PNP 28-14-15-4

SNOHOMISH COUNTY
PUD
PUBLIC UTILITY DISTRICT No. 1

2320 California St., Everett, Washington 98201 (206) 258-8211
Mailing Address: P. O. Box 1107, Everett, Washington 98206

March 26, 1993
PUD 19893

Ms. Lois D. Cashell, Secretary
Federal Energy Regulatory Commission
825 North Capitol Street NE
Washington, D.C. 20426

Dear Ms. Cashell:

RE: Henry M. Jackson Project - FERC No. 2157
Project License Article 53 - Annual Report
Wildlife Habitat Management Program

The 1992 Annual Report for the Jackson Project Wildlife Habitat Management Program is enclosed. This report fulfills the requirement of the "Order Approving with Modification Revised Wildlife Habitat Management Plan" (issued May 19, 1989, revised June 27, 1990), which stated "The Licensees shall file with the Commission their annual reports on Phase I. . . ."

This annual report describes activities conducted during 1992, and summarizes activities planned for 1993. The activities, procedures and schedules described in this report are based on the Wildlife Habitat Management Plan submitted to the Federal Energy Regulatory Commission on May 25, 1988.

The draft annual report was submitted to the U.S. Fish and Wildlife Service (USFWS), the Washington Department of Wildlife (WDW), and the Tulalip Tribes for comment. The Washington Department of Wildlife was also consulted. A meeting was held with agency representatives on March 4, 1993, to request comments and discussion on progress in 1992 and planned activities for 1993. An attendance list and meeting minutes are attached to the Annual Report. Records of all comments received from the agencies at the time of this submittal are attached to the Annual Report. If others are received subsequently from them, they will be forwarded promptly to the Commission.

Please call Bernice Tannenbaum (206)347-4319, if you have any questions on the 1992 Annual Report.

Sincerely,

R. E. Johnson
Assistant General Manager
Electric Systems

Peter Kinch, Mayor
City of Everett

Enclosures

BRT:dkw

cc: G. Engman, Washington Department of Wildlife
G. Ging, U.S. Fish and Wildlife Service
G. Ariss, Washington Department of Natural Resources
R. Young, Tulalip Tribes
A. Martin, FERC, Portland

PNP 28-14-15-4-1

# 1992 ANNUAL PROGRESS REPORT

# WILDLIFE HABITAT MANAGEMENT PROGRAM

for the

# HENRY M. JACKSON HYDROELECTRIC PROJECT

FEDERAL ENERGY REGULATORY COMMISSION
Project Number 2157 - License Article 53

Submitted by

PUBLIC UTILITY DISTRICT NO. 1 OF SNOHOMISH COUNTY

and

THE CITY OF EVERETT, WASHINGTON

March 1993

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# 1.0 SUMMARY

Major tasks accomplished during 1992 include: completion of final harvest and replanting at three 1991 Lake Chaplain units, and reseeding associated road ROW's; setup and contracting for timber harvest at three 1992 Lake Chaplain units; initial layout of two 1993 Lake Chaplain units; installation of waterfowl nesting platforms in Lake Chaplain and Lost Lake; installation of two osprey nest platforms at Spada Lake; continuation of the snag management program; revegetation work, plus the contracting of additional revegetation work, at Lake Chaplain and the Powerhouse; and monitoring activities.

Tasks scheduled for 1993 include: road construction and timber harvest (and possible replanting) at the three 1992 Lake Chaplain units; completion of the Spada Lake supplement to the WHMP; continuation of the snag inventory and creation program; continuation of monitoring activities; installation of waterfowl nesting platforms in Lake Chaplain and Lost Lake; revegetation of Lake Chaplain sites, powerhouse site, and additional reseeding of pipeline ROW.

Problems or changes needed during the course of the WHMP implementation are discussed in this report, and updated schedules are presented. A draft of this report was submitted for comments to the U.S. Fish and Wildlife Service (USFWS), the Washington Department of Wildlife (WDW), and the Tulalip Tribes. The Washington Department of Natural Resources (DNR) was also consulted.

