

# EXHIBIT G

SEATTLE CITY ATTORNEY  
MARK H. SIDRAN

ORIGINAL

CRIMINAL DIVISION  
710 SECOND AVENUE, SUITE 1414  
SEATTLE, WASHINGTON 98104  
(206) 684 7757 FAX (206) 684 4643

LAW DEPARTMENT  
600 FOURTH AVENUE, 10TH FLOOR  
SEATTLE, WASHINGTON 98101  
(206) 684 8200 FAX (206) 684 8284

UTILITIES DIVISION  
1015 THIRD AVENUE, SUITE 900  
SEATTLE, WASHINGTON 98104  
(206) 684 8361

91 APR 30 8:52:28

April 29, 1991

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

Re: City of Seattle, Application for New License, Skagit  
River Hydroelectric Project No. 553, Docket No. EL 78-36,  
Transmittal of Offer of Settlement

Dear Ms. Cashell:

We are transmitting for filing, in accordance with Commission Rule 602, one original, and copies as indicated below, of an Offer of Settlement together with supporting Settlement Agreements, certain technical reports, and a separate proposed Commission Order approving the settlement in the above proceeding. A complete list of the documents being transmitted is provided at the end of this letter.

The Offer of Settlement has been joined in and signed by the Applicant, the City of Seattle, and the following Intervenor in this proceeding: the U.S. Department of Interior, National Park Service, Fish and Wildlife Service, and Bureau of Indian Affairs; the U.S. Department of Commerce, National Marine Fisheries Service; the U.S. Department of Agriculture, Forest Service; the Upper Skagit Tribe; the Sauk-Suiattle Tribe; the Swinomish Indian Tribal Community; the State of Washington Department of Fisheries and Department of Wildlife; and the North Cascades Conservation Council. The Offer of Settlement summarizes individual Settlement Agreements and Plans in the subject areas of fisheries, wildlife, recreation and aesthetics (visual quality), erosion control, and cultural resources (archaeological, historic, and traditional cultural properties).

FERC DOCKETED

APR 30 1991

9105020032

SEATTLE CITY ATTORNEY  
MARK H. SIDRAN

Lois Cashell, Secretary, FERC  
April 29, 1991, Page 2

Fourteen copies of each document (with the exception of cultural resources documents—see below) are simultaneously being forwarded to your office under separate cover. For cultural resources, the letter of October 31, 1988 from the Director of the Division of Project Review (as confirmed by Dr. Edwin Slatter of FERC staff in a phone conversation on March 11, 1991) requires us to provide only five copies of cultural resources documents. These copies are being sent directly to Dr. Slatter as instructed in the above letter.

The submittal of these documents and reports completes our response to the Request for Additional Information by the Director of the Division of Project Review in his letter of October 31, 1988. The documents are being submitted by May 1, 1991, as required by the Director of the Office of Hydropower Licensing in his letter of December 3, 1990. This cover letter is also being sent in compliance with the quarterly report requirements of the letter of October 31, 1988. Having fulfilled the requirements of these letters, this is the last such quarterly report by the City.

The total cost to the City of compliance with these agreements is approximately \$100,000,000 in 1990 dollars. Costs are described in each agreement, but are summarized here: Wildlife: \$20,090,000; Recreation and Aesthetics: \$18,700,000; Erosion Control: \$2,998,000; Cultural Resources: \$5,577,000; City staff time implementing all agreements: \$2,820,000; Intervenor and Public coordination efforts: \$90,000; Non-flow provisions of Fisheries Agreement: \$6,320,000. The cost to the City of flow provisions of the Fisheries Agreement in any individual year will vary considerably depending, among other things, on water conditions and energy prices. However, given a range of variables that may occur over a calculated 30-year period, the City has estimated the cost of compliance with such provisions at \$43,000,000.

As indicated on the attached Certificate of Service and Notice, copies of the above documents have been served on all parties of record, together with notice of the time limitation for filing any comments on the Offer of Settlement.

This transmittal concludes a long and cooperative process by a wide spectrum of individuals and organizations. This relicensing process has involved complex technical research and analysis that resulted in productive and successful negotiations. Throughout the process everyone's goal remained the same: the proper stewardship of the Skagit River and the

19910502-0032 FERC PDF (Unofficial) 04/30/1991

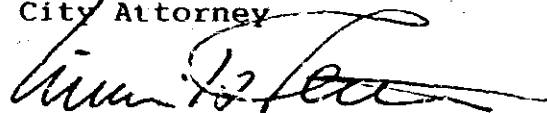
SEATTLE CITY ATTORNEY  
MARK H. SIDRAN

Lois Cashell, Secretary, FERC  
April 29, 1991, Page 3

Upper Skagit Basin in the context of a new license for Project 553. We and the other parties are pleased to report that with implementation of the Agreements and Plans this goal will be achieved.

Sincerely,

MARK H. SIDRAN  
City Attorney



By: WILLIAM H. PATTON  
Assistant City Attorney  
Utilities Section  
1111 Third Avenue, Suite 2640  
Seattle, WA 98101  
(206) 233-2188

Attachments:

- 1) List of Enclosed Documents and Reports
- 2) Certificate of Service and Notice

Enclosures

cc: All parties of record



SEATTLE CITY ATTORNEY  
MARK H. SIDRAN

Lois Cashell, Secretary, FERC  
April 29, 1991. Page 4

List of Enclosed Documents and Reports

Offer of Settlement

Settlement Agreements:

Fisheries Settlement Agreement incorporating the Anadromous Fish Flow Plan, and the Anadromous and Resident Fish Non-flow Plan

Settlement Agreement Concerning Wildlife, incorporating the Wildlife Habitat Protection and Management Plan

Settlement Agreement on Recreation and Aesthetics (including the Recreation Plan and Visual Quality Mitigation Plan)

Settlement Agreement Concerning Erosion Control, incorporating the Erosion Control Plan

Settlement Agreement Concerning Cultural Resources (Archaeological and Historic Resources), incorporating the Cultural Resources Mitigation and Management Plan, which includes the historic and archaeological resources mitigation and management plans

Settlement Agreement Concerning Traditional Cultural Properties [three agreements, one for each tribe]

Technical Reports:

Traditional Cultural Properties Report

Report on Recreation Resources

Report on Aesthetics: Visual Quality Mitigation Alternatives Analysis

Final Report of Intensive and Reconnaissance-level Archaeological Surveys in the Upper Skaqit River Basin, Washington

A Progress Report on Testing of Archaeological Sites in the Upper Skaqit River Basin, Washington

Final Report, Diablo and Corge Dam Reservoirs, Whatcom County: Cultural Resource Reconnaissance

19910502-0032 FERC PDF (Unofficial) 04/30/1991

SEATTLE CITY ATTORNEY  
MARK H. SIDRAN

Lois Cashell, Secretary, FERC  
April 29, 1991, Page 5

Survey and Documentation for the Historic American Building Survey and  
Historic American Engineering Record, and National Register  
Nomination Form (three volumes):

Volume I: Architectural Survey and Documentation  
Volume II: Engineering Survey and Documentation  
Volume III: National Register Form

ORIGINAL

UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION *91.553 Pii 12: 29*

Application for a New License: )  
City of Seattle, Washington, ) Docket No. EL 78-36  
Skagit River Hydroelectric ) FERC Project No. 553  
Project 553 )

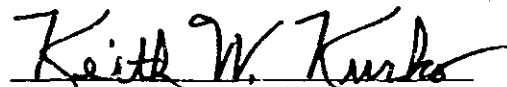
## CERTIFICATE OF SERVICE AND NOTICE

I hereby certify that I have caused the foregoing listed documents to be served upon each person designated on the official service list compiled by the Secretary in this proceeding.

Pursuant to Commission Rule 602 (d) (2), this notifies each person served hereby that any comments on the Offer of Settlement may be filed not later than 20 days after the filing of the Offer.

Dated at Seattle, Washington this 29th day  
of April, 1991.

By:



Keith W. Kurko  
The City of Seattle  
City Light Department  
1015 Third Avenue  
Seattle, WA 98104  
(206) 386-4572

ORIGINAL

91 APR 30 PM 12:29

# **SKAGIT RIVER HYDROELECTRIC PROJECT**

**FERC No. 553**

---

## **OFFER OF SETTLEMENT**

**BEFORE THE  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION**

---

**APRIL 1991**

FILED  
OFFICE OF  
SECRETARY  
01 APR 30 PM  
ALEX  
ALEX  
ALEX

---

# **SKAGIT RIVER HYDROELECTRIC PROJECT**

**FERC No. 553**

---

## **OFFER OF SETTLEMENT**

**BEFORE THE  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION**

---

**APRIL 1991**

**BEFORE THE  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION**

City of Seattle, Skagit River )  
Hydroelectric Project )  
No. 553 )  
\_\_\_\_\_ )

Project No. 553  
Docket No. EL 78-36

**OFFER OF SETTLEMENT**

In accordance with Rule 602 of the Federal Energy Regulatory Commission's (FERC) Rules of Practice and Procedure, 18 C.F.R. Section 385.602, the City of Seattle, City Light Department (City or Applicant); the U.S. Department of the Interior, National Park Service (NPS), Fish and Wildlife Service (FWS) and Bureau of Indian Affairs (BIA); the U.S. Department of Agriculture, Forest Service (USFS); the U.S. Department of Commerce, National Marine Fisheries Service (NMFS); the Upper Skagit Tribe, Sauk-Suiattle Tribe, and Swinomish Indian Tribal Community (Tribes); the Washington Department of Fisheries (WDF); the Washington Department of Wildlife (WDW); and the North Cascades Conservation Council (NCCC) (collectively referred to as the "Intervenors" or "Parties" when acting jointly with the City) hereby submit this Offer of Settlement for the City's Skagit River Hydroelectric Project No. 553 (Project).

The Offer of Settlement summarizes the terms and provisions of the Settlement Agreements between the City and the Intervenors in the following subject areas: Fisheries; Wildlife; Recreation and Aesthetics; Erosion Control; Cultural Resources (Archaeological and Historic Resources); and Traditional Cultural Properties.

These Settlement Agreements resolve all issues for the period specified in each agreement, related to the effects of the Project, as currently constructed, upon the subject areas identified above. The Parties intend that the Settlement Agreements shall remain in effect for the duration of the term of the new license period for the Project, including the term(s) of any annual license(s) issued thereafter. However, certain specific provisions contained in these Agreements have been negotiated based upon an assumed 30-year license period. If the FERC issues a license for longer



than a 30-year period, the Parties have agreed in making this Offer of Settlement that it shall give rise to a right of the Parties to initiate a proceeding before the FERC between the 25th and 30th year of the license to reopen the provisions which were specifically based upon a 30-year license period. The City agrees that it shall not oppose initiation of such a proceeding; the Parties, may, however, differ in their respective positions in such a proceeding.

The Parties request that the FERC approve the terms and provisions of the Settlement Agreements and dismiss the proceedings under Docket No. EL 78-36, pursuant to Rule 602, upon certification by the Chief Administrative Law Judge, as appropriate.

The Parties have agreed that each Settlement Agreement shall constitute a unit. The Parties also request that the FERC accept and approve the Settlement Agreements as a package. Any material modification of the terms of a Settlement Agreement, approval of less than the entire Agreement, or the addition of any material terms to a Settlement Agreement will make the Agreement voidable at the option of any Party. The City and the other Parties reserve the right to appeal the issuance of a license if unacceptable provisions are added.

## **I. EXPLANATORY STATEMENT**

### **A. FACTUAL AND PROCEDURAL BACKGROUND**

#### **1. Introduction**

The City of Seattle is the licensee for the Skagit River Hydroelectric Project (FERC No. 553), which is located on the Skagit River in Whatcom County, Washington. The Project includes the Gorge, Diablo, and Ross dams and associated facilities and transmission lines within the Project area in Whatcom, Skagit and Snohomish counties. The three dams currently provide the City with a significant generating capacity and supply approximately a quarter of the City's electrical power requirements. The Project also provides flood control storage, recreational opportunities, and downstream flow regulation including flow conditions for the protection of anadromous fish.

#### **2. Skagit Project History**

The City was issued a permit for the Gorge Diversion Dam by the Department of Agriculture in 1918, and the original timber crib structure was constructed between 1919 and 1924. In 1927, the Federal Power Commission (FPC) issued the City a license to construct and



operate Diablo Dam. Diablo, a concrete arch dam, was constructed between 1927 and 1929. It has been in operation since 1936. Originally referred to as Ruby Dam, Ross Dam was constructed in several stages between 1937 and 1967. Gorge Diversion Dam was reconstructed in concrete in 1950. The new Gorge High Dam, a concrete arch and gravity structure, was constructed slightly downstream of the diversion dam in 1961.

### **3. Procedural and Factual Developments**

#### **a. Relicensing**

The City's license to operate the three dams expired in 1977, at which time the City filed an application for a new license with the FPC. A revised application was filed in 1978 and was accepted and noticed by the FPC in early 1979. Several state and federal agencies, Indian Tribes, and an environmental group moved to intervene and were granted intervenor status by the FPC. Since the filing of the application, the FPC and its successor, the FERC, has issued the City annually renewed licenses, and has required the City to consider the relevant issues with the intervening parties and to conduct studies necessary to the resolution of identified issues.

After reviewing the City's application for some period, the FERC directed the City, in an Additional Information Request dated October 31, 1988, to provide additional data, conduct additional studies, and submit several updated mitigation and enhancement plans for various environmental resources.

On October 31, 1989, the City responded to the FERC's information request by submitting the results of extensive studies and new data for the various resources, together with the comments of the Intervenor and the City's responses to those comments. This information was accepted by the FERC on January 10, 1990, at which time the City was given until November 30, 1990 to submit its final resource plans.

Over the past eleven years, the Parties have been involved in studies and negotiations related to the Project's effect upon the fish, wildlife, recreational and aesthetic, historic and cultural resources, and erosion control in the Project Area and vicinity. These negotiations were greatly intensified over the past three years in an effort to bring this matter to closure via settlement agreements between the Parties. On November 20, 1990, the Parties jointly submitted a request to the FERC to allow the Parties additional time to negotiate final settlement agreements. On December 3, 1990, the FERC granted the Parties' request, and set May 1, 1991 as the final date that the FERC would accept a submittal. The Parties successfully concluded negotiations in

March, 1991, and the final settlement agreements were circulated for signature by the parties shortly thereafter.

b. Instream Flow Proceeding

In response to petitions filed by several agencies and tribes on September 7, 1978, the FPC issued an order under Article 37 of the Project's license which directed the commencement of proceedings to examine the effects of the Project's flow regime on the Skagit River's fisheries resource (Docket No. EL 78-36).

In July of 1979, the parties to the flow amendment proceeding entered into negotiations to resolve issues relating to the Project's effect upon Skagit River flow levels and flow fluctuations and the anadromous fish resource.

After many months, the interested parties executed an interim agreement in Docket No. EL 78-36, which established certain flow regimes for the Skagit Project and required the City to perform further fishery studies. As modified, the interim agreement was to remain in force and effect until a permanent resolution to all outstanding issues was reached by the Parties. The interim agreement was approved by the FERC on May 12, 1981.

c. License Modification (High Ross)

The City in 1970 filed an application for amendment of the Project license to permit raising of Ross Dam. The FPC approved the license amendment in 1977, issuing its final order in 1978. Following judicial review, dispute resolution was pursued through the auspices of the International Joint Commission. Subsequently, a 1984 Treaty between the United States and Canada substituted a power supply arrangement between the Province of British Columbia in lieu of actual construction of High Ross. This solution has worked well, but if British Columbia should discontinue power deliveries, the City may pursue construction of High Ross. The Parties have agreed that the Agreements do not address mitigation in the event that the High Ross articles in the license are implemented. The Agreements provide a process for consideration of studies and mitigation for High Ross should the City proceed with their implementation. Further, no Party is precluded from asserting a challenge to High Ross construction.

## II. THE SETTLEMENT AGREEMENTS

### A. THE PARTIES

The Parties to the following Settlement Agreements are the same Parties that have submitted this Offer of Settlement.

### B. PROVISIONS APPLICABLE TO ALL AGREEMENTS

#### 1. General Provisions

The attached Settlement Agreements on fisheries, wildlife, recreation and aesthetics, erosion control, cultural resources and traditional cultural properties all contain similar generally applicable provisions. These general provisions include:

- **Statements of purpose and intent.** It is the intent of the Parties that all issues concerning environmental impacts from the relicensing of the Project, as currently constructed, are satisfactorily resolved by these Agreements.

- **Obligations of the Parties.** The City commits itself to implementation of the terms of the various Agreements. The Intervenors are committed to support a new Project license incorporating the provisions of the various Agreements, to support reasonable efforts to expedite the related NEPA process, and to file comments supporting the measures defined by the Settlement Agreements as the preferred action for the purpose of the Project's EA or EIS. The Parties are committed to cooperating in the implementation of the Agreements, including the submittal of this agreed upon Offer of Settlement. The Parties agree to cooperate in conducting and participating in studies and other actions provided for in the Agreements and to provide assistance in obtaining any approvals or permits which may be required for the implementation of the Agreements.

- **Effective date and duration.** The Agreements take effect upon the effective date of the license issued by FERC consistent with the Agreements and remain in effect through the new license period and the term of any subsequent annual licenses. The Agreements have a uniform provision for reopening and reconsideration of the substantive terms in the event of changed circumstances.

- **Monetary issues and implementation.** Monies to be expended by the City under the Agreements are to be adjusted for inflation pursuant to a uniform procedure. The City will facilitate annual meetings among all Parties to discuss implementation issues relative to all Project mitigation and enhancement plans. These meetings will provide a forum for resolution of inter-plan implementation issues.

- **Dispute resolution.** Each Agreement has a dispute resolution procedure. The procedure for each has slight variations, depending upon the number of Parties involved, and the scope of issues to be considered. The procedure in each Agreement provides for final recourse to the FERC.

## **2. Gorge Bypass Reach**

The Parties have agreed that the Agreements obviate the need for flows in the Gorge bypass reach for each of the resources covered by the Agreements. Further, the Intervenor agree to support the City's efforts to retain its existing water quality certificate for the Gorge bypass reach or to obtain a new certificate from the State of Washington, Department of Ecology.

## **3. Ross Lake Level Operations**

The Parties have agreed on an operational scheme for Ross Lake. The City will fill the lake as early as possible after April 15 each year and maintain full pool through Labor Day weekend, subject to the provisions of the Agreements, particularly the Anadromous Fish Flow Plan.

# **C. FISHERIES SETTLEMENT AGREEMENT**

## **1. General Intent**

The Fisheries Settlement Agreement between the City and various Parties is intended to resolve all issues related to the effects on fisheries resources of the Project, as currently constructed, for the period of May 12, 1981 (FERC approval date of the Interim Agreement), through the duration of the Settlement Agreement. It consists of the Anadromous Fish Flow Plan (Flow Plan), and the Anadromous and Resident Fish Non-Flow Plan (Non-Flow Plan). For each plan, coordinating committees are established to provide general oversight and direction concerning plan implementation. In addition, the City agrees to establish a new environmental staff position dedicated primarily to this purpose.



## 2. Plan Elements

The Flow Plan addresses flows for the fishery resources in the mainstem Skagit River downstream of Gorge Powerhouse. Its primary purpose is to mitigate the effects of Project operations on salmon and steelhead. During spawning periods and subsequent incubation of eggs and alevins (pre-emergent fry), the effects of Project operations are addressed by limiting maximum flows during spawning, shaping daily flows for uniformity throughout the spawning period, and maintaining minimum flows through the incubation period that are adequate to keep most redds (spawning nests) covered until fry emerge from the gravel. For newly emerged fry, the effects of Project operations are addressed by limiting daily downramp amplitude, maintaining minimum flows throughout the fry protection period that are adequate to cover areas of gravel bar commonly inhabited by fry, and limiting downramping to various rates and time periods depending on the amount of Project discharge to minimize or prevent fry stranding.

