, 94, has lived in the valley more than 80 years and is its oldest resident. He and his wife Ethel live in a house they moved to 17 years ago, almost a decade after Fred retired from Gardner's General Store, where he had also been postmaster.

Growth is the biggest changes Gardner has seen in the valley. Most of the old-time residents have died or moved away, their places taken by a lot of new faces.

Gardner's life is in a way a measure of the valley's past. He was the first person in the area to own a car, a 1914 Cadillac, and his children attended Olympia High School, while the students now go to North Thurston High.

Though the Nisqually River is just a short walk from their home, Fred never caught the fishing bug.

"I never cared much for standing around in water during cold weather. You always could buy the fish cheaper," he said.

Priscilla Johnson, a valley resident for the last seven years, also has a bit of history growing in the corner of her lot on Kuhlman Road. A group of maples trees anchored in a huge, hollow stump provides cooling shade in the summer and a landmark for residents who drive by it each day.

The valley, Johnson said, is a quiet, comfortable place to retire. She and her husband, Andrew, grow flowers and a garden in rich, loamy soil left by the nearby river.

"We decided we liked this house and this area," she said. "My husband is kind of a country boy, I guess."

The Olympian, March 3, 1985

For the Nisqually Tribe, the river is more than livelihood, it is their heritage

By Jeff Green
Olympian staff writer

The Nisqually Indians know about time and the river.

"It's really the lifeblood of the tribe," said Cecilia Carpenter, an Indian historian who lives in Tacoma but is also a member of the tribe.

For generations, the Nisquallys have fished for salmon along the river that bears their name.

Nisquallys were always fishermen, she said. The river gave them food, water and means of transportation.

The future of the tribe is keyed to the future of the river.

"It's very, very important," Mrs. Carpenter said. "You can't separate the people from the river. It's just part of us. It's one with the people."

Tribal officials know they must protect and enhance their fishery on the river. That's a major goal, said Carmen Smith, chairman of the tribe's business committee.

"Right now, the tribe realizes it has many neighbors and many of them want to develop. That would, in many cases, have an effect on our fishing," she added.

"The tribe has to sit down and talk and negotiate, and come up with the best solution. As far as the tribe's concerned, it's protecting our river, our fish and protecting our tribal members' way of life, essentially," Smith said.

"A lot of our neighbors don't understand you can't put a monetary value on our land, our river, our fishing rights. It's a way of life that's been passed on from generation to generation."

> "It's very, very important. You can't separate the people from the river. It's just part of us. It's one with the people."
>
> **Cecilia Carpenter** Indian historian

"The tribe wants to and has to be concerned about all issues (regarding) development along our river," she said. It supports comprehensive, long-term management and use of all natural resources.

"If future generations are going to have the Nisqually River to enjoy and use like we do today, we have to plan and cooperate," Smith said.

The tribe supports House Bill 323, a bill to foster land-use cooperation along the 78-mile river.

Concern about the river is nothing new. The Nisquallys have always battled for it.

Historian Carpenter said the original Nisqually reservation planned in the Medicine Creek Treaty of 1854 was up on a bluff near the mouth of the river. "Our people refused to move up there. They said 'We want a place on our river where we can fish. We want our river,'" she said.

A war followed. "Because we didn't get our river, we went to war," she said, adding that is the importance of the river.

Territorial Gov. Isaac Stevens later readjusted the permanent reservation, giving back many of the Nisquallys' old fishing sites. The tribe received 4,717 acres on both sides of the river.

In 1917, during World War I, the federal government condemned all Nisqually land on the east side of the river for use by the Army's Fort Lewis. The tribe lost 3,300 acres, 70 percent of its reservation.

On the positive side for the tribe, the fort has provided a buffer against development along a large portion of shoreline. And in the last five years, relations between the fort and tribe have improved. "Both parties try to see the point of view of the other party," said George Walter, the tribe's resource protection employee.

"There's a general interest by fort people to get along and be a good neighbor," Walter said. The tribe has made overtures, too. Last summer it hosted a dinner for the fort's new commanding general, Gen. Joseph Palstra. That was a first.

The tribe has proposed a $6 million hatchery on a tributary to the river. The site is on the Pierce County side, on land controlled by the fort. The tribe and Army are negotiating a lease agreement for the project. "I see some real progress," Walter said.

Hydroelectric dams built in the 1940s — owned by Tacoma City Light and another owned by Centralia City Light — affected river levels water was stored or released for power. There were no minimum flow requirements until the tribe filed suit in 1974, Walter said.

Two years later, the tribe won its case. Minimum flow requirements went into effect in 1978. It's especially beneficial for salmon and steelhead that spawn in the river in the summer, he added.

For tribal members like Mildred Ikebe,

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62, the river is also a place for relaxation. "It's a place of recreation to go and enjoy yourself, take families. It's a social hour away from the helter-skelter of your home," she said.

Her father, Pete Kalama, made his own nets. He also used cedar logs, found in the river in high water, for making his canoes. Cedar was also split and used to hold salmon open in the family smokehouse.

Mrs. Ikebe has lived along the river all her life. She remembers getting up early in the morning and walking down to the river with a lantern to help her mother fish.

Salmon were much more plentiful then. Fishermen would pick and choose from among the salmon they caught, often throwing less desirable fish back into the river. "We never had the problem of not having the salmon," she said.

"For me, the river's going to mean something for my grandchildren and great grandchildren, and from here on out," she said.

Jeff Green The Olympian

Know the river: Carmen Smith, left, and Mildred Ikebe know the Nisqually River as part of their heritage, as a friend and a source of survival.

The Olympian, March 7, 1985

Weyerhaeuser wins delta suit

Nisqually log port one step closer

By Bob Partlow
and Mike Oakland
Gannett News Service

The State Supreme Court today ruled six to one in favor of The Weyerhaeuser Company in its nine-year battle to build a log exporting dock and loading facility at Dupont on the Nisqually Delta.

The decision appears to allow Weyerhaeuser to use 250 acres within a half mile of the Nisqually Wildlife Refuge to build a concrete loading dock, a concrete causeway and log handling area.

Weyerhaeuser was challenged in its efforts by the Washington Environmental Council and Nisqually Delta Association.

Today's Supreme Court decision, was greeted with gloom by the Nisqually Delta Association, but jubilation by Weyerhaeuser's project manager.

Tom Skjervold, president of the Nisqually Delta Association said, "It isn't as much a surprise to me as you might expect. But it is quite a disappointment."

"This is powerfully reaffirming to Weyerhaeuser's position and gives them quite a bit of power to go ahead," Skjervold said. He wondered whether the first bulldozers might be on site by this afternoon.

"No," said Phil White, project manager for Weyerhaeuser's wood products export facility. "We're definitely pursuing the project." But bulldozers won't begin their work until final engineering is complete.

White said it would take about six months to a year to do the final engineering and design work on the 1,470-foot dock with construction expected to take another 18 to 24 months.

"This (ruling) certainly is a shot in the

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arm for the project, but we want to get over all the legal hurdles before we begin," White said.

The company began its permit-seeking efforts in 1976 and the project has been in and out of court on various issues since that time.

The issue decided by the Supreme Court was whether the shoreline permits to build had been granted legally as ruled by Thurston County Superior Court Judge Orris Hamilton one year ago. The Supreme Court agreed with Hamilton.

Writing for the majority, Chief Justice James Dolliver decided "There had been adequate compliance with statutory notice requirements, that the dock did not violate the applicable local shorelines master program, and that the admission of certain evidence at the administrative hearing was proper."

Dolliver noted the environmental concerns raised by the opponents of the dock, but said they could not come into play in the court's decision. The court had to decide if the project fit the law Dolliver wrote.

"It is tempting to rhapsodize about the pristine beauty of the Nisqually Delta," Dolliver wrote. "It is also tempting to express the wish that time and human hands not disturb its natural tranquility. This is not, however, the task before this court. Rather, our obligation is to interpret state and local laws as they apply to the issuance of permits to build an export facility within the city of Dupont in an area designated for urban uses."

Dolliver then outlined in specific detail how the plan fit the law and how correct procedures had been followed in the permit-gathering process.

While today's Supreme Court ruling clears the way for the Weyerhaeuser's shorelines development permit, White noted the company still has to meet conditions of a U.S. Army Corps of Engineers permit. One of the requirements of that permit is for Weyerhaeuser to work out any problems with the Nisqually Indian Tribe.

"We're still negotiating with the tribe," White noted. "I can't tell you we have everything resolved, but we are still talking. We aren't in court."

Carmen Smith, Nisqually Tribe chairperson, said, "We'll never agree on all issues. But we realize that Weyerhaeuser is our neighbor and we have to continue to sit down and work on this issue with them.

"The tribe remains very concerned about the possibility of development in our unspoiled river estuary. We don't want any negative impact on our natural resource," Smith said.

Skjervold said the Delta Association's nine-year battle with Weyerhaeuser cost "somewhere between $30,000 and $70,000," raised primarily through member contributions.

"This (decision) certainly makes for a setback for protections provided by the Shorelines Management Act," Skjervold said. "I'll have to talk to board members and see where we go from here. But I would certainly say our options are limited."

Skjervold said board members have discussed the possibility of losing the lawsuit and in addition to further court challenges also have discussed "more direct political action, something along the lines of a public, grassroots type thing."

Skjervold said he could not elaborate further until after Monday night's board meeting.

The court decided Weyerhaeuser did not mislead the public with plans for two proposed sites, the second of which was finally chosen for the project. A supplemental impact statement was not needed when the site changed, the justices ruled.

Adequate notice was given to nearby property owners, the court decided. They also decided the standards of state and local shoreline acts were met by Weyerhaeuser and that studies submitted by the company to back its plan did not taint the process.

"The city of Dupont issued valid . . . permits," the court concluded.

Justice Fred Dore took exception to the majority's feelings that the environmentally sensitive nature of the area had to be ignored in the court's task.

"The ramifications of the construction and operation of this facility in such a significant and sensitive environmental region of this state are apparent," he said.

Dore argued public notice was inadequate for what was chosen for the final site, a site much closer to the wildlife refuge than the first proposal and a site with greater environmental effects than the original.

The Olympian, March 8, 1985

Development proposed

Paul Dunn The Olympian

Log port site: The old Dupont Powder Plant dock is a marker for the proposed Weyerhaeuser export facility off a 3,200 acre development site at Dupont. Dan Wilhelm, Weyerhaeuser supervisor of security, points across the sound to Nisqually Delta, the area ecologists have fought to protect from industrial pollution.

DuPont jubilant over log port go-ahead

By Andy Norstadt and Virginia Painter
Olympian staff writers

In the wake of a state Supreme Court ruling yesterday ending years of legal battles, the Weyerhaeuser Co. is reassembling a task force needed for the design and engineering of a half-mile long dock bordering the Nisqually Delta.

The high court yesterday backed numerous administrative and lower court decisions allowing construction of an export center in the Pierce County community of DuPont.

The dock would be one-half mile away from the Nisqually National Wildlife Refuge. The project drew opposition from numerous environmental groups, including the Nisqually Delta

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Association and the Washington Environmental Council, who questioned whether company followed state and county environmental guidelines and feared degradation of the delta's ecology.

Weyerhaueser spokesman Tom Ambrose said "there won't be any bulldozers showing up out there tomorrow."

The project task force must first complete many of the "nuts and bolts" planning steps before any construction can be started, he said. Ambrose said no time schedule has been drawn up yet and the planning could take six months or longer to complete.

But DuPont residents were jubilant yesterday after learning of the decision.

"We're very happy, very elated and I think we've done a good job," said Pola Andre, DuPont Mayor. "It shows that all that the city has gone through has been worthwhile, and we have accomplished a great deal. I think the city can proceed on and go a good job with some economic development here."

Dwayne Gallaher, manager of the DuPont Grocery, is a retired military man who returned to DuPont to live in 1982 because he likes the village. Called "Pop" by DuPont neighbors, he is a focal point for local news and has a strong opinion about the small city's future.

He said he thinks the new facility could double DuPont's population and bring in a few more stores and businesses.

"The way I look at it, we have got to move into the new century," he said. "As far as the city, it has to improve. In these modern times, you've got to expand."

Gallaher said he thinks the threat to the environment was worse when the DuPont powder plant was in operation on the 3,200—acre site which now belongs to Weyerhaeuser.

DuPont City Planner Mark Jackson said the export facility will significantly increase local tax revenues during the three years of construction. But he said after that, the small community may not see direct economic benefit.

"We do not think this will cause any population growth, since there is adequate surplus housing in Lakewood and in northeast Thurston County," Jackson said.

"I think after the three—year construction period, tax revenues would drop off rather dramatically," he said. "The economic impacts that we see are really region wide, in stability of the forest products industry. The people who work in the woods and mills throughout Southwest Washington would see more stability."

A drive into the city of DuPont is like a drive into decades past. It started out as a company town for employees of the DuPont Explosives Co., which built the comfortable, village—style homes from 1907 to 1927.

In 1951, DuPont company got out of the housing business and allowed the homes to be purchased by many of its employees. Since the explosives plant closed, the population switched from a an employee town to a military retiree town. Now many young professionals who work in the surrounding areas live there.

Weyerhaeuser acquired 3,200 acres of land from the DuPont Company in 1976. The town of DuPont annexed that land into the city limits, expanding from 53 acres to five square miles.

Beyond the town is the fenced—off area belonging to Weyerhauser. Clusters of old powder plant buildings and tombstone — like remains of other building foundations punctuate a vast area of scrub trees and scotch bloom.

Beyond that area is a ridge, from which the old powder plant dock can be seen. Its access gate is locked, but hundreds of seagulls sun themselves and a lone fishermen casts out into the water at the gate entrance.

Across Puget Sound lies the Nisqually Delta and the National Wildlife Refuge, which environmentalists fought to protect over the last several years in court battles with DuPont.

While an existing wharf is being used by other exporters, Weyerhaeuser has not moved any of its operations to the area, pending resolution of the environmental challenges, according to Ambrose of Weyerhaeuser.

The company plans to use the DuPont site as a centrally located export base. Ships arriving at the dock will be loaded with lumber, logs and paper and pulp products produced at other Western Washington plants, Ambrose said.

The estimated cost of the project several years ago was $100 million, though that figure may have to be increased because of inflation, he said.

Ambrose said he wasn't sure what kind impact the current slump in exports will have on the project. But, the foreign market is vital to the company's future plans.

The export center will use approximately 250 acres. Ambrose said the company has not made any firm plans on what to do with the remaining 2,950 acres it also owns in the area.

Whether the DuPont project will spur more rapid growth in the area is questionable.

Larry Steele, a spokesman for Burlington Northern Railroad, said that as far as he knows, the Supreme Court decision won't have any impact on the Hawks Prairie project being sponsored by the Burlington's land firm, Glacier Park Co.

Dr. Don Hovancsek, president of Citizens for Puget, said he is concerned that the Weyerhaeuser project may result in more growth pressure in the north end of the county.

"If everyone stays one one acre of land, the area can handle it," he said. But if rapid industrial and residential growth takes place, living conditions in the area could be disrupted.

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Nisqually Delta residents nervous about industry beginning to move in

By Susan Zemek
Olympian staff writer

Pounding together a dock more than three football fields long, logging ships tooling through the water, and the spidery growth of a small industrial city will destroy the rural beauty of the Nisqually Delta, say it current inhabitants.