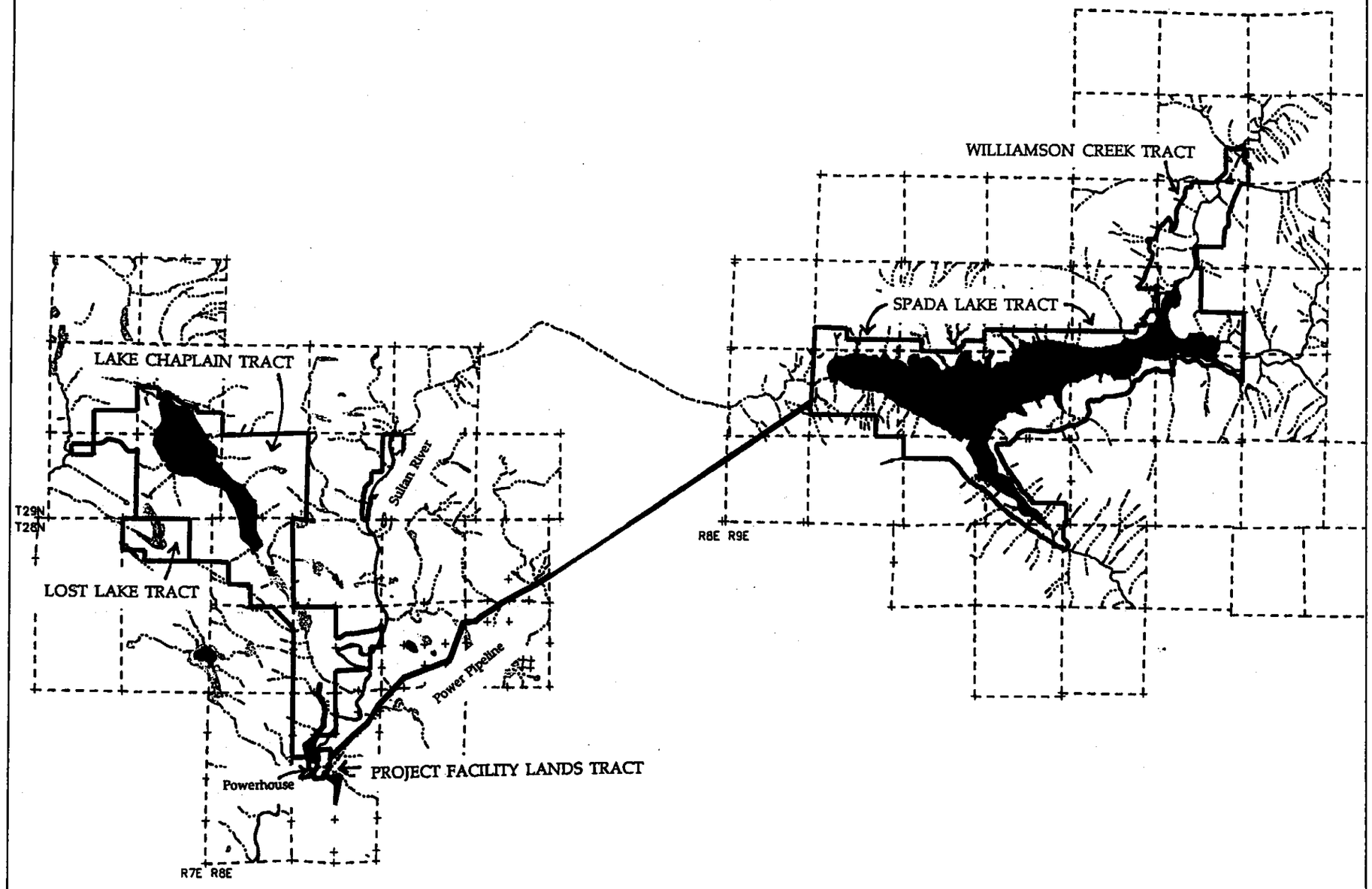
## 2.0 INTRODUCTION

The 1992 Annual Progress Report on the Wildlife Habitat Management Plan for the Henry M. Jackson Hydroelectric Project (Figure 1) is submitted in response to the Federal Energy Regulatory Commission (FERC) Order Approving With Modification Revised Wildlife Habitat Management Plan (issued May 19, 1989). Public Utility District No. 1 of Snohomish County (District) and the City of Everett (City) are co-licensees in the Project.

This annual report describes activities conducted during calendar year 1992 and summarizes activities anticipated for calendar year 1993. Activities, procedures and schedules described in this report are based on the Wildlife Habitat Management Plan (WHMP) submitted to FERC on May 25, 1988 in accordance with Project License Article 53 and subsequent related orders from the Commission.

# HENRY M. JACKSON PROJECT
## WILDLIFE HABITAT MANAGEMENT PLAN

FIGURE 1 MANAGEMENT TRACTS LOCATIONS




Land Survey
- Land Survey Sections
- \+ Land Survey Monuments

Ownership
- Ownership Boundaries

Hydrography
- Open Water
- Wetlands
- DNR Class 1
- DNR Class 2
- DNR Class 3
- DNR Class 4
- DNR Class 5

North

0 5000 10000 15000 20000 FEET

# 3.0 WORK COMPLETED DURING 1992

## 3.1 LAND USE DECISIONS AND ACTIVITIES

A logging road was completed on neighboring property that connects a county road with the Lost Lake access road. It appears that public use of Lost Lake increased during the summer of 1992, probably due to improved access provided by the new logging road. The District posted signs at Lost Lake informing the public of prohibited activities, and placed a cable gate across the access road on City land north of the lake to restrict vehicular access. There was some trampling of bog vegetation in one small area used by fishermen, but otherwise public use did not appear to significantly harm the Lost Lake tract or its resources. Upon completion of logging on the neighboring property, the logging road will be abandoned approximately 1/4 mile from the Lost Lake tract, and a gate located at the road's junction with the county road will be closed.

The 1991 Annual Report documented action taken by the District to eliminate occasional drainage from Lost Lake to Lake Chaplain, by means of a concrete ford on the access road at the southwest corner of Lost Lake. Agency representatives viewed the area during the annual meeting held on March 11, 1992. The maximum lake level was lowered to approximately five inches below the low-water level measured in September 1991, and drainage to the southwest increased. An existing small wetland complex southwest of Lost Lake increased in size as a result. Effects of lowering the lake level were documented in photos during the summer. No gross changes in vegetation were noted (for example, die-offs of wetland vegetation). We will continue to monitor the wetlands for changes during the coming growing season.

## 3.2 FOREST VEGETATION MANAGEMENT

### 3.2.1 Timber Harvest - 1991 Units

The City completed harvest and replanting of three 1991 units, with a total of 65 acres, in March-April 1992 (Figure 2). The units were replanted with Douglas fir, western red cedar, and cottonwood, as described in the 1991 Annual Report.

Bare areas in all three units and along roadsides were reseeded with the grass/forb seed mixes described in the 1991 Annual Report.