Specific sections of the Flow Plan include: (1) provisions to regulate salmon and steelhead spawning and incubation flows for the purpose of protecting spawning redds and offspring; (2) provisions for minimum flows, and daily and seasonal flow fluctuations for the purpose of protecting salmon and steelhead fry; (3) conditions under which the City may have reduced minimum flow requirements; (4) circumstances under which the City has limited flow control, (5) operating considerations for implementing provisions of the Flow Plan; (6) provisions for field monitoring to determine the accuracy of various models, and to determine alternative spawning and fry protection periods; and (7) compliance requirements that include flow monitoring and recording, and the preparation by the City of semi-annual compliance reports.

Even with complete implementation of the Flow Plan, some level of impacts will continue to occur because of daily flow changes that are not common in the natural environment. In addition, the configuration and operation of the Project has rendered some formerly productive fish habitat inaccessible. The Non-Flow Plan is specifically intended to address these residual impacts and habitat losses and, possibly, to provide a measure of improvement. It establishes the City's commitment to provide a total of \$6,320,000 for support and implementation of the following programs: (1) steelhead production; (2) chinook salmon research; (3) off-channel chum salmon habitat development and improvement; (4) creation of additional off-channel salmon spawning and rearing habitat at the existing County Line and Newhalem Ponds; (5) instream or off-channel habitat improvement and sediment reduction measures on the Skagit Wild and Scenic River or its tributaries; and (6) resident trout protection and production to include: (a) removal of transitory tributary migration barriers in Ross, Diablo, and Gorge reservoirs, and (b) captive broodstock

supplementation designated for the Skagit River and its tributaries above Gorge Dam with special emphasis on Gorge and Diablo reservoirs.

## **D. WILDLIFE SETTLEMENT AGREEMENT**

### **1. General Intent**

The Wildlife Settlement Agreement between the City and various Parties is intended to resolve all issues related to the effects on wildlife resources of the Project, as currently constructed, for the period of October 28, 1977 (expiration of the previous license) through the duration of the Settlement Agreement. The Settlement Agreement incorporates the Wildlife Habitat Protection and Management Plan. The Wildlife Management Review Committee is established to provide general oversight and direction concerning plan implementation. In addition, the City agrees to establish a new environmental staff position at least partly dedicated to wildlife purposes.

### **2. Plan Elements**

The City will make available a total amount of \$17,000,000 from which both the acquisition of wildlife habitat lands and habitat enhancement will be funded. The large majority of the money will be used to acquire property rights (preferably in fee simple) in order to preserve wildlife habitat in the upper Skagit River and South Fork Nooksack River valleys. Lands have been selected that possess riparian areas and corridors, wetlands, and mature forest communities; have eagle usage or provide elk winter range; and/or are adjacent to other protected lands. The City will begin to secure some of the identified lands in advance of the receipt of the new license. The City will implement a continuing program to retain some of the acquired lands in the Nooksack basin in early successional stages in order to provide winter forage for elk. Some low-intensity habitat enhancement and manipulation measures may also be employed (e.g., wetland habitat restoration) in several locations. The Agreement establishes the procedures by which monies are allocated and lands are selected and acquired.

The City will provide continuing support during the term of the new license to interagency wildlife and ecosystems research and monitoring efforts in the North Cascades with emphasis on research that will enhance the knowledge and practice of wildlife protection and management in the Project Area and Ross Lake National Recreation Area. In support of this mission, the City will make an annual payment of \$50,000 for the purpose of funding wildlife and environmental research and studies. A five member Wildlife Research Advisory Committee will solicit and

review the research proposals and select the projects for funding. The City will make an annual payment of \$20,000 to support the long-term monitoring of wildlife and environmental resources in the North Cascades National Park Service Complex. The City will also fund the inventory and monitoring of bald eagle activity and design and equip a North Cascades research facility in the Project Area.

As part of the City's support of the North Cascades Environmental Learning Center (see the Recreation and Aesthetics section), an annual payment of \$20,000 for the term of the license will be provided by the City to the Center to further the development of public knowledge and understanding of the values and issues in wildlife and ecosystems management and protection in the Project Area and the North Cascades Area.

A memorandum of understanding will provide the procedural framework for consultation with the National Park Service regarding management activities on the City's non-residential fee title lands in the Ross Lake National Recreation Area that are not part of the Project Area. The Settlement Agreement also describes the procedures by which the implementation of the Plan will be periodically reviewed, and establishes a Wildlife Management Review Committee to provide this review and oversight.

The Intervenor agree that the City's performance of the obligations detailed within the Agreement and Plan constitutes adequate wildlife resources protection and satisfactory mitigation for wildlife impacts caused by the Project, as currently constructed, for the period October 28, 1977 through the duration of this Agreement. The Intervenor agree that such performance by the City will satisfy its obligations under the Federal Power Act, the Fish and Wildlife Coordination Act, and the Wild and Scenic River Act for purposes of relicensing of the Project. The Intervenor agree to participate fully and in a timely manner in the conduct of the various technical, administrative, and decision-making activities, committees and procedures that are detailed in the Agreement and Plan.

## **E. CULTURAL RESOURCES (ARCHAEOLOGICAL AND HISTORIC RESOURCES) SETTLEMENT AGREEMENT**

### **1. General Intent**

The Settlement Agreement on Cultural Resources between the City, the National Park Service and the Tribes is intended to resolve all issues related to the effects of the Project, as



currently constructed on archaeological and historic resources for the period October 28, 1977 (expiration of the previous license) through the duration of the Settlement Agreement. The Settlement Agreement incorporates the City's Cultural Resources Mitigation and Management Plan, which includes both the Archaeological Resources Mitigation and Management Plan and the Historical Resources Mitigation and Management Plan. Procedures are established for the implementation and continuing oversight of the plans and measures and for consultation with the Washington State Historic Preservation Officer.

## 2. Plan Elements

The City will make available an estimated \$1,465,000 for the purpose of funding the archaeological measures and programs in the Settlement Agreement and Cultural Resources Plan. The monies for the archaeological measures are estimated amounts. The eligible resources will require mitigation; however, the choice of measures and methods to be used and the monetary amounts necessary for mitigation and management of the archaeological resources will be determined and negotiated by the Parties and the Washington State Historic Preservation Officer upon the completion of the field evaluations and testing of identified sites (tentatively in 2 to 3 years). The Archaeological Resources Plan will be completed no later than 1994. The cost estimates for archaeology are the best evaluation by archaeology professionals in the National Park Service of the likely results of the remaining field studies and the probable mitigation and management needs of the resources. Based on the actual results of the remaining field evaluations and the determinations by and negotiations between the Parties, the monies necessary to mitigate adverse impacts may be somewhat higher or lower than these estimates. Thus, these amounts are neither minimum nor maximum expenditure levels but rather are best estimates of the monies that will be needed to accomplish the mitigation of the final list of eligible archaeological resources.

The City will develop the Archaeological Resources Plan and its implementing Memorandum of Agreement—and future updates to the existing Memorandum of Agreement with the National Park Service—in cooperation with the National Park Service, the Washington State Historic Preservation Officer, the Upper Skagit Tribe, the Sauk-Suiatue Tribe, and the Swinomish Indian Tribal Community. The Plan will be developed so as to be consistent with tribal rights and to address their concerns. The Tribes will also be consulted and included in the development of archaeological study plans and in mitigation planning and implementation.

The City has already provided \$70,000 to the National Park Service for the purpose of inventorying, evaluating, and documenting the historic resources of the Project Area beyond the

normal documentation requirements. The City will make available an additional \$282,000 for the purpose of documenting, protecting, mitigating, and interpreting historic building and engineering resources in the Project Area, as described in the Historic Resources Mitigation and Management Plan that has been prepared by the City in consultation with the National Park Service and the Washington State Historic Preservation Officer.

The Historic Resources Plan defines a set of standards and procedures for the preservation and treatment of historic structures and resources at the Project. Categories of actions or activities that might affect the historic resources are defined and are tied back to the applicable standards and procedures.

A three-level procedure is established for the review and mitigation of activities (such as rehabilitation or alteration) that might affect historic resources. These levels correlate roughly with the level of intensity and size of the project, and integrate with the Capital Improvements Program (CIP) and other planning processes of the City.

The City will develop a set of Skagit Maintenance Guidelines to provide more detailed, resource- and task-specific guidance for the protection and maintenance of the historic resources. A computerized database will be developed to assist in the tracking and recording of activities and measures that are applied to these historic resources.

A cooperative program will be developed jointly by the City and the NPS for in-house training of City and NPS personnel in preservation techniques and to provide continuing information and assistance in these techniques and issues.

Historic Structure reports will be prepared by the City for two historic buildings in Newhalem for which either major rehabilitation or demolition are being considered, along with an historic landscape report for the Ladder Creek Gardens, for which rehabilitation activities may be proposed in the near future. An historic landscape assessment will also be prepared by the City for the grounds in Newhalem.

The City will develop several program measures and products to enhance the understanding and appreciation of the historic resources of the Area. Additional historic material will be integrated into the existing Skagit Tours program during the regular course of review and revision of this nationally recognized program. A self-guiding walking tour and brochure will be developed for the Newhalem area.

Four of the City's interpretive exhibits and displays in the Project Area will receive a comprehensive review and reassessment and will subsequently be revitalized. A new, fifth interpretive display will be developed by the City at the incline lift waiting station.

The City will produce, in conjunction with the National Park Service, one or more interpretive brochures which will use some of the documentation developed by the City and National Park Service. The City will also provide funding for the preservation of historic photographs which are in the keeping of the City's Engineering Department.

The City has concluded a Memorandum of Agreement with the Washington State Historic Preservation Officer (National Park Service concurring) which implements the Historic Resources Mitigation and Management Plan under the National Historic Preservation Act. A similar agreement will be concluded to implement the Archaeological Resources Plan once that plan has been developed.

The Intervenor agree that the City's performance of the obligations detailed within the Settlement Agreement and the Cultural Resources Plan constitutes adequate cultural resources protection and satisfactory mitigation for archaeological and historic resources impacts caused by the Project, as currently constructed, for the period October 28, 1977 through the duration of this Settlement Agreement. The Intervenor agree that such performance by the City will satisfy its obligations for historic and archaeological resources under the Federal Power Act and the National Historic Preservation Act (including Section 106) for purposes of relicensing of the Project.

The Intervenor agree to participate fully and in a timely manner in the conduct of the various technical, administrative, and decision-making activities, committees and procedures that are detailed in the Settlement Agreement and the Historic Resources Mitigation and Management Plan. The National Park Service will conduct and complete the archaeological field studies and evaluations under the existing Memorandum of Agreement with the City to provide archaeological and historic survey and evaluation services and expertise. The National Park Service and the City will jointly plan and fund a seminar series on historic preservation topics as described in the Settlement Agreement and the Historic Resources Mitigation and Management Plan.

## **F. -- RECREATION AND AESTHETICS SETTLEMENT AGREEMENT**

### **1. General Intent**

The Settlement Agreement on Recreation and Aesthetics (Visual Quality) is intended to resolve all issues related to the effects on recreation and visual quality by the Project, as currently constructed, for the period October 28, 1977 through the duration of the Settlement Agreement. The Settlement Agreement includes a Recreation Plan and a Visual Quality Mitigation Plan. A separate Memorandum of Agreement (MOA) is entered into by the City, the National Park Service, and the North Cascades Institute (not a party to these proceedings) regarding the single largest element of the recreation plan, the North Cascades Environmental Learning Center. The Settlement Agreement establishes implementation procedures for both plans. In addition, the City will support implementation by dedicating part of the time of a new professional staff person to implement the plans.

### **2. Plan Elements**

Under the Settlement Agreement, the City has agreed to carry out numerous measures at the Project intended to mitigate and enhance recreational opportunities and the visual quality of Project facilities. The following briefly summarizes the specific measures in the two plans:

#### **a. Recreation Plan**

The Recreation Plan provides that the City will fund a number of measures in the Project area to mitigate for the adverse impacts of reservoir level variations and to enhance recreational opportunities elsewhere in the Ross Lake National Recreation Area and on the Skagit Wild and Scenic River.

The total cost of the Skagit Project Recreation Plan is approximately \$17,000,000 over the term of the license, in 1990 dollars.

#### ***Continuing measures***

The Recreation Plan provides for the City to continue providing a number of recreational opportunities and services in the Project Area.

These include:

- Conducting Skagit Tours, serving 10,000 persons per year;
- Operating the Newhalem visitor contact station, including rehabilitation of the facility, serving thousands of visitors each year;
- Operating Diablo Lake tugboat/ferry service, providing access to Ross Lake and Ross Lake Resort for hundreds of persons per year, including many with canoes and other small boats to be portaged to Ross Lake;
- Maintaining picnic and playground facilities open to the public in Newhalem and Diablo;
- Maintaining the Ladder Creek Falls trail behind the Gorge powerhouse; and
- Maintaining and replacing, if necessary, the electric supply cable to Colonial Creek campground on Diablo Lake.

The City will also continue to meet its obligations under the Treaty between the United States and Canada. This Treaty provides in part for the City to make monetary contributions for recreation purposes in the Project Area through the Skagit Environmental Endowment Commission.

#### *Mitigation measures*

The City will fund a number of measures to mitigate for the impacts of Project operations on recreation facilities on the Project reservoirs—Ross, Diablo, and Gorge Lakes. These measures include:

- Increasing the ability of boaters to access Ross Lake at Hozomeen by extension of the ramps to a lower elevation;
- Increasing accessibility of Ross Lake boat-in campgrounds by improvement of their docks; and
- Improving accessibility of Diablo and Gorge Lakes by improvements of boat ramp facilities on each reservoir.

The Plan allocates \$733,000 of City funds for these measures.



### *Enhancement measures—initial funding*

The most significant new recreational facility to be funded by the City under the Plan is a North Cascades Environmental Learning Center (Learning Center) proposed for either Diablo Lake (the preferred site) or a site next to the National Park Service Visitor Center. The Learning Center will have an initial overnight capacity of 40 students and 12 faculty and designed for expansion to an overnight capacity of 60 students and 18 faculty. The Learning Center will be built by the City on federal land and initially operated by the North Cascades Institute, a non-profit educational organization, under the guidance of an oversight committee consisting of representatives of the City, the National Park Service and the operator. The City and the National Park Service will cooperate in support of Learning Center operations; the City, by providing substantial ongoing program support funding, and the National Park Service, by provision of sewer and water utilities and other support.

The City will also fund all or part of a number of other recreational facilities, and related infrastructure, both improvements and new construction. These facilities include:

- Interpretive facilities
- Goodell Creek raft access site
- Damnation Creek boat-in picnic site
- Marblemount boat access site
- Hozomeen area water supply system
- Gorge Creek overlook
- Thunder Lake handicap access fishing site
- Thunder Knob trail
- Happy Flats—Panther Creek trail
- Desolation—Hozomeen trail
- Black Peak overlook and rest area
- Steelhead county park
- Lower Sauk River boat access site
- Suiattle River boat access site
- Rocky Creek River access site

All of the foregoing measures are scheduled to begin by year seven of the new license period. The interpretive facilities are funded at five year intervals throughout the new license

period. The Plan provides for expenditures by the City of over \$11,000,000 to implement these measures; \$9,000,000 of that amount is for the Learning Center.

*Enhancement measures—ongoing studies and funding*

In order to provide for growth of recreational use of the Project area the City will provide funding throughout the new license period to address new recreation needs. These measures include:

- Recreation use and needs assessments every five years;
- Bicycle use and needs assessment;
- Capital funding of implementation of the needs identified through the assessments in consultation with National Park Service and the U.S. Forest Service, as appropriate; and
- Recreation facilities operation and maintenance support for National Park Service and U.S. Forest Service throughout the new license period.

b. *Visual Quality Mitigation Plan*

The Visual Quality Mitigation Plan provides for improvements of the visual quality of Project facilities. The main areas of concern were Project structures near the three dams, and the transmission line rights-of-way extending from the Project Area into Snohomish County.

The City estimates the total cost of the Skagit Project Visual Mitigation Plan at approximately \$7,500,000 over the term of the license, in 1990 dollars.

*Mitigation measures*

The City will undertake measures to mitigate for Project impacts on visual quality in the Project area. These measures include:

- Repainting of various Project facilities in less visually contrasting colors on the normal maintenance cycle, such as transmission towers, surge tanks, and the Gorge Dam Access Bridge;
- Removal of the Diablo person lift; and
- Modification of the Ross Dam Broom Gate Shed to decrease its contrast.



### *Enhancement measures—initial funding*

Funding from the Erosion, Wildlife and Visual Quality (Aesthetics) Agreements will go toward the development of a new, larger greenhouse facility at the Project. The increased need for propagation of native plants called for by various measures in these three Agreements led to the need for such a facility.

Other Visual Quality Mitigation Plan elements to be undertaken by the City include:

- Revegetation and landscaping of a former housing area in Newhalem, including a river view trail and picnic facilities;
- Paving and landscaping of a parking area in Newhalem for use by Recreational Vehicles;
- Improvement of the Ladder Creek Falls Trail Parking Area in Newhalem by paving and revegetation;
- Landscaping to increase the screening of the Gorge switchyard; and
- Refill of Ross Lake as early as possible after April 15, in the recreation season consistent with other resource management constraints.

### *Enhancement measures—ongoing measures*

The Project transmission lines and their attendant rights-of-way are addressed in the Rights-of-Way Vegetation Management Plan, which is a section of the Visual Quality Mitigation Plan. The primary concern is the visibility of the transmission line features from State Route 20 and the Skagit Wild and Scenic River. The City will continue to improve the visual quality of the rights-of-way by vegetation management that permits greater growth than in the past and by giving special treatment to seven target areas identified in one of the visual quality assessment studies.

### *Other plans*

Several Erosion Control Plan elements simultaneously mitigate visual quality impacts. Measures include planting vegetation and placing earth and rock to discourage shoreline erosion. Similarly, a number of the Recreation Plan measures will improve the visual quality of the Project area by improving landscaping and orienting travelers' views away from Project facilities.

## **G. EROSION CONTROL SETTLEMENT AGREEMENT**

### **1. General Intent**

The Erosion Control Settlement Agreement between the City and the National Park Service is intended to resolve all issues related to the effects on soils and slope stability of the Project, as currently constructed, except for those erosion control requirements identified in the archaeological portion of the Settlement Agreement incorporating the Cultural Resources Mitigation and Management Plan for the period October 28, 1977 through the duration of the Erosion Control Settlement Agreement. It incorporates the Erosion Control Plan. Technical representatives of the City and the National Park Service will provide general oversight and direction concerning plan implementation. In addition, the City agrees to establish a new environmental staff position at least partly dedicated to erosion control purposes.

### **2. Plan Elements**

As the licensee for the Project, the City has agreed to oversee the implementation of this Agreement. Jointly with the National Park Service, the City will, throughout the new license term, regularly evaluate previous erosion control work and update the work plan for erosion control work to be done in the subsequent years. The City will also construct greenhouse facilities and institute a plant propagation program to supply plant stock for vegetation at erosion control sites.

The National Park Service will have the lead role in most erosion control work and monitoring, primarily at reservoir shoreline sites. It will conduct its work after full consultation and agreement with the City. It will do the erosion control work at most of the sites identified in the Erosion Control Plan and at other sites identified in collaboration with the City during the new license term. The City will do much of the erosion control work at road sites in the Project area.

Erosion control will include passive and active measures. Passive measures will include monitoring of erosion rates and processes at sites where erosion control would be difficult because of a high potential for large mass slump movements of soils or where disturbance would be undesirable (e.g., osprey nesting trees). Active measures will be limited because of the wilderness setting of the Project, which precludes the use of large amounts of concrete, chemically treated lumber, or visually obtrusive structures. Active measures will include vegetation, logs, rock walls, and cribbing. Naturally occurring materials (local earth, rock, timber, and vegetation) that blend with the surrounding site features will be used to minimize the visual impacts of erosion control.