The State Supreme Court's Thursday decision to allow The Weyerhaeuser Company to build a 1,470-foot log exporting dock at DuPont sent quivers through Nisqually Delta residents. They fear the dock and the subsequent industrial activity will chase away wildlife taking sanctuary in the delta and farmers cultivating its fields.

"It will bring an end to the agricultural scene in the delta," said farmer Ken Braget, who owns 365 acres less than three miles from the proposed dock. "Economically, socially and politically, it will be the death blow to the Braget farm."

Industrial growth will mean residential and business growth. Property taxes will rise and the land won't be profitable as farm land, Braget said.

"Economically farm land won't be able to compete. We're in the wrong place for the old fashioned farm," he said. Growth will change the social climate of the area too, he said. "The farm atmosphere won't be able to survive with the (urban) pressures."

Braget also blames politics. "The reason this is allowed to happen is because of the invention of the Shoreline Management Act," he said. The act, thought to preserve the wildlife actually allows development to take place, he said. "They can just look in the mirror and ask themselves who allowed this to happen, all the damage."

In its decision, the Supreme Court decided the dock did not violate the local shoreline master program. However, before Weyerhaeuser starts building, it must meet the conditions of a U.S. Army Corps of Engineers permit, one of which requires it to work out the differences with the Nisqually Indian Tribe.

The tribe wants guarantees their fishing lifestyle will not be harmed.

"We still want an abundant number of fish produced for our fishermen, also we want to have a clean habitat," said Carmen Smith, Nisqually Tribe chairwoman. The area also should be safe for the fishermen, she said.

"The decision is of concern to us, but we'll continue to sit down with Weyerhaeuser," Smith said.

The federal government also has some concerns.

Bill Hesselbart, manager of the 2,800-acre Nisqually National Wildlife Refuge located one-half mile north of the proposed dock, worries that industrial growth will harm the waterfowl sanctuary in the future.

"It might be the decision of the decade as far as long term effects on the delta," Hesselbart said. "The refuge will have to serve as a sponge to absorb wildlife that is displaced. This proposed development is a foot in the door. I'm thinking we may be looking at more (development) pressure."

Hesselbart said the refuge is a winter home for 15,000 waterfowl and 10 bald eagles. The refuge is attempting to acquire another 1,000 acres from nine landowners. Part of the land will be used for hunting and fishing.

With development of the surrounding area, there will be an increasing demand for recreational areas, he said. At the same time, refuge management will probably curtail access to the public in an attempt to preserve the wildlife, he said. "The public will lose out on this.

"We have lost some of the serenity which is associated with the delta. They're not factual things, they're feelings," Hesselbart said.

Olympia biologists too are worried about the longterm effects of development on the wildlife.

Harbor seals have a rookery about 10 miles away near McNeil Island, and they feed in the Nisqually area, said John Calambokidis, a research biologist for Cascadia Research Collective in downtown Olympia.

The Oregonian, March, 1985

Reduced bag limits on mallards, pintails in store for hunters

902

The federal Fish and Wildlife Service is warning the nation's duck hunters to expect reduced bag limits this fall for mallards and pintails.

Bill Monroe

Both species, the bread and butter of North America's waterfowl hunting, are experiencing reduced nesting success. The breeding population has hit a 30-year low, according to biologists.

The warning was first announced to Pacific Flyway states during the recent midwinter conference at Reno, Nev., and was followed last week with a news release from service headquarters in Washington, D.C., addressed to states in all four of North America's major waterfowl flyways.

"Duck numbers have declined primarily as a result of several successive years of poor habitat conditions caused by prolonged drought in prime duck nesting areas of Canada," the release stated.

Anticipating improved nesting conditions for ducks is risky, but the service believes the decline can be reduced or halted until nesting conditions improve by cutting back on hunting.

Treaties with Canada and Mexico will result in similar cutbacks for hunters in those countries.

One figure being tossed around in management circles is a five-duck bag limit, although final regulations won't be determined until flyway conferences convene in July.

Some Pacific Flyway officials are looking at an optional point system similar to that in use in some Eastern states, but most say they doubt a point system will be accepted in the flyway in the near future without considerable discussion with hunters.

Under a point system, hunters must restrict their bag limits to certain numbers of points rather than a number of birds.

Points are awarded for the sex and type of duck bagged. A mallard or pintail hen, for example, might carry a high point value, while drakes score lower. This would encourage hunters to concentrate on the more numerous drakes and restrict their take of productive hens.

The system has been in use in Eastern states for several years with considerable success in most cases.

Comments on other alternatives should be addressed to:

Director (FWS/MBMO), Fish and Wildlife Service, Department of Interior, Washington, D.C., 20240, and mailed before April 15.

SHOWDOWN ON THE NISQUALLY

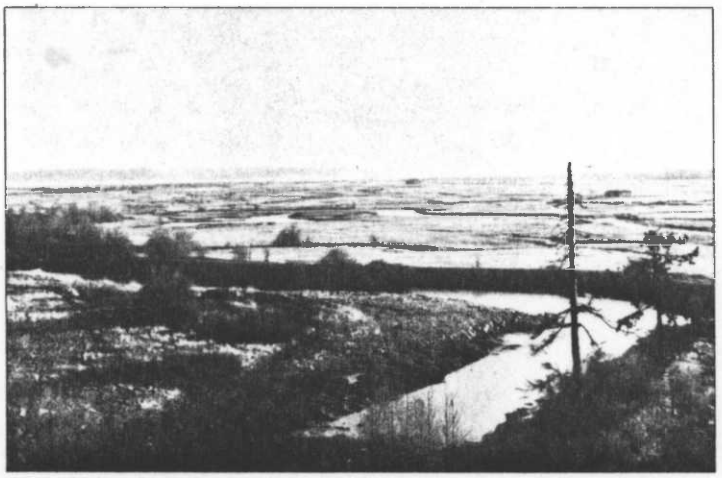
A bitter debate comes to a suspenseful close: the birds lose

A FIGHTER CLIMBS OUT OF McChord air base and thunders over the Nisqually Delta wildlife refuge, startling a pair of great blue herons into flight. But when the jet noise fades, when the Burlington Northern isn't passing across the river, when the semis aren't highballing down Interstate 5, there is the quiet noise that only fecund marshes can make, and it is possible to hear the sound of birds' wings.

For 80 years more than 300 varieties of birds — eagles, hawks, songbirds, migratory ducks and geese — have coexisted with white people in this swamp, and for the last decade it has been a protected national wildlife refuge. For the last nine years, the Weyerhaeuser Company has been trying to get permission to turn the noise level up a bit with a bustling new private port for ocean freighters on company land about half a mile up the beach from the refuge boundary.

Whether they should be allowed to is a question that was mulled over by the state Supreme Court last month. After years of sporadic and costly legal skirmishing, with every public agency involved supporting the project, an ad hoc band of bird watchers — Weyerhaeuser calls them obstructionists — had managed to arrange a sudden-death showdown with the Weyerhaeuser attorneys in Olympia. The justices had heard the same arguments from both sides twice — an indication that the decision would be very close. But when their verdict was delivered on March 7, the vote wasn't close at all. The court approved Weyerhaeuser's proposal by an 8-to-1 margin.

The question the justices had pondered did not involve weighing the relative merits of bird life and commercial shipping, of course. What they struggled over was a far more arcane legal question: basically, whether Weyerhaeuser had given proper notice and followed proper procedures when plans were changed to locate the dock closer to the wildlife refuge.



After years of legal skirmishing, Weyerhaeuser gets its Nisqually port.

The larger issues, of course, are the ones that will shape the future of the sound. Those opposed to Weyerhaeuser's port had hoped it would be refused not only for the sake of the Nisqually, but out of the hope that value placed on the delta's cultural and ecological treasures would boost the broader ongoing efforts to clean up Puget Sound. Now that the nod has gone to Weyerhaeuser, they fear the door may have been opened for other big industries who might want to build their own new ports on the sound.

Many port opponents had lost heart in the battle back in 1981, when the state Department of Ecology suddenly switched sides, abruptly dropping worries over potentially disastrous pollution. One chagrined bird-lover, Bob Ramsey of Tacoma, complained, "They're already filling in bird habitats out in Grays Harbor for the log yards. Our refuge areas are critical for the migratory ducks and geese on the Pacific flyway. They need plenty of fuel for the nonstop flight to Alaska, and we're gradually taking it away from them."

The National Wildlife Federation claims that more than half of the wetlands in the country have already been lost to development, an assessment based on an inventory taken in 1982 when the Reagan administration smoothed out regulatory procedures for those who wish to dredge and fill swampland. The Audubon Society complains that 70 percent of the nation's 410 wildlife refuges are adversely affected by neglect or nearby development.

But it isn't hard to understand why Weyerhaeuser wants its own private port: the public ports are expensive and the company will pay relatively low fees for use of the public Nisqually tidelands. The port is a key link in the company's "geographic diversification" crusade, a plan that so far has brought it a $100-million-a-year franchise in China, trade with Southeast Asia and a booming disposable-diaper market in Japan. Weyerhaeuser now owns more timberland in the South than in the Northwest and has shut down several Washington state mills, putting hundreds on unemployment. The $100 million Nisqually facility would ship some 2 million tons of pulp and paper products a year in the beginning, with coal exports a distinct possibility for the future. Other company plans outline a small industrial park and residential complexes on both sides of the delta.

When Weyerhaeuser spokesman Tom Ambrose was informed of the Supreme Court's ruling, he called the decision "the last major hurdle" for the project. Meanwhile, J. Richard Aramburu, attorney for the Nisqually Delta Association and the Washington Environmental Council, said he was still not ready to give up the fight. There are still adequate grounds to justify a continued challenge to the project, he said. "It's not going to be the end of the road until we've exhausted the last battle."

— DAVID HOOPER

The Olympian, April 10, 1985

Her love was natural for all on this earth

Sally Turnbull

On a class nature walk through the forest, a young kindergarten student, Charles Wright, was puzzled by his teacher's intense enthusiasm. He asked her, "Do all of these birds and trees and flowers belong to you?"

She replied, "No, Charles, they don't belong to me, they belong to everyone. They are here for all of us to enjoy."

As they walked along, Charles was not entirely satisfied with her response. "But Miss McKenny," he queried," if you don't *own* the birds and the trees and the flowers, then why are you so interested in them?"

Young Charles Wright graduated from his Olympia kindergarten class of 1919, and later became a Washington State Supreme Court Justice. The subject, however, is not about the late Justice Wright, nor is it about kindergarten nature lessons. Rather, the focus of the kindergarten teacher — the Grand 'Ol Lady of Mushrooms — Margaret McKenny.

Margaret McKenney's 100th birthday will be marked April 17. A teacher, poet, ornithologist, author, naturalist and photographer, McKenny also served as an environmental conscience for Thurston County. "She was one of the first to convince the rapidly growing community of Olympia that it ought to attend to the environment," says Mike Contris, Olympian writer and St.

See McKenny/ Page 2

Photo by John Lucas

A rare find: John Lucas Jr. and Margaret McKenny commune over a mushroom.

The Olympian, April 10, 1985

McKenny—

From page one

Martin's College faculty member.

Although McKenny died in 1969, she is still vividly remembered for making those conservation gains, for being an authority on mushrooms and for her enthusiasm in teaching the young. To recognize her contributions, a display has been assembled at the State Capital Museum featuring photographs, documents and artifacts about her life. It will be on display the week of April 15.

Although many developers considered McKenny an obstructionist, Thurston County residents probably would include her victories among the principal reasons they enjoy living here.

For instance, these spring days when you stop at Sylvester Park and sit under an old maple to eat lunch or listen to a jazz quartet, you can thank McKenny. Developers wanted to revitalize downtown Olympia and decided a parking lot was essential where the park now stands. McKenny and her colleagues formed a group called "Citizens for the Future" and took the issue all the way to the Supreme Court. After a 10-month battle, the development was halted.

The group did not stop there, however. It squashed the city's plans to log and sell the 180 acres of Douglas Fir now known as Watershed Park. Described as a heritage of our native forest, this preserved area now provides a 1½ mile nature trail for public enjoyment.

The list goes on. McKenny fought for the preservation of the Nisqually Delta as early as 1947, and later organized "Washington Citizens' Committee for Outdoor Resources," forerunner of the Nisqually Delta Association. She had a hand in planting the red maples and flowering hawthorns along Capitol Boulevard, preserving acreage at Priest Point Park, forming the local chapter of the Audubon Society.

To many, Margaret McKenny's name is still synonomous with mushrooms. "The Savory Wild Mushroom," one of the 15 books she authored, is in its 7th edition, and is nationally recognized as a guide for those who study and gather mushrooms. On a tour through Olympia in 1943, Helen Keller visited McKenny for several days at her Water Street home. On their nature walks, Keller was able to identify mushrooms by their feel, remembering their characteristics from McKenny's books. McKenney's story entitled "Infinitely More" describes this excursion in detail.

Gary Carlyle, a county juvenile services worker, knew McKenny during his adolescence. "Her house was always open and we really enjoyed heading there after school when we had free time," he recalled, adding that she helped him and his friend John Lucas with their ornithology demonstration and told of their delight when she came to their junior high science fair to see the project win first prize.

So intense in her quests, McKenny would often get up before dawn to catch certain lights in photographing a flower or to study a bird. Or she would sit up all night making camera studies of the moon. "She had an unmatched passion for life," recalls Maury Haseltine, an Olympian who learned about mushrooms from McKenny." Always sensibly dressed with no-nonsense walking shoes, McKenny would drop anything she was doing indoors to get outdoors."

"She was someone you didn't forget — a genius. People like Margaret McKenny come around once in a lifetime," says John Lucas, an Olympian who accompanied McKenny and her peers on many field trips and whose son, John Jr., was one of her prize pupils.

"Margaret McKenny's whole life was devoted to convincing people that we are living in one of the most beautiful places in the world and that above everything else, we should preserve it," states Gordon Newell, Olympia author and historian.

Sally Turnbull is a history student at The Evergreen State College and a free-lance writer.

Delta group calls for dock reconsideration

The Olympian, April 21, 1985

By Mike Oakland
Olympian staff writer

The Nisqually Delta Association has petitioned the state Supreme Court to reconsider its recent decision allowing the Weyerhaeuser Co. to build a forest products exporting dock at DuPont.

The motion for reconsideration, filed by Delta Association Attorney Richard Aramburu, asks the court to overturn its 6-1 decision of March 7. The Delta Association has waged a nine-year battle against Weyerhaeuser, fearing the dock will spoil the delta.

Aramburu said he filed the motion after comparing the delta case with another decision involving other shorelines of statewide significance.

The association had argued on technical grounds that the permits granted to Weyerhaeuser were done so illegally and that the company moved the location of the proposed dock closer to the delta without proper notice.

The court decision found the dock consistent with DuPont's master program and the state's Shorelines Management Act.

"A decision by the court in the case of Orion Corp. versus the state at Podilla Bay in effect told Orion Corp. not to even bother trying to get a substantial development permit," said Tom Skjervold, delta association president.

"The court ruled that, since development was proposed for a shoreline of statewide significance, a permit would be denied. This issue certainly deserves clarification. We hope the court will clarify it by ruling in our favor," Skjervold said.

The high court seldom reverses itself in matters such as the association's request for reconsideration.

Skjervold said the delta association will not back off on its pressure of Weyerhaeuser.