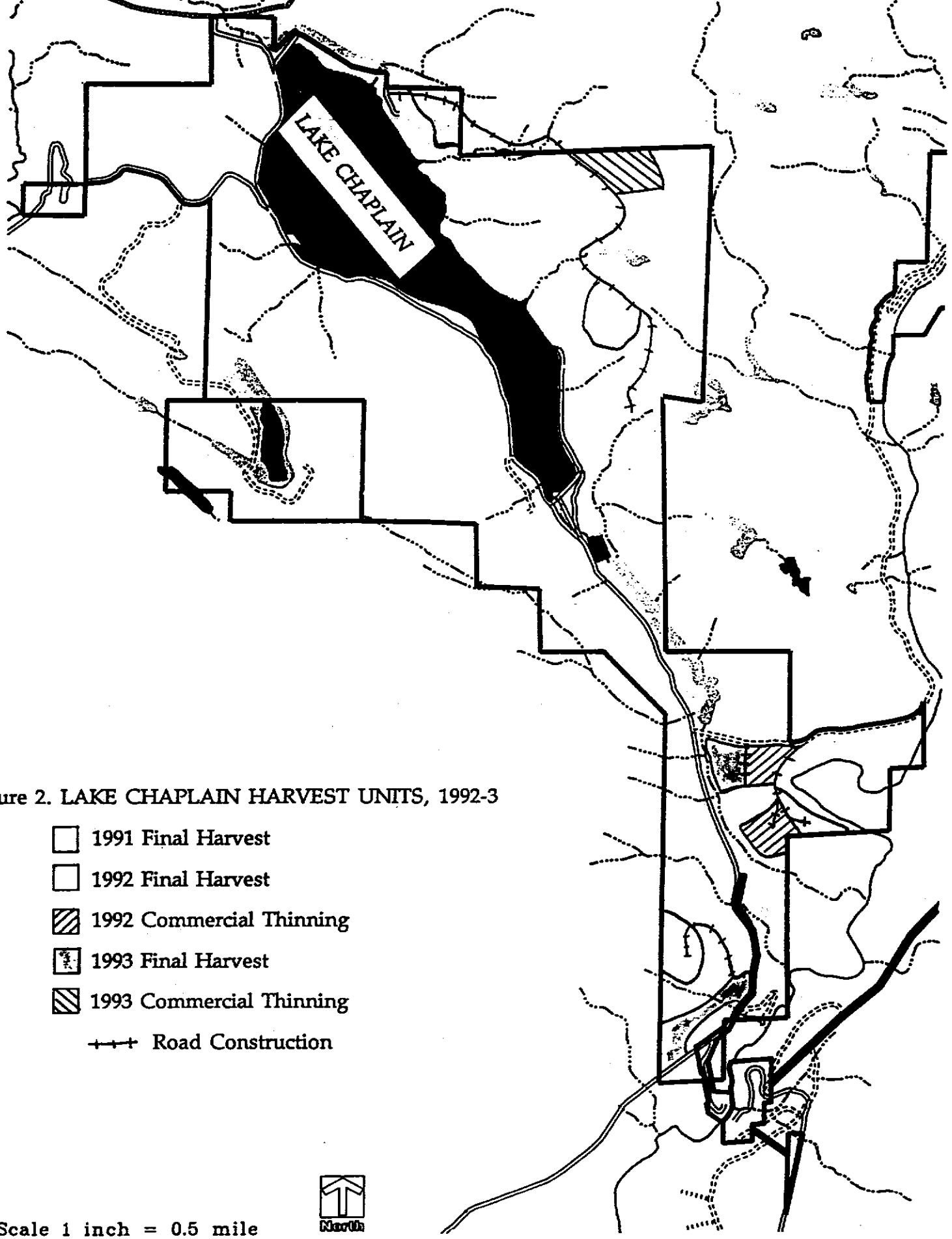



Figure 2. LAKE CHAPLAIN HARVEST UNITS, 1992-3

### 3.2.2 Timber Harvest - 1992 Units

In 1992 two units were laid out for commercial thinning and one for final harvest in 1993 (Figure 2). The two commercial thinning units represent substitutions for other scheduled units that were unsuitable for scheduling at this time, as described in the 1991 Annual Report. The substituted units are less than 26 acres in size, as prescribed by the WHMP, and the commercial thinning will not conflict with the scheduled target dates for final harvest. It was decided that placing a thinning unit immediately adjacent to a final harvest unit was compatible with the WHMP's prescriptions, because the thinned units will retain deer hiding cover characteristics.

The thinning prescription was based on the objectives of reducing canopy closure sufficiently to produce an understory layer while still providing hiding cover for deer. The resulting stand should have at least 60 to 70 percent canopy cover. Every tree to be removed was marked with paint. Selections were made according to several criteria:

1) Crowns of remaining trees should not touch;
2) Spacing of remaining trees should be fairly regular;
3) Removed trees should include those in a suppressed condition, poorly formed trees, and trees growing on nurse logs or stumps;
4) Fewer trees should be removed adjacent to existing large gaps in the canopy.

Green tree retention areas were set aside for both thinning units and the final harvest unit. Thinning will not take place in the green tree retention areas. Snags will be created from live trees retained within each of the units following harvest.

### 3.2.3 Precommercial Thinning Unit at Lost Lake

Photodocumentation stations were re-visited in 1992, approximately one year after the thinning was completed. The slash resulting from the thinning remains very thick, although all leaves and most fine branches have dropped.

## 3.3 SNAG MANAGEMENT

Procedures for snag inventory and creation were described in the 1990 Annual Report; that is, areas were incorporated into the snag management program in conjunction with the field survey and reconfiguration of harvest unit boundaries. In 1992, activities were conducted around the 1991 and 1992 harvest units and two permanent forest stands in the Lake Chaplain tract.

Few of the existing snags in the 1991 harvest units remained standing post-harvest, although several new snags were created at the edges of the units as tailhold trees and more snags will be created to achieve WHMP target densities. Snag trees were inventoried in the three 1992 timber harvest units (Table 1). As we found in 1991 inventories, the most serious deficiencies lie in the soft snags in the 15- and 17-inch size classes, whereas most of the existing snags are in the 11-inch class. Figure 3 shows areas around Lake Chaplain and Lost Lake that have been inventoried to date.

A contract was let in 1992 to create 150 snag trees in the Lake Chaplain Tract, and it is expected that the work will be completed by February 1993. Snags will be created around all of the 1991 harvest units, and in the permanent mixed forest zones north of Lost Lake and the old growth management area adjacent to the Sultan River (Figure 3).

The wildlife biologists and forester reviewed the State's new "Guidelines for Selecting Reserve Trees" and consulted with a Department of Labor and Industries inspector on site to determine whether existing snags could be retained during timber harvest in 1992 units. Guidelines for working safely around snags require a hazard zone of as much as 1-1/2 times the height of the snag, depending on how dangerous they are. Most of the existing snag trees, especially the soft snags, fall into the most dangerous categories. Dangerous snags could be retained, under the WHMP's prescriptions, by designating the hazard zones around them as Green Tree Areas (GTA's), in which the trees surrounding a snag would not be harvested. In practice, however, using the allocation specified in the WHMP for GTA's (1/4 acre per 5 acres harvested) in the 1992 units would result in saving very few soft snags because the snags are widely scattered. Furthermore, retaining very tall soft snags could preclude many future activities, such as snag creation, in the hazard zones. The best opportunities for using GTA's to save soft snags appear to be near the edges of units.

There are good opportunities for distributing new snag trees within the 1992 harvest units. Since all 1992 units will be harvested with ground-based equipment, no conflict is anticipated between logging operations and retaining live trees to become future snags. Sufficient live trees to produce an average of three snags per acre were marked for retention in the final harvest unit, some of which are located in small clusters, and others scattered throughout the unit. Future snag trees were not marked in the commercial thinning units to avoid confusion with trees marked for removal, but retained trees will be made into snags within the unit, probably in clusters, following the harvest. The created snag trees in all units will be selected to achieve the size distribution prescribed in the WHMP.