The City will provide funding for this Agreement as follows: (1) \$845,000 for erosion control work during the first nine years of the new license term at the sites specified in the Erosion Control Plan; (2) \$500,000 for erosion control measures at new sites, maintenance, and, if necessary, completion of work at the sites in the Erosion Control Plan; and (3) funding for the greenhouse facilities and the plant propagation program. The City will also fund erosion control at several high priority trail and campground sites up to a maximum of \$99,000 in the years before the new license is issued; interim expenditures will be deducted from erosion control obligations during the new license term.

## **H. TRADITIONAL CULTURAL PROPERTIES SETTLEMENT AGREEMENT**

### **1. General Intent**

Three substantively identical agreements are being executed by the City, one with each of the tribal intervenors. The three Traditional Cultural Properties Settlement Agreements are intended to resolve all mitigation issues related to Traditional Cultural Properties for the Project, as currently constructed, for the period October 28, 1977 through the duration of the Settlement Agreements. Included in each Settlement Agreement is a mitigation plan providing for further studies and monetary payments. The Settlement Agreements provide implementation procedures, including coordination among the three similar plans. In addition, the City will support implementation by dedicating part of the time of a new professional staff person to plan implementation.

### **2. Plan Elements**

The Agreements provide for the City to fund studies to complete an inventory of traditional cultural properties in the Project Area, including Project impacts on these properties. The City will spend up to \$250,000 on this inventory, with possible additional contributions from the affected federal land management agencies, primarily the National Park Service.

The City will also fund cultural activities of the three Tribes in lieu of on-site mitigation measures. Over an eight-year period, each tribe will receive \$1,233,338 in 1990 dollars.

### III. RELEVANT RECORD

The record in support of these Settlement Agreements consists of the entire record of this proceeding, including Docket No. EL 78-36. The Parties submit that the FERC should rely upon this record in assessing whether these Settlement Agreements are in the public interest.

### IV. PROPOSED FERC ORDER

Pursuant to Rule 602, the Parties have attached a draft order approving the Settlement Agreements.

### V. CONCLUSION

WHEREFORE, the Parties hereby request that the FERC approve the Settlement Agreements as submitted, and that, upon approval, the FERC conclude and terminate this proceeding, including Docket No. EL 78-36.

Respectively submitted,

Dated: April 25, 1991

**THE CITY OF SEATTLE**  
**MARK H. SIDRAN**  
City Attorney

ORIGINAL

By: 

William H. Patton  
Assistant City Attorney  
Director, Utilities Division  
1111 Third Avenue, Suite 2640  
Seattle, WA 98101

Dated: April 23, 1991

ORIGINAL

**U.S. DEPARTMENT OF INTERIOR;  
NATIONAL PARK SERVICE, FISH AND WILDLIFE SERVICE,  
AND BUREAU OF INDIAN AFFAIRS**

By: Susan K. Driver

Susan K. Driver  
Attorney,  
Pacific Northwest Region  
Suite 607  
Portland, OR 97232



ORIGINAL

## By:

John F. Butruille  
Regional Forester  
Pacific Northwest Region, USFS  
319 S.W. Pine Street  
Portland, OR 97204

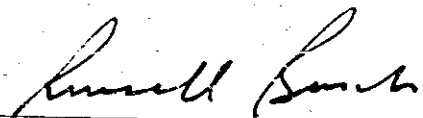


Dated: April 24, 1991

ORIGINAL

UPPER SKAGIT TRIBE  
SAUK-SUIATTLE TRIBE

By: \_\_\_\_\_



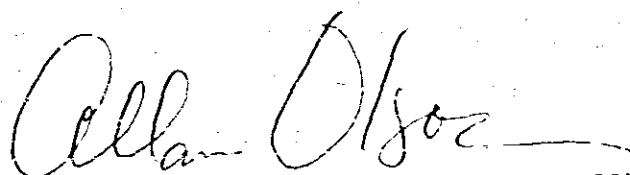
Russell Busch  
Attorney, Evergreen Legal Services  
101 Yesler Way, Suite 301  
Seattle, WA 98104

ORIGINAL

Dated: April 24<sup>th</sup>, 1991

**SWINOMISH INDIAN TRIBAL COMMUNITY**

By: \_\_\_\_\_



Alan Olson  
Attorney  
Swinomish Indian Tribal Community  
P.O. Box 817  
LaConner, WA 98257

Dated: April 22<sup>nd</sup>, 1991

ORIGINAL

WASHINGTON STATE DEPARTMENT OF FISHERIES  
AND WASHINGTON STATE DEPARTMENT OF WILDLIFE

By:

William C. Frymire

William C. Frymire  
Assistant Attorney General  
Office of Attorney General  
7th Floor, Highway Licenses Bldg.  
Olympia, WA 98504

Offer of Settlement, Skagit River Hydroelectric Project No. 553

ORIGINAL

Dated: April 24, 1991

**NORTH CASCADES CONSERVATION COUNCIL**

By: \_\_\_\_\_

*David Fluharty*

David Fluharty  
President, North Cascades Conservation Council  
P.O. Box 95980  
University Station  
Seattle, WA 98145-1980

Dated: April 16, 1991

ORIGINAL

**NATIONAL MARINE FISHERIES SERVICE**

By: F. Lorraine Bodi

F. Lorraine Bodi, Attorney  
NOAA, Office of General Council (GCNW)  
National Marine Fisheries Service  
7600 Sand Point Way, N.E., Building No. 1  
Seattle, WA 98115



**BEFORE THE  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION**

City of Seattle, Skagit River )  
Hydroelectric Project )  
No. 553 )  
\_\_\_\_\_ )

Project No. 553  
Docket No. EL 78-36

**DRAFT  
ORDER APPROVING SETTLEMENT AGREEMENTS AND  
DISMISSING PROCEEDINGS UNDER DOCKET NO. EL 78-36**

(Issued \_\_\_\_\_, 199\_\_)

On April \_\_\_\_\_, 1991, the City of Seattle, City Light Department; the U.S. Department of the Interior, National Park Service, Fish and Wildlife Service, and Bureau of Indian Affairs; the U.S. Department of Commerce, National Marine Fisheries Service; the Upper Skagit Tribe, Sauk-Suiattle Tribe, and Swinomish Indian Tribal Community; the Washington Department of Fisheries; the Washington Department of Wildlife; and the North Cascades Conservation Council; collectively submitted to the Commission an Offer of Settlement. The Commission finds that the Settlement Agreements proposed in that Offer of Settlement are in the public interest and should be approved.

**THE COMMISSION ORDERS:**

(A) The Settlement Agreements listed below that were submitted with the Offer of Settlement on April \_\_\_\_\_, 1991 are hereby approved:

- (1) Fisheries Settlement Agreement, incorporating the Anadromous Fish Flow Plan and the Anadromous and Resident Fish Non-Flow Plan;
- (2) Settlement Agreement Concerning Wildlife, incorporating the Wildlife Habitat Protection and Management Plan;

- (3) Settlement Agreement on Recreation and Aesthetics (including the Recreation Plan and Visual Quality Mitigation Plan);
- (4) Settlement Agreement Concerning Erosion Control, incorporating the Erosion Control Plan;
- (5) Settlement Agreement Concerning Cultural Resources (Archaeological and Historic Resources), incorporating the Cultural Resources Mitigation and Management Plan, which includes the historic and archaeological resources mitigation and management plans; and
- (6) Settlement Agreement Concerning Traditional Cultural Properties.

(B) The proceedings under Docket No. EL 78-36 are hereby dismissed.

(C) The Commission's approval of the Settlement Agreements shall not constitute approval or precedent regarding any principle or issue in this or any other proceeding.

**BY THE COMMISSION**

ORIGINAL

91 12 30

---

**SKAGIT RIVER HYDROELECTRIC PROJECT**  
**No. 553**

---

**SETTLEMENT AGREEMENT**

**ON**

**RECREATION AND AESTHETICS**

**BETWEEN**

**THE CITY OF SEATTLE**

**AND THE**

**U.S. DEPARTMENT OF THE INTERIOR, NATIONAL PARK SERVICE (NPS);  
U.S. DEPARTMENT OF AGRICULTURE, FOREST SERVICE (USFS);  
UPPER SKAGIT TRIBE, SAUK-SUIATTLE TRIBE, AND  
SWINOMISH INDIAN TRIBAL COMMUNITY (THE TRIBES); AND  
NORTH CASCADES CONSERVATION COUNCIL (NCCC)**

---

**APRIL 1991**

91 APR 30 PM 12:30

---

# **SKAGIT RIVER HYDROELECTRIC PROJECT**

## **No. 553**

---

### **SETTLEMENT AGREEMENT**

**ON**

### **RECREATION AND AESTHETICS**

**BETWEEN**

**THE CITY OF SEATTLE**

**AND THE**

**U.S. DEPARTMENT OF THE INTERIOR, NATIONAL PARK SERVICE (NPS);  
U.S. DEPARTMENT OF AGRICULTURE, FOREST SERVICE (USFS);  
UPPER SKAGIT TRIBE, SAUK-SUIATTLE TRIBE, AND  
SWINOMISH INDIAN TRIBAL COMMUNITY (THE TRIBES); AND  
NORTH CASCADES CONSERVATION COUNCIL (NCCC)**

---

**APRIL 1991**

## TABLE OF CONTENTS

	Page
1.0 PARTIES .....	1
2.0 GENERAL PROVISIONS .....	1
2.1 PURPOSE AND INTENT .....	1
2.1.1 Resolution of Issues .....	1
2.1.2 Stipulation of Adequacy .....	2
2.1.3 Release and Waiver of Claims .....	2
2.1.4 Compliance with Laws and Effect on Rights .....	2
2.1.5 Integrated Agreement .....	2
2.1.6 Assignment .....	2
2.1.7 Authority .....	3
2.2 OBLIGATIONS OF THE PARTIES .....	3
2.2.1 The City's Obligations .....	3
2.2.2 The Intervenor's Obligations .....	3
2.2.3 The Parties' Obligations .....	4
2.3 EFFECTIVE DATE AND DURATION .....	5
2.3.1 Execution and Effective Date .....	5
2.3.2 Duration .....	5
2.4 COORDINATED IMPLEMENTATION .....	5
2.4.1 Across Forum Coordination .....	5
2.4.2 Annual Meeting .....	6
2.5 MONETARY FIGURES .....	6
2.5.1 Adjustments For Inflation/Deflation .....	6
2.5.2 Time Basis For Payments and Obligations .....	6
2.6 FORCE MAJEURE .....	6
2.7 DESIGNATED CONTACTS .....	7
2.7.1 Contact Persons .....	7
2.7.2 Notices .....	8
2.8 REOPENER AND MODIFICATION .....	8
2.8.1 Use of Reopener Clause in License .....	8
2.8.2 Modification .....	8
2.8.3 Burden of Proof .....	9
2.8.4 Effect of Reopener Proceedings .....	9



## TABLE OF CONTENTS (continued)

	<u>Page</u>
2.9 PROJECT MODIFICATIONS (HIGH ROSS) .....	9
2.9.1 Project Modifications .....	9
2.9.2 Notice .....	9
2.9.3 Consultation .....	9
2.9.4 Resolution .....	9
2.9.5 Mitigation Criteria .....	10
2.9.6 Preservation of Rights .....	10
2.10 DISPUTE RESOLUTION .....	10
2.10.1 Technical Level Review .....	10
2.10.2 Policy Level Review .....	10
2.10.3 FERC Review .....	11
2.10.4 Noncompliance .....	11
2.11 ROSS LAKE OPERATIONS .....	11
2.11.1 Refill After April 15 .....	11
2.11.2 Full Pool Through Labor Day .....	11
2.11.3 Overdraft Years .....	11
2.11.4 Conflict .....	11
3.0 SKAGIT PROJECT RECREATION PLAN .....	12
3.1 INTRODUCTION .....	12
3.1.1 Recreation Planning Process .....	12
3.1.2 Recreation Plan Evaluation Criteria .....	13
3.2 PLAN IMPLEMENTATION .....	14
3.2.1 Development Schedule .....	14
3.2.2 Development Responsibilities .....	17
3.2.3 Budget and Cost Estimates .....	17
3.2.4 Implementation Procedures .....	22
3.2.5 Site Substitutions .....	24
3.3 PLAN ELEMENTS—CONTINUING MEASURES .....	24
3.3.1 Skagit Tours .....	25
3.3.2 Skagit Environmental Endowment Contributions .....	25
3.3.3 Diablo Lake Tugboat/Ferry Service .....	25
3.3.4 Newhalem Visitor Contact Station .....	25
3.3.5 Picnic Facilities .....	25
3.3.6 Ladder Creek Falls Trail .....	25
3.3.7 Colonial Creek Campground Electric Supply Cable .....	25

## TABLE OF CONTENTS (continued)

	Page
3.4 PLAN ELEMENTS—MITIGATION MEASURES .....	26
3.4.1 Hozomeen Boat Ramp (Ross Lake) .....	26
3.4.2 Ross Lake Campground Boat Docks .....	27
3.4.3 Gorge Lake Boat Ramp .....	27
3.4.4 Colonial Creek Boat Ramp .....	28
3.5 PLAN ELEMENTS—ENHANCEMENT MEASURES .....	29
3.5.1 Rehabilitation of Existing Facilities .....	29
3.5.2 New Facilities .....	33
3.5.3 Future Recreation Funding .....	44
3.6 SITE CAPACITY AND ESTIMATED USE .....	46
3.6.1 Rehabilitation Actions .....	46
3.6.2 New Facilities .....	47
4.0 SKAGIT PROJECT AESTHETICS (VISUAL QUALITY) MITIGATION PLAN .....	48
4.1 INTRODUCTION .....	48
4.2 PLAN ELEMENTS .....	49
4.2.1 Project Facilities Improvements .....	49
4.2.2 Landscaping (Townsites) .....	50
4.2.3 Rights-of-Way Vegetation Management Plan .....	53
4.2.4 Erosion Control Plan .....	58
4.3 PLAN IMPLEMENTATION .....	58
4.3.1 Coordination .....	58
4.3.2 Schedule and Cost Estimates .....	58
5.0 REFERENCES .....	60
6.0 SIGNATURES .....	60

## LIST OF APPENDICES

- APPENDIX A -- Memorandum of Agreement--North Cascades Environmental Learning Center
- APPENDIX B -- FERC Additional Information Request
- APPENDIX C -- Cost Estimate Details
- APPENDIX D -- Diablo Lake Boat Ramp Site Evaluations
- APPENDIX E -- Figures and maps for Settlement Agreement on Recreation and Aesthetics

## LIST OF TABLES

<u>Table</u>	<u>Title</u>	<u>Page</u>
<b>Recreation Plan</b>		
3-1	Recreation Plan Element Implementation Schedule and Responsibilities...	15
3-2	Recreation Plan Cost Estimates and Budget Schedule.....	18
3-3	Cost Differentials for Agency and City Implementation.....	21
3-4	Site capacity and estimated use [not present in this draft]	
<b>Visual Quality Mitigation Plan</b>		
4-1	Planting key.....	56
4-2	Vegetation Management Prescriptions for City Owned Rights of Way between Bothell and Bacon Creek.....	57
4-3	Cost estimates and schedule of Visual Quality Mitigation Plan measures...	59

## LIST OF FIGURES

(Appendix E)

<u>Figure</u>	<u>Title</u>
<b>Recreation Plan</b>	
3-1	General Project Area Map and Project Key
3-2	Hozomeen Boat Ramp Area Map
3-3	Ross Lake Boat-In Campground Docks
3-4	Gorge Lake Boat Ramp
3-5	Colonial Creek Boat Ramp
3-6	Newhalem Visitor Contact Station
3-7	Goodeil Creek Raft Access Site
3-8	Damnation Creek Boat-in Picnic Site
3-9	Marblemount Boat Access Site
3-10	Hozomeen Water Distribution System
3-11	Environmental Learning Center—Organizational Structure Chart (see Appendix G of NCELC MOA)
3-12	Environmental Learning Center—Diablo Lake Site Area Map
3-13	Environmental Learning Center—Newhalem Campground Site Area Map
3-14	Environmental Learning Center—Diablo Lake Site Plan
3-15	Gorge Creek Overlook
3-16	Thunder Lake Fishing Facility
3-17	Thunder Knob Trail
3-18	Happy Flats-Panther Creek Trail
3-19	Desolation-Hozomeen Trail
3-20a, b & c	Black Peak Overlook (with two alternative configurations)
3-21	Rocky Creek River Access Site
3-22	Steelhead Park Trail
3-23	Lower Sauk River Boat Access Site
3-24	Suiattle River Boat Access Site

## LIST OF FIGURES (continued)

### (Appendix E)

FigureTitle**Visual Quality Mitigation Plan**

- 4-1 Site Plan—Town of Newhalem—Engineering Row
- 4-2 Site Plan—Town of Newhalem—Greenhouse Facilities
- 4-3 Site Plan—Town of Newhalem—Recreation Vehicle Parking Area
- 4-4 Site Plan—Town of Newhalem—Ladder Creek Falls Trail Parking Area
- 4-5 Site Plan—Town of Diablo—Visitor Center
- 4-6 ROW Vegetation Management—Prescription Type A
- 4-7 ROW Vegetation Management—Prescription Type B
- 4-8 ROW Vegetation Management—Prescription Modified Type B
- 4-9 ROW Vegetation Management—Prescription Type C
- 4-10 ROW Vegetation Management—Prescription Modified Type C
- 4-11 ROW Vegetation Management—Prescription Type D
- 4-12 ROW Vegetation Management—Prescription Modified Type D
- 4-13 ROW Vegetation Management—Prescription Type E
- 4-14 ROW Vegetation Management—Prescription Type F
- 4-15 ROW Vegetation Management—Prescription Modified Type F
- 4-16 ROW Vegetation Management—Target Areas—Location Map
- 4-17 ROW Vegetation Management—Target Area—Bacon Creek
- 4-18 ROW Vegetation Management—Target Area—Damnation Creek
- 4-19 ROW Vegetation Management—Target Area—Thornton Creek
- 4-20 ROW Vegetation Management—Target Area—Goodell Creek
- 4-21 ROW Vegetation Management—Target Area—Gorge Dam Viewpoint
- 4-22 ROW Vegetation Management—Target Area—Diablo "Y"
- 4-23 ROW Vegetation Management—Target Area—Diablo Overlook



**UNITED STATES OF AMERICA**  
**FEDERAL ENERGY REGULATORY COMMISSION**

**SETTLEMENT AGREEMENT**  
**CONCERNING**  
**RECREATION AND AESTHETICS**

**1.0 PARTIES**

This Recreation and Aesthetics Settlement Agreement (Agreement) is entered into this 24th day of April, 1991, by and between The City of Seattle, City Light Department (the City) and the U.S. Department of the Interior, National Park Service (NPS); U.S. Department of Agriculture, Forest Service (USFS); Upper Skagit Tribe, Sauk-Suiattle Tribe, and Swinomish Indian Tribal Community (the Tribes); and the North Cascades Conservation Council (NCCC) (collectively referred to as the Intervenors). Together the City and the Intervenors are referred to as the "Parties". The Skagit River Hydroelectric Project is referred to as the "Project".

**2.0 GENERAL PROVISIONS**

**2.1 PURPOSE AND INTENT**

This Agreement establishes the City's obligations relating to recreation in the Project area and the visual quality of Project facilities as currently constructed. (In this Agreement the terms visual quality and aesthetics are used interchangeably.) It also establishes the Intervenors' obligations to support this Agreement and to submit it to the Federal Energy Regulatory Commission (FERC) as their recommendations relating to said recreation resources and visual quality under any applicable provisions of the Federal Power Act (including without limitation Section 10(a), 10(j), and 4(e) thereof). The U.S. Forest Service agrees that this Agreement constitutes its preferred recommendation under Section 7(a) of the Wild and Scenic Rivers Act.

**2.1.1 Resolution of Issues**

This Agreement resolves all issues related to the effects on recreation and visual quality by the Project, as currently constructed, for the period October 28, 1977, through the duration of this Agreement. This includes resolution of the effects of the absence of flows in the Gorge bypass

reach. It shall be submitted to the FERC for incorporation into the new license for the Project, and shall be enforceable as an article thereof. The Parties agree that incorporation and enforcement as a license condition is a material provision of this Agreement.