"Now that it appears (Weyerhaeuser) has a green light, we have to be more aggressive than ever to see that (the company) lives up to the conditions of their permits and that others don't see this as an opportunity to get their foot in the door also," Skjervold said.

River study approved

The Olympian, April 23, 1985

A bill authorizing the Department of Ecology to do a study along the Nisqually River was passed by the House Monday and sent to Gov. Booth Gardner.

Ecology has until Jan. 6, 1986 to develop an overall management program for the river and submit it to the Legislature. The $42,516 study will survey the combination of federal, state, county, city and private ownership along the river and provide the Legislature with a coordinated management plan.

Rep. Jennifer Belcher, D-Olympia, sponsored the bill which received a favorable 82-14 vote. She said decisions made at the headwaters affect those living downstream, yet there is little cooperation among public and private owners on land use issues.

Opponents of the bill argued that it was a step toward state land use planning and the state attempting to dictate what private farmers and logging companies can do with their property.

A Senate amendment dictates that the management plan can not be put into place without authorization from the Legislature.

Voting with Belcher for approval were Reps. Jolene Unsoeld, J. Vander Stoep, Max Vekich and Doug Sayan. Rep. Glenn Dobbs, R-Centralia, voted against final passage.

Nisqually delta among sites on toxic study list

The Olympian, May 1, 1985

From staff, wire reports

Potential contamination to the Nisqually National Wildlife Refuge by agriculture and planned industry has put the refuge in top priority for study by the U.S. Fish and Wildlife Service.

Spurred by reports from wildlife refuge managers, the federal agency is studying contamination by toxic chemicals on 37 of its refuges and other installations this year.

While many of refuges already are suffering problems, the Nisqually refuge was put high on the list for immediate study because of what might happen in the future, said David Lenhart, the regional contamination assessment expert for the Department of the Interior in Portland.

"It was put in the higher priority not because there is a problem but because we feel the upstream areas could be a problem," Lenhart said today.

Among those he listed were agricultural lands, which could lead to nitrogen, phosphate or other contamination caused by fertilizers, and planned industry, especially in the DuPont area.

A 1983 survey of problems seen by managers of the 473 installations run by the service yielded responses that listed fertilizer runoff as a problem for 201, domestic sewage at 157, oil spills at 154, toxic chemicals at 138 and industrial wastewater at 94.

Those reports led headquarters officials to order studies for "the ones that looked like they had the worst problems."

Seventy-six areas were chosen for further study, of which 37 are under way this year and the rest to be done in future years.

The Olympian, May 15, 1985

Game department delays plan for eagle buffer zones

By John Dodge
Olympian staff writer

The state Department of Game has backed off, at least temporarily, from implementing a new state rule to increase habitat protection for bald eagles.

The proposed measure establishes eagle buffer zones for about 600 eagle nests in the state which would either restrict or prohibit development on about 12,400 acres, 55 percent of which is public land.

Private landowners, primarily timber firms and ranchers, objected to the plan at a public hearing in January, calling the buffer zone regulation a big land grab without compensation.

The adoption of the rules by the Game Commission has been delayed while an ad hoc committee consisting of landowners, environmentalists and Game Department officials wrestle with the "taking without compensation" issue, according to Betty Rodrick, a habitat biologist for the Game Department.

Anxious to see the Game Department move ahead with eagle habitat protection, environmentalists would like to see the rules adopted for public lands as soon as possible, said Pam Crocker-Davis, a lobbyist for the National Audubon Society.

The 1984 state Legislature ordered the Game Department to develop a protection plan for eagles and other threatened species. In the case of the eagle, years of habitat loss and low productivity have taken a toll on the population.

If approved, the rules would prohibit logging, farming, roadbuilding and construction within a 660-foot radius of a nest from Jan. 1 to Aug. 15. All development and logging would be prohibited within a 330-foot radius of a nest.

Cattlemen and farmers argued that such a plan could drive them out of business. But Game officials countered that most nests are located along shorelines and only five nests in Western Washington are situated on agricultural lands.

In addition, the buffer zone plan is not cast in concrete. It allows appeals, site-specific management plans and variances when the buffer zone wipes out "reasonable use" of the land.

Environmentalists claim that the eagle protection plan is long overdue. They point to a recent Game Department study that indicated eagles are reproducing in this state at a rate barely capable of sustaining the existing population.

Meanwhile, eagle sitings during the statewide survey in January totaled 1,823 bald eagles and 85 golden eagles, compared to 1,542 bald eagles and 62 golden eagles in 1984.

But the increased numbers were attributed to an increased number of people participating — 766 compared to 584 in 1984 — and better weather conditions for viewing eagles, Game Department spokesman Terry Rudnick said.

The Olympian, June 23, 1985

Our readers bag Percival Landing, go Crackers over late-night hangout

From page 1C

Picknickers picked their best place by naming Priest Point Park (22). Close behind were Tolmie State Park (20) and Tumwater Falls Park (16).

Fishermen said the best **salt-water spot** is Johnson Point (30), followed by Anderson Island (8) and Budd Inlet (3). **Fresh-water** anglers drop anchor most often at Black Lake (17), Patterson and Offut Lakes (8 each), Long and Summit Lakes (6 apiece) and the Deschutes River (5).

The McLane Nature Trails are the best place to **hike with small children**, said 21 voters. Other choices for little ones were Tumwater Falls Park (16), Watershed Park (13) and the Nisqually Wildlife Refuge (10).

The Nisqually trails, however, were the choice for **best hike for the physically fit** with 19 votes. Walkers-up were Capitol Peak (14) and Mount Rainier (10), all eclipsing last year's choice of the Capitol Forest.

The sack pack does its **brownbag lunching** at Percival Landing, which received 44 votes. Not even close were Tumwater Falls Park (16), Capitol Lake (15) and Sylvester Park (13).

Lakefair returned as the overwhelming choice for **best fair or festival** with 53 votes. Super Saturday received 22 ballots; Harbor Days, 14; the Thurston County Fair, 12.

People's choices for **best place to fly a kite** were many and varied. The athletic fields at Olympia High School were the favorite (9), followed by Burfoot County Park (7), the ocean beaches (6) and Yauger Park, Garfield School playfield and St. Martin's College (5 each).

The Vance Tyee Moter Inn was picked **best place to dance** with 16 votes. Other favorites were the Evergreen Ballroom (13), Trail's End and the Pacific Surf Club (7 each) and, with 6 votes apiece, the Fifth Quarter, Ebb Tide and Imperial Palace, last year's winner. One puckish voter suggested you wear out your dancing shoes in front of Talcott's Jewelers.

There's only one **place to go if you're under 21**: the Pacific Surf Club, said 21 readers. Second spot went to "nowhere." Last year's winner, the Tropicana, has closed.

Best place to go if you're over 55 is Johnny's Night Train, 8 voters said in repeating last year's choice. Other picks were the Senior Center, Elks Club and Panorama City (4 each) and Trail's End and the Red Bull (3 apiece).

Crackers repeated as the **best late-night hangout** with 12 votes, followed by the Rainbow (7) and Vance Tyee and Carnegie's (5 each).

The Lacey Cinemas were held over as the **best movie theater** with 71 ballots. The State received 23; Capital Mall Cinemas, 21.

Best live theater was judged the Olympia Little Theater by 32 thespian fans. The Capitol Repertory Theater drew 25 votes; the Abbey Theater, 18; and one reader said the punkers on Fourth Street put on the best act.

Capital Mall was the choice for **best place to watch girls** or **boys**. Girl watchers' other picks were Capitol Lake Park (17) and Lakefair (8). The same places attract boy watchers, too (15 and 5).

Want to watch people **make fools of themselves**? Go to Lakefair, said 21 readers. Twenty voters suggested Fourth Avenue in downtown Olympia; five picked the Capital Mall; four each chose boat-launch ramps and the Legislature.

Pat's Bookery won again for **best bookstore** with 45 ballots. Runners-up were B. Dalton (18), the Fireside (13) and Waldenbooks (12).

There might as well be one **record store** in town: Rainy Day, said 70 readers, plus another dozen or so who called it the "Rainbow." Wherehouse and Positively Fourth Street tied for a distant second with 9 votes each.

The **best antique store** is D&D's, said 11 voters. Other ballots were scattered among a dozen other entries, including last year's winner, Summit Lake Antiques.

The **best second-hand store** once again is the Treasure Chest with 12 votes. Other choices were Goodwill (12) and Mike Cook's, New Life Mercantile and Fox's Unlimited (7 each).

Window shoppers head to downtown Olympia. It was the choice of 44 readers, plus another 25 who named specific downtown locations. Capital Mall drew 43 ballots.

Drees is the **best place to coffee klatsch**, say 18 readers. The Asterisk Deli and the Smithfield Cafe were the choice of 10 voters; Wagner's Bakery got 9 ballots.

Baskin-Robbins' 31 flavors got 37 votes for **best ice cream parlor**. South Sound Center's newcoming entry, Heavenly Gelato, captured 29 ballots; Bressler's received 14.

Casa Mia repeated as the **best Italian restaurant** with 49 votes, beating out Jo Mamas 12, Gardner's 8 and Dirty Dave's 7.

The **best Mexican restaurant** nod went again to Los Hermanos (38), a squeaker over Migel's (37). El Serape drew 13 votes.

Lacey's Tea Leaf II took the **best Oriental restaurant** entry with 33 votes. Last year's winner, the Imperial Palace, captured 23; China Town took 15.

Flakey Jakes's has all the trimmings for **best hamburger**, 24 readers agreed. Eagan's Westside Drive-Inn was the favorite of 13; Lew's East Bay Drive-In received 9 ballots.

Jo Mamas and Casa Mia, the second- and first-place winners in the Italian category, switched spots for **best pizza** with 33 and 13 votes, respectively. Godfather's, last year's winner, and Brewery City took 11 votes; Pizza Haven, 10.

The **best breakfast** is served at The Spar, said the early birds, who gave it 23 votes. Hawks Prarie Inn received 16; Van Dees and Crackers got 8 each.

Migel's 39 ballots made it the clear choice for **best brunch**. The Vance Tyee was second with 13, and the Westwater and Seven Gables had 9 apiece.

It's the water, or at least the view, said voters for **best delicatessen** as they gave 25

Weyerhaeuser ditching delta dock, for now

By John Dodge
Olympian staff writer

Construction of a controversial export dock in the Nisqually Delta has been deferred indefinitely by the Weyerhaeuser Co., much to the delight of environmentalists who fought the project for years.

Poor market conditions in the forest products industry is blamed for the mothballing of the DuPont dock project, company spokesman Dennis Higman said Friday.

However, Higman said, the company is "actively pursuing" other uses of the 3,200 acres of upland property it owns in the City of DuPont. Those allowed uses range from residential to large industry.

"We're really pleased they are looking to other industrial uses that would not impact the shoreline," said Janet Dawes, a Nisqually Delta Association board of director.

Weyerhaeuser and the environmental association battled for years in court over construction of the dock. Weyerhaeuser said it was the type of project that was compatible with local and state shoreline management plans.

The Nisqually Delta Association and Washington Environmental Council argued that the delta is too fragile and important as a wildlife habitat to risk a forest products shipping terminal.

The state Supreme Court ruled in the giant timber company's favor this spring, paving the way for the project.

But Higman said the company has decided that the dock 10 miles northeast of Olympia is not a smart investment in light of the soft market for wood products overseas.

Under the permits already approved for the project, the company has less than two years to start building the wood product export complex. Higman said the company will examine the potential for the project again in four to six months. State shoreline permits limit use of the dock to wood products exports.

"We spent nine years permitting this site and won every legal and environmental battle we had," he said. The company's property in DuPont remains ideal industrial acreage, he said.

For instance, Gov. Booth Gardner has been touting the site during his trip to Japan as prime development property. Weyerhaeuser's ownership in the small Pierce County town was also identified by the governor as a possible location for General Motors to locate a new automobile plant.

Higman said the deferral on the export terminal should have no affect on plans by Weyerhauser's real estate development arm to develop property in the Hawks Prairie area.

The Olympian
July 20, 1985

"Weyerhaeuser should feel that we saved them a lot of money," Dawes said, suggesting that it would have been a bad businesss move for the timber company to build a new dock, then not have enough business to keep it operating.

Weyerhaeuser already has export docks in Coos Bay, Ore., Longview, Aberdeen, Tacoma and Everett, all of which are operating, Higman said.

Existing export docks in the state are capable of handling anticpated forest products exports through the year 2000, according to Port of Seattle economist Susan Doolittle.

Dawes suggested that Weyerhaeuser might reconsider its plans for its shoreline property at DuPont, turning it into a tourist attraction.

"They could renovate Fort Nisqually, which originally was directly above the dock site or they could build a timber museum," Dawes said.

The Olympian, July 24, 1985

Youth Conservation Corps digging in

Steve Bloom The Olympian

Working out: LaNae Reinertson of Olympia (left) and Rebecca Scott of Lacey are two members of the Youth Conservation Corps getting an environmental education with their summer jobs. The two are working at the Nisqually National Wildlife Refuge. See story page 1B.

The Olympian, July 24, 1985

Teens are class act at Nisqually refuge

By John Dodge
Olympian staff writer

Seven teen-agers are becoming intimately familiar with post hole diggers, saws and hammers this summer at the Nisqually National Wildlife Refuge.

The youth, six from Lacey and Olympia, are part of the federally-funded Youth Conservation Corps, which offers summer employment and an environmental education for participating high school students across the country.

At the 3,800-acre refuge, the summer help is a welcome addition.

"A lot of this work wouldn't be done if we didn't have the crew," refuge assistant manager Ralph Webber said.

The crew's chores have included pulling noxious weeds, repairing trails and building a boardwalk across a salt marsh.

The crew is busy this week building and installing a split-rail fence along the road leading into the refuge.

"It's been hard work — tough work," said Emmanuel Kimmie, a 17-year-old senior at Timberline High School. Kimmie said one benefit of all the manual labor is that he is staying in shape for the next basketball season.

"I've never done anything like this before," said LaNae Reinertson, a 16-year-old junior at Olympia High School who was selected as youth leader of the crew.

While most of their time is spent working, 20 percent of the work week is spent on environmental education.

When the crew had the task of pulling tansy ragwort from fields on the refuge, they learned that the alternative was to use chemicals to kill the plant.

"It's interesting to learn about the environment," said Jennifer Stapleton, 17, of Portland, Ore.

The youth corps members, 15 to 18 years old, are paid $3.35 an hour during their eight-week stint.

Steve Bloom The Olympian

Student worker: Portland's Jennifer Stapleton likes learning about the environment.

The Olympian
September 5, 1985

River study to balance nature, jobs

By John Dodge
Olympian staff writer

A Nisqually River Task Force has been formed to recommend a management plan for the land along the 78-mile Nisqually River.

The 1985 state Legislature ordered the task force to study land use along the river corridor and submit a report to the Legislature by Jan. 6.

"The idea is to have coexistence between environmental concerns and private industry," said Milt Martin, state Department of Ecology coordinator for the task force. "The plan should allow people to still make a living along the river and still enjoy the area."

The river, which stretches from the Nisqually Glacier on Mount Rainier to Puget Sound, cuts through a wide variety of landowners and uses. There is the Nisqually Indian Tribe and its salmon fisheries, the Army and its Fort Lewis training grounds, the City of Tacoma and its two hydroelectric dams, Weyerhaeuser Co. and its thousands of acres of timber, the federal government and its wildlife refuge at the Nisqually Delta and homeowners along the river banks.