Table 1. Inventories of existing snag trees.

| 1991 PRE-HARVEST SNAGS | | | |
|---|---|---|---|
| UNIT | Avg #/acre | Avg DBH | Avg Ht. |
| 91-1 | 0.97 | 21.83 | 43.33 |
| | | | |
| 91-2 | 0.72 | 12.67 | 30.00 |
| | | | |
| 91-3 | 3.26 | 18.44 | 37.22 |
| Overall | 1.70 | 18.56 | 37.78 |

| 1991 POST HARVEST SNAGS |
|---|
| No post harvest survey has been done, but few snags remain standing in the units. |

| 1992 PRE-HARVEST SNAGS | | | |
|---|---|---|---|
| UNIT | Avg #/acre | Avg DBH | Avg Ht. |
| 92-1 | 1.55 | 25.21 | 50.00 |
| | | | |
| 92-2 | 0.93 | 22.60 | 60.00 |
| | | | |
| 92-3 | 0.70 | 13.17 | 37.50 |
| Overall | 1.03 | 24.75 | 43.25 |

92PreAvg.sng

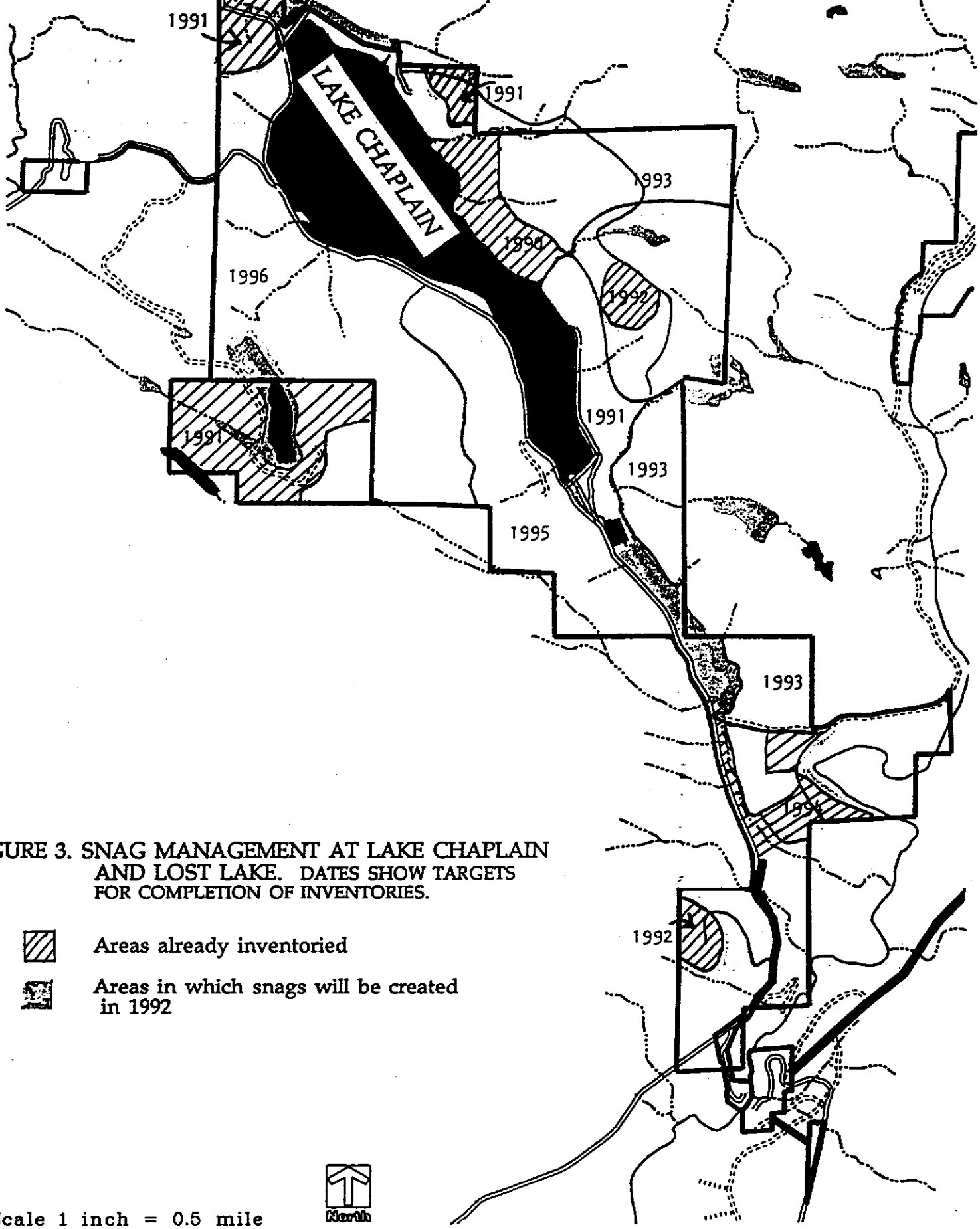



FIGURE 3. SNAG MANAGEMENT AT LAKE CHAPLAIN AND LOST LAKE. DATES SHOW TARGETS FOR COMPLETION OF INVENTORIES.

Areas already inventoried

Areas in which snags will be created in 1992

Experience with the 1991 and 1992 harvest units has shown that, unless we are certain that specific existing snags can be retained, it should be assumed that three snags per acre will have to be created in harvest units in order to meet WHMP targets. Therefore, in setting up a unit for sale, an adequate number of live trees with the target size distribution must be retained in or around the unit. Future replacements for these snag trees will be provided by trees in the green tree retention area, which must be selected and managed so as to provide sufficient replacements throughout the rotation.

Insufficient soft snags will remain a problem for the first decade in many units, since each timber harvest will eliminate or reduce the soft snag inventory, and the created snags will require some time before becoming soft. In 1992 some snags were created from red alder, which is expected to decay faster than the conifers, in order to reduce the deficit in soft snags. If results are favorable, the proportion of red alder snags in units where this species is abundant may be increased.

## 3.4 REVEGETATION

The north end of Lake Chaplain was planted with a row of Douglas fir and western red cedar seedlings in spring 1992, with good subsequent survival and growth. No additional work at this site is planned, aside from monitoring of these plantings. Some red cedar seedlings were planted adjacent to Chaplain Marsh, and some Douglas fir seedlings were planted among alders between the powerhouse road and the Sultan River.

A contract was let for the revegetation of Chaplain Marsh and the powerhouse, based on the horticultural consultant's recommendations reported in the 1991 Annual Report.

The 14.8-acre portion of the power pipeline between the microwave site near the powerhouse and the fence across the right of way near the Sultan Basin Road was seeded with a grass/forb mix early in 1992. Poor growth of the seed mix was observed subsequently in most areas. As noted in the 1991 Annual Report, the soil is compacted and very low in organic material, and the objective of reseeding has been to establish a sod layer that will provide organic input. The District's horticultural consultant advised us that it would probably take several years of reseeding to establish a grass/forb layer on the pipeline.

## 3.5 FLOATING NEST PLATFORMS

Two floating nest platforms were placed in Lake Chaplain and two in Lost Lake in March 1992, similar to what was done in 1991. Monitoring visits were made from the opposite side of each lake at least three times per month from late March to the end of May, following monitoring procedures attached to the 1991 Annual

Report. Waterfowl, including loons, grebes, Canada geese, mallards and other ducks were observed in Lake Chaplain throughout the spring, summer and fall of 1992, but there was no observed use of the platforms. Waterfowl, not including loons, were also observed in Lost Lake, but there was no observed use of the platforms.