### **2.1.2 Stipulation of Adequacy**

The Parties stipulate that this Agreement constitutes adequate mitigation and enhancement for Project impacts on recreation and aesthetics, as currently constructed, for the period October 28, 1977, through the duration of this Agreement.

### **2.1.3 Release and Waiver of Claims**

For the period October 28, 1977, through the duration of this Agreement, the Intervenor, their successors and assigns, hereby release, waive and discharge the City, its successors, and assigns, from any and all claims, demands, actions, and causes of action of any kind (claims) arising during that period from the effects of the Project as currently constructed on recreation and aesthetics, so long as the City performs its obligations under this Agreement. This release does not waive claims that may arise from the negligent or intentional misconduct of the City in the operation of the Project.

### **2.1.4 Compliance with Laws and Effect on Rights**

Nothing in this Agreement precludes the City or the Intervenor from complying with their obligations under the National Environmental Policy Act (NEPA), the Endangered Species Act, the Federal Power Act, the Wild and Scenic Rivers Act, or any other laws applicable to the Project. This Agreement shall not affect the rights of any Party except as expressly covered in this Agreement. Nothing in this Agreement or in the plans, memoranda, procedures or other actions taken to further the purposes of this Agreement shall reduce or otherwise impair access to and exercise of implied or explicit Indian rights, including hunting, fishing and gathering rights; nor shall anything in this Agreement be construed as limiting, waiving or otherwise impairing whatever money damages claims the Tribes may have arising out of the construction and operation of the current Project outside the term of this Agreement.

### **2.1.5 Integrated Agreement**

All previous communications between the Parties, either verbal or written, with reference to the subject matter of this Agreement are superseded by the terms and provisions of this Agreement, and, once executed, this Agreement and its companion documents constitute the entire agreement between the Parties.

### **2.1.6 Assignment**

This Agreement shall be binding on and inure to the benefit of the Parties and their successors and assigns.

### **2.1.7 Authority**

Each Party to this Agreement represents and acknowledges that it has the full legal authority to execute this Agreement and shall be fully bound by its terms.

## **2.2 OBLIGATIONS OF THE PARTIES**

### **2.2.1 The City's Obligations**

#### **2.2.1.1 Compliance and Submittal**

By entering into this Agreement, the City agrees to comply with all of the terms of this Agreement, including the payment of monies and the funding of activities specified herein. The City further agrees to submit this Agreement to the FERC as its proposed measures relating to recreation resources and visual quality affected by the Project, as currently constructed, as required by applicable provisions of federal and state law, including without limitation the Federal Power Act, the Endangered Species Act, and the Wild and Scenic Rivers Act.

#### **2.2.1.2 Additional Staffing**

The City shall assign adequate professional environmental staff to implement this Agreement. This shall include establishment of two new environmental staff positions with expertise in fisheries, wildlife, recreation, visual quality, cultural resources, and erosion control. One staff position shall be dedicated primarily to implementation of the agreement on fisheries. The second staff position shall be dedicated primarily to implementation of the wildlife and cultural resources agreements, erosion control agreement, and this agreement.

### **2.2.2 The Intervenor's Obligations**

#### **2.2.2.1 Support for Project Relicense**

The Intervenor agrees to support the expeditious issuance of a new license to the City for the Project, as currently constructed, which is consistent with the provisions of this Agreement and which includes the Agreement as an article. This support shall include reasonable effort to expedite the NEPA process. The Parties shall file comments on any draft EA or EIS developed by the FERC in the relicensing for this Project and shall support the measures defined by this Agreement as the preferred action. The Parties shall exchange drafts of their respective comments prior to submittal to the FERC and consult with each other to ensure that the comments are consistent with this Agreement.

#### **2.2.2.2 Recreation and Visual Quality Resources Recommendations**

The Intervenor shall submit this Agreement to the FERC as their recommendations related to the recreation resources and visual quality affected by the Project under any applicable provision of the Federal Power Act (including without limitation Sections 10(a), 10(j), and 4(e) thereof). The U.S.

Forest Service agrees that this Agreement constitutes its preferred recommendation under Section 7(a) of the Wild and Scenic Rivers Act.

### **2.2.2.3 Gorge Bypass Reach**

The Intervenor agrees that this Agreement obviates any need for flow releases in the Gorge bypass reach for recreation or visual quality purposes. The Intervenor shall support all efforts by the City to either retain its existing water quality certificate issued by the State of Washington, Department of Ecology (WDOE) on October 28, 1977, or, in the alternative, to obtain a new water quality certificate consistent with the terms and conditions of this Agreement, including the absence of flows in the Gorge bypass reach. In the event efforts are made to reclassify the Gorge bypass reach from a Class AA water to another Class water under WDOE regulations, the Intervenor shall not oppose this action and shall, at a minimum, provide written comments not opposing this action to the WDOE. Should the City be required to release flows in the Gorge bypass reach at any time before the issuance of a new FERC license and for any reason, this Agreement shall be voidable at the option of the City. Should the City be required to release flows in the Gorge bypass reach at any time after the issuance of a new FERC license and for any reason, this Agreement shall give rise to an immediate right of the City to petition the FERC to reconsider or reopen applicable license provisions to reconsider all recreation and visual quality resource provisions in light of such requirement. Under such circumstances, the City's efforts to initiate a proceeding before the FERC to reconsider or reopen shall not be opposed by the Intervenor; the Parties may, however, differ in their respective positions in such a proceeding.

### **2.2.3 The Parties' Obligations**

#### **2.2.3.1 Cooperation Among Parties**

The Parties shall cooperate in conducting and participating in studies and other actions provided for in this Agreement and shall provide assistance in obtaining any approvals or permits that may be required for implementation of this Agreement.

#### **2.2.3.2 Support of Agreement**

The Parties agree to join in the filing of an Offer of Settlement with the FERC based upon this Agreement and to request that the FERC issue appropriate orders approving this Agreement. All Parties shall refrain from seeking judicial review of the FERC's approval of this Agreement. It is expressly agreed by the Parties that this Agreement shall be submitted to the FERC as a unit and that any material modification of its terms, approval of less than the entire Agreement or addition of material terms by the FERC shall make the Agreement voidable at the option of any Party.



## 2.3 EFFECTIVE DATE AND DURATION

### 2.3.1 Execution and Effective Date

This Agreement shall take effect upon the effective date of a license issued by the FERC consistent with this Agreement. The City obligates itself to implementation of the consultation requirement of Section 4.2.1.9 upon the submittal to the FERC by the Parties of an Offer of Settlement pursuant to Section 2.2.3.2. If the FERC issues a new license inconsistent with this Agreement, and if a Party appeals, the Agreement shall not go into effect. The Parties retain the right to appeal the issuance of a license in whole or in part if unacceptable provisions are added, including stay of any provision.

### 2.3.2 Duration

This Agreement, together with any subsequent modifications, shall remain in effect for the term of the new FERC license period for the Project, which includes the term(s) of any annual license(s) that may be issued after the foregoing new license has expired. This includes ongoing operation and maintenance expenses that shall continue to be funded for the duration of this Agreement.

## 2.4 COORDINATED IMPLEMENTATION

### 2.4.1 Across Forum Coordination

It is understood and agreed by the Parties that similar settlement agreements are being executed between the City, and these Intervenor(s) as well as other intervenors (not party to this Agreement) in the Project relicensing proceedings concerning other resources affected by continuing Project operations. These other settlement agreements and mitigation and enhancement plans include:

**Fisheries**—Fisheries Settlement Agreement, incorporating the Anadromous Fish Flow Plan and the Anadromous and Resident Fish Non-Flow Plan

**Wildlife**—Settlement Agreement Concerning Wildlife, incorporating the Wildlife Habitat Protection and Management Plan

**Erosion**—Settlement Agreement Concerning Erosion Control, incorporating Erosion Control Plan

**Cultural Resources**—Settlement Agreement Concerning Cultural Resources (Archaeological and Historic Resources), incorporating the Cultural Resources Mitigation and Management Plan, which includes the historic and archaeological resources mitigation and management plans

**Traditional Cultural Properties**—Settlement Agreement Concerning Traditional Cultural Properties.



## **2.4.2 Annual Meeting**

The City shall host an annual meeting of the intervenors interested in any of these issues to facilitate coordination of implementation of the various settlement agreements. The Intervenor agree to cooperate in across forum coordination as necessary and appropriate to further effective program implementation.

## **2.5 MONETARY FIGURES**

### **2.5.1 Adjustments For Inflation/Deflation**

All dollar amounts listed in this Agreement are defined as 1990 dollars and shall be adjusted annually for inflation or deflation by using the revised Consumer Price Index (CPI-U) for All Urban Consumers as published by the United States Department of Labor for the Seattle metropolitan area. The indices used shall be those published for the last half of 1990, and for subsequent years, the last half of the calendar year preceding that in which a payment or expenditure is to be made. Indexing of items in this Agreement shall continue until the year of actual payment unless otherwise provided in this Agreement. The percentage of change from the earlier index to the later index shall be multiplied by the amount specified in this Agreement and the result added to or subtracted from that amount to arrive at the total payment or expenditure. Should the CPI-U index not be available, the Parties agree to negotiate another statistical basis for determining annual changes in the City's monetary commitments.

### **2.5.2 Time Basis For Payments and Obligations**

Payments and obligations by the City for this Agreement will be made and met on a license-year basis. License years are based on the date of the FERC order issuing a new license for the Project; however, unless specifically provided otherwise in the plan, the City's monetary obligations do not become payable until the license becomes effective (see Section 2.3.1). The City will make project specific monies due in license year one available at the time they are needed as soon as possible after the license becomes effective. In subsequent license years, the City will make payments to the Intervenor for the implementation of specific Recreation Plan projects at the time they are needed. Moneys required to be paid to or on behalf of the Intervenor for non-Project specific purposes will be paid on the last day of each license year. If the license is issued and accepted during a season critical for implementation, it may be impossible to implement a particular program element that year. Therefore, the Parties agree that implementation of such elements may not occur until the license year following its stated schedule in the Plan. Agreed upon rescheduling of projects solely as a result of seasonal considerations shall not be considered a license compliance violation.

## **2.6 FORCE MAJEURE**

The City shall not be liable or responsible for failure to perform or for delay in performance due to any cause or event or circumstance of Force Majeure. For purposes of this Agreement, Force Majeure is any cause or event beyond the City's reasonable control. This may include but is not

limited to fire, flood, mechanical failure or accidents that could not reasonably have been avoided by the City, strike or other labor disruption, act of God, act of any governmental authority or of the Parties, embargo, fuel or energy unavailability (ancillary to, but not including, basic power generation), wrecks or unavoidable delays in transportation, and inability to obtain necessary labor, materials or manufacturing facilities from generally recognized sources in the applicable industry, or communications systems breakdowns, or for any other reason beyond the City's control. The City shall make all reasonable efforts to resume performance promptly once the Force Majeure is eliminated.

## **2.7 DESIGNATED CONTACTS**

### **2.7.1 Contact Persons**

For purposes of implementing this Agreement, the Parties agree that the following individuals shall be designated by each to be primary contact persons. The initial contact person for the City is:

Superintendent  
Seattle City Light  
1015 Third Avenue  
Seattle, WA 98104  
(206) 684-3200

and the initial contact persons for each of the Intervenor are:

Superintendent  
North Cascades National Park Service Complex  
2105 Highway 20  
Sedro Woolley, WA 98284  
(206) 856-5700

Forest Supervisor  
Mount Baker-Snoqualmie National Forest  
21905 - 64th Avenue West  
Mountlake Terrace, WA 98043  
(206) 744-3393

President  
North Cascades Conservation Council  
P.O. Box 95980  
University Station  
Seattle, WA 98145-1980  
(206) 685-2518

Chair

Upper Skagit Indian Tribe  
2284 Community Plaza  
Sedro Woolley, WA 98284  
(206) 856-5501

Chair

Sauk-Suiattle Indian Tribe  
5318 Chief Brown Lane  
Darrington, WA 98241  
(206) 436-0131

Chair

Swinomish Indian Tribal Community  
P.O. Box 817  
LaConner, WA 98257  
(206) 466-4047

Notification of changes in the contact persons must be made in writing and delivered to all other contact persons.

## **2.7.2 Notices**

All written notices to be given pursuant to this Agreement shall be mailed by first class mail or overnight express service, postage prepaid, to each Party at the addresses listed above or such subsequent address as a Party shall identify by written notice to all Parties. Notices shall be deemed to be given five (5) working days after the date of mailing.

## **2.8 REOPENER AND MODIFICATION**

### **2.8.1 Use of Reopener Clause In License**

Notwithstanding any other provision of this Agreement, any Party may at any time invoke or rely on any reopener clause(s) in the license for the Project in order to request the imposition by the FERC of different or modified measures for recreation or aesthetics. Any provision of this agreement that might be read to limit or preclude a party from raising any relevant, material issue of fact or law in reopening or to otherwise conflict with reopening (e.g., Sections 2.1.1, 2.1.2, and 2.2) shall be inoperative to the extent of any such limitation, preclusion or conflict.

### **2.8.2 Modification**

Before invoking any reopener clause under Section 2.3.1, a Party shall request all other Parties to commence negotiations for a period of up to 90 days to modify the terms and conditions of this Agreement in whole or in part. Any such modification shall be subject to FERC approval, except

that the Parties may agree to implement on an interim basis, pending FERC approval, any measure not requiring prior FERC approval.

### **2.8.3 Burden of Proof**

In any action under this Section 2.8, the petitioning Party shall have the burden of proof.

### **2.8.4 Effect of Reopener Proceedings**

The Parties shall continue to implement this Agreement pending final resolution of any modification sought from the FERC, or until the relief sought becomes effective by operation of law, or unless otherwise agreed. At the time of petitioning the FERC under Section 2.8.1, nothing shall prevent any Party from requesting the imposition of different or modified measures or from bringing any cause of action in any appropriate forum or from taking other actions relating to any issue or matter addressed by this Agreement.

## **2.9 PROJECT MODIFICATIONS (HIGH ROSS)**

### **2.9.1 Project Modifications**

This Agreement applies to the Project excluding High Ross or any modified High Ross construction. It does not address mitigation for the effects of raising Ross Dam. In the event the City decides to consider raising Ross Dam, separate provisions will be made for additional mitigation. The Parties shall initiate discussions regarding recreation and aesthetics mitigation according to the following procedures.

### **2.9.2 Notice**

The City shall notify the Intervenor of its decision to consider raising Ross Dam at least thirty months before construction would commence.

### **2.9.3 Consultation**

At the same time, the City shall commence consultation on necessary recreation and visual quality studies and possible mitigation measures.

### **2.9.4 Resolution**

At least 180 days before construction would commence, the City shall either agree with the Intervenor on modifications to this Agreement, or remaining disputes over recreation and visual quality measures may proceed as described in Section 2.10 at the option of any Party.

### **2.9.5 Mitigation Criteria**

Mitigation for the effects on recreation and aesthetics, if any, of raising Ross Dam shall be based on criteria developed through any necessary recreation and visual quality studies that are conducted at the time that the City decides to consider raising Ross Dam.

### **2.9.6 Preservation of Rights**

Nothing in this Agreement shall preclude any Party from challenging the construction of High Ross or modified High Ross, including disputed mitigation, in any proceeding. The mitigation procedures set out in this Section are not exclusive and need not be commenced or exhausted prior to such challenges.

## **2.10 DISPUTE RESOLUTION**

### **2.10.1 Technical Level Review**

Any dispute among the Parties concerning compliance with this Settlement Agreement shall first be referred to technical representatives of the contact persons identified in Section 2.7. The technical representatives will meet as soon as possible after written notification of a dispute by any Party. A quorum for meetings of the technical representatives to discuss disputes shall consist of the City and the Party(s) having a financial, administrative, or other interest in the subject matter. Decisions of the technical representatives must be unanimous. In the event that the technical representatives cannot resolve the dispute within ninety (90) days after first meeting on said dispute, the City will give notice of such failure to all Parties. For purposes of implementation of the Memorandum of Agreement (MOA) between the City, NPS, and the North Cascades Institute under Section 3.5.2.1 (North Cascades Environmental Learning Center), the technical level review shall be conducted by the Oversight Committee created pursuant to Article III, Section 5 of the MOA, which is Appendix A to this Agreement.

### **2.10.2 Policy Level Review**

The Parties may, at their option, prior to elevating an issue to the FERC, convene an in-person or telephone conference of the policy-level representatives, identified in Section 2.7, after notice of the failure of the technical level representatives. Any Party through its designated contact (persons identified in Section 2.7 or their designated technical representative) may invoke the optional policy level review by contacting the other Parties' designated contacts and arranging a suitable conference. For purposes of decision making, a quorum shall consist of the physical or telephonic presence of all representatives who desire to participate. Decisions by unanimous consent shall bind all Parties. The policy level representatives may by unanimous consent agree to binding arbitration or mediation subject to rules as they determine appropriate. In the event that the policy representatives cannot resolve the dispute within fifteen (15) days, the matter may be taken to the next level.



### **2.10.3 FERC Review**

In the event that disputes are not resolved at the technical level review or the optional policy level review, any Party may refer the matter to the FERC for resolution pursuant to the FERC's Rules of Practice and Procedure. Should any hearings be held at this stage, they shall be held in Seattle, Portland, or elsewhere in the Pacific Northwest unless another location is agreed upon by the Parties or mandated by FERC order upon a finding of special circumstances.

### **2.10.4 Noncompliance**

Notwithstanding any other provision of this Agreement, any Party may seek relief arising solely from non-compliance with this Agreement by any Party.

## **2.11 ROSS LAKE OPERATIONS**

### **2.11.1 Refill After April 15**

The City shall fill Ross Lake as early and as full as possible after April 15 each year, subject to adequate runoff, anadromous fisheries protection flows (specified in the Skagit River Anadromous Fish Flow Plan), flood protection, minimized spill, and firm power generation needs. Subject to the above constraints and hydrologic conditions permitting, the City shall achieve full pool by July 31 each year.

### **2.11.2 Full Pool Through Labor Day**

The City shall hold Ross Lake as close to full pool as possible through Labor Day weekend, subject to adequate runoff, anadromous fisheries protection flows (specified in the Skagit River Anadromous Fish Flow Plan), flood protection, minimized spill, and firm power generation needs.

### **2.11.3 Overdraft Years**

In any overdraft year (i.e., in those years in which Ross Lake is drafted below the energy content curve (ECC), the City shall bring the Ross Lake level up to the variable energy content curve (VECC) no later than March 31, subject to adequate runoff, anadromous fisheries protection flows (specified in the Skagit River Anadromous Fish Flow Plan), flood protection, minimized spill, and firm power generation needs.

### **2.11.4 Conflict**

In the event of conflict between the provisions of this section and the Skagit River Anadromous Fish Flow Plan, the provisions of the Skagit River Anadromous Fish Flow Plan shall prevail.



## 3.0 SKAGIT PROJECT RECREATION PLAN

### 3.1 INTRODUCTION

Seattle City Light, in full coordination with the Intervenor and other interested parties, has developed a recreation plan for the Skagit Project over the term of the new FERC license. This section is the agreed upon recreation plan for the new license period and may be referred to separately as the Skagit Project Recreation Plan. The City and the Intervenor consider this recreation plan to be a logical outcome of a recreation planning process reflecting the inventory, needs, opportunities, constraints, and objectives relative to recreation use in the Project area. The mix of elements finally included in the plan is a reasonable response to the identified needs within the evaluation area and is consistent with the criteria and the City's financial and managerial resources.

The process used by the City and the Intervenor to develop the plan is briefly summarized in Section 3.1.1 below. The criteria developed by the City and the Intervenor in response to identified needs within the Project's recreation evaluation area are listed in Section 3.1.2. The City and the Intervenor applied these criteria to potential plan elements.