Martin said the task force should accomplish such things as setting management area boundaries, identify new public access and recreational areas to the river, recommend changes in county land use ordinances and state laws.

"It could set a precedent in the management of rivers," said Douglas Canning, an Ecology employee assigned to the river project.

The task force consists of a 22-member steering committee, 13-member technical advisory committee and six subcommittees, each with six to eight members.The steering committee is scheduled to meet every two weeks between Sept. 11 and Dec. 6 with the first and last meeting in the Olympia area.

Among the steering committee members are: Bill Frank Jr., fisheries manager for the Nisqually Indian Tribe; Stewart Bledsoe, executive director of the Washington Forest Protection Association; Stan Cecil, president of the Washington Environmental Council; Thurston County Commissioner Karen Fraser and Bill Hesselbart, manager of the Nisqually National Wildlife Refuge.

The Olympian, September 29, 1985

Visit birds before shotguns boom

By Gary Mozel
Olympian correspondent

Now's the time to visit Nisqually. Fall migration is well underway, and many birds have arrived from the north. Also, the longest trail at the refuge closes Oct. 11, because hunting season on adjacent state lands opens the next day.

Drive Interstate 5 for 10 miles north of Olympia and take Exit 114. Turn left, passing beneath the freeway, then turn right onto Brown Farm Road. The road ends shortly at the refuge's offices and parking lot.

An exhibit kiosk near the parking lot provides information about the area's wildlife and a large map of the refuge. Trails begin just behind the kiosk, and refuge personel ask that you stay on them, rather than heading off across country.

Two short strolls are possible. The jaunt to, around and back from the Nisqually River Interpretive Trail is about three-quarters of a mile. It traverses lovely deciduous woodland near the river (and thus may be flooded during very high tides). The other route is a mile-long loop that passes the twin barns, site of an elevated observation deck. The deck offers expansive views of the meadows that form the heart of the refuge and is a good place from which to spot harriers and other birds of prey.

The best way to see Nisqually is via the perfectly level, 5½-mile Brown Farm Dike Trail, a loop which forms a large box just inside the refuge boundary. To hike the trail in a clockwise direction, take the path that heads left in front of the information kiosk.

The trail goes through an old orchard, passes the turnoff to the twin barns, then comes into open fields. Watch here for hawks and herons as they attempt to pluck voles from grassy tunnels. An area of cattails also offers the chance to spot marsh-dwelling birds like bitterns, red-winged blackbirds and marsh wrens.

The trail then heads north along McAllister Creek, a tidal stream dotted with tree snags. Kingfishers and red-tailed hawks perch in the snags, and a great variety of fowl feed in the stream. Sharp eyes may spot otters that sporadically turn up here.

At the creek's mouth, the trail turns east and goes along the very edge of the tidelands. Views of the Tacoma Narrows bridge provide a reminder that Nisqually could have easily gone the way of the area that lies beyond the bridge — a dredged and filled harbor known as the Port of Tacoma.

"Don't forget to look inland: Many ducks use the shallow ponds that form in the moist fields. And keep an eye out along the edge of the trail for cottontail rabbits; these critters are abundant at Nisqually and with a careful approach often can be seen at close range."

The tide will determine what birds you will see from this outermost section of the trail. If the tide is in, rafts of ducks are close at hand. If the tide is out, exposed mudflats are host to sandpipers and great blue herons. The richness of this estuary is hinted at by the fact that you can often count more than a dozen herons from a single spot along the trail.

Don't forget to look inland here, too: Many ducks use the shallow ponds that form in the moist fields. And keep an eye out along the edge of the trail itself for cottontail rabbits; these critters are abundant at Nisqually and with a careful approach often can be seen at close range.

After a mile fronting the tidelands, the trail swings south. Shortly after the turn is a side path leading to a fine viewpoint on the banks of the river.

The final leg of the route is largely in deciduous woodland. This is a good place to spot songbirds, especially goldfinches and siskins at this time of year. Watch also for amphibians in the vegetation-choked sloughs that parallel the path. The trail takes you back to the kiosk and parking lot from which you started.

There is no water available at the refuge, so it's a good idea to carry some when hiking the loop trail. A coat that repells rain and wind also is a must.

Your chances of seeing wildlife are improved if you visit the refuge during morning or evening or if your visit coincides with a period of clearing weather after a storm. Chances of seeing wildlife also are improved by the fact that the Fish and Wildlife Service prohibits both pets and jogging on the refuge.

Waterfowl find haven at Nisqually

Delta's refuge remains amidst bustling cities

☐ Guide to trails/5C

By Gary Mozel
Olympian correspondent

For thousands of autumns, the pattern was the same. As days grew shorter and the sun sank lower, lakes in the far north began to freeze over. Dozens of species of ducks took wing and headed south in search of open water and a reliable supply of food.

By the tens of thousands they came into southern Puget Sound. Some came to rest and feed, then move further south. Others came to stay; for them, this was the south of "south for the winter".

They came especially to the broad, shallow deltas of the major rivers, quiet waters rich in food. They came to Elliot Bay at the mouth of the Duwamish River. They came to Commencement Bay at the mouth of the Puyallup River. And they came to the tidelands and marshes at the mouth of the Nisqually River.

One observer of this procession was William Fraser Tolmie, a physician in the employ of Hudson's Bay Company. In October of 1833, he wrote in his journal: "Up early this morning — went along the bay to the commencement of the Nusqually (sic) sands — The sands are alive with wildfowl — Geese, ducks, gulls, plovers — busy feeding and keeping up an unceasing clatter."

Tolmie's journal also contains many references to the Indians whose largest village was located several miles upriver from the Nisqually Delta. It was in the southwest corner of the delta, beneath a large red cedar tree, that the Nisqually people and the Government of the United States concluded a treaty in which the Indians were guaranteed the right to fish forever in their "usual and accustomed places" but in which they also gave up their claim to most of the land they had traditionally occupied.

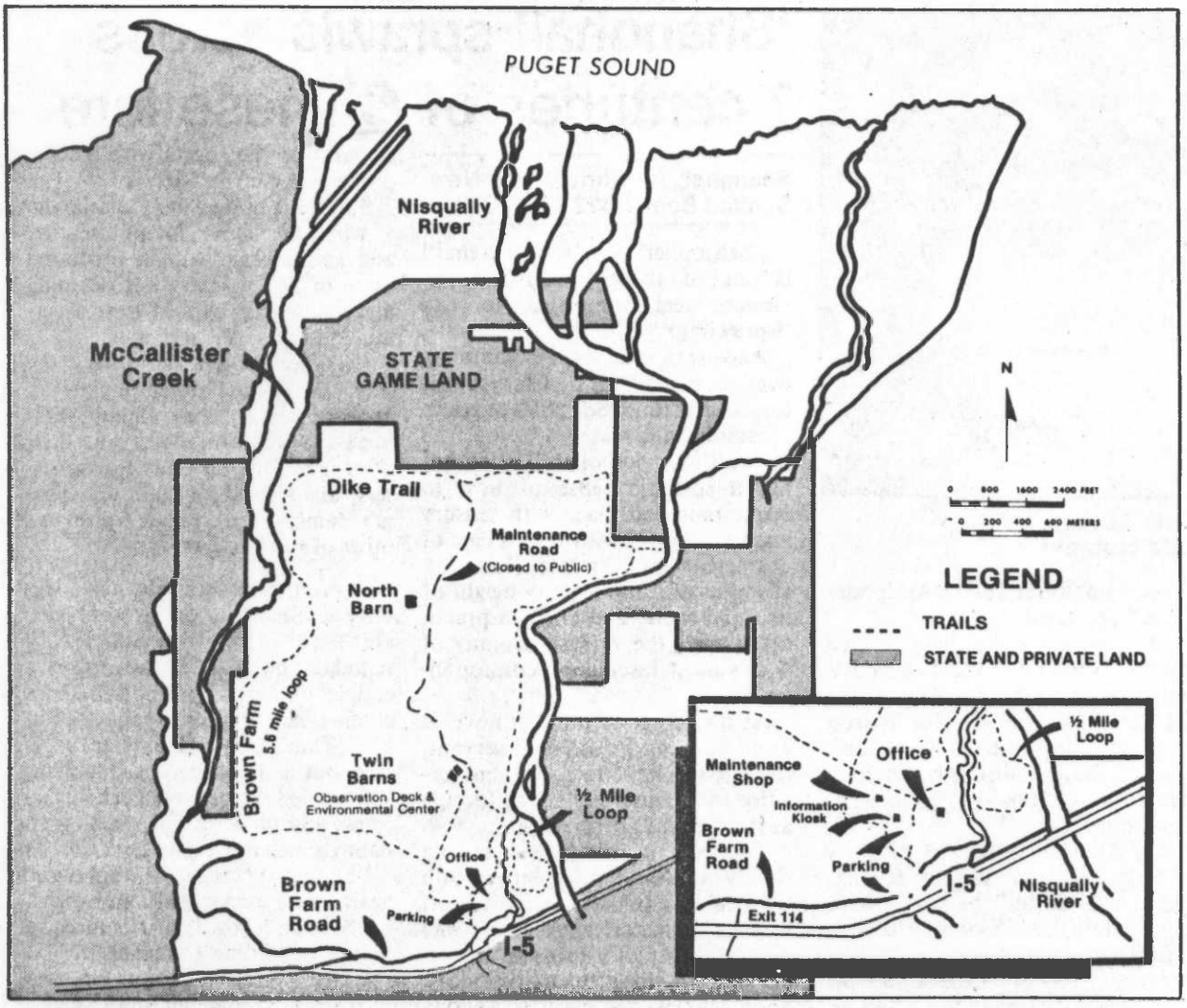
The first claim registered by a white person in the Nisqually Delta was dated 1845. The peak of the delta's development, however, began in 1904. A Seattle lawyer and businessman, A.L. Brown, purchased most of the delta's lands and embarked on an ambitious experiment in scientific farming.

Dikes were built to hold back the lethal salt water of Puget Sound. Inside the dikes were hay fields, barns dairy herds, chicken houses, a creamery, a bunkhouse for farm employees and a train station which allowed fresh produce to reach Seattle in a few hours. In its finest hour, the Brown Farm had 300 milk cows, 4,000 poultry, 1,200 hogs and about three-dozen farmhands.

In spite of this bustle, the delta continued to be a haven for wildfowl. They congregated on the remaining tidelands and adapted nicely to the fields and ponds created by the farm. Elsewhere the birds were being evicted. Tidelands were dredged for ships or filled for docks. Elliot Bay became the Port of Seattle. Commencement Bay became the Port of Tacoma.

By the mid-1960's, the Brown Farm (which Brown had lost to creditors in 1919) could no longer turn an acceptable

See Nisqually/page 5C



Nisqually—

From page 1C

profit. Plans emerged to turn the delta into a landfill or superport.

Conservationists were horrified. Led in part by Margaret McKenny, a naturalists and author of national repute, they formed the Nisqually Delta Association. Helped by the growing ecology movement, the association found receptive ears in government circles. The State of Washington purchased hundreds of acres of tidelands in 1967. And, in 1974, the heart of the delta — the Brown Farm property — became the Nisqually National Wildlife Refuge.

This autumn, a millenia-old pattern is repeating itself. As days grow shorter and the sun sinks lower, lakes in the far north begin to freeze over. Dozens of species of ducks take wing and head south in search of open water and a reliable supply of food.

By the tens of thousands they come into southern Puget Sound. They seek the broad, shallow deltas of the major rivers and their sources of food and protected waters. They come to Elliott Bay, with its ferryboats and crowded shoreline — and fly on. They come to Commencement Bay, with its container ships and crowded shoreline — and fly on.

They come to the Nisqually Delta, with its rafts of bobbing ducks, and they circle and land.

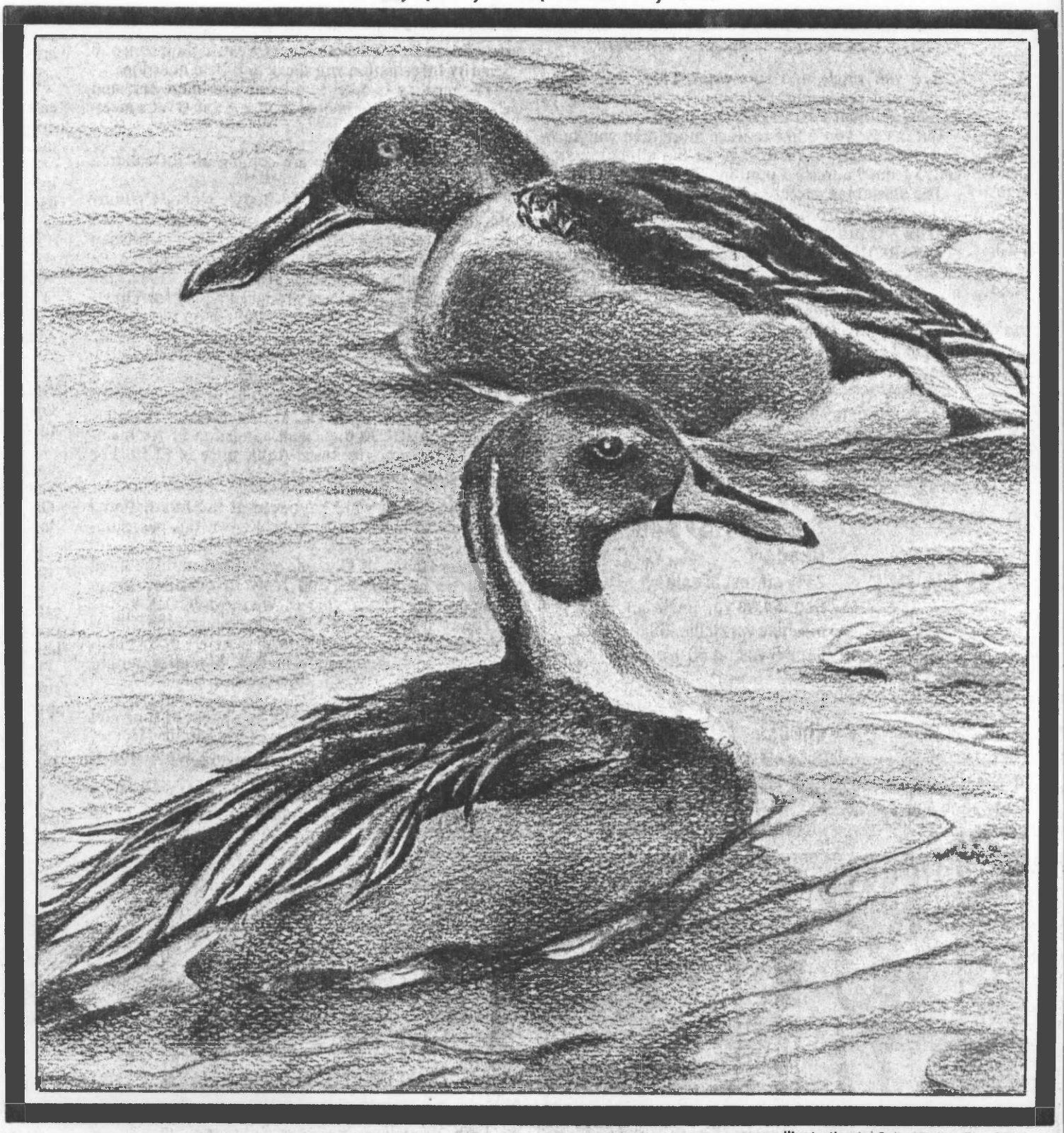


Illustration by Sally Markos The Olympian

Delta denizens: Pintails (foreground) and shovelers take the water at the Nisqually Delta.