## 3.6 NEST BOXES

The two wood duck nest boxes previously installed at Lost Lake were monitored in 1992 following procedures reported in the 1991 Annual Report. We avoided opening the boxes during the egg-laying/incubation period due to concern over possible nest abandonment, and examined contents in early April and late June. One of the boxes was used, probably by a hooded merganser. Feathers and remains of two eggs were present in the box in late June.

## 3.7 OSPREY NEST PLATFORMS

The osprey nest platform at Lost Lake was monitored three to four times per month from April to the end of May from the opposite side of the lake, following procedures reported in the 1991 Annual Report. No use of the nest by ospreys, or other birds, was observed. The nest at Lake Chaplain, approximately 1-1/4 mile away, was used this year by a pair of ospreys, but our observations indicate that no young were produced. This nest fell from the tree during the winter of 1992, after the ospreys had migrated from the area.

Two osprey nest platforms were installed in live conifers near Spada Lake in March 1992. One platform is in a stand of old growth conifers overlooking the southwestern end of the lake, and the other platform is close to the lake's south shore, immediately east of the South Fork. The platforms were observed from April through mid-May, with no evidence of any use by ospreys.

## 3.8 MANAGEMENT TOOLS

Implementation of the Geographic Information System (GIS) for the wildlife management plan was completed in late 1992, and the first applications were attempted to analyze sites in the Spada Lake Tract for future management. The custom applications software is currently undergoing some fine-tuning to stabilize it, after which its first use will be in planning prescriptions for the Spada Lake Tract.

## 3.9 MONITORING

### 3.9.1 Deer Forage Monitoring

The 1991 harvest units were monitored post-harvest, and the 1992 units were monitored pre-harvest. 1991 units 1 and 2 showed light use by deer.

### 3.9.2 Coarse Woody Debris

The three 1991 final harvest units were sampled for coarse woody debris (CWD) post-harvest in 1992, using procedures described in the 1991 Annual Report. Large hard logs (i.e., logs in decay classes 1 or 2 with minimum diameter of 24 inches and minimum length of 10 feet) were not encountered on the 1991 units prior to harvest, as reported in the 1991 Annual Report, nor in the post-harvest sample.

Pre-harvest inventory of the 1992 harvest units showed that existing CWD consists of soft logs, and hard (decay classes 1 and 2) logs are scarce. Since live trees will be retained throughout the unit for the purpose of creating snags post-harvest (see Section 3.3), their tops will serve as the source of hard logs for the unit.

This procedure may not be feasible in all harvest units, (for example, cable-yarded units), and other ways of ensuring that adequate CWD is retained post-harvest are currently under consideration by the wildlife biologists and forester.

## 3.10 WHMP SUPPLEMENT FOR SPADA LAKE

Preparation of the WHMP supplement began in 1992. Management goals and objectives discussed in the 1991 Annual Report remain the same:

- Preserve water quality
- Preserve old growth, riparian forest, and wetlands
- Enhance second growth forest primarily for deer, with due regard for other species
- Consider aesthetics and viewshed in planning the Supplement to the WHMP

It is our intention to develop specific management prescriptions for selected units through the year 2005, with remaining units to be planned in the future. The new Jackson Project GIS will be used to assist in selection of units for near-future management.

# 4.0 WORK PLANNED FOR 1993

## 4.1 FOREST VEGETATION MANAGEMENT

### 4.1.1 Harvest Units

The harvest of 1992 units is expected to be completed by the end of 1993. Only the clearcut unit will be replanted; the commercially thinned units will not be replanted. Grass-forb seed mixes similar to those used in 1992 will be applied on bare areas of clearcut unit and on road right-of-way. No fertilizers will be applied.

The effort to locate seed supplies for native grass and forb species recommended in the WHMP was not very successful in 1992, in part due to drought conditions in western Washington. Suppliers were able to offer small quantities (i.e. a few grams) of species such as fireweed, which would be inadequate for application on areas the size of the harvest units. Most of the native species on the list are not normally available through professional collectors in western Washington, and would only become available when a suitable source population can be identified and collections made during a year with a good seed crop. As more native seed sources become available, we will attempt to obtain them, but in the interim we will rely on readily available species, native or introduced, that are known to be palatable to wildlife.

Planning of two 1993 final harvest units will be completed (Figure 2). Harvest will take place in mid-to-late 1993, or 1994.

A salvage harvest of trees blown down in a windstorm in January 1993 will be conducted this year. Areas most affected by the storm are adjacent to the 1991 harvest units and along the western boundary of the Lake Chaplain Tract (Figure 4). Only trees affected by the storm will be removed.

### 4.1.2 Commercial Thinning

One commercial thinning is possible at Lake Chaplain in 1993 (Figure 2), subject to DNR's decision to commercially thin an adjacent unit.

## 4.2 SNAG MANAGEMENT

Inventory of existing natural snags in the Lake Chaplain Tracts will continue in 1993 in conjunction with planning harvest units. Planned inventory areas for 1993 are shown in Figure 3.