The overall implementation procedures—development schedule, budgets, funding, and implementation responsibilities—for the Skagit Project Recreation Plan are set forth in Section 3.2. The recreation plan elements are divided into three categories: continuing measures, mitigation measures, and enhancement measures; the elements are listed and discussed in that order in Sections 3.3, 3.4, and 3.5. The discussion of each measure includes, where appropriate, detailed descriptions, conceptual site plans, and implementation procedures. Estimates of future use of the proposed facilities are included in Section 3.6.

#### 3.1.1 Recreation Planning Process

The Skagit Project Recreation Plan was developed through a standard planning process. Major steps in this process included a comprehensive inventory of existing recreation resources and use (SCL, 1989, Section 2), a detailed assessment of recreation needs in the study area (SCL, 1991a), and identification of opportunities for and constraints on recreation development (*id.*). The City also undertook studies to determine the specific effects of Project operations (Ross Lake levels and downstream flows) on recreation activities. A map of the general area included in these studies is included as Figure 3-1. The information from these studies provided the basis for establishing objectives by the City and the Intervenor, which led to selection of specific action proposals for inclusion in the recreation plan.

The City presented an initial recreation plan proposal to the Intervenor on March 12, 1990, including evaluation criteria. Subsequent review and negotiation resulted in agreement on a conceptual recreation plan that was included in the Preliminary Agreement dated September 19, 1990 addressing all resource areas. Further negotiations refined the specifications for each plan element, including implementation procedures and the City's financial obligations. Following

agreement between the City and the Intervenor on the elements in the recreation plan, the City developed supporting documentation in the form of maps, drawings, cost estimates, and description of implementation provisions.

### 3.1.2 Recreation Plan Evaluation Criteria

In order to maintain consistency in the development of recreation plan elements, the City prepared evaluation criteria. These evaluation criteria were used in conjunction with the information provided by the recreation needs assessment, supporting data developed through the recreation studies, and the expressed desires of the Intervenor. The City also recognized that the various Intervenor have different interests and that it would be necessary to deviate from a strict adherence to the study conclusions and the evaluation criteria in order to reach an agreed-upon plan. Nevertheless, the City used the studies and the following criteria to confirm the need for each included item (program, facility or funding element):

- 1) Potential actions were classified as mitigative or enhancement measures, and higher overall priority was assigned to mitigative measures.
- 2) Each measure must be related to specifically identified Project impacts. No mitigative or enhancement measures will be undertaken in locations that are not reasonably calculated to address effects created by the Project or to meet needs created or displaced by the Project. Highest priority was given to measures that address needs that occur at, or immediately adjacent to, Project facilities and lower priority to needs that are indirectly generated by the Project but clearly related to it.
- 3) Each measure must not create more problems than it solves. No measures will be undertaken that decrease the safety of City employees or the public, or that create greater financial cost or environmental harm or risk of harm than the benefits warrant.
- 4) Each measure must be largely consistent with and responsive to relevant land management plans, such as the NPS's General Management Plan for the North Cascades National Park Service Complex and formally stated recreation management policy and development objectives. Key guidance for the Ross Lake National Recreation Area (RLNRA), the most significant jurisdiction with respect to the Project, can be summarized as promoting interpretive and recreation opportunities for the majority of visitors who do not travel beyond the State Route 20 (SR 20) corridor so that they may become participants rather than just passive observers, while preserving the integrity of the natural resources in the area.
- 5) Measures were evaluated for effectiveness and efficiency in meeting the objectives developed in the recreation issue forum (e.g., the expansion of opportunities measured in numbers of affected users where possible, the qualitative degree of improvement, and the cost of the action).
- 6) The relationship of the action to the same or similar opportunities at the site or in the immediate vicinity was assessed with the intent to favor actions where few or no

opportunities are currently provided over actions that would represent marginal improvements to opportunities already present.

- 7) The degree to which the proposed action would help to alleviate user group or resource conflicts in a specific area was weighed.

As a result of the foregoing considerations, the recreation plan for the Skagit Project provides for the continuation and improvement of existing City recreation services and facilities; addresses the area's needs for mitigation, rehabilitation of existing sites, and new development; and provides a flexible framework for addressing needs over a long-term planning horizon. These objectives are met by incorporating a mixture of short-term (first ten years) development actions, more detailed planning for specific issues areas, and long-term funding (through license term) to cover future needs as they arise.

## 3.2 PLAN IMPLEMENTATION

### 3.2.1 Development Schedule

The City worked closely with the Intervenor to develop a schedule for implementation of all of the recreation plan elements. The scheduling of each item was based on the following considerations.

- How immediate is the need for the action or facility (based on needs assessment)?
- In what timeframe can the City and the Intervenor realistically undertake the specific items in light of: (1) the utility's cash flow (funding) abilities, and (2) all parties' abilities to effectively participate in numerous site developments?
- Equitable allocation of early funding amongst the benefitting Intervenor.

Applying the foregoing criteria, the City and the Intervenor have agreed upon a schedule for implementation of the recreation plan components. Table 3-1 below establishes the recreation plan implementation scheduling. All of the facility rehabilitation and defined new construction actions are scheduled to be completed or initiated during the first ten years of the license term. Future capital implementation of needs assessments will extend over the entire license term.

All parties will use their best efforts to adhere to that schedule. The Parties may reschedule or extend implementation of individual items of the recreation plan as follows. Projects covered by the two stage alternative process of Section 3.2.2 may be postponed twice, one year on each occasion, at the sole discretion of the implementing agency. Projects to be developed by the City may be delayed by the mutual agreement of the City and the affected agency Intervenor after consultation with the non-agency Intervenor.

Table 3-1. Recreation Plan Element implementation Schedule and Responsibilities

PLAN ELEMENT	Pre- License	Year of new license—commencing with City acceptance											
	1991- 1992	1	2	3	4	5	6	7	8	9	10	11- 20	21- 30
<b>A. Continuing Measures by Seattle City Light</b>													
- Skagit Tours	x	x	x	x	x	x	x	x	x	x	x	x	x
- Diablo Lake Ferry Service	x	x	x	x	x	x	x	x	x	x	x	x	x
- Newhalem Visitor Contact Station	x	x	x	x	x	x	x	x	x	x	x	x	x
- Picnic Facilities	x	x	x	x	x	x	x	x	x	x	x	x	x
- Trail of the Cedars, Ladder Cr. Trail	x	x	x	x	x	x	x	x	x	x	x	x	x
- SEEC Contributions	x	x	x	x	x	x	x	x	x	x	x	x	x
- Colonial Creek Electric Supply Cable	x	x	x	x	x	x	x	x	x	x	x	x	x
<b>B. Mitigative Measures</b>													
- Hozomeen Boat Ramp (Ross Lake)				N			C						
- Ross Lake Campground Boat Docks		x	x	x	x	x	x	x					
- Gorge Lake Boat Ramp						N			C				
- Colonial Creek Boat Ramp						N			C				
<b>C. Enhancement Measures</b>													
<b>1. Rehabilitation of Existing Facilities</b>													
- Newhalem Visitor Contact Station						x	x	x					
- Goodell Creek Boat Access Site				N			C						
- Damnation Creek Boat-in Picnic Site						N			C				
- Marblemount Boat Access Site						C							
- Hozomeen Water Distribution System			F										
To be determined by NPS and SEEC project scheduling.													
<b>2. New Facilities</b>													
- North Cascades Envt Learning Center													
Preferred Site Purchase	x†												
Facility Development		x	x	x	x								
Maintenance					x	x	x	x	x	x	x	x	x
Program Support and Endowment		x	x	x	x	x	x	x	x	x	x		
- Gorge Overlook			N			C							
- Thunder Lake Fishing Facility					N			C					
- Thunder Knob Trail						N			C				
- Happy Flats—Parther Creek Trail							N			C			
- Desolation—Hozomeen Trail							N				C		
- Black Peak Overlook												C	
- Rocky Creek River Access Site							F			C			
- Steelhead Park Trail						F							
- Lower Sauk River Boat Access Site				F			C						
- Suiattle River Boat Access Site					F				C				

Table 3-1. (Continued)

PLAN ELEMENT	Pre-	Year of new license —commencing with											
	License	City acceptance											
	1991- 1992	1	2	3	4	5	6	7	8	9	10	11- 20	21- 30
<b>3. Ongoing and Future Funding</b>													
- Interpretation and Signing		x					x					x	x
- Bicycle Planning and Implementation		x	x	x	x								
- Recreation Needs Assessments						x					x	x	x
- Future Capital Facility Funding							x	x				x	x
- Operation and Maintenance Funding		x	x	x	x	x	x	x	x	x	x	x	x
- Intervenor Coordination		x	x	x	x	x	x	x	x	x	x	x	x

KEY: x = year of City obligation to undertake action or expend funds  
 N = first year of National Park Service option to be lead agency on project  
 F = first year of U.S. Forest Service option to be lead agency on project  
 C = year City commences implementation if agency does not

NOTES: x\* = Environmental Learning Center maintenance will commence year following facility completion, planned for year 3.  
 x† = Environmental Learning Center preferred site purchase is contingent on a purchase and sale agreement acceptable to both City and current owner.



The agencies may reschedule individual projects within or amongst themselves to accommodate development timing needs, so long as the City's overall obligations regarding timing of expenditures under this plan are not altered. The City's obligation to adjust payments for inflation (Section 2.5.1) shall not be affected by such scheduling adjustments.

### **3.2.2 Development Responsibilities**

The Parties agree that it is in the public interest for the land management agency Intervenor to take the lead in the development of projects within their respective jurisdictions. Lead management responsibilities include planning (beyond what has been done for this plan), site acquisition (if necessary and desired), permitting, design, site preparation, materials, labor, contracting, construction, operation and maintenance, and all other overhead and administrative costs. Further, the agencies have the best expertise to develop recreational facilities in the Project area, including retention of title to lands outside the Project boundary necessary for facility operation and maintenance. Therefore, the public interest will be served by providing for development of non-City owned projects by the appropriate land management agency that will have lead management jurisdiction and ongoing responsibility for operation and maintenance. As a FERC license requirement, the City is responsible for the implementation of each element of the recreation plan. Therefore, each appropriate plan element is subject to a two stage, alternative development process. The first stage is implementation by the agencies; the second stage is implementation by the City in the event that the appropriate agency cannot do so in the specified time period. The elements included in this two stage process are most of the discrete projects that will not be owned by the City after completion and are indicated on Table 3-3, on page 21.

#### **3.2.2.1 Agency Lead**

The appropriate agency, either NPS or United States Forest Service (USFS), will take the lead role in the implementation of the individual projects as scheduled. If the agency is not able to proceed with the project as scheduled, it may notify the City of the need to reschedule the project to the next year. The Agency may reschedule a project no more than twice.

The agencies will also take the lead in the implementation of the future capital facility funding (Section 3.2.3.3), including acquisition and retention of title to lands outside the Project boundary necessary for facility operation and maintenance.

#### **3.2.2.2 City Lead**

The City will take the lead in project development if the agency is unable to commence implementation in the third year (after the second rescheduling). The City will commence implementation in the following year, using the funds identified in this Agreement.

### **3.2.3 Budget and Cost Estimates**

The budget for the recreation plan is in Table 3-2, on the two following pages. There are four categories of costs in this budget table: City continuing measures, capped capital projects, estimated capital projects, and periodic items.



## Settlement Agreement on Recreation and Aesthetics

Table 3-2. Recreation Plan Cost Estimates and Budget Schedule

PLAN ELEMENT	YEAR OF NEW LICENSE PERIOD (figures in 1992 dollars)										TOTAL COST		Notes	
	1	2	3	4	5	6	7	8	9	10	11-20	21-30		
A. Continuing Measures by Seattle City Light														
• Skagit Tours	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	500,000	550,000	1,450,000	a
• Ducho Lake Ferry Service													55,000	b
• Northham Visitor Contact Station														
• Picnic Facilities														
• Trail of the Cedars, Ladder C, Trail														
• SEEC Contributions	20,000	20,000									100,000	200,000	600,000	c
• Colonial Creek Electric Supply Cable													20,000	d
SUBTOTAL														
B. Mitigation Measures														
• Hostmaster Boat Ramp (Roe Lake)	10,000		140,000										150,000	e
• Rose Lake Campground Boat Docks	11,333	51,333	41,067	41,067	41,067	41,067	41,067						308,000	f
• George Lake Boat Ramp	5,000				120,000								125,000	g
• Colonial Creek Boat Ramp	15,333	51,333	181,067	41,067	311,067	41,067	41,067						733,000	h
SUBTOTAL														
C. Enhance visitor Measures														
1. Rehabilitation Actions														
• Newham Visitor Contact Station	10,000		55,000		18,667	18,667	18,667						50,000	i
• Goodall Creek Run Access Site					25,000								65,000	j
• Darnation Creek Boat-in Picnic Site		165,000											165,000	k
• Marblemount Boat Access Site						50,000							50,000	l
• Horcomen Water Distribution System					41,067	66,667	16,667						124,401	m
SUBTOTAL														
C. Enhancement Measures (continued)														
2. New Facilities/Land Use Center														
• Spread assume operation (start year 3)	360,000	50,000	1,300,000	400,000	4,000	4,000	8,000	6,000	6,000	6,000	90,000	90,000	350,000	n
• Furnished Site Purchase/Expenses	20,000	800,000	100,000	100,000	6,000	26,667	26,667	26,667	26,667	26,667	186,071	186,071	1,000,000	o
• Startup/Temporary Facilities	175,000		6,000	6,000	28,667	10,519	10,519	10,519	10,519	10,519	185,185	185,185	566,000	p
• Site Development, including contingency			100,000	100,000	4,000	4,000	8,000	6,000	6,000	6,000	90,000	90,000	350,000	q
• Furnishings			6,000	6,000	28,667	10,519	10,519	10,519	10,519	10,519	185,185	185,185	566,000	r
• Electricity			28,667	28,667	10,519	10,519	10,519	10,519	10,519	10,519	185,185	185,185	566,000	s
• Vehicles			120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	200,000	200,000	4,150,000	t
• Maintenance	45,000	45,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	200,000	200,000	4,150,000	u
• Program Support and Endowment	45,000	45,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	200,000	200,000	4,150,000	v
SUBTOTAL														

Table 3-2 (cont.)

PLAN ELEMENT	YEAR OR NEW LICENSE PERIOD (figures in 1990 dollars)										TOTAL COST	Per License (Each Year)	NOTES
	1	2	3	4	5	6	7	8	9	10			
C. Enhancement Measures (cont.)													
2. New Facilities/Other Enhancements													
• George Creek Overlook		175,000											175,000
• Thunder Lake Fishing Facility				200,000									200,000
• Thunder Knob Trail					210,000								210,000
• Happy Falls—Parmer Creek Trail		15,000				140,000							155,000
• Desolation—Horseshoe Trail							275,000						275,000
• Black Peak Overlook						250,000							250,000
• Rocky Creek River Access Site							250,000						250,000
• Steelhead Park Trail					125,000								125,000
• Lower Stalk River Boat Access Site			250,000										250,000
• Suttle River Boat Access Site					225,000								225,000
SUBTOTAL		150,000	250,000	200,000	560,000	380,000	525,000						2,115,000
C. Enhancement Measures (cont.)													
3. Operation and Funding													
• Interpretation and Signing, RLNRA	25,000					25,000					50,000	50,000	150,000
• Interpretation and Signing, Shaghi W/ASR	65,000					25,000					50,000	50,000	190,000
• Interpretation and Signing, Shaghi W/ASR	3,000					3,000					30,000	30,000	90,000
• Bicycle Planning and Implementation	6,000												
• Recreation Needs Assessments													
• Future Capital Facility Funding, RLNRA													
• Future Cap. Fac. Funding, outside RLNRA	60,000	60,000	60,000	60,000	60,000	282,500	60,000	60,000	60,000	60,000	60,000	125,000	312,500
• Operation and Maintenance Funding, NPS	15,000	15,000	15,000	15,000	15,000	60,000	15,000	15,000	15,000	15,000	15,000	175,000	752,500
• Operation and Maintenance Funding, USFS	170,000	98,500	105,000	105,000	105,000	545,000	78,000	78,000	78,000	78,000	105,000	225,000	550,000
SUBTOTAL	840,500	1,370,500	2,321,674	995,192	1,191,850	1,154,850	411,859	226,126	226,126	3,554,126	1,998,257	1,941,257	16,656,000
RECREATION PLAN TOTAL													144,500

- Notes:**
- Budget amounts for continuing measures are estimates.
  - The City's goal is to make the town self-sufficient; however, in recent years, an annual subsidy of about \$30,000 has been necessary.
  - The City's contributions to the SEEC are required by an agreement between it and the Province of British Columbia, ratified by treaty between the U.S. and Canada. This obligation is not directly affected by the plan; the new license will carry the obligation forward.
  - Amount is estimate of replacement cost in the event of total loss; it's service life is difficult to estimate.
  - Amount is capped; the City's obligation is limited to the listed amount or the lesser amount provided for in Section 3.2 and Table 3-3 of the Recreation Plan. Four NPS projects have an "a," which indicates that money is allocated in years one and two for planning. The "a" project (Horseshoe Water Supply) will be funded when the NPS is ready to proceed.
  - Amount is estimate; the City's obligation is to construct facility (or undertake action) as described in Recreation Plan and MOA.
  - Site purchase may occur prior to anticipated license issuance date.
  - Amount is estimate; actual capped amount will be determined during design phase.
  - \$10,000 per year for the first ten years is capped amount for insurance and operating expenses. Remainder is capitalization of vehicles (including maintenance) and is an estimated amount.
  - Total amount is capped. Annual amount is determined based on completion date of facility. Total is divided equally into years remaining in license (MOA, Article IV, Section 3).
  - \$20,000 per year of the listed amount total \$800,000 is allocated to the Project Vehicle Plan and is included in the annual payment amounts but is not included in the total.
  - Funding is scheduled for years 1, 5, 11, 16, 21, and 26.
  - Applies to all Shaghi Project reforestation areas, and includes a visual survey of City, intervenors, and other interested parties.
  - Study money (\$25,000) will be spent in years 1 and 2; implementation money will be spent over next five years, with specific schedule to be determined at the end of the study.
  - Funding is scheduled in the increments, with the studies to be done in years 3, 10, 15, 20, and 25, and the capital implementation immediately after each increment.
  - Funding is scheduled annually.

### 3.2.3.1 City Internal Cost Estimates

The City will continue to provide the facilities and services described in Section 3.3 of this Agreement, and indicated as part A of Tables 3-1 and 3-2. The estimated costs of providing these services and facilities are listed in Table 3-2; these amounts are estimates of the cost to the City to meet the listed obligation. For example, the cost of the Skagit Tours in the table assumes a gradually increasing amount will be needed to make up for insufficient revenues; the City plans to reduce or eliminate these subsidies through improved tour operations. The City's obligation for these measures is to meet the specified obligation, not to spend a particular amount of money. These amounts are not transferrable and cannot be reprogrammed to other budget categories.

### 3.2.3.2 Capped Capital Projects

These amounts are definite monetary commitments by the City to fund all or part of specific recreation facilities and include all items in Parts B and C(2) of Table 3-2, except for learning center items. The capped amounts were set by the City and the Intervenor based on estimates of the cost of fully implementing each project, including further planning, site acquisition (if necessary), permitting, design, site preparation, materials, labor, contracting, construction, operation and maintenance, and all other overhead and administrative costs. The amounts listed in Table 3-2 include a premium for full implementation by the agencies under Section 3.5.2; the lower amount which is the City's obligation should the City be the lead implementation agency is indicated separately on Table 3-3. Should the capped amount be insufficient to complete the project as described in this plan, the City will consult with the Intervenor either to reduce the scope of the project, obtain contributory funding from the benefiting agency, or reprogram other funds in this plan (such as operations and maintenance funds) to complete the project. When the agencies implement particular projects, they may in order to facilitate completion of the project as described in this plan with the City's approval reprogram monies between plan elements, so long as the overall effect is no substantial change in the proportions and scheduling set forth in this plan. Such programmatic shifts affecting more than one agency Intervenor must be agreed to by each agency.