The Olympian, September 29, 1985

Early birds have started the fall migration

Nisqually National Wildlife Refuge is most famous for its waterfowl. As many as 20,000 ducks visit the delta during fall and spring migration.

Most of the ducks that spend fall, winter and spring in our region are ones that breed far to the north of us. As cold weather hits the northern latitudes in September, lakes freeze from the edges inward. Shallow-water fowl are thus the first to migrate south. Among the shallow-water, early-migrating ducks that have already arrived at Nisqually are:

- The American Wigeon. Males have a creamy-white crown and brilliant green crescent on the side of the head. Both sexes utter an oft-given call which sounds just like a dime-store rubber ducky.
- The Northern Pintail. Males have a chocolate-brown head and very long tail feathers. Females are mottled brown but differ from other shallow-water females in having a long neck and slender body.
- The Greater and Lesser Scaup. (Two nearly identical species.) Males look like an Oreo cookie: black at each end, white in the middle. Females are a rich brown with a band of white around the base of the bill.
- The Northern Shoveler. Both sexes closely resemble mallards — mallards whose bills look like Pinocchio's.

There are also several interesting year-round residents at Nisqually. These include two fish-eating birds: the crane-like great blue heron and the kingfisher, a stocky, blue-and-white bird with an abrasive, ratchety call.

Among the birds of prey, the one most likely to be noticed is the marsh hawk (also known as the northern harrier). Females and young birds are brown; males are pearl gray; both have a distinctive, squarish white patch where the tail joins the body. Slender-bodied and long-tailed, these hawks fly low over moist fields in search of rodents.

Later in the fall, additional characters will join the Nisqually cast. The deep-water, diving ducks — goldeneyes, buffleheads and their kin — will be forced from their breeding grounds and join their shallow-water relatives. Dunlins, brown-and-white shorebirds, will arrive to probe the mudflats with their slender bills. Perhaps a snowy owl, white specter of the arctic, will arrive to tell us that rodent pickings up north are poor.

The five-mile loop trail at Nisqually closes Oct. 11 because hunting is allowed on adjacent state lands, but it reopens in midwinter. It's interesting to walk the loop now, then again in late January or February. The cast in fall can be very different from the cast in winter.

— Gary Mozel

The Olympia News
November 6, 1985

Trail a treat for birdwatchers

Birdwatchers are preparing to enjoy a rare fall hike around the Brown Farm Dike Trail at Nisqually National Wildlife Refuge. The trail, usually closed to the public during duck hunting season, will be opened for two weeks between November 2 and 15 when the duck season temporarily closes. Early November is the height of the fall waterfowl migration and hikers may view up to 10,000 wigeon, mallards, green-winged teal and pintails. The birds are moving south as the weather turns cold in their northern nesting grounds and many stop at Nisqually to rest and eat before flying on. Others decide they like the inviting wetlands and fields of the Refuge and stay through the winter.

The Brown Farm Dike Trail helps visitors see not only ducks but a variety of other wildlife as well. This 5½ mile trail goes past salt marshes, mudflats, and woodlands as well as freshwater marshes and grasslands. These different kinds of habitats attract many different kinds of wildlife. Red-tailed hawks and northern harriers soar over the grasslands in search of mice, and kingfishers perch along the waters of McAllister Creek. Great blue herons stalk frogs and small fish and cedar waxwings fly from tree to tree feasting on crabapples.

The Nisqually National Wildlife Refuge is open to the public during daylight hours throughout the week. The trails are open only for walking, and pets must be left at home.

Port Townsend Leader, September 4, 1985

Injustice On Protection Island

Leader
Sept 4 '85

Editor, The Leader:

I am appalled at the gross injustice being perpetrated on the lot owners of Protection Island in the guise of a "Master Plan" which supposedly follows the intent of PL 97-333, Oct. 15, 1982, "to provide habitat for. . . birds." Essentially, citizens of the United States are being forced to give up their rights and their property in the name of wildlife preservation. The way I see it, these privileged seabirds, who just happened to find Protection Island an attractive place to do their thing, apparently have more rights than the humans who chose Protection Island as their special place of human refuge!

We have owned property on Protection Island for 17 years and have a cabin which our entire family built together. We are being offered "life use" of our "habitable structure" at a cost of 1% of its value per year—that is after the government takes it away from us by condemnation and pays us what they think it's worth from our taxes!

Our "life use" will consist of parking a boat in the marina, driving our supplies up to the cabin and staying on our property so we don't disturb the wildlife! That is a far cry from our freedom to roam the entire island and beach, clamming, fishing, beachcombing, kite flying, picnicking, photographing, observing and just plain renewing our bonds with the peaceful, unspoiled nature of Protection Island which we have enjoyed up until the time the government started interfering with that freedom.

Our uses of Protection Island, and those of the other lot owners who love the island and its natural resources as we do, have not interfered with the wildlife populations except to help protect them and be rewarded by seeing them increase in abundance proving that humans and wildlife can coexist to the benefit of both.

It disturbs me to think that the United States is becoming a government "of the birds, by the birds and for the birds" and that the rights and feelings of its human citizens are being trampled under the feet of thousands of seabirds and their "environmental preservationists" who couldn't care less!

LINDA M. HOLTZNER

Jimmy Come Lately Gazette
October 2, 1985

MORE FROM PROTECTION ISLAND

To the editor,

The article on Protection Island in the Sept. 4 issue could have used some input from property owners and residents.

Bonnie and I live on the island and find it fascinating. We have a bluff view much like the views of numerous bluffs in the Clallam-Jefferson county area. The wind is nature speaking to us. The wind drives our windcharger. Observing the nesting birds alerts us to the balance of nature.

The quiet atmosphere is about to be invaded with a storm called federal condemnation. A Declaration of Taking is being prepared to take title to all the property of the island regardless of the property owner's wishes.

The government real estate specialist gives the impression that the FWS is a good, ordinary dues-paying member of the beach club. Yet she fails to acknowledge their delinquent assessments for lots owned during 1983 and 1984.

As a beach club member, the U.S. Fish and Wildlife (FWS) is allowed access to the island just like any other landowner. However, there are nesting areas on the beach club property that are closed to all members. These include the slopes preferred by the burrow-nesting rhinoceros auklet. Access is also limited in the area of the bald eagle and the harbor seals.

The beach club has given the FWS special permission to enter the wildlife areas under a cooperative agreement called a Memorandum of Understanding. The beach club board initiated the agreement three years ago. Our goal was to demonstrate concern for the wildlife and our willingness to cooperate with FWS field personnel.

The reward for our effort is a set of Guidelines for Extended Use, which will place Bonnie and me under virtual house arrest once they have condemned and taken ownership of our home. During the summer we are only allowed a road access to the marina with a place to moor our boat. Those who happen to own cabins that are not classified as "habitable" will see their island "castle" destroyed before their very eyes and given an extended use for camping only on the remaining empty lot.

No longer can we take an evening walk in the woods and listen to the great horned owl. Off limits will be all beaches where the ever increasing cormorants cling to the bluffs. No credit is given island families for limiting disturbance by allowing only property owners access to the island.

The FWS will close the refuge to the public as well.

The FWS has the power to limit our freedom, but they can't limit our determination to remain in residence on the island.

Philip T. Vorvick
President, Protection
Island Beach Club

Jimmy Come Lately Gazette, October 16, 1985

Man-animal coexistence to end on Protection Island

For many years, a small group of people have lived in harmony with both animals of the sea and air. A unique respect of one another's space has flourished from a recognition of the animals' requirement, and right, to privacy and quality of life.

So it has been within the small colonies which together make Protection Island.

But there is sadness in the air which surrounds the island just north of Diamond Point at the entrance of Discovery Bay. One animal inhabitant has passed the endangered species list, finding itself among those destined to disappear from the island.

Federal government guns have fired the final round which will lead to the eventual demise of one island mammal — an animal that some consider the primary reason for the small island's great success toward the protection and enhancement of indigenous and transient sealife.

This is the final generation of man's relationship with animals on the island. Through legislation, those unwilling to sell their island property to the government will lose it anyway through governmental enactment of "power of eminent domain," the right of the government to offer a fair market value for private property it determines to be of more value in public domain.

This action stems from President Reagan's signing into effect the "Protection Island National Wildlife Refuge Act" on Oct. 15, 1982. The act authorizes the U.S. Secretary of the Interior to "acquire the island by donation, purchase or exchange of lands within the approved refuge boundary."

On Sept. 4, 1985, U.S. Fish and Wildlife regional director Richard Myshack submitted a "request for condemnation suit" (eminent domain) to USFW regional solicitor Lawrence Cox.

"We have requested a 'declaration of taking,' which has been allowed by Congress," USFW spokesman Georgia Shirilla said. "We will file the action in federal court and deposit $4 million toward just compensation and acquisition of land."

The island is approximately 400 acres. Washington State Department of Game owns a 48-acre Zella M. Schultz Seabird Sanctuary on Kanem Spit at the west end of the island. Schirilla said the federal government has effected purchase or donation of 45 acres or 195 lots, leaving approximately 315 acres remaining for acquisition.

Landowners have been offered $2,000 per lot with additional money allocated for improvements such as structures and related construction. With the exception of 110 acres.

The Protection Island Beach Club, a conglomerate of landowners and residents of the island, owns over 115 acres as common property. Club president Philip T. Vorvick said the government has offered the club "$6,000 for three lots and $1 for the remaining 115 acres."

Shirilla said she could not comment on any offer made to the club since it is "still under negotiation."

Vorvick and wife Bonnie have made the island their permanent residence for the past two years. The two live in a comfortable home offering all the conveniences of mainland living. They have water from a community well system, solar and wood heat and instead of 110 volt power, the Vorvicks use 12 volt.

"It's like living in a stationary motor home," Vorvick said.

In conjunction with the 12 volt system, the Vorvicks also utilize solar panels, a wind generator and a converter which transforms 12 volt power to 110 volts. The two spoke of life on an island, which resembles one of the many small islands around Scotland: tall grass swaying in a westerly breeze, seabirds circling overhead with an occasional building or jagged snag jutting from the serene landscape.

A picturesque vision not without inconvenience.

Apart from the normal problems of island life, that of bringing in all foodstuffs, fuel, maintenance items and commuting to and from work first by water, then by land, island residents have imposed upon themselves limitations of island travel during certain times of the year. Some areas remain off limits at all times.

In essence, prior to governmental intervention, a recognized wildlife sanctuary was in effect.

Vorvick attended the congressional hearings on Protection Island held in Washington, D.C. in 1982. Congress determined, Vorvick said, "The islanders do not have a detrimental effect on the island wildlife."

All along the steep, windblown cliffs of the island, rhinoceros auklet burrows dot the landscape. During the spring when the more than 20,000 pairs arrive for their mating season, the hills and cliffs are alive with chattering birds, and off limits to foot traffic. The eastern side of the island remains off limits year round so breeding grounds there will not be destroyed. It is estimated that the island holds 70 percent of the total Puget Sound Basin/Strait of Juan de Fuca population of rhinoceros auklet.

On Violet Spit, jutting seaward from the eastern end of the island, harbor seals find refuge to rest throughout the year, mate in the fall and give birth in the spring. Over 250 seals may use the spit at any one time. During the birthing season, foot traffic is prohibited along Violet Spit, a restriction self-imposed by the beach club.

The wind-blown snags along the wooded northern edge of the island plateau are home to the bald eagle. Island traffic is prohibited along the grassy road which lies below the nest during the birds' mating season to afford our national symbol all the space and privacy necessary to raise its

Article and photos

family. This is another restriction placed on island residents by themselves.

Island cliffs are home to many other seabirds given the same respect as endangered species found along the waterline and on into the central island. Pelagic cormorants, glaucous-winged gulls, pigeon guillemots, black oystercatchers, tufted puffins and others continue to return to the island year after year, despite human presence.

The auklet population, as a matter of fact, has increased nearly 800 percent in 15 years since grazing sheep were removed from the island. No livestock is allowed on Protection Island now and resident canines are either kept inside or on leash. They are not allowed to roam. Islanders, by choice, will not tolerate any disturbance of their neighbors, be it bird or mammal.

Island caretaker John Lorenz is responsible for maintenance and upkeep of island trails, the water system and island security. Until such time as the governmental takeover is complete, the island remains a private sanctuary, for man and animal.

Lorenz, however, was not given a choice, as were the Vorvicks, to stay on the island for the remainder of his life. When reversion is complete, Lorenz must leave his home of six years and re-enter the mainstream of society.

The government determined there were two types of people living on the island. Those with habitable structures and those without. The government's definition of a habitable structure is a residence with a septic system.

When Lorenz first purchased his lot on the island he envisioned a small home nestled among some of the few trees located toward the island's northern edge. His plans changed when he realized he would need to remove some of the trees before his home could be built. Since woodlands are in very short supply on the island, he opted not to remove any of the trees, nor to install a septic system for fear of damaging the limited windbreak's root system. So he removed a bit of underbrush and planted a small trailer on the site. Since the primary criteria for an offer of extended use of the island to current residents revolves around whether a residence is habitable, through prior installation of a septic system, Lorenz's lot falls short and he will be forced to leave his home and employment.

The Vorvicks, whose home has a septic system, have been given a choice to remain on their property for the rest of their lives. The land will, however, be owned by the government and upon their death will revert to governmental ownership. Title cannot be transferred to offspring for future occupancy.

"The issue now is how will we be treated when the Feds own every inch of the island," Vorvick said.

There are nine habitable structures, but Vorvick said only five owners have applied for extended use — a use which critically limits human movement around the island upon completion of land transfer. Some landowners who do not have habitable structures, and whose property does not lie within a primary protection zone encircling the island, or within a buffer zone abutting the protection zone, will be entitled to limited use — much more restrictive than a grant of extended use.

As it is, for those granted extended use, some existing roads will be closed, residential foot traffic will be limited to open roads and one small stretch of beach running west from the island's small harbor. Violet Spit will be closed year-round to foot traffic. Each family will be allowed one vehicle on the island.

Those granted limited use will not be allowed a vehicle on the island. Their movement will be limited to foot traffic only along designated roads. Any permanent structure built as a refuge from the elements will be removed from non-habitable lots.

The entire central portion of the island, the grasslands, will forever be off limits to foot traffic.

Just north of the Vorvicks' home stands a small, red, well-kept cottage behind a driftwood fence owned by part-time islander Gene Fisher. The lot on which it sits crosses slightly onto a USFW mapped buffer zone set aside as additional protection for wildlife rookeries.

"This is the saddest case of all," Vorvick said. "That house will be destroyed and Fisher won't even be granted extended use."

It doesn't have a septic system.

Former island resident Connie Medhus returned to the mainland last year because she said it got to be too much to live on an island, raise school-age children, and commute to the mainland each day.

"Those of us that lived out there protected the environment," Medhus said. "If we weren't there, there wouldn't be a sanctuary. All the animals would have been chased away by now."