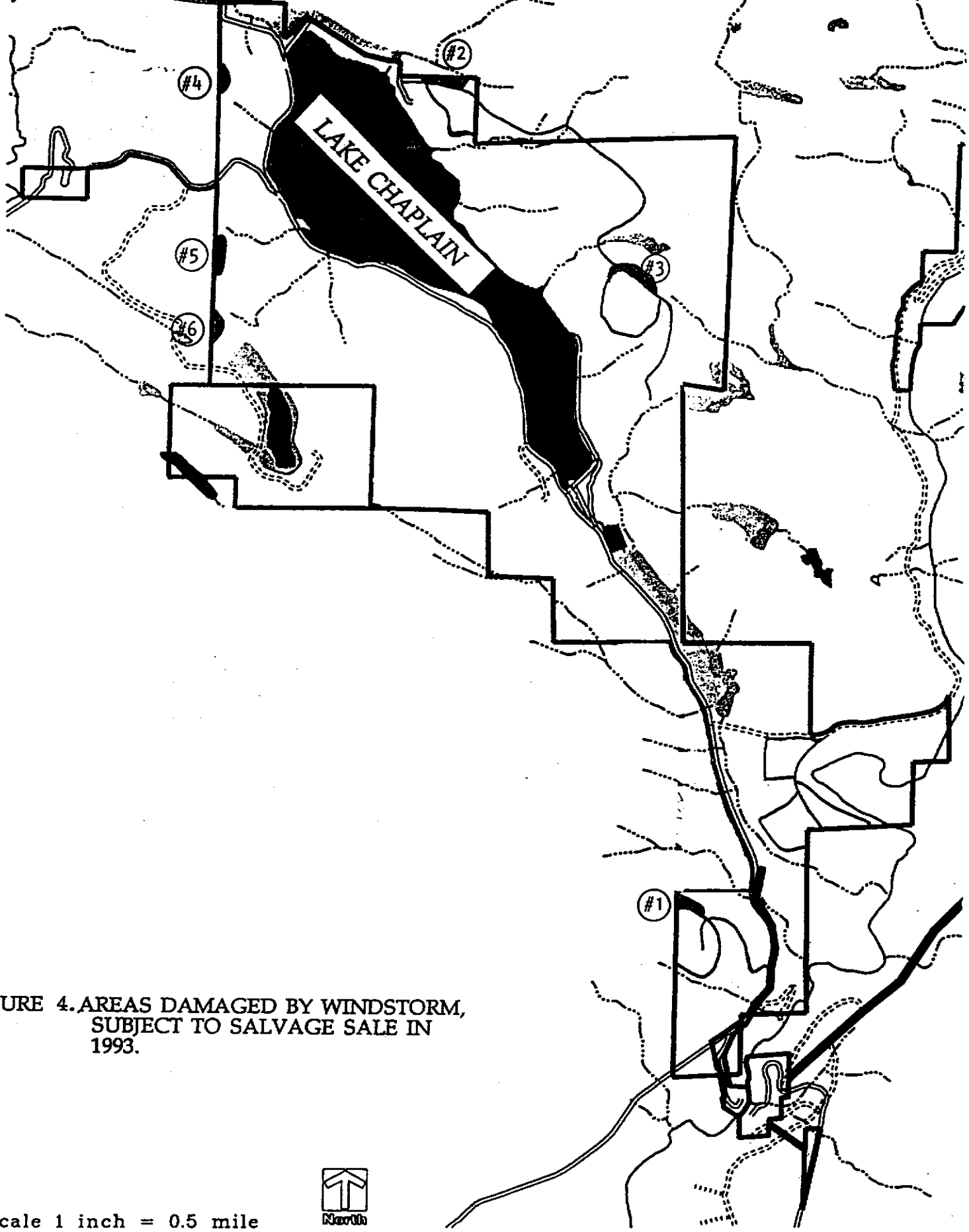



FIGURE 4. AREAS DAMAGED BY WINDSTORM, SUBJECT TO SALVAGE SALE IN 1993.

An average of three snags per acre will be created from retained live trees in the three 1992 harvest units. Additional snags will be created elsewhere in buffer zones, green tree areas, and permanent mixed forest, with the same target density.

## 4.3 REVEGETATION

The powerhouse site and two sites at Lake Chaplain will be planted in 1993. Contract specifications were based on the horticultural consultant's recommendations reported in the 1991 Annual Report. The portion of the power pipeline described in Section 3.4 will be reseeded with a grass/forb seed mix in the spring of 1993.

## 4.4 FLOATING NEST PLATFORMS

Floating nest platforms will be placed in Lake Chaplain and Lost Lake in March 1993. They will be relocated from the previous year's locations in order to try to improve results. Observations will be made following procedures reported in the 1991 Annual Report.

## 4.5 NEST BOXES

Nest boxes will be monitored following the procedure in the 1991 Annual Report. Six additional nest boxes will be installed at Lost Lake and Chaplain Marsh.

## 4.6 OSPREY NEST PLATFORMS

The two osprey nest platforms at Spada Lake and the Lost Lake platform will be monitored during the osprey breeding season following the procedure reported in the 1991 Annual Report.

## 4.7 MONITORING

Monitoring of bird nest structures, deer forage, snags and coarse woody debris will continue as described in this report and the WHMP. Methods will be developed for monitoring green tree clumps and buffer zones, and monitoring will begin in harvest units.

Vegetation plantings will be monitored every four months by District biologists and a horticultural contractor.

## 4.8 WHMP SUPPLEMENT FOR SPADA LAKE

The supplement is expected to be completed in 1993.

## 5.0 SCHEDULE OF ACTIVITIES FOR 1993 TO 1994

Activities scheduled for the period 1992 to 1994 are reported, by management unit, in Table 2.

TABLE 2 - HABITAT MANAGEMENT ACTIVITY SCHEDULE FOR 1993-94

YEARS

| Activity | 1993 Stands | 1993 Acres | 1994 Stands | 1994 Acres |
|---|---|---|---|---|
| Forest Vegetation Mgt. | | | | |
| Commercial Thin | 5-4,5-5 | 36 | 1-7* | To be Determined |
| Final Harvest | 5-5 | 14 | 5-4,4-5 | 50 |
| Salvage Harvest | Various | To be Determined | | |
| Revegetation | | | | |
| Powerhouse | 8-4 | n/a | | |
| Chaplain Marsh | 4-8 | n/a | | |
| Grass Seeding | 8-3 | 25 | | |

* Sale is contingent upon timing of DNR thinning in adjacent stand.

## 6.0 AGENCY COORDINATION

The District submitted a draft version of this report to the following reviewing agencies: U.S. Fish and Wildlife Service, Washington Department of Wildlife, and the Tulalip Tribes. A copy was also sent to the Washington Department of Natural Resources. A meeting was held on March 4, 1993, to discuss progress in 1992 and future plans for WHMP activities.

Minutes of the meeting are attached in Appendix A, with copies of letters exchanged by the District and agencies regarding the draft report and meeting.

# APPENDIX A

SNOHOMISH COUNTY
PUD
PUBLIC UTILITY DISTRICT No. 1

2320 California St., Everett, Washington 98201 258-8211
Mailing Address: P. O. Box 1107, Everett, Washington 98206

February 5, 1993
PUD 19862

Mr. Gary Engman
Washington Department of Wildlife
Region 4
16018 Mill Creek Blvd
Mill Creek, WA 98012

Mr. Gwill Ging
U.S. Fish and Wildlife Service
2625 Parkmont Lane SW
Olympia, WA 98502

Mr. Greg Ariss
Washington Department of Natural Resources
919 North Township Street
Sedro Woolley, WA 98282

Mr. Richard Young
Fisheries Department
Tulalip Tribes
6700 Totem Beach Road
Marysville, WA 98270

Mr. George Pess
Fisheries Department
Tulalip Tribes
6700 Totem Beach Road
Marysville, WA 98270

Gentlemen:

RE: Jackson Project - FERC #2157
Wildlife Habitat Management Plan
Agency Consultation Meeting

The **annual meeting** for the Wildlife Habitat Management Plan (WHMP) for the Henry M. Jackson Hydroelectric Project, Federal Energy Regulatory Commission (FERC) Project Number #2127, Has been scheduled for **March 4, 1993, at 10:00 a.m. at the Snohomish County Public Utility District's Operations Center** (see enclosed map for directions). This meeting is being held in response to the FERC Order Approving With Modification Revised Wildlife Habitat Management Plan (issued May 19, 1989). We will be discussing progress made in 1992 and plans for activities scheduled for 1993. You will be receiving your annual reports around February 19, 1993, and this meeting will provide an opportunity for you to ask questions or make comments on the annual report prior to your formal submittal of comments as required by FERC.