### 3.2.3.3 Estimated Capital Projects

These amounts are estimates only and do not obligate the City to spend that amount; the City's obligation is to construct or rehabilitate a facility as defined in this Agreement or a similar facility should substitution be necessary, not to spend a specific amount of money. This category is indicated by an "f" on Table 3-2.

### 3.2.3.4 Periodic Items—Operation and Maintenance, Studies, and Future Capital Projects

These amounts are fixed monetary commitments by the City to conduct and implement studies, and to contribute toward recreation facility operation and maintenance in the Project area. The City's financial obligations are limited to the indicated amounts. These items are listed in part C(3) of Table 3-2.

**Table 3-3. Cost differentials for agency and city implementation.**

Plan Element	Amount if agency takes lead	Amount if City takes lead
<b>National Park Service projects</b>		
Hozomeen Boat Ramp	\$150,000	\$125,000
Gorge Ramp	\$150,000	\$135,000
Colonial Ramp	\$125,000	\$115,000
Goodell Access Site	\$65,000	\$45,000
Damnation Site	\$25,000	\$15,000
<b>Forest Service projects</b>		
Thunder Lake Handicap	\$200,000	\$180,000
Thunder Knob Trail	\$210,000	\$205,000
Ross-Panther Trail	\$155,000	\$120,000
Desolation-Hozomeen Trail	\$275,000	\$265,000
Gorge Creek Overlook	\$175,000	\$150,000
<b>Forest Service projects</b>		
Marblemount Access Site	\$165,000	\$110,000
Rocky Creek Site	\$250,000	\$190,000
Steelhead Park	\$125,000	\$95,000
Lower Sauk Access Site	\$250,000	\$220,000
Suiattle Access Site	\$225,000	\$150,000

### 3.2.3.5 Adjustments Between Types of Projects

The agencies, after consultation with the City and other interested Intervenor, may adjust the allocation of monies between the various types of plan elements over time in order to ensure the timely, efficient completion of specific projects. Such reallocations may not affect the City's obligations to undertake projects on its own without the City's prior approval.

### 3.2.3.6 Basis of Cost Estimates

Input for the estimating process was obtained from a variety of sources. Costs for continued operation of existing City recreation measures are based on internal City data and operating experience. Funding levels for the ongoing and future items in the recreation plan have generally been based on negotiation with the Intervenor, rather than direct estimation of specific future requirements. Many of the facility rehabilitation and new construction actions are based on existing agency proposals for which the agencies had developed prior internal cost estimates. The City and its consultants reviewed and refined these agency figures in preparing a set of cost estimates for the proposed recreation plan to ensure that the cost estimates correspond with the specific design program for each recreation plan element and to determine an appropriate amount for those capital projects that are capped. Standard cost estimating manuals, primarily from the



NPS (1988c) and R.S. Means (1989), were used for pricing data. Details of the cost estimates for specific facilities are included as Appendix C.

### **3.2.4 Implementation Procedures**

#### **3.2.4.1 Capped Capital Projects**

For capped capital projects, subject to the scheduling limitations set forth in Section 3.2.2, the City is obligated to fund the project upon written notification that the project is ready to be started, which notice must include a draft scope of work (or request for proposals if appropriate), detailed cost estimate and implementation schedule, design specifications, environmental permitting and compliance plans, and other material indicating preparation for implementation. The City's payments to the agency will be made based on the schedule submitted by the agency and agreed to by the City, subject to the provisions of Section 2.5.2. For projects where the Forest Service is the lead agency, the City will enter into a collection agreement as provided for in Forest Service laws and regulations, including Forest Service Manual § 1584. Should a specific project cost less than the amount of the City's payment, the agency may spend the excess funds on Project area recreation facilities capital improvement, operation and maintenance, or the North Cascades Environmental Learning Center (NCELC) with the concurrence of the City and in consultation with other interested Parties. The implementing agency shall make annual reports to the City on the progress of project implementation, the details of expenditures, and plans for future implementation.

#### **3.2.4.2 Non-Capped (Estimated) Capital Projects**

For non-capped capital projects, the City shall be fully responsible for their implementation. The City may, at its option, contract out all or part of the work for each project.

#### **3.2.4.3 Interpretive Facilities**

The NPS and USFS shall each prepare a draft scope of work consistent with the implementing agency's interpretive facility/publication plan for the City's consideration for each year that a fund is available, as indicated in Section 3.5.3.1 and Table 3-2. The agencies' proposals should be submitted to the City pursuant to a written schedule designed to allow time for negotiation of final scopes of work and memoranda of agreement within the City's annual budget cycle. If the agencies submit the necessary documentation immediately upon license issuance, the City may be able to fund the agencies' projects in that year upon acceptance of the license. Failure by either agency to submit a proposal on the schedule required by the City may cause that agency's portion of the funding cycle to be delayed without further indexing (Section 2.5.1) under this Agreement.

If either agency is not able to enter into a memorandum of agreement with the City for all or part of the funding due in any particular year, the agency may request that the City retain outside contractors. The scope of work for such third party contracts shall be agreed upon by the City and the agency prior to the issuance of a Request for Proposals (RFP).

The negotiation of scopes of work for spending of interpretive facility funds shall be subject to the following criteria:

- All amounts indicated shall be spent; if the City and benefitting agency(s) cannot agree on a scope of work covering the amount allocated to any year, the unspent amount(s) shall be carried forward to the next year. In the event of failure to agree on a scope of work or memorandum of agreement for the expenditure of funds a second time, the dispute resolution provisions of this Agreement may be invoked. The City and the benefitting agency may agree to reallocate the funds in question to another function.

#### 3.2.4.4 Recreation Needs Assessments

A scope of work for the bicycle facility needs assessment shall be developed by the City in cooperation with the interested Intervenor. It is expected that the geographical scope of these assessments may be greater than that for the studies conducted during the current relicensing proceedings, leading up to the 1989 report (SCL, 1989), and the RFP will include a call for consideration of the proper geographic scope of the study. The RFP shall be issued no later than the second year of the new Project license. No more than \$50,000 will be spent on the needs assessment.

The City shall implement the periodic recreation needs assessments. The City shall consult with the appropriate Intervenor prior to finalizing scopes of work and issuing a request for proposals for this work. The geographical scope of these assessments shall be similar to that for the studies conducted during the current relicensing proceedings, leading up to the 1989 report (SCL, 1989). The Parties intend that each needs assessment be completed within one year of the commencement of the license year for which funding is provided under this plan.

#### 3.2.4.5 Future Capital Facilities

The City and the USFS shall enter into negotiations to develop a memorandum of agreement to implement the capital facilities portion of the bicycle facilities needs assessment within one year after the publication of the final report of the needs assessment. The USFS may be the implementing party for all or part of the recommendations of the bicycle facility needs assessment. If the USFS is not able to enter into a memorandum of agreement with the City for construction of capital facilities for all of the funds, the City may retain outside contractors.

For the capital facilities implementation of the main needs assessments, the NPS and USFS shall each prepare a draft scope of work for the City's consideration after each periodic needs assessment is completed. The agencies' proposals should be submitted to the City on a schedule designed to allow time for negotiation of a final scope of work and memorandum of agreement within the City's annual budget cycle. Failure by either agency to submit a proposal on the schedule given to it in writing by the City may cause that agency's portion of the funding cycle to be delayed without further indexing under this Agreement.

If the agency is not able to enter into a memorandum of agreement with the City for a particular year's fund or portion of one year's fund, the agency may request that the City retain outside



contractors. The scope of work for such third party contracts shall be agreed upon by the City and the agency prior to the issuance of a request for proposals by the City.

The negotiation of scopes of work for spending of these future capital facility funds shall be subject to the following criteria:

- All amounts indicated will be spent; if the City and benefiting agency(s) cannot agree on a scope of work covering the amount allocated to any year, the unspent amount(s) shall be carried forward to the next year. In the event of failure to agree on a scope of work or memorandum of agreement for the expenditure of funds a second time, the dispute resolution provisions of this Agreement may be invoked. The City and the benefiting agency may agree to reallocate the funds in question to another function.
- New project selection shall be based on the assessments.
- Each project shall be fully implemented by the constructing agency.

#### 3.2.4.6 Operation and Maintenance

The City shall implement the operation and maintenance funding provisions of this Agreement—Section 3.5.3.5—by transferring the specified funds to the respective land management agencies upon receiving a request from the agencies specifying the projects on which moneys will be spent. The land management agencies shall fully implement the specific operation and maintenance projects within their respective jurisdictions.

#### 3.2.4.7 Compliance with Law

All projects funded under this recreation plan shall comply with applicable environmental protection laws and regulations.

#### 3.2.5 Site Substitutions

The Parties to this Agreement adopting this recreation plan recognize that a number of the proposed recreation facility development sites may not be available. In the event that the City or the benefiting agency is unable to proceed with a project for any reason, the City and the agency will make a good faith effort to locate an alternate site for the facility, using the same criteria used to develop this Agreement. Should agreement on a substitute be impossible, the City and the benefiting agency may agree on a reallocation of funds equivalent to the estimated cost of the development or the budgeted amount for capped projects.

### 3.3 PLAN ELEMENTS—CONTINUING MEASURES

The City is currently providing some of the area's existing recreation benefits and opportunities through programs that directly affect recreation activities in the project area. These actions are summarized in the Report on Recreation Resources (SCL, 1991a). The City shall continue to operate these facilities and services, as follows.

### **3.3.1 Skagit Tours**

The guided tours of the Ross and Diablo hydroelectric facilities shall continue. The existing tour boat may be replaced with a more modern vessel or vessels in order to expand tour capacity, and after consultation with the appropriate Intervenor. The City recognizes the NPS concerns regarding the potential impacts of a significantly larger vessel on Diablo Lake. Interpretive material and programs for the tours will be developed in consultation with the Intervenor.

### **3.3.2 Skagit Environmental Endowment Contributions**

The City will continue to contribute to this international environmental fund. The City's obligation to make payments to the Skagit Environmental Endowment is governed by an agreement between the City and the Province of British Columbia, ratified by a treaty between the federal governments of the United States and Canada. The U.S.-Canada treaty is not affected by the current Project relicensing proceedings.

### **3.3.3 Diablo Lake Tugboat/Ferry Service**

The City will continue to operate the tugboat/ferry service on Diablo Lake, providing recreationists access from Diablo dam to Ross dam. Seasonal and daily operating schedules shall remain at current levels, as long as demand warrants.

### **3.3.4 Newhalem Visitor Contact Station**

The City, in consultation with the Intervenor, will continue to operate a visitor contact station in Newhalem. The existing building for this facility will probably not be serviceable through the entire new license period; the City will replace or rehabilitate the current facility as necessary (see Section 3.4.1). Interpretive materials will be developed in consultation with the Intervenor.

### **3.3.5 Picnic Facilities**

The City shall continue to maintain picnic facilities available for public use in Newhalem and Diablo.

### **3.3.6 Ladder Creek Falls Trail**

The City shall continue to maintain the Ladder Creek Falls trail near the Gorge powerhouse. More detail on this action is found in the Historic Resources Management Plan. Signs and support facilities for these trails shall be improved through the landscaping plans for Newhalem, which are presented in the visual quality mitigation plan, Section 4.0.

### **3.3.7 Colonial Creek Campground Electric Supply Cable**

The City currently owns and operates an underwater electric supply cable for the NPS campground at Colonial Creek on Diablo Lake. The present agreement between the City and the NPS provides

for NPS payment into a sinking fund for replacement of the cable in the eventuality of its failure. The City agrees to permit the current agreement to lapse at its expiration and to not request further monetary contributions for eventual replacement of the cable. Should the new Project license be issued and accepted prior to the expiration of the term of the sinking fund agreement, the City agrees to termination of the agreement as of the date of license acceptance with a final prorated payment to be calculated as of that date. The City shall repair or replace the cable through the new license period. The NPS shall remain responsible for the cost of the electricity supplied through the cable.

### **3.4 PLAN ELEMENTS—MITIGATIVE MEASURES**

Project operations require that water levels of all three reservoirs fluctuate in elevation on daily or annual cycles. The changes in water elevation can be a problem for boaters, who depend on the existing boat ramps to launch and retrieve their boats. Mitigative measures identified through assessment of Project effects involve improving the utility of boat ramps and other boating facilities on the three reservoirs to offset the effects of water level fluctuations.

The schedule, budget, including the City's funding obligations, and other implementation procedures for each measure are described in Section 3.2 and Tables 3-1, 3-2, and 3-3. The NPS or the USFS shall take the initial lead in implementation of the individual measures in this section under the procedures set out in Section 3.2.2.

Specific measures that the City shall fund or undertake are the replacement or modification of the following facilities:

#### **3.4.1 Hozomeen Boat Ramp (Ross Lake)**

The utility of the boat ramps at Hozomeen is diminished by the annual operating pattern of the Ross Lake reservoir. The water elevation of Ross Lake can be drawn down as much as 125 feet in late winter or early spring, and the target refill date is July 31. At the main camping area, launching boats on the upper Hozomeen ramp becomes impossible at lake elevations between 1,589 feet and 1,585 feet. The lower Hozomeen ramp is usable to about lake elevation 1,581 feet. Figure 3-2 is a map of the Hozomeen area indicating these and other recreation facilities in the area.

In some years, the lake is below Hozomeen access facilities' operable levels when significant boating activity begins in June. The City shall fund modification of boat access facilities by the NPS at Hozomeen to provide adequate access to Ross Lake by around June 15 of most years, when the lake elevation is expected to be about 1,575 feet. Improved access shall be accomplished by increasing the operating range of the lower Hozomeen ramp. The existing ramp will be lengthened to extend the minimum operable condition to an elevation of 1,570 to 1,575 feet, depending upon economic and engineering feasibility results. Studies shall be undertaken at this site to determine precise ramp and lake bottom modification needs. The location of the proposed action is indicated in Figure 3-2.

Use by the NPS of City facilities and equipment at the Project for construction or other assistance is not included but may be arranged by mutual agreement between the NPS and the City.

Construction must be timed around lake levels. The City is not obligated to modify lake levels to accommodate this measure. The City shall fund this element up to a capped amount of \$150,000 subject to the provisions of Section 3.2, with \$10,000 available for advance project planning in license year 1.

### **3.4.2 Ross Lake Campground Boat Docks**

Water level fluctuations at Ross Lake limit the use of the boat docks serving the Hozomeen campground and boat-in campgrounds on Ross Lake. Selected docks along Ross Lake shall be modified or replaced by the NPS. When completed, all affected docks shall be modified or built to standards to be agreed upon by the City and NPS in the planning phase. This action shall occur at boat-in camps that currently have wooden docks (McMillan, May Creek, and Devils Junction) and at camps that have metal docks with the greatest need for improved operating range (Big Beaver, Spencer, Cougar Island, and Hozomeen). Locations of these docks are indicated in Figure 3-3.

Use by the NPS of City facilities and equipment at the Project for construction or other assistance is not included but may be arranged by mutual agreement between the NPS and the City.

Construction must be timed around lake levels. The City is not obligated to modify lake levels to accommodate this measure. The City will fund this element up to a capped amount of \$308,000, subject to the provisions of Section 3.2.

### **3.4.3 Gorge Lake Boat Ramp**

The Gorge Lake recreation site currently accommodates boat launching, camping, and picnicking. The existing concrete-plank boat ramp is in poor condition and needs to be replaced. The small lake channel and basin that provide water access to the launching area form a bottleneck, collecting sediment from other portions of the lake. When the lake level drops, the channel is often impassable by boat. Concurrently, however, the sandbar forming the opposite edge of the basin and channel serves as a valuable windbreak, which is why boats continue to launch off this ramp. Because dam operations can cause the water level of Gorge Lake to fluctuate by several feet in only a few hours, boaters will sometimes find themselves stranded in the lake, unable to get back to the ramp through the channel.

Use of this site as a boat launch for motor boats is proposed to continue. This site is the only public boat launch on Gorge Lake.

A schematic plan for the Gorge Lake site is included as Figure 3-4 but is subject to revision after a more thorough site investigation. Program elements consist of the following:

- a new concrete ramp;
- near-term dredging of the basin and channel;
- trailer parking; and
- improved maneuvering area at top of ramp.



The City shall fund this element up to a capped amount of \$150,000, subject to the provisions of Section 3.2. The NPS shall build the new ramp to a sufficiently low elevation to ensure usable launch conditions under normal operations at Gorge Dam. Regardless of ramp specifications, dredging and widening the channel to the turning basin at the ramp are necessary to provide access to the ramp under normal power operations. Initial dredging shall be included in the initial site development specifications. Since dredging may have to be repeated every few years to maintain navigability, it may, at NPS option, be funded through the City's funding of future operation and maintenance of recreation facilities described in Section 3.5.3.

Parking and circulation are currently limited at the Gorge Lake boat launch. As indicated in Figure 3-4, additional parking space for vehicles with boat trailers shall be constructed, and the vehicle turning area at the top of the ramp shall be expanded to provide maneuvering area that is at least 80 feet wide. Parking will be for four to five cars with trailers. These changes will require removal of one of the six existing informal campsites at the site.

Portions of the work contemplated in this measure may require a drawdown of the Gorge reservoir. The NPS will coordinate with the City to schedule the least disruptive time for the work. The City retains the right to defer necessary drawdowns until it is required for other Project maintenance activities.

#### **3.4.4 Colonial Creek Boat Ramp**

The City has also consulted with the NPS to determine the best mitigative measure to address similar problems at the Colonial Creek boat ramp on Diablo Lake. The City's consultants investigated the hydrologic and geomorphologic conditions at Colonial Creek to assess the sedimentation component of the problem. The report of this investigation is included as Appendix D. As a result of this evaluation, the City and NPS have agreed that dredging of the existing site will be the selected option for the new license period unless and until changed circumstances warrant consideration of a new site.

The NPS shall work with the existing site to improve access to Diablo Lake. A schematic plan for the Colonial Creek site is included as Figure 3-5. The NPS shall develop a more detailed site plan incorporating all or some of the following specific actions:

- periodically dredge the entry channel to the boat ramp;
- periodically excavate sediment with a backhoe during low-water conditions; and
- excavate near the toe of the present ramp and install a prefabricated slab to extend the ramp, allowing operation at lower lake levels.

The initial site improvement actions, as well as ongoing dredging, shall be included in the capital budget for this site. The City shall fund this measure up to a maximum of \$125,000, subject to the provisions of Section 3.2, with \$5,000 of that maximum amount available for advance project planning in license year 1. Future dredging and excavation beyond that amount may, at NPS

option, be funded through the City's funding of future operation and maintenance of recreation facilities described in Section 3.5.3.5. Funding of future dredging and excavation pursuant to Section 3.5.3.5 shall not be subject to the two stage development process of Section 3.2.2.

Portions of the work contemplated in this measure may require a drawdown of the Diablo reservoir. The NPS shall coordinate with the City to schedule the least disruptive time for the work. The City retains the right to defer necessary drawdowns until it is required for other Project maintenance activities.

### **3.5 PLAN ELEMENTS—ENHANCEMENT MEASURES**

The remaining measures of the proposed recreation plan are intended to meet area needs by enhancing opportunities for public recreation. Enhancement measures include both site-specific development proposals and mechanisms for funding future recreation activities and needs. Site-specific actions are divided between rehabilitation of existing facilities and development of new facilities.

#### **3.5.1 Rehabilitation of Existing Facilities**

A number of recreation sites along the Skagit River and within the RLNRA have been damaged by use or are in conflict with other resources on-site. Use of some sites has outgrown their capacity and some uses are not adequately accommodated. All sites being proposed for rehabilitative action need improvement or redevelopment to meet demands for recreation while protecting environmental values. Planned actions in this category include improvements at the facilities listed below. With the exception of the first facility, each is under NPS or USFS jurisdiction.