Vorvick said caretaker Lorenz has an "uncanny knack for knowing who doesn't belong on the island." As the island security guard, Lorenz asks unwary visitor/trespassers, who quite often are tromping through the auklet rookery, to vacate the private island.

"The people that live out there are more concerned about the environment and those damn birds than anyone else," Medhus said. "The people are aware of the need for a sanctuary but what others need to know is the government is ripping them off."

Eleanor Stopps, Port Ludlow, instrumental in acquisition of the seabird sanctuary at Kanem Point, said, "I don't see any way out of Protection Island becoming a national wildlife sanctuary. When the government has exhausted all willing sellers, rights of condemnation will ensue."

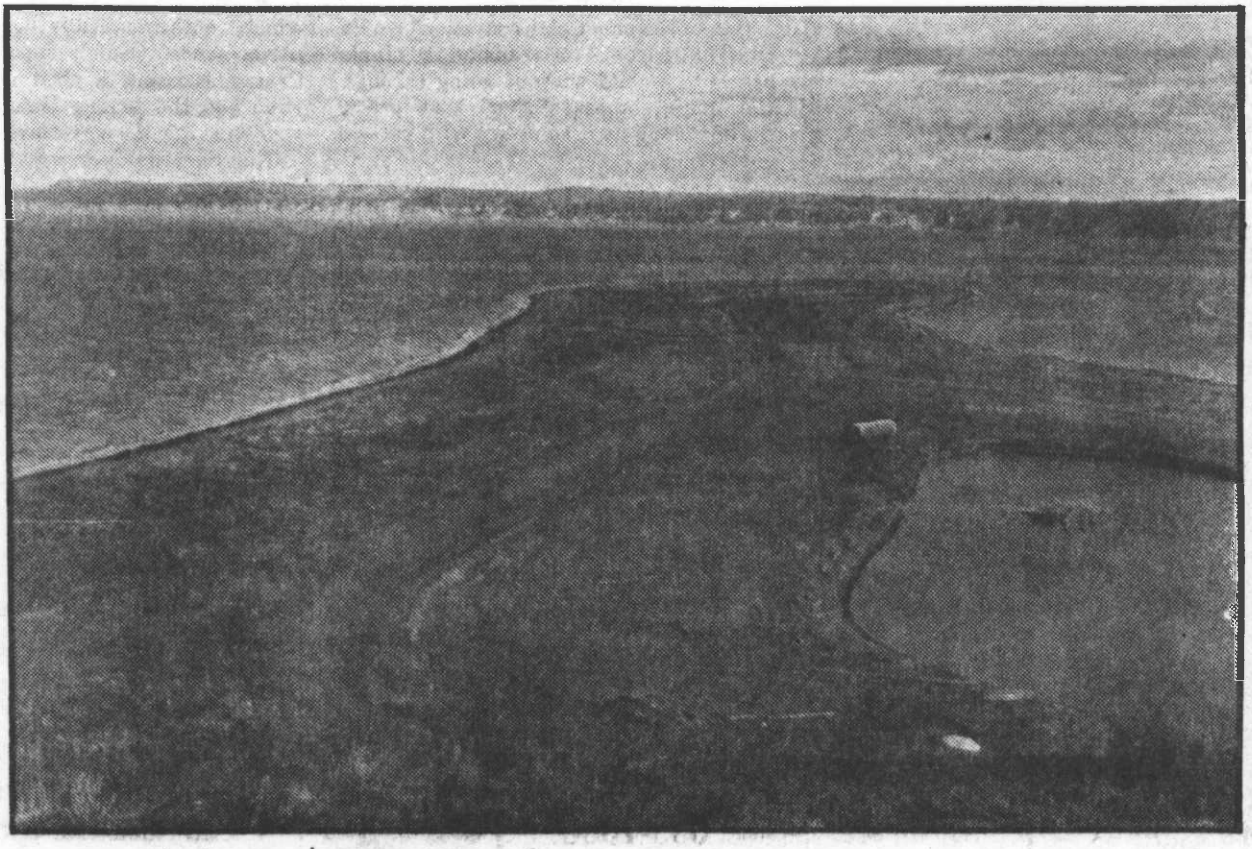
Shirilla said the USFW will place a volunteer caretaker on the island to protect its surroundings. But a question which remains in the minds of islanders is "how can one volunteer take the place of nine families and hired security?"

The volunteer will live in the former Medhus home, located just north of the Vorvicks' on the island's western rim. Marine docking facilities are located on the east side below the bluff, close to Lorenz's home.

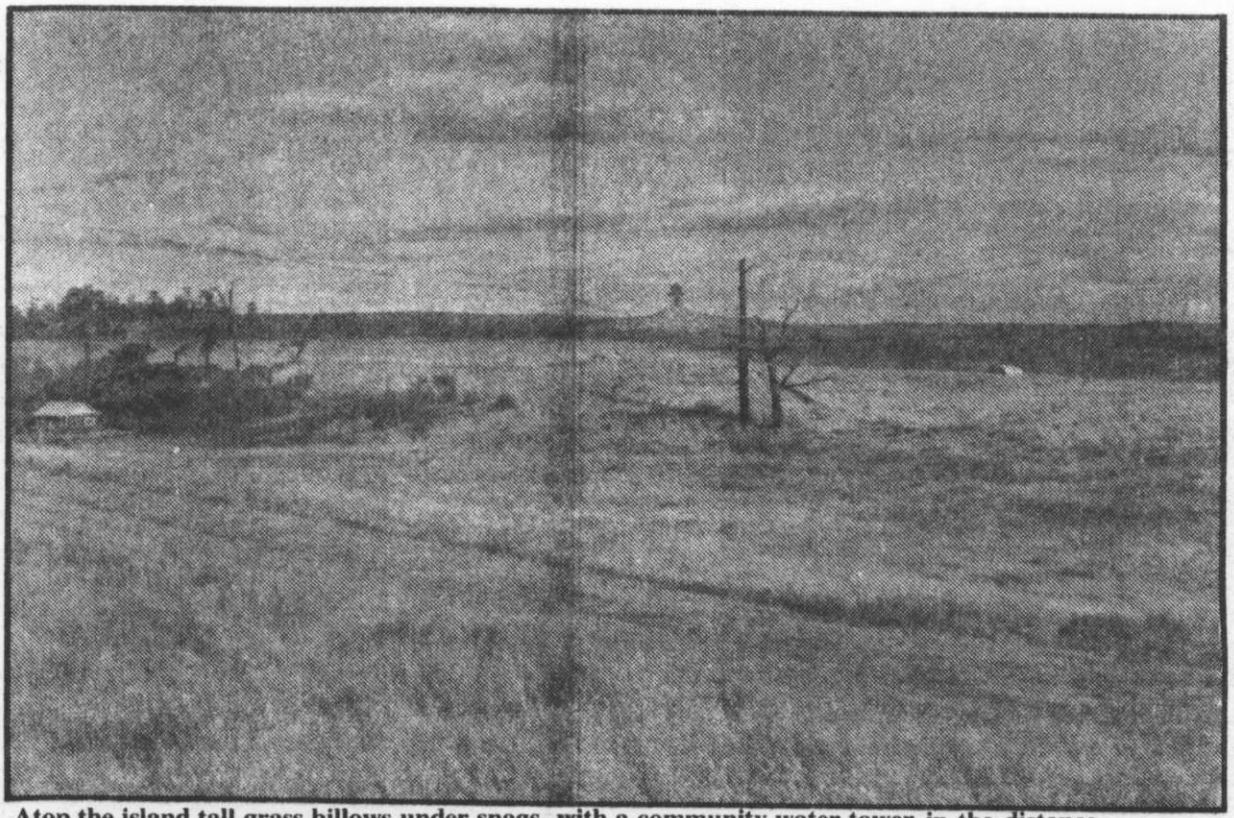
"How does a volunteer expect to catch trespassers living way up here where he can't even hear them?" Lorenz said.

The humans are leaving — leaving behind a lifestyle of romanticism and a merging of man and beast in mutual recognition and respect for one another's wants and needs. The government has determined man and animal cannot live together on Protection Island.

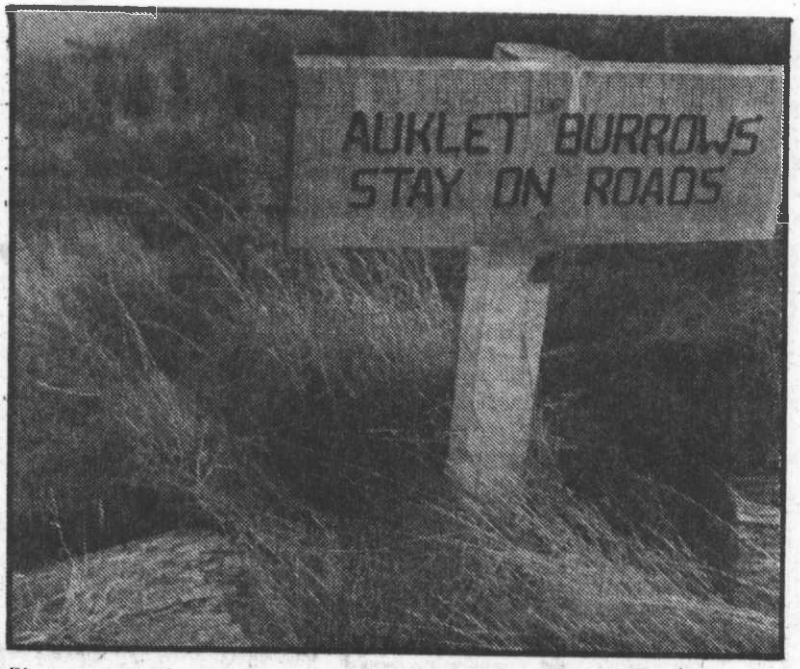
by Rick McGahan



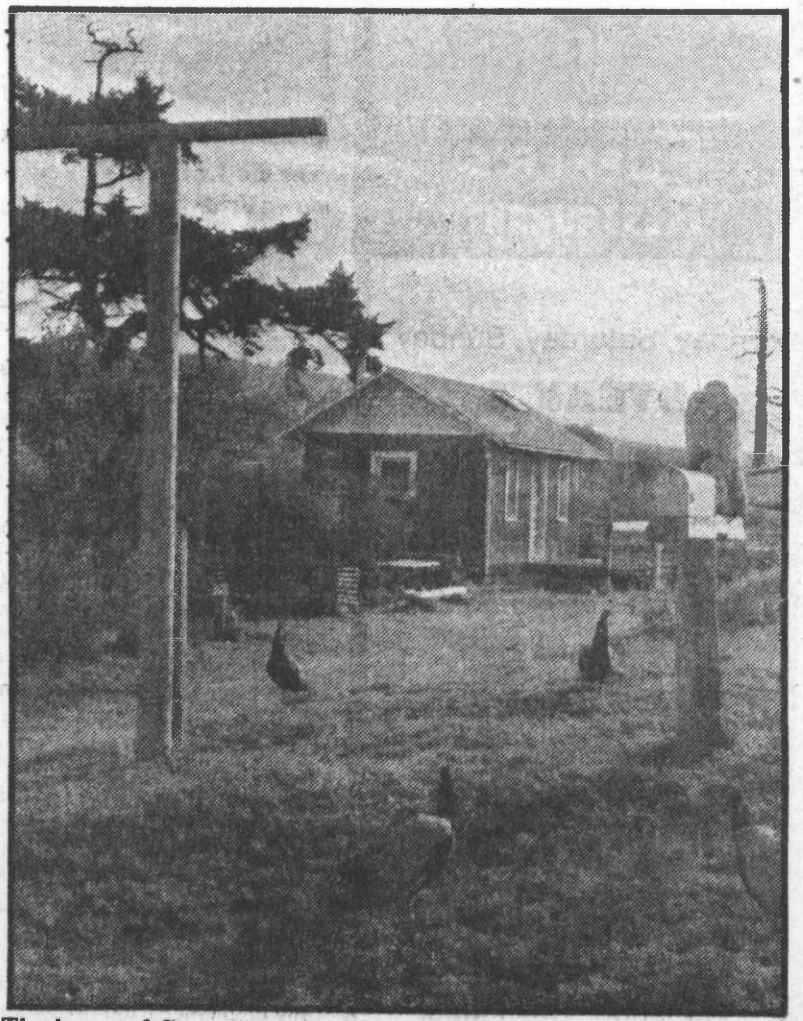
Violet Spit, at the island's eastern end, is a playground for harbor seal.



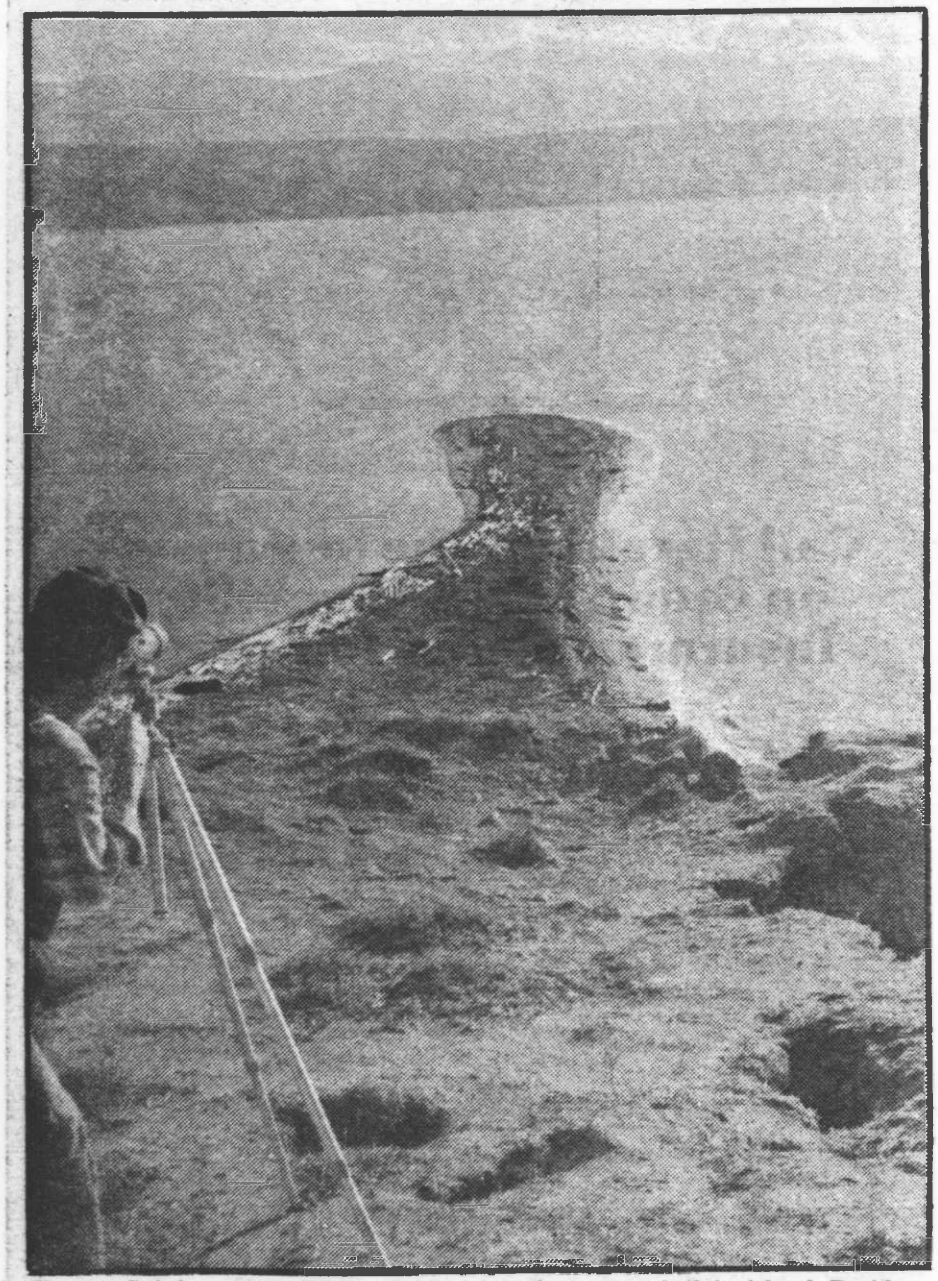
Atop the island tall grass billows under snags, with a community water tower in the distance.