We look forward to seeing you.

Sincerely,

Bruce Meaker

Bruce F. Meaker
Jackson Project Manager

Attachment

BFM:dkw

cc: Don Farwell
Roy Metzgar
Dan Lowell

bcc: K. Bedrossian
M. Schutt
B. Tannenbaum

SNOHOMISH COUNTY
PUD
PUBLIC UTILITY DISTRICT No. 1

2320 California St., Everett, Washington 98201 (206) 258-8211
Mailing Address: P. O. Box 1107, Everett, Washington 98206

February 23, 1993
PUD 19859

Mr. Gary Engman
Washington Dept. of Wildlife
16018 Mill Creek Boulevard
Mill Creek, WA 98012

Mr. Gwill Ging
U.S. Fish & Wildlife Service
2625 Parkmont Lane SW
Olympia, WA 98502

Mr. Greg Ariss
Washington Dept. of Natural Resources
919 North Township Street
Sedro Woolley, WA 98282

Tulalip Tribes, Inc.
6700 Totem Beach Road
Marysville, WA 98270

Gentlemen:

RE: Jackson Project - FERC #2157
Wildlife Habitat Management Plan
Annual Report

A draft Annual Report on the District's progress on implementing the Wildlife Habitat Management Plan for the Jackson Project is enclosed for your review and comments. The final report must be submitted to the FERC by March 31, 1993, and must include comments received from your agencies.

Please send us your written comments by March 9, 1993, so that we will be able to respond and revise the draft report appropriately. If we do not receive comments from any agency we will assume that the report is satisfactory to your agency.

We have also scheduled a meeting to present details of activities conducted during 1992 and to discuss future implementation plans. The meeting will take place on March 4th at 10:00 a.m. at the District's Operations Center, Lobby Conference Room (west entrance), in Everett. A meeting agenda and a map showing our location are attached.

Will you please contact Bernice Tannenbaum at 347-4319 if you are unable to attend the meeting on this date.

Sincerely,

R.E. Johnson
Assistant General Manager
Electic Systems

Enclosure

BRT:dkw

cc: C. Olivers, City of Everett
D. Farwell, City of Everett
bcc: B. Tannenbaum
K. Bedrossian
B. Meaker
M. Schutt

SNOHOMISH COUNTY
PUD
PUBLIC UTILITY DISTRICT No. 1

2320 California St., Everett, Washington 98201 (206) 258-8211
Mailing Address: P. O. Box 1107, Everett, Washington 98206

March 15, 1993
PUD 19884

Mr. Gary Engman
Washington Department of Wildlife
Region 4
16018 Mill Creek Blvd
Mill Creek, WA 98012

Mr. Gwill Ging
U.S. Fish and Wildlife Service
2625 Parkmont Lane SW
Olympia, WA 98502

Mr. Greg Ariss
Washington Department of Natural Resources
919 North Township Street
Sedro Woolley, WA 98282

Mr. Richard Young
Fisheries Department
Tulalip Tribes
6700 Totem Beach Road
Marysville, WA 98270

Mr. George Pess
Fisheries Department
Tulalip Tribes
6700 Totem Beach Road
Marysville, WA 98270

Gentlemen:

RE: Jackson Project - FERC #2157
Wildlife Habitat Management Plan
Comments on Draft Annual Report

You have received copies of the draft Annual Report for the Wildlife Habitat Management Plan (WHMP) for the Henry M. Jackson Hydroelectric Project. Your written comments on the draft annual report, or the presentation held on March 4, 1993, by the District and City of Everett, are requested no later than March 19, 1993, for inclusion in the final annual report.

Sincerely,
Original Signed By
B.F. MEAKER

Bruce F. Meaker
Jackson Project Manager

BFM:dkw

cc: Don Farwell
Roy Metzgar

**JACKSON PROJECT - FERC 2157**
**WILDLIFE HABITAT MANAGEMENT PLAN**

AGENCY MEETING - MARCH 4, 1993 - 10 A.M.

SNOHOMISH CO. PUD OPERATIONS CENTER
LOBBY CONFERENCE ROOM

I. Introductions

II. WHMP Progress in 1992 and Work Planned in 1993

Land Use Decisions and Activities
Forest Vegetation Management
- Timber Harvest - 1991 Units
- Timber Harvest - 1992 Units
- Timber Harvest - 1993 Units
- Commercial Thinning

Snag Management
Revegetation
Nest Structures
Monitoring
- Deer Forage
- Coarse Woody Debris

WHMP Supplement for Spada Lake

III. Video of WHMP Activities

IV. Schedule for 1993-94

V. Problems and Concerns

VI. Summary

**JACKSON PROJECT - FERC 2157**
**LICENSE ARTICLE 53**
**WILDLIFE HABITAT MANAGEMENT PLAN**

ANNUAL REPORT - AGENCY MEETING - MARCH 4, 1993

I. INTRODUCTIONS

Those in attendance: Bruce Meaker, Bernice Tannenbaum, Karen Bedrossian, Mike Schutt (District); Don Farwell, Roy Metzgar (City of Everett); Gary Engman (Washington Department of Wildlife); Gwill Ging (via conference call, U.S. Fish and Wildlife Service).

II. AGENDA

Copy attached.

III. WHMP PROGRESS IN 1992 AND WORK PLANNED IN 1993

Forest Vegetation Management.
Farwell reported on the completion of harvest and replanting of the three 1991 final harvest units. He also described the details of the upcoming (to be completed in 1993) harvest of three 1992 units. The two commercial thinning units in this sale were not scheduled in the WHMP, and were substituted for other scheduled commercial thinnings that are unfeasible at this time. There were no comments on the substitutions or the method of selecting trees to be removed.

Farwell described the proposed salvage in 1993 of trees in the Lake Chaplain tract that were damaged in the January 20, 1993, windstorm. No objection was raised to the plan to salvage these trees, which will be added to the 1992 timber sale contract. Some broken-topped trees will be left as snags, and some logs will be left as coarse woody debris.