The schedule, budget, including the City's funding obligations, and other implementation procedures for each measure are described in Section 3.2 and Tables 3-1, 3-2, and 3-3. With the exception of the Newhalem visitor contact station, the NPS or the USFS shall take the initial lead in implementation of the individual measures in this section under the procedures set out in Section 3.2.2.

##### **3.5.1.1 Newhalem Visitor Contact Station**

The existing visitor contact station in Newhalem is in need of remodeling or replacement. The City shall do this work as a part of the recreation plan and shall develop a specific site plan, subject to the applicable provisions of the Historic Resources Mitigation and Management Plan. The location of the existing facility is indicated in Figure 3-6. Planning actions required for this item include deciding whether to remodel the existing facility or build a new structure at another location in Newhalem, determining the facility design program, preparing a schematic site plan, and estimating facility costs. The NPS shall specify what role it will take in the rehabilitated or replaced station. Historically, the NPS has maintained a presence at the center that is owned and operated by the City. However, with the construction of a new NPS visitor center two miles to the east, the NPS role in the Newhalem station needs to be redefined. It is likely that the NPS



presence will be greatly reduced; the NPS role through the new license period will be developed by ongoing consultation.

### 3.5.1.2 Goodell Creek Raft Access Site

The Goodell Creek recreation site along the Skagit River is currently used as a launch site for hand portable boats. This spot is the put-in site for whitewater boating on the upper Skagit River from Goodell Creek to Copper Creek. The site is located at the western end of the Goodell Creek campground. The terrace used for boat launching was once a campsite. The edge of this terrace, elevated about two feet above the shoreline launching area, is being eroded by seasonal periodic flooding of the Skagit River. The site is indicated in Figure 3-7.

The planned action is to modify this site as a river launch for portable boats such as rafts and kayaks. The primary purpose for modifying this site is to better accommodate existing recreation use while protecting and stabilizing eroding areas. Improved parking and paved access are the primary facility needs at the site.

Program elements consist of the following:

- a paved area for unloading boats;
- information display and register;
- 20 parking spaces for cars;
- four picnic tables;
- planting or other buffer to stabilize slopes; and
- capping of environmentally sensitive areas with sand or soil.

The existing gravel pad presently used for unloading boats shall be paved, and a paved path shall lead from the unloading area down to the launching area. Paving the path, particularly as it descends the terrace slope, will help forestall further erosion of the slope and the terrace. Edges of pavement along the path shall be buried and made thicker, a practice known as "rip bottoming," to strengthen the concrete against erosive action. Parking shall be accommodated easily along the service road that parallels SR 20, as is now the practice; the parking improvements will provide better definition and circulation for the parking area. Small trees and shrubs shall be planted to screen the parking area from the highway.

The City shall fund the initial site redevelopment up to a maximum of \$65,000, subject to the provisions of Section 3.2.2, with \$10,000 available for advance project planning in license year 1.

### 3.5.1.3 Damnation Creek Boat-in Picnic Site

The area at the mouth of Damnation Creek is currently used as a picnic spot for rafters. It is the only site along the upper Skagit run (Goodell Creek to Copper Creek) that is approved by the NPS as a stopping point. It is estimated that up to 20 rafters may use the site at a time, and the site may be used 10 to 12 times in a weekend. There is a firepit above a sandy beach where boaters launch. An existing toilet is only a few yards away on a shelf just above the high-water mark, but this

facility is in need of repair so is seldom used. To ensure that most use will remain boater oriented, there shall be no signs on SR 20.

The proposed action is to improve this site as a picnic and rest spot for river rafters. Accommodating boaters adequately on this site through provision of upgraded facilities will serve the NPS goal of concentrating human use along the Skagit River shoreline to this approved area. The City shall fund this element up to a capped amount of \$25,000, subject to the provisions of Section 3.2.

A schematic plan for the Damnation Creek site is included as Figure 3-8. Program elements consist of the following:

- four picnic tables, secured to the site; and
- one fiberglass container vault toilet (with four to six vault storage units) to replace the existing toilet.

Because there is no vehicular access to the site, the existing toilet shall be replaced with one holding a container vault that can be carried out on foot. The picnic tables shall be secured with chains so they will not be carried away in high water.

#### 3.5.1.4 Marblemount Boat Access Site

The Marblemount Bridge site is currently used as a launch area for rafts and drift boats, under an easement maintained by the Washington Department of Wildlife (WDW). The primary season of use is in winter for eagle watching. Existing site features include a short gravel access spur, a gravel launch ramp and turnaround, and a portable toilet. Parking occurs on adjacent grassy areas. The existing gravel ramp appears adequate for similar continued usage, but parking, sanitation and circulation are inadequate. Commercial boaters transport passengers to the site by bus, but after unloading, the buses have no way of turning around. The current entrance has a turning radius that is too tight to safely accommodate trailers and buses.

To relieve congestion and prevent parking that occurs at the top of the ramp and to improve this site as a launching area for drift boats and rafts, a one-way loop system and separate parking area are planned. As the adjacent land is already level and clear of trees, accommodating these additions would not be difficult.

To accommodate the planned changes, additional easements or fee title on the surrounding land will have to be acquired. As overall manager for the Skagit Wild and Scenic River, the USFS will be involved in the planning and administration of this site, shall be the initial lead development agency, and will, at its option, be assigned title to interests in real property necessary for site development acquired by the City. In addition, the Forest Service may acquire interests in real property necessary for site development outside of this Agreement, in which case the cost of such interests shall not be counted in the project budget. The City shall fund this element up to a capped amount of \$165,000, subject to the provision of Section 3.2. Should the City become the lead agency under the provisions of Section 3.2.2, the City shall require the development of a

memorandum of agreement involving the USFS and the WDW before entering into any contractual obligations for site purchase or construction.

Program elements of this measure consist of the following (See Figure 3-9):

- one-way traffic loop with adequate turning radius for buses and trailers;
- 15 parking spaces for cars;
- 15 parking spaces for cars with trailers;
- two bus pull-out spaces;
- grassy staging area near launch ramp;
- directional traffic signs;
- informational display and register;
- two vault toilets; and
- improved drainage to protect existing ramp.

New traffic signs shall be installed along the county road and on the site to explain the one-way traffic loop. Signs warning of traffic turning onto the road will also be added. A flat, grassy area near the ramp shall be regraded and reseeded to provide a staging area for rafts and other portable boats. The site has an existing information display, which shall be modified to provide new information about site development downstream at Rocky Creek. Surface water run-off has created some erosion of the existing gravel ramp; the area at the top of the ramp will be regraded to channel water run-off away from the ramp. The existing portable toilet shall be replaced with a permanent structure, a double-seated vault toilet that will be located in the same general area as the existing facility.

#### 3.5.1.5 Hozomeen Water Distribution System

The NPS is working to develop a potable water source for the Hozomeen campground to be coordinated with planning and development efforts of the Skagit Environmental Endowment Commission, the NPS, and British Columbia Parks (Canada). The City shall contribute \$50,000 for improvements to the U.S. portion of the system upon request from NPS after project design and funding are finalized. This action would replace the existing surface water supply with a groundwater system and is intended to bring the water supply up to legal standards. The City shall not fund any increase in water system capacity, particularly as that may be used for increased campground size at Hozomeen.

Since this project is in the early planning stages, drawings and specifications have not yet been prepared. The existing situation is indicated in Figure 3-10. The rescheduling provisions of Section 3.2.2 do not apply to this measure; the City's obligation is limited to the funding support indicated. The implementation schedule for this measure shall be adjusted to best accommodate NPS and SEEC funding and scheduling of the project.

### 3.5.2 New Facilities

The majority of the new recreation facilities being proposed are intended to offset increasing demand and heavy use at existing sites supporting similar uses. In some cases, the new facility would serve as an alternative site, replacing the existing facility to protect sensitive areas or meet other objectives. Other proposed new recreation facilities stemmed from a recognition that some undeveloped areas offer unique opportunities for recreation and interpretation or of other types of activities not being provided for by existing facilities.

The schedule, budget, including the City's funding obligations, and other implementation procedures for each measure are described in Section 3.2, Tables 3-1, 3-2, and 3-3. With the exception of the environmental learning center, the NPS or the USFS will take the initial lead in implementation of the individual measures in this section under the procedures set out in Section 3.2.2.

New facilities in the recreation plan include the following items:

#### 3.5.2.1 North Cascades Environmental Learning Center

##### *Purpose and Intent*

An environmental learning center is the centerpiece of the City's proposed recreation plan. The NPS and North Cascades Conservation Council (NCCC) strongly desire such a facility. The City agrees that an environmental learning center can provide vital support to a management philosophy for the North Cascades as an ecosystem. The City also accepts this action as appropriate to increasing the depth and breadth of public appreciation for the North Cascades ecosystem. The City shall therefore fund the initial development of a North Cascades Environmental Learning Center (NCELC) and contribute to its long-term operation and maintenance as indicated in this section and on Table 3-2.

The North Cascades Institute (NCI), an established regional environmental education institution, has agreed to initially operate the learning center and provide its program structure. The City, the NPS, and the NCI have entered into a memorandum of agreement (MOA) regarding the construction, operation and management of the NCELC. The MOA is included as Appendix A to this Agreement and incorporated by reference. In any instance where there is a conflict between the provisions of the MOA and this Agreement, the MOA shall govern. A summary of the basic relationships between the three parties as set forth in the MOA is found in Appendix G of the MOA.

Under the procedures established in the MOA, the City shall acquire rights to and prepare the preferred or alternative site and construct new facilities as specified in this Agreement and the MOA. As federal lands, possession of the preferred or alternative site will be granted to the NCELC operator under the terms of the new FERC license for the Project. The City shall provide the facilities, which will be owned by the City, to the operator in consideration of the operator's obligations under the MOA.



### ***Diablo Lake Site***

The preferred learning center site is on the north shore of Diablo Lake. The location is relatively secluded and private, being situated across the lake from SR 20, but it does have road access. The existing road crosses Sourdough Creek, which borders the site to the west. Although steep foothills prevent development of much of the area, the selected site is relatively flat along its shoreline. The site was created over time as part of an alluvial fan by the creek's seasonal turbulence. The site, facing south-southwest, rises gently into a wooded hillside. The Diablo Lake site is indicated in Figure 3-12.

The site, originally developed as a temporary work camp during construction of Ross dam and powerhouse, is currently being used as a resort. Although the land is now owned by NPS, the buildings still standing are owned by the resort operator, Diablo Resort, Inc., which also holds a contractual right to occupy the site until 1998. Most of the buildings are resident cabins, left over from work-camp days, but a newer restaurant in operating condition stands on the eastern portion of the site. Existing facilities on-site include water, sewer, and power utilities. The City uses an existing road through the site to access a boathouse, located on the eastern edge of the site, as well as facilities at Buster Brown cove further east.

The City will use good faith efforts to obtain clear title to the preferred site by purchase of the concession contract and resort assets from the current owner.

### ***Newhalem Campground Site***

In the event that the City is not able to obtain rights to the Diablo Lake site, the City will construct environmental learning center facilities comparable to those set forth in Appendix E of the MOA at the alternative site adjacent to the NPS visitor center, near the Newhalem Creek Campground. The Newhalem Creek site is indicated in Figure 3-13.

The Newhalem Creek Campground site is located on a bench about 80 feet in elevation above the Skagit River. It is located on the south shore of the river, about 1,000 feet west of the town of Newhalem. The site is adjacent to the site selected for construction of a new visitor center for the North Cascades National Park Service Complex. Construction of that facility is scheduled to commence in 1991. In conjunction with visitor center construction, access improvements and utilities will be put in place which can be extended to the learning center site. The siting of the learning center at this location was analyzed by the NPS in a 1989 environmental assessment (NPS, 1989).

### ***Facility Development and Operation***

A residential learning facility is proposed that will offer programs on many aspects of the natural environment. The initial capacity of the NCELC will be 40 students plus 12 faculty and staff. The facility will be designed so that it can be expanded to accommodate 60 students and 18 faculty and staff. There are no existing facilities in the North Cascades region that can accommodate this type of learning center. This proposed use will provide a valuable educational resource for the area.



Under the direction of the Oversight Committee created pursuant to Article III, Section 5 of the MOA and in consultation with the Parties, the City will provide the following facilities:

- dormitories capable of housing students, faculty and staff in a variety of gender ratios;
- one main service building with classrooms, library, laboratory, and offices;
- a cafeteria;
- a covered shelter;
- an outdoor amphitheater;
- grassy recreation area;
- outdoor "rooms" for small learning groups;
- adequate parking;
- staff housing;
- a central exhibit area; and
- trails.

A tentative site plan for the NCELC preferred site is provided as Figure 3-14. Preliminary evaluation of the existing facilities on that site indicates that most of the existing buildings will have to be replaced. The restaurant is the newest building and will remain and be used as a cafeteria and meeting rooms, library, or similar uses. The existing utilities will continue to serve the site. The facility will be developed to best take advantage of the site's features and views, including relocation of the existing overhead utility poles and lines to the back (north) edge of the site. The central area of the site will remain open to accommodate views across the water, thus emphasizing the natural, outdoor landscape as the central focus for this development. The surrounding wooded hillsides will provide numerous opportunities for trails and observation areas, and the lake will be easily accessible for purposes of various shoreline and lacustrine life studies.

The alternative site has similar siting benefits (NPS, 1989).

All public facilities and one of the staff residences will be handicapped-accessible. Environmental conservation practices such as on-site recycling facilities will be included in NCELC facilities design and operation at either site. This and similar programs may serve a double purpose: not only would they provide opportunities for education and research, but they would illustrate the possibilities for development that integrate and balance basic everyday human needs with those of the natural environment. Educational seminars, covering a broad variety of topics, generally will last from one day to several weeks. The programs will be directed toward many different age groups, including seniors.

NPS will maintain water and sewer facilities. The USFS, the State Superintendent of Public Instruction's Environmental Education Office, and the Skagit System Cooperative Tribes will be invited to serve in an advisory capacity to the learning center. Details on site and facility management responsibilities are included in the MOA. Further details on the construction of each NCELC site are also included in the MOA.

The City shall provide the following operation and maintenance services:

- electricity service up to an amount to be determined in the design phase by the Oversight Committee, based on the facility as designed, at no cost;
- maintenance of the NCELC physical plant up to \$500,000 over the life of the facility (scheduled in equal annual increments from completion of construction through the new license period, exclusive of routine janitorial and gardening services for which the operator is responsible, and further exclusive of losses due to calamities as described in Article VI, Section 2 of the MOA);
- program startup costs, after the issuance of the new Project license, \$100,000 (scheduled in two equal payments in years 1 and 2), to be allocated by the Oversight Committee;
- ongoing NCELC program and staffing costs up to \$4,150,000 over the course of the license (scheduled to start in year 1, with annual payments of \$25,000 in years one and two, \$100,000 in years three through 9, and a lump sum endowment payment of \$3,400,000 in year 10), to be allocated by the Oversight Committee;
- wildlife education funding at \$600,000 over the term of the license (scheduled in equal annual payments starting in year 1), to be allocated by the Oversight Committee;
- furnishings up to \$200,000, to be allocated by the Oversight Committee;
- vehicles—the City shall provide three fifteen person vans or the equivalent from the first full year of NCELC operations through the term of the license by lease or purchase and will maintain them or pay for their maintenance;
- vehicle operation—the City will support the operation of the vehicles by making capped payments of \$10,000 per year for the first ten years of full NCELC operation (the operator shall be responsible for all other costs of operation, including gas, oil and insurance), and if necessary, the Oversight Committee may request support beyond that period; and
- continuation of utility, vehicle, and maintenance support into the period of annual licenses after the term of the new license, to be allocated by the Oversight Committee, at the levels existing at the end of the regular license period.

The City will begin preparations for construction of the learning center facilities as soon as a new Project license is issued and accepted. The City estimates that it will take three to five years to have the site and facilities completed. The City will use its best efforts to have the facility in an operable condition by the third June of the new license period, with funding availability not to be a limiting factor.

### 3.5.2.2 Gorge Creek Overlook

The Gorge Creek overlook is an addition to an existing site with paved parking lots on either side of Gorge Creek. Site visitors walk across the bridge on a protected walkway, from which they view Gorge Creek Falls and the ravine below. This site is the only stopping point along the gorge from Newhalem to Diablo, yet there are no restroom facilities or other services. Additional views of Gorge Lake and dam are possible within a short distance of the parking lots, but access to these views has not been developed.

New development is proposed for the Gorge Creek overlook to make this site an adequate rest area for travelers, as well as to provide new viewing and interpretive opportunities for RLNRA visitors. These opportunities will be created by constructing a short-trail system to additional viewpoints, supplemented by interpretive displays that incorporate regional and natural history information. The City will fund this element up to a capped amount of \$175,000, subject to the provisions of Section 3.2.

The conceptual plan for the Gorge Creek site is displayed in Figure 3-15. Program elements consist of the following:

- two vault toilets;
- a 600-foot paved surface barrier-free trail, six feet wide, with overlooks;
- childproof railing along handicap-accessible trail;
- a foot trail, 1800 feet long, looping back to the west parking lot;
- two viewing platforms overlooking Gorge Lake and dam;
- interpretive displays;
- bench seating;
- two handicapped parking spaces; and
- stabilization of slopes around parking area.

Two old roadbeds, left over from construction of the transmission towers and Gorge dam, begin near the parking area and provide access around the knoll and toward the dam. Remnants such as steel reinforcement and excavated river rock still remain and may be incorporated into interpretive displays. The roadbeds themselves would serve well as trails, providing occasional views of the lake and dam as well as into the Gorge Creek ravine.

The barrier-free trail, which will parallel the Gorge Creek ravine along the edge of its cliff, will provide spectacular views into and across the ravine, gradually bringing the spectator to a high overlook above the mouth of the creek. Railings will be provided along this length to protect viewers from falling. The incline along this trail is very gentle—no more than a 5 percent slope on average—making the path easily manageable even by wheelchair. The foot trail begins where the barrier-free trail ends, quickly climbing the hill in a switchback to reach another, higher roadbed. From this point, the foot trail winds around the southern and western sides of the knoll, taking in sites of the dam and the lake and passing through curious geological formations on its way back down to the parking area. A double-seated vault toilet will be located by the parking lot in a well-ventilated area.

### 3.5.2.3 Thunder Lake Fishing Facility

The objective for this plan element is to provide a means of access to a fishing opportunity by handicapped persons that does not currently exist, but not to maintain an artificial fishing resource. Therefore, the NPS has determined that the preferred approach to this objective is to develop a safe, barrier-free walkway along a portion of the shoreline of Thunder Lake (adjacent to Highway 20 just west of Colonial Creek Campground). The lake is currently stocked by the WDW and used by non-handicapped anglers. Developing a boardwalk with railings will allow the handicapped to also use this resource but should not draw undue attention or significantly increase use to the site. The existing parking area needs to be improved and formalized. The City and the NPS will develop more specific planning information for this proposal and will consult with target user groups concerning facility design. As the lead implementation agency, the NPS will also take the lead in the planning process. The City will fund this element up to a capped amount of \$200,000, subject to the provisions of Section 3.2. Figure 3-16 indicates the area under consideration.

### 3.5.2.4 Thunder Knob Trail

The City will fund the development of a new loop trail system around the top of Thunder Knob, above the south side of Diablo Lake. The City will fund this element up to a capped amount of \$210,000, subject to the provision of Section 3.2. The objective of this trail is to provide access to expansive views across Diablo Lake from atop Thunder Knob. The trail will also provide opportunities to educate visitors about the unique ecosystems of ephemeral lakes, several of which can be found atop Thunder Knob. Developing this trail will expand the opportunities for easily accessible day-use activities within the SR 20 corridor.

There will be two trailhead locations for this loop, as indicated in Figure 3-17. One trailhead will be in the Colonial Creek campground adjacent to the base of Thunder Knob for direct access by campers. The other trailhead location will be along SR 20 at Thunder Lake and will provide parking for highway travelers and day hikers.

The proposed site for the campground trailhead is an existing paved pullout on one of the campground loops on the north side of SR 20. The pullout is near Colonial Creek, which separates the campground from Thunder Knob. Program elements for this trailhead consist of the following:

- 3 parking spaces for cars;
- trailhead informational signs; and
- seasonal bridge.