Signs erected by Protection Island Beach Club prior to governmental intervention.



The home of Gene Fisher is home to everpresent pet pea fowl that follow residents.



Kanem Spit is a state wildlife sanctuary on the west end of the island. Resident Philip Vorvick tries unsuccessfully to spot water fowl below.

Glaucous Gulls perch at the entrance to the small harbor of Protection Island.

Harbor Seal by the hundred sun and (in season) give birth along the sandy shores of the island's northern edge.

Jimmy Come Lately Gazette
October 23, 1985

PROTECTION ISLAND

To the editor,

In response to letters appearing in the local newspapers, it appears that the environmentalists like to use false or misleading statements to alarm the public into believing that we residents and property owners on Protection Island are bent on destroying the property we own.

Let's set the record straight. Wildlife census data gathered by biologists on Protection Island show that bird populations have increased nearly 400 percent since the island was taken over by the Protection Island Development Company in 1965. This increase can be attributed to a conscious effort on the part of the developer, who incorporated clauses in the restrictive covenants specifically protecting the wildlife and subsequent management of the island's wildlife resources by members of the owner's association who use and love the island.

History shows that man can be a capable and necessary part of the development of the environment. For example, on the island:

1. Roads act as fire breaks to prevent fires from consuming the entire island. Before roads were developed, two fires burned off the entire island, destroying the birds' habitat.

2. The family owners using the island help keep the outside public from disturbing the wildlife at critical times during their nesting cycles. This service is performed on their own time and expense, out of love for wildlife and to protect their habitat.

3. Since the roads are maintained with a short grass cover, small birds can collect seeds and grit for their diet. If the roads were not cut, the long grass would make this difficult and would prohibit the abundance of birds which the island now hosts.

It is quite apparent that the successful integration of humans with wildlife on Protection Island does not sit well with the environmental community. Their frantic action to have the government acquire the island shows that they don't want the real story to get out. The truth is that people and wildlife are compatible and people are capable of caring for wildlife enough to enhance and protect their habitat while enjoying the same values which attracted the wildlife in the first place.

George Holtzner
Renton

Seattle Post-Intelligencer
November 26, 1985

Island wildlife is managed well

It appears that environmentalists like to use false or misleading statements to alarm the public into believing that we residents and property owners on Protection Island are bent on destroying the property we own.

Let's set the record straight. Wildlife census data gathered by biologists on Protection Island show that bird populations have increased nearly 400 percent since the island was taken over by the Protection Island Development Company in 1965. This increase can be attributed to a conscious effort on the part of the developer who incorporated clauses in the restrictive covenants specifically protecting the wildlife and subsequent management of the island's wildlife resources by members of the owner's association who use and love the island.

History shows that man can be a capable and necessary part of the development of the environment. For example, on the island:

Roads act as fire breaks to prevent fires from consuming the entire island. Before the roads were developed, two fires burned off the entire island destroying the birds' habitat.

The family owners using the island help keep the outside public from disturbing the wildlife at critical times during their nesting cycles. This service is performed on their own time and expense out of love for wildlife and to protect their habitat.

Since the roads are maintained with a short grass cover, small birds can collect seeds and grit for their diet. If the roads were not cut, the long grass would make this difficult and would prohibit the abundance of birds which the island now hosts.

It is quite apparent that the successful integration of humans with wildlife on Protection Island does not sit well with the environmental community. Their frantic action to have the government acquire the island shows that they don't want the real story to get out. The truth is that people and wildlife are compatible and people are capable of caring for wildlife enough to enhance and protect their habitat while enjoying the same values which attracted the wildlife in the first place.

GEORGE HOLTZNER
Renton

NISQUALLY

National Wildlife Refuge

Washington

Over 300 species of wildlife benefit from the ten habitats of Nisqually National Wildlife Refuge. The Refuge lies at the south end of Puget Sound between Nisqually River and McAllister Creek and is just north of Interstate 5.

A goldfinch, the Washington State bird, lands on a thistle.

A killdeer reflects on its next meal.

At low tide shorebirds search for tasty morsels.

Ducks thrive and shape-up for their seasonal migrations.

Alone or in a group you will enjoy the Brown Farm Dike Trail.

A PLACE FOR PEOPLE TOO

The lush grasslands and marshes and the abundant wildlife of the Nisqually River Delta have attracted many people throughout the years. The original inhabitants thrived on wild game and fish, and when trappers and settlers moved into the area several families made their homes in the Nisqually Valley as well. To this day Indian fishing nets can be seen in the Nisqually River as a result of the Medicine Creek Treaty of 1854, which guaranteed the Indians the right to fish in their usual and accustomed places.

Nisqually began to take on its present appearance when Alson L. Brown purchased the land in 1904. Crews of men using horse-drawn scoops built dikes to hold back the saltwater and make the land a farm. The "Brown Farm" produced butter, mincemeat, honey, and other delicacies for nearly fifty years.

By the mid-1960's farming this land was no longer economical, and proposals were made to turn the Delta into a superport or a sanitary landfill. Local conservationists led by Margaret McKenny quickly organized the Nisqually Delta Association in an effort to save the Delta. Their action resulted in the establishment of the Nisqually National Wildlife Refuge on February 21, 1974.

NISQUALLY

A HOME FOR WILDLIFE

Sand shrimp, ducks, salmon, and hawks live side by side on Nisqually National Wildlife Refuge. Salt marshes lie adjacent to freshwater marshes, and mudflats quickly turn to thick forests. Nisqually Refuge was set aside in 1974 to protect this diversity of habitats and the many wildlife species that live in them.

Migratory waterfowl are of special importance at Nisqually. Up to 20,000 ducks and 300 geese find food, water, and shelter in the grasslands, mudflats, and freshwater marshes during spring and fall migration.

Each habitat is used by different kinds of wildlife in a variety of ways:

OPEN FRESHWATER PONDS are used for feeding, loafing, and brood rearing by a variety of waterfowl, especially mallards and teal.

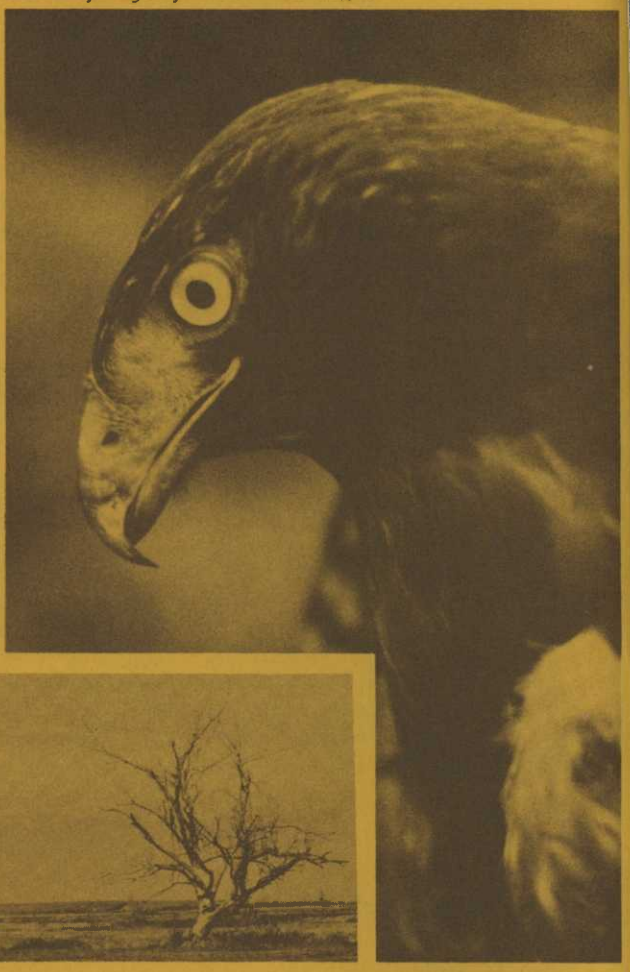
OPEN SALTWATER areas of the Nisqually Reach are the home of seals, whales, and a variety of fish.

MUD FLATS support a varied fauna of clams, shrimp, worms, and crabs, and provide important feeding grounds for shorebirds.

FRESHWATER MARSHES are used in spring and fall as stopover areas for migratory waterfowl, and during breeding season as important nesting and feeding areas for marsh birds.

An uncommon snowfall greets these migrating wigeons.

A watchful eye of a red-tailed hawk.



Leaving the handy perch in search of food.

SALT MARSHES serve as resting and feeding habitat for shorebirds and waterfowl. Black brant feed on beds of eelgrass.

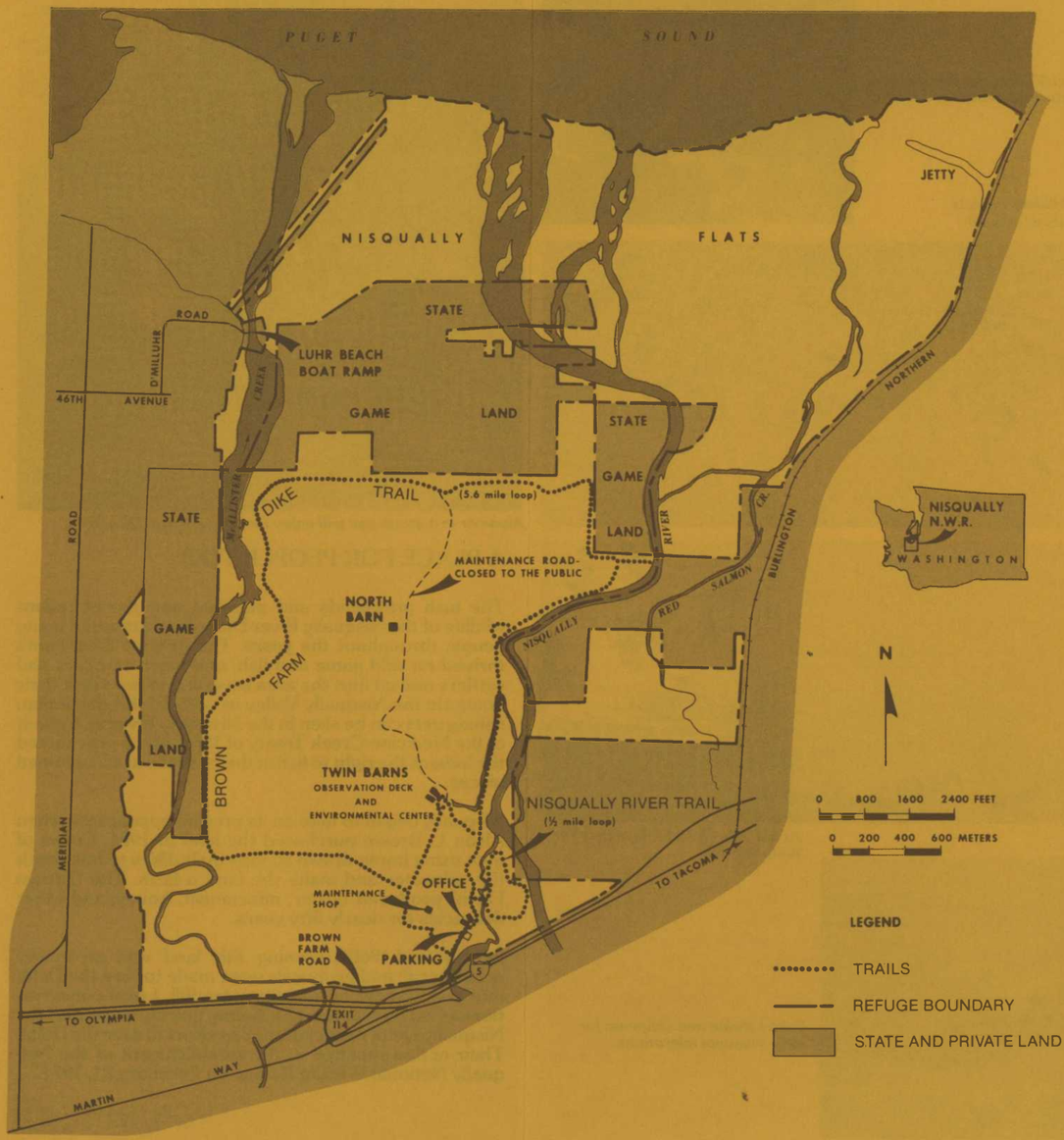
DECIDUOUS WOODLANDS are the home of numerous songbirds, raptors, and a variety of small mammals.

MIXED CONIFEROUS FOREST provides a nest site for great blue herons and perches for bald eagles.

SHRUB vegetation along the dikes supports a wide variety of songbirds.

GRASSLANDS provide browse for wigeon. A thriving vole population feeds hawks, owls, and coyotes.

ESTUARY waters, where fresh and saltwater meet, serve as a nursery for anadromous fish, as well as the home of various crustaceans, plankton, and other microorganisms.



THINGS TO DO AT NISQUALLY

Nisqually National Wildlife Refuge welcomes people as well as wildlife.

REFUGE HOURS
The Refuge is open daily from sunrise to sunset. Office hours are 7:30 a.m. to 4:00 p.m., Monday through Friday.

HIKING
The trails at Nisqually are open only for walking (no jogging please). Hikers may take the 1/2 mile Nisqually River Interpretive Trail (may be flooded at high tides), the mile loop to the Twin Barns, or the 5.6 mile Brown Farm Dike Trail. To avoid disturbing wildlife, PLEASE STAY ON THE TRAILS AND LEAVE PETS AT HOME.

WILDLIFE OBSERVATION
Wildlife may be seen from all Refuge trails. The observation deck at the Twin Barns and the two photo blinds help visitors get a better view of wildlife.

ENVIRONMENTAL EDUCATION
Teachers and group leaders should contact the Refuge office for information and to make reservations. During office hours scheduled groups may use the Twin Barns Education Center or check out learning materials to use outdoors.

BOATING, CANOEING
Boats are an excellent way to view wildlife. Canoers, Kayakers, and other small boaters should beware of hazardous tides, wind, and weather conditions that exist around the Nisqually Delta. The closest launching ramp is at Luhr Beach. To use Washington State's Luhr Beach landing you must purchase a conservation decal, unless you have a hunting, fishing or trapping license. For more information contact; State Game Department, 516 N. Washington. Olympia, WA, phone (206) 753-5717.