Snag Management. Schutt described snag inventory results and snag creation activities on the Lake Chaplain tract. It was noted that the inventory of soft snag trees in the 15- and 17-inch size classes did not meet the targets called for in the WHMP, and that some time would be required before newly-created snags reached the soft decay classes.

Revegetation. Tannenbaum described revegetation work completed in 1992 and planned for 1993 at Lake Chaplain and the Powerhouse site. Growth and survival of tree seedlings planted in early 1992 were excellent.

Nest Structures. Tannenbaum reported that two osprey nest platforms were installed at Spada Lake, and described results of monitoring all nest structures during 1992.

Deer Forage Monitoring. Schutt reported light use by deer on one of the 1991 final harvest units following harvest in 1992.

Coarse Woody Debris Monitoring. Schutt reported results of pre-harvest and post-harvest inventories on 1991 harvest units, and pre-harvest inventories on 1992 units.

WHMP Supplement for Spada Lake Tract. Bedrossian advised the agencies that a draft supplement to the WHMP would be ready in August 1993 for the Spada Lake Tract, including land obtained from the 1991 exchange with the U.S. Forest Service and the Department of Natural Resources.

IV. PROBLEMS AND CONCERNS

Snags. Ging wanted to explore the problems related to the scarcity of soft snags in some of the larger size classes. He noted that when the WHMP was being developed, there was no good inventory available of existing snags on project lands, and that expectations regarding how many existing snags could be retained in harvest units appear to conflict with safety regulations. He is concerned that if we lose most existing snags in harvest units, and must create new ones to replace them, there will always be a lag time between the creation of a new snag and the point when it decays sufficiently to provide expected wildlife benefits. He asked what options have been considered for working around large soft snags, and making up the deficit.

In response, Farwell stated that the inventory of smaller (less than 16 inches dbh) soft snags in many units is very good. He noted that state safety rules allow work to proceed around certain classes of snag trees, such as those which are firmly rooted, or have a broken top. Very soft tall snag trees require a hazard zone which precludes harvest immediately around them. Tannenbaum added that attempts were made in planning the 1992 units to allocate green tree retention areas (GTA's) around certain snag trees in order to preserve them, but that the amount of land prescribed by the WHMP for GTA's was not adequate. We chose not to harvest one scheduled unit at this time partly in order to preserve its large inventory of soft snags. We have created alder snags, in areas such as Lost Lake where large alders are relatively abundant, in hopes that their faster decay rate will help reduce the soft snag deficit.

Timber Harvest. Engman commented that the first priority of the WHMP was protecting wildlife habitat. If we have problems retaining wildlife habitat due to timber harvest, should we continue harvesting?

Bedrossian and Farwell explained that the loss of snags was not a problem in all units; some units have no large snags. Bedrossian added that the WHMP emphasizes management of forest stands to benefit deer; we are in essence trading snags for deer forage when we harvest. Engman asked how far we wanted to go with this trade-off. Bedrossian replied that the HEP results that drove the development of the WHMP showed that there would be sufficient old growth credit obtained through the mitigation measures, and that deer habitat (forage) was deficient. Tannenbaum added that we will continue to avoid impacts to high-quality wildlife habitat features, for example, by deviating from the harvest schedule and re-configuring harvest units.

Floating Nest Platforms. Ging asked why we planned to relocate floating platforms. Do we know why they have not been used?

Tannenbaum replied that loons are present in Lake Chaplain during the breeding season, but have never been observed to breed there. Other waterfowl, such as Canada geese, mallards and grebes, breed in or adjacent to the Chaplain Marsh. For placement of floating platforms, we relied on advice from staff of the Seattle Water Department, who have had success with platforms in Chester Morse Lake. However, loons were already using this lake for breeding, and therefore it was easier to place the platforms in acceptable locations. Lake Chaplain shoreline habitats are different from those at Chester Morse Lake, and we could only guess where loons might accept a nest site. In the next breeding season, we will try placing platforms in different locations based on results of investigators in Minnesota. Farwell added that the WHMP did not call for placing floating platforms in Lake Chaplain.

At Lost Lake, there appears to be abundant natural nest sites for loons, but the birds do not appear to use the lake. Hooded mergansers breed at Lost Lake, but don't use floating platforms.

Cumulative Results. Engman observed that the brief descriptions reported in the WHMP Annual Reports don't give him a complete picture of plan implementation. He requested a cumulative sense of what is changing over time due to the plan. Perhaps we should change the method of presentation. Ging agreed with this comment. It was suggested that in the future the GIS should be used to summarize changes over time, from the beginning of the project. Tannenbaum agreed that this type of presentation would be used in future annual reports.

# Wildlife Habitat Management Plan
## Agency Meeting - 4 March 1993

| Name | Organization | Phone # |
|---|---|---|
| Karen Bedrossian | PUD | 347-4374 |
| Bruce Meaker | PUD | 347-4322 |
| Roy Metzgar | Everett | 259-8884 |
| GARY ENGMAN | LWDW | 785 Bll x122 |
| MURRAY SCHUH | PUD | 347-4369 |
| Bernice Tannenbaum | PUD | 347-4319 |
| MIKE SCHUTT | PUD | 347-4494 |
| Don Farwell | Everett | 259-8817 |
| Gwill Ging ↑ by phone | USFWS | 753-9440 |

# United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
3704 Griffin Lane SE, Suite 102
Olympia, Washington 98501-2192
(206) 753-9440 FAX: (206) 753-9008


TAKE PRIDE IN AMERICA

March 17, 1993

Mr. Bruce F. Meaker, Jackson Project Manager
Snohomish Public Utilities District No.1
P.O. Box 1107
Everett, Washington 98206

Re: Henry M. Jackson Project (FERC 2157), Wildlife Habitat Management Plan

Dear Mr. Meaker:

The U.S. Fish and Wildlife Service (Service) has reviewed the Snohomish Public Utilities District (District) proposed activities for 1993 in connection with its adopted wildlife habitat management plan.

The District's wildlife mitigation activities for 1993 are acceptable to the Service. It is our understanding that a wildlife management plan for the Spada Lake tract will be prepared and available for our review later this summer. We look forward to working with you on the development of this management plan.

Please contact Mr. Gwill Ging at the letterhead phone/address if you have questions regarding this letter.

Sincerely,

for Nancy J. Gloman

David C. Frederick
State Supervisor

gg/lk
c: WDW, Mill Creek (Gary Engman)
Tulalip Tribe, Marysville (Richard Young)