The parking area is intended to be used by people who are camped on the other side of SR 20 and who might feel uneasy walking across the highway and through both loops of the campground. The seasonal bridge is to span Colonial Creek directly north of the campground. A removable bridge is recommended because the creek is subject to torrential flooding during the winter and spring.



The preferred site for parking along SR 20 is currently an informal pullout used mainly by people fishing in Thunder Lake. The pullout is large enough to hold 10 to 15 cars. Sight distance along SR 20 at this point is good. Program elements for this trailhead consist of the following:

- 10 to 15 parking spaces for cars;
- one vault toilet;
- trailhead informational signs; and
- directional signs on SR 20.

The parking area will remain a gravel surface, with wheelstops provided to indicate parking and to provide greater safety. The toilet will be a permanent structure with a vault and single seat.

From this trailhead the path will wind along the north and east sides of Thunder Lake to connect with the trail from the campground. The trail will ascend Thunder Knob's southern slope, the least steep side of the knob, before forking to form a loop around the top of the Knob.

The trail will be built to accommodate foot traffic, with railings and other safety precautions where necessary according to NPS standards. Interpretive displays will explain some of the unique ecosystems found atop Thunder Knob, and benches and mural displays will be placed at best advantage for views across Diablo Lake.

#### 3.5.2.5 Happy Flats-Panther Creek Trail

This proposed trail follows the alignment of an old trail that used to exist before SR 20 was built along the south end of Ross Lake. Most of the old trail is intact, but sections of it were damaged or obliterated by extensive road construction activities.

The trail will parallel SR 20 and the southern shore of the lake, beginning at the Ross dam trailhead (Happy Flats) and ending where Panther Creek crosses under the highway. The proposed trail route is shown in Figure 3-18. The Panther Creek terminus is a trailhead serving the East Bank and Panther Creek trails. The primary purposes for reestablishing this trail are to provide a day use trail along the shore of Ross Lake accessible to SR 20 and to connect trails on the western side of Ross Lake with trails on the eastern side, completing a continuous east-west trail link through the park complex. At present there is no such link for foot traffic.

Implementation requirements for this action will include brushing out the remaining sections of the old trail, repairing and adding erosion control measures as necessary, and constructing new trail sections across or below SR 20 fill slopes. The City will fund this project to NPS standards for backcountry foot trails up to a maximum of \$155,000, subject to the provisions of Section 3.2.2, with \$15,000 available for advance project planning in license year 2. Existing trailhead facilities at Happy Flats and Panther Creek are sufficient and need not be supplemented or modified.



### 3.5.2.6 Desolation-Hozomeen Trail

The City will fund the construction of a new foot trail extending from Desolation Peak to Hozomeen Lake, on the eastern side of Ross Lake (See Figure 3-19). The purpose for building this trail is to close a loop with existing trails in the area. The East Bank trail leaves Ross Lake at the mouth of Lightning Creek, traveling east and north up the Lightning Creek drainage toward Willow Lake. A spur trail provides access from Lightning Creek to the summit of Desolation Peak, terminating there. The proposed action will complete this trail north from Desolation Peak, joining the East Bank trail near Hozomeen Lake. This will create loop trail possibilities for hikers entering at Hozomeen or by water at Lightning Creek. The new leg will also provide a more direct approach to Desolation Peak from the north. The trail will be built to appropriate NPS standards. The City will fund this element up to a capped amount of \$275,000, subject to the provisions of Section 3.2.

### 3.5.2.7 Black Peak Overlook

The USFS (Okanogan National Forest) has included in its recreation management plans (USFS, 1989) a number of actions to improve and expand opportunities for visitors to the North Cascades Scenic Highway, which adjoins the RLNRA to the east. Specific proposals include developing viewpoints and overlooks, visitor contact facilities, and new hiking opportunities. To support their program the City will partially fund development of an overlook along SR 20 in the vicinity of Black Peak; the City's contribution shall be limited to \$250,000. The USFS will fund the cost of this development beyond the capped amount. This site is located about five miles northwest of Rainy Pass in the Granite Creek drainage.

The proposed site is a south-facing slope oriented to views of Black Peak and surrounding mountains across SR 20. The site, used as a borrow pit during highway construction in 1972, was consequently seeded and has been left largely undisturbed since that time. Because of the high altitude and the slope's southern exposure, however, the area remains essentially bare. Trees grow extremely slowly at this elevation, and because soil on a south-facing slope is subjected to more rapid freezing and thawing, the soil has become very thin.

The proposed action is to develop this site as a parking area and overlook with views of Black Peak and surrounding peaks. One purpose for developing this site is to stabilize and revegetate an existing visual scar remaining from the highway's initial construction.

Figure 3-20a is a schematic plan for the Black Peak site. Figures 3-20b and 3-20c are two alternative site configurations. Specific program elements consist of the following:

- off-road parking;
- 25 double-loaded parking spaces, to accommodate both cars and RV's;
- one bus pull-out along the north side of SR 20;
- toilet facilities;
- handicap-accessible viewing platform;
- benches;

- removal of all excess fill along south side of SR 20, to discourage parking on the road shoulder;
- regrading and terracing of slope, to encourage greater vegetation;
- nutrient-rich amendments to the soil; and
- seed plantings.

The site is one of only a few open areas along this stretch of SR 20, meaning that the views seen from this spot are hidden from most other sections of the highway. As there are no existing viewpoints within several miles along this stretch of the highway, a chance to park, get out of the car and view scenery at this point would probably be well-received by travelers. To remove the viewing platform from the noise and traffic along the highway, as well as to get better views, vegetation would be planted between the highway and the site, and the overlook would be placed away from the highway at the top of the slope partially under existing tree cover. A barrier-free trail with slope no greater than 8 percent would access the overlook. The parking area would be separated from the road to discourage motorists from parking on the highway shoulder instead of pulling into the parking area.

To encourage greater vegetative recovery on the site, portions of the slope will be regraded and terraced. The flatter terraces will capture more water run-off and nutrient-rich debris and sediment to sustain plant growth.

### 3.5.2.8 Rocky Creek River Access Site

The proposed action for this site is to provide a boat-in picnic spot for boaters along the Skagit River and to develop an eagle observation trail and trailhead near the river's edge that is convenient from SR 20. The tentative site plan is indicated in Figure 3-21.

The objectives for the proposed site development are to accommodate an existing informal use of the site, lessen potential human disturbance of eagles, and create a new recreation opportunity for highway travelers. The gravel bar at the mouth of Rocky Creek is already used by boaters, particularly commercial outfitters, as a lunch stop on winter eagle-watching floats. Providing picnic amenities at the mouth of Rocky Creek would help to accommodate this use, where no facilities now exist. It may also encourage boaters to land here rather than on nearby Eagle Island, where human presence is considered a disturbance to wintering bald eagles. Access to a shoreline viewpoint from the state highway would reduce the pressure on other eagle-watching areas further along the highway, and provide a valuable new opportunity for highway travelers to access the river for viewing and appreciation. Development of the trail and viewpoint is contingent on field observations confirming a level of eagle use in the area sufficient to maintain the interest of observers.

Program elements for the shoreline trail consist of the following:

- 10 parking spaces for cars near SR 20;
- two bus/trailer pull-outs;
- a paved, 6-foot wide handicap-accessible trail from the parking area to a shoreline overlook;

- signage, trailhead kiosk;
- an overlook holding up to 20 people;
- benches at the overlook;
- child-proof railings, where necessary;
- two vault toilets; and
- a gate to prevent unauthorized vehicle traffic along the existing dirt road that leads to the river.

Program elements for the boat-in picnic area consist of the following:

- picnic shelter with firepit and four tables; and
- one vault toilet.

To lessen the impact on eagle habitat as much as possible, a minimal amount of tree vegetation should be removed. Much of the site is second-growth cedar; a trail through this area would be desirable for interpretation of a forest ecosystem as well as for eagle watching. Because the area serves as eagle feeding grounds during the winter, considerable use will occur during that season. The parking area and trail therefore will be designed to accommodate snow removal. The dirt road that currently runs through the site to the river will be maintained strictly for service access to the picnic and toilet facilities; a gate will block this road from vehicular access by site users.

As overall manager for the Skagit Wild and Scenic River, the USFS will be involved in the planning and administration of this site, will be the initial lead development agency, and will be assigned title to interests in real property acquired by the City necessary for site development. In addition, the Forest Service may acquire interests in real property necessary for site development prior to the effective date of this Agreement, in which case the cost of such interests shall not be counted in the project budget. The City will fund this element up to a capped amount of \$250,000, subject to the provision of Section 3.2.

### 3.5.2.9 Steelhead Park

The City will contribute toward the development of recreation facilities at or between the Steelhead County Park and the Rockport State Park. Possible measures include construction of a handicap accessible trail along the Skagit River, development of a trail connection between the two parks, or City assistance in the purchase or development of the railroad right of way downstream from the county park. The City will work with the USFS, the State Department of Parks and Recreation, and the Skagit County Parks Department and other interested parties in the development of specific proposals for this site. A schematic map showing existing recreation facilities is Figure 3-22. The City will fund this element up to a capped amount of \$125,000, subject to the provisions of Section 3.2.

### 3.5.2.10 Lower Sauk River Boat Access Site

The City will fund the development by the USFS of a boat access site on the lower Sauk River, subject to the provisions of Section 3.5.2. The site is on State Department of Natural Resources land on the east bank of the Sauk River, north of the SR 530 bridge crossing approximately seven

miles north of Darrington. This site will serve boaters on both the Sauk and the Suiattle as it would be just below the confluence of the two rivers. As currently proposed, site development will include a ramp for trailered boats in addition to launching space for rafts and other hand-carried boats. A schematic map of the proposal is at Figure 3-23.

As overall manager for the Skagit Wild and Scenic River, the USFS will be involved in the planning and administration of this site, will be the initial lead development agency, and will, at its option, be assigned title to interests in real property acquired by the City necessary for site development. In addition, the Forest Service may acquire interests in real property necessary for site development outside of this Agreement, in which case the cost of such interests shall not be counted in the project budget. The City will fund this element up to a capped amount of \$250,000, subject to the provision of Section 3.2.

Preliminary design program elements include the following:

- paved or concrete-plank, single-lane boat ramp, 12 feet wide;
- raft staging area;
- beach for launching;
- parking for 30 cars and 10 cars with trailers;
- access road from SR 530;
- vault toilets;
- picnic tables; and
- river use information signs.

### 3.5.2.11 Suiattle River Boat Access Site

The City will fund the development of a launch site for nonmotorized boats on the Suiattle River, near or above river mile 12. The design program elements will be the same as for the lower Sauk site, excluding the ramp for trailered boats and with less parking capacity. A specific site has not yet been chosen for this facility.

Two potential sites suggested by the USFS have been investigated. One site is at river mile 12; adjacent to a forest road crossing of the river known locally as the Rattrap Bridge (also known as the Boundary Bridge). This site is currently used informally by boaters but has no developed facilities and minimal space for non-trespass access. The second site is approximately 5 miles upstream at the confluence of Buck Creek and the Suiattle River, where an existing low-standard road from USFS Road 26 provides access to the river.

The City has expressed concerns about the viability of both of these sites. The land at the Rattrap Bridge site is not public land administered by the USFS or WDNR and would have to be purchased. The Buck Creek site serves only a portion of the current users. Some of the outfitters who operate trips on the Suiattle River indicated concern over navigability of this reach of the river during late summer low flows. More importantly, they felt that the addition of 5 miles to this run would make the trip too long. While there is an acceptable landing site at the WDNR Dearinger campground at about river mile 4, the outfitters felt that this was not a suitable alternate take-out



site due to poor access. Based on this response, there is significant risk that some outfitters and private boaters would not use a Buck Creek access site if it were developed.

Due to the current status of site selection, the City has not developed specific plans for this facility. The City will continue to work with the USFS and river users to identify a suitable site and proceed with site-specific plans. Figure 3-24 shows the current situation and area map of the upper Suiattle. As overall manager for the Skagit Wild and Scenic River, the USFS will be involved in the planning and administration of this site, will be the initial lead development agency, and will, at its option, be assigned title to interests in real property necessary for site development acquired by the City. In addition, the Forest Service may acquire interests in real property necessary for site development outside of this Agreement, in which case the cost of such interests shall not be counted in the project budget. The City will fund this element up to a capped amount of \$225,000, subject to the provisions of Section 3.2.

### **3.5.3 Future Recreation Funding**

The City and the Intervenor recognize that all recreation needs over the license term cannot be identified and accounted for in a static recreation plan. Furthermore, there are various types of recreation needs that are very detailed or recurring in nature, such as interpretive programs and facility operation and maintenance needs. These types of needs cannot be efficiently factored into a site-specific recreation plan; they are best treated by supplying resources for future discretionary action by the City and the managing agencies. To accommodate these needs, the City has agreed to provide funding for five specific categories of future recreation actions, as follows (funding levels are set in 1990 dollars, to be indexed for inflation as provided in Section 1):

#### **3.5.3.1 Interpretive Facilities**

The City will spend up to \$340,000 on new interpretive facilities, including signage, in the Project area. Of this amount, \$150,000 will be spent on facilities in the RLNRA as determined by the City and the NPS, in consultation with other parties as appropriate, with the money to be allocated in six \$25,000 amounts every five years, starting with the first year of the license. On the same schedule, \$150,000 of the total will be spent on future projects outside the RLNRA, as determined by the City and the USFS, in consultation with other parties as appropriate. The remaining \$40,000 will be spent on facilities in the Skagit Wild and Scenic River System upstream from Concrete in the first year of the new license. Section 3.2.4.3 establishes the procedure for the expenditure of these funds.

#### **3.5.3.2 Bicycle Facility Needs Assessment and Capital Facility Implementation**

The City will spend up to \$175,000 on a bicycle facility needs assessment and for capital facilities to implement the study. The study area will be as large as necessary to accurately indicate bicyclist use and demand in the Project area. Capital facility funding will be restricted to projects within the Skagit Wild and Scenic River System upstream from Concrete and to the North Cascades Scenic Highway west of Washington Pass. Section 3.2.4.4 establishes the procedure for the expenditure of these funds. The money will be spent on a schedule to be determined by the City and the



agencies after the conclusion of the studies; the Parties expect the moneys to be spent within five years of the conclusion of the studies.

### 3.5.3.3 Future Recreation Needs Assessments

The City will administer recreation utilization and needs assessments every five years through the new license period, in the 5th, 10th, 15th, 20th and 25th years of the new license period. The City will spend up to \$25,000 for each of the five studies. Section 3.2.5.4 establishes the procedure for the expenditure of these funds.

### 3.5.3.4 Needs Assessments Capital Implementation

The City will fund new capital facilities identified by the recreation needs assessments. The monies will be available in the 6th, 11th, 16th, 21st, and 26th years of the new license period; the dates of actual expenditures will depend on the timing of intervenor compliance with the implementation procedures of Section 3.2.5.5. The City will spend up to \$62,500 after each needs assessment on projects in the RLNRA for a total of \$312,500 over the license term. The City will spend up to \$62,500 after each needs assessment on projects within the Skagit Wild and Scenic River System upstream from the confluence of the Sauk and Skagit Rivers or the North Cascades Scenic Highway west of Washington Pass for a total of \$312,500 over the license term. The City will spend up to an additional \$220,000 after each of the first two needs assessments (years 6 and 11) exclusively to improve identified river access needs in the Skagit Wild and Scenic River System, for a total of \$440,000. The total of all expenditures under this section shall not exceed \$1,065,000.

### 3.5.3.5 Operation and Maintenance Funding

The City will fund ongoing operation and maintenance costs of recreation facilities within the Skagit Wild and River System, the RLNRA, and the North Cascades Scenic Highway corridor west of Washington Pass, up to \$2,750,000 as follows:

- For the first fifteen years of the license the NPS will be allocated \$60,000 per year for operation and maintenance of recreation facilities within the Ross Lake National Recreation Area, and the USFS will be allocated \$15,000 per year for operation and maintenance of recreation facilities within the Skagit Wild and River System upstream from Concrete and the North Cascades Scenic Highway corridor west of Washington Pass.
- For the purposes noted above, from the sixteenth through the twenty-fifth years of the license, the NPS will be allocated \$80,000 per year, and the USFS will be allocated \$20,000 per year.
- For the purposes noted above, for the last five years of the license the NPS will be allocated \$100,000 per year, and the USFS will be allocated \$25,000 per year.
- For the purposes noted above, in each year in which the Project operates on an annual license beyond the term of the new license, the NPS will be allocated \$80,000 and the

USFS \$20,000. These amounts shall be prorated for the final year before the effective date of a new (third) license if the third license for the Project takes effect on other than the annual anniversary of the expiration of the second license.

Section 3.2.5.6 establishes further procedures for the expenditure of these funds.

### 3.5.3.6 Intervenor Coordination

The City will retain sole responsibility for facilitating Intervenor coordination, including the annual meeting of all Intervenor. The City will provide a forum for Intervenor and other interested agencies to discuss with the City all Project related resource mitigation and enhancement plans. At a minimum, the City and the Intervenor will report on the status of their respective compliance with the various settlement agreements, including the expenditures of funds provided for in the various mitigation and enhancement plans. Problems with implementation and cross-issue conflicts can be discussed and resolved in this forum. The City has budgeted \$3,000 per year for this item.

## 3.6 SITE CAPACITY AND ESTIMATED USE

Consistent with FERC regulations, the City has considered expected initial and future use in planning site capacity for the proposed recreation developments. The proposed facilities have generally been sized to accommodate the existing level of use plus normal growth and are not intended to be a stimulus for above-trend growth in recreation use. In order to determine appropriate site capacities, the City reviewed inventory data on existing use levels for the activities to be served and consulted agency staff and selected user groups concerning typical site loading conditions.

Site capacities, as measured in people at one time (PAOT) and annual visits, are indicated in Table 3-4 for those facilities where such a measure is relevant. Because site capacity is often determined by the amount of parking provided, parking capacity is also identified where relevant. Also included in Table 3-4 are estimates of current use, in PAOT and annual visits, and expected future annual use based on activity-specific projections for the year 2001. Specific capacity and use considerations for the respective facilities are summarized below by type of facility.

### 3.6.1 Rehabilitation Actions

Rehabilitation actions in the recreation plan include both mitigative measures and measures to enhance existing facilities. In both types of cases, the proposed actions are generally intended to maintain or restore existing capacity and accommodate existing-use patterns, rather than to provide for increased use or new activities. Existing capacity and use conditions for these facilities are summarized as follows.

- The proposed action for the Hozomeen, Gorge Lake, and Colonial Creek boat ramps is to rebuild or extend these ramps in their current configuration. Planned capacity for the three ramps is based on a standard launch capacity of 40 boats per lane per day. While both

Hozomeen ramps are used to capacity on selected peak days, the NPS does not desire an expansion of capacity.

- The Goodell and Damnation Creek sites serve the same user group, nonmotorized boaters on the upper Skagit run. Nominal planned capacity for Goodell Creek is based on the amount of car parking provided although use of bus shuttles can greatly increase the effective capacity. The Damnation Creek capacity is based on the number of picnic tables, which is sufficient to accommodate the maximum party size that has been reported. Use estimates for Damnation Creek reflect the assumption that 75 percent of river users will make a lunch or rest stop here.
- Capacity at the Marblemount site will be expanded through the proposed action. The existing parking area is undefined but probably provides convenient parking for 5 to 10 vehicles, depending upon the number with trailers. The plan for this site will increase the number of spaces and significantly improve circulation for buses and vehicles with trailers. Parking capacity for this site is based on advice from USFS staff and river users.
- Gorge Creek overlook capacity will remain unchanged, as the parking area will not be expanded. The proposed enhancement of this site will expand the services opportunities available and increase the average visit duration. No existing NPS use estimates are available for this site.
- Capacity and use figures are either not available or are not relevant to this discussion for the Newhalen visitor contact station