HUNTING
Waterfowl hunting is allowed only on the Washington State Dept. of Game's Nisqually Habitat Management Area outside the Brown Farm Dike. Maps showing hunting areas are available at the Washington Dept. of Game office in Olympia or at the Refuge office.

FISHING
Anglers may fish both the Nisqually River and McAllister Creek by boat. Fishing from the river banks is allowed only in those areas shown on the map.

DRINKING WATER
Sorry, no drinking water is available on the Refuge. Please bring your own.

LITTER
No litter barrels are provided on the Refuge. Please carry out what you bring in.

HANDICAPPED
Refuge trails have gravel or grass surfaces, and may be slippery or muddy when wet. Visitors should examine their own abilities and limitations before using the Refuge.

SORRY, NO PETS, FIRES, JOGGING OR CAMPING ARE ALLOWED ON THE REFUGE. BICYCLES AND MOTORBIKES ARE NOT ALLOWED ON REFUGE TRAILS.

Consult your tide tables before boating to Nisqually Refuge from the north.

WILDLIFE OBSERVATION TIPS

WHEN - Early morning, evening and when the weather clears after a storm are good times to observe wildlife. Spring bird migration usually goes from mid-March through mid-May, and fall migration from September through December.

WHERE - Be sure to look in a variety of habitats, along the "edges" between habitats, and remember to look high and low as well as at eye level. Please stay on the trails.

HOW - You will see more animals if you are QUIET. Be sure to listen for animal calls or songs, or try sitting down along the trail and waiting.

WHAT TO BRING - Binoculars or spotting scopes are helpful for observing wildlife, and a good field guide will help you identify what you see. You are always welcome to bring your camera and a lunch to eat along the trail. DON'T FORGET YOUR RAINCOAT!

MORE INFORMATION:

Contact: Refuge Manager
Nisqually National Wildlife Refuge
100 Brown Farm Rd.
Olympia, Washington 98506
Phone: (206) 753-9467

Dungeness and San Juan Islands National Wildlife Refuges are also managed from the Nisqually National Wildlife Refuge office.

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

RF 13530-1 FEBRUARY 1984

OTHER WILDLIFE

MAMMALS

Black Bear	(*Euarctos americanus*)
Black-tail Deer	(*Odocoileus hemionus columbianus*)
Coyote	(*Canis latrans*)
Masked Shrew	(*Sorex cinereus*)
Vagrant Shrew	(*Sorex vagrans*)
Townsend Mole	(*Scapanus townsendii*)
Coast Mole	(*Scapanus orarius*)
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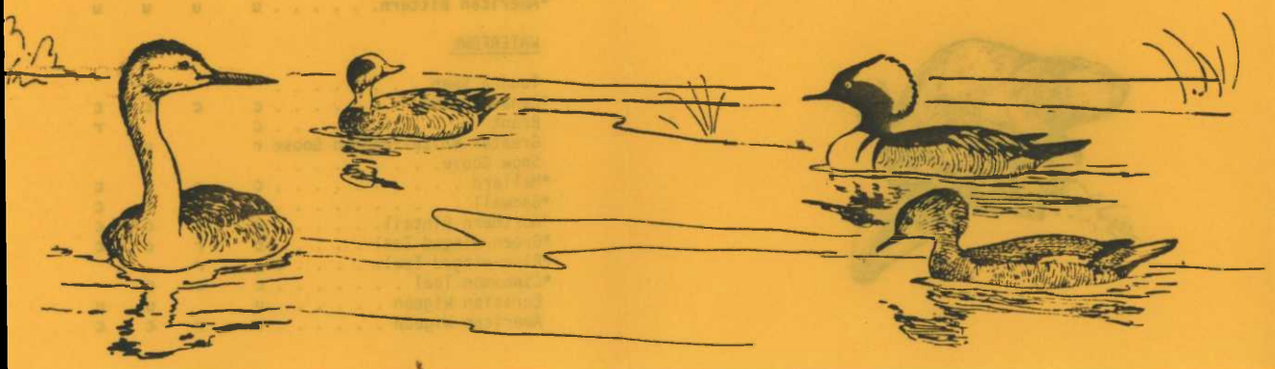
Minke Whale	(*Balaenophtera acutorostrata*)
California Gray Whale	(*Eschrinchtius robustus*)

REPTILES AND AMPHIBIANS

Common Garter Snake	(*Thamnophis sirtalis*)
Rough-skinned Newt	(*Taricha granulosa*)
Pacific Treefrog	(*Hyla regilla*)
Red-legged Frog	(*Rana aurora*)
Western Long-toed Salamander	(*Ambystoma macrodactylum*)

	Sp	Su	F	W
WATERFOWL - con't				
*Northern Shoveler	c	u	c	c
*Wood Duck	u	u	r	
*Ring-necked Duck	u	r	u	u
Canvasback	u	r	u	c
Greater Scaup	c	r	c	c
Lesser Scaup	r		r	u
Common Goldeneye	c		c	c
Barrow's Goldeneye	u		u	u
Bufflehead	c		c	c
Oldsquaw	r			r
White-winged Scoter	c	r	c	c
Surf Scoter	c		c	c
Black Scoter				r
Ruddy Duck	c	r	c	u
*Hooded Merganser	u	r	u	c
Common Merganser	u	u	c	u
Red-Breasted Merganser	u	u	c	u
VULTURES, HAWKS, AND FALCONS				
Turkey Vulture	r	r	r	
Sharp-shinned Hawk	r		c	c
Cooper's Hawk	r		u	r
*Red-tailed Hawk	c	c	c	c
Rough-legged Hawk	u		u	u
Bald Eagle	u	u	u	u
*Northern Harrier	c	u	c	c
Osprey	r		r	r
Peregrine Falcon			r	r
Merlin	u		u	u
*American Kestrel	u	u	u	u
GALLINACEOUS BIRDS				
*California Quail	r	r	r	r
*Ring-necked Pheasant	u	u	u	u
CRANES AND RAILS				
*Virginia Rail	u	c	u	u
*Sora	r	r	r	
*American Coot	c	c	c	u
Sandhill Crane			r	
SHOREBIRDS				
Semipalmated Plover	u		u	
*Killdeer	c	c	c	c
Lesser Golden-Plover			r	
Black-bellied Plover	u		u	r

SHOREBIRDS - con't	Sp	Su	F	W
*Common Snipe	c	u	c	c
Whimbrel	u		u	
*Spotted Sandpiper	u	u	u	u
Greater Yellowlegs	c	r	c	c
Lesser Yellowlegs	r		u	
Pectoral Sandpiper			u	
Western Sandpiper	c	u	c	u
Least Sandpiper	c	u	c	u
Baird's Sandpiper	r		u	
Dunlin	c		c	c
Short-billed Dowitcher	u		c	
Long-billed Dowitcher	u		c	u
Sanderling	r		r	
PHALAROPE				
*Wilson's Phalarope	r	r		
GULLS AND TERNS				
Parasitic Jaeger			r	
Glaucous Gull				r
Glaucous-winged Gull	c	c	c	c
Glaucous-winged X Western Hybrid	u	r	u	u
Western Gull	r		r	u
Herring Gull				r
Thayer's Gull	r		r	u
California Gull	c	r	c	r
Ring-billed Gull	c	u	c	u
Mew Gull	c		c	c
Franklin's Gull			r	
Bonaparte's Gull	c	r	c	c
Common Tern			u	
Caspian Tern	u	u		
ALCIDS				
Common Murre	u		u	c
Pigeon Guillemot	u	u	u	u
Marbled Murrelet	u	u	u	u
Ancient Murrelet				r
Rhinocerous Auklet	u	r	u	c
PIGEONS AND DOVES				
*Band-tailed Pigeon	c	c	c	u
Rock Dove	u	u	u	u
Mourning Dove	u	r	u	



	Sp	Su	F	W
OWLS				
*Common Barn Owl	u	u	u	u
*Great Horned Owl	u	u	u	u
Snowy Owl				r
Short-eared Owl		r	u	c
GOATSUCKERS, SWIFTS, HUMMINGBIRDS, KINGFISHERS				
Common Nighthawk		u		
Vaux's Swift		u		
*Rufous Hummingbird	c	c		
Belted Kingfisher	c	c	c	c
WOODPECKERS				
*Northern Flicker	c	c	c	c
*Pileated Woodpecker	u	u	u	u
*Red-breasted Sapsucker	c	c	c	c
*Hairy Woodpecker	u	u	u	u
*Downy Woodpecker	c	c	c	c
FLYCATCHERS				
*Willow Flycatcher		c	u	
*Western Flycatcher	c	c		
*Western Wood-Peewee		c	u	
Olive-sided Flycatcher		u		
SWALLOWS				
*Violet-green Swallow	c	c	c	
*Tree Swallow	c	c	c	
*Northern Rough-winged Swallow	c	c	c	
*Barn Swallow	c	c	c	
*Cliff Swallow	c	c	c	
JAYS AND CROWS				
Steller's Jay	c	c	c	u
*American Crow	c	c	c	c
CHICKADEES				
*Black-capped Chicadee	c	c	c	c
*Chestnut-backed Chickadee	c	u	c	c

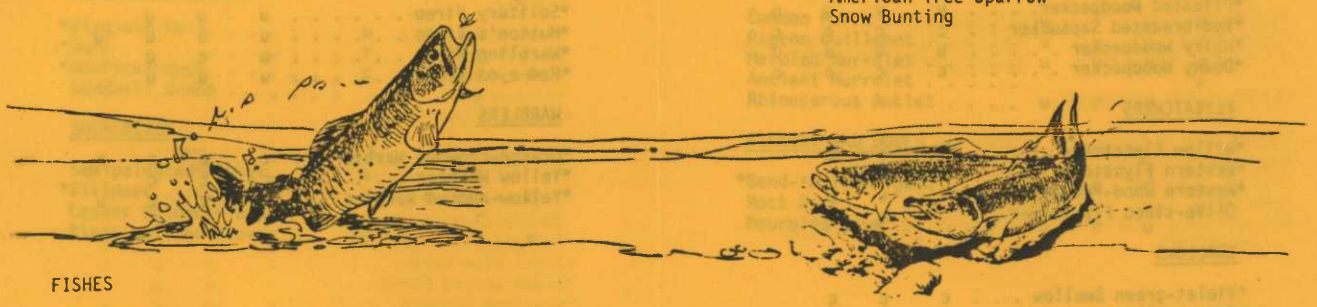
	Sp	Su	F	W
BUSHTITS				
*Bushtit	c	c	c	c
NUTHATCHES				
*Red-breasted Nuthatch	c	c	c	c
CREEPER				
*Brown Creeper	u	u	u	u
WRENS				
House Wren		u		
*Winter Wren	c	c	c	c
*Bewick's Wren	c	c	c	c
*Marsh Wren	c	c	c	c
THRUSHES AND BLUEBIRDS				
*American Robin	c	c	c	c
Varied Thrush			u	c
*Swainson's Thrush		c	c	
KINGLETS				
*Golden-crowned Kinglet	c	c	c	c
Ruby-crowned Kinglet	u		u	c
PIPETS, WAXWINGS, SHRIKES AND STARLINGS				
Water Pipit	u		u	r
*Cedar Waxwing	u	c	c	r
Northern Shrike	r		u	u
*European Starling	c	c	c	c
VIREOS				
*Solitary Vireo	u	u	u	
*Hutton's Vireo	u	u	u	u
*Warbling Vireo	u	c	u	
*Red-eyed Vireo	u	u	u	
WARBLERS				
*Orange-crowned Warbler	c	c	c	r
*Yellow Warbler	c	c	c	
*Yellow-rumped Warbler	c	c	c	u

WARBLERS - con't	Sp	Su	F	W
*Black-throated Gray Warbler	c	c	c	
Townsend's Warbler	u		u	
*MacGillivray's Warbler	c	c	c	
*Common Yellowthroat	c	c	c	
*Wilson's Warbler	c	c	c	
MEADOWLARKS, BLACKBIRDS, AND ORIOLES				
*Western Meadowlark	u	u	u	u
*Yellow-headed Blackbird	u	u	u	
*Red-winged Blackbird	c	c	c	c
*Northern Oriole		u		
*Brewer's Blackbird	c	c	c	c
*Brown-headed Cowbird	u	c	u	r
TANAGERS				
*Western Tanager	u	c	u	
GROSBEAKS, FINCHES AND SPARROWS				
*Black-headed Grosbeak	u	c	u	
Evening Grosbeak	c	r	c	u
*Purple Finch	c	c	c	c
*House Finch	c	c	c	c
*Pine Siskin	c	c	c	c
Red Crossbill	u		u	u
*American Goldfinch	u	c	c	u
*Rufous-sided Towhee	c	c	c	c
*Savannah Sparrow	c	c	c	
*Dark-eyed Junco	c	c	c	c
*White-crowned Sparrow	u	u	u	c
Golden-crowned Sparrow	u		u	c
Fox Sparrow	u		u	c
Lincoln's Sparrow	u		u	
*Song Sparrow	c	c	c	c

ACCIDENTALS

Less than five records; not reasonably expected more often than once every five to twenty years, if ever again.

Yellow-billed Loon
Short-tailed Shearwater
Leach's Storm-Petrel
Brown Pelican
Great Egret
Trumpeter Swan
Black-shouldered Kite
Northern Goshawk
Red-shouldered Hawk
Gyrfalcon
Prairie Falcon
Ruffed Grouse
Bobwhite
Mountain Quail
Red Knot
Sharp-tailed Sandpiper
American Avocet
Black-necked Stilt
Red-necked Phalarope
Heermann's Gull
Northern Pygmy-Owl
Long-eared Owl
Lewis' Woodpecker
Western Kingbird
Horned Lark
Black-billed Magpie
Northern Mockingbird
Townsend's Solitaire
Western Bluebird
Nashville Warbler
Chipping Sparrow
Harris Sparrow
White-throated Sparrow
Vesper Sparrow
American Tree Sparrow
Snow Bunting



FISHES

Chinook Salmon	(Oncorhynchus tschawytscha)
Pink Salmon	(Oncorhynchus gorbuscha)
Chum Salmon	(Oncorhynchus keta)
Coho Salmon	(Oncorhynchus kisutch)
Sockeye Salmon	(Oncorhynchus nerka)
Mountain Whitefish	(Prosopium williamsoni)
Cutthroat Trout	(Salmo clarki)
Rainbow Trout	(Salmo gairdneri)
Steelhead	(Salmo gairdneri)
Brook Trout	(Salvelinus fontinalis)
Dolly Varden	(Salvelinus malma)
Peamouth	(Mylocheilus caurinus)
Northern Squawfish	(Ptychocheilus oregonensis)
Longnose Dace	(Rhinichthys cataractae)
Speckled Dace	(Rhinichthys osculus)
Redside Shiner	(Richardsonius balteatus)
Largescale Sucker	(Catostomus machrocheilus)
Brown Bullhead	(Ictalurus nebulosus)
Threespine Stickleback	(Gasterosteus aculeatus)
Rock Bass	(Ambloplites rupestris)
Pumpkinseed	(Lepomis gibbosus)
Warmouth	(Lepomis gulesus)
Largemouth Bass	(Micropterus salmoides)
White Crappie	(Pomoxis anaularis)
Black Crappie	(Pomoxis nigromaculatus)
Yellow Perch	(Perca flavescens)
Sculpins	Cottidae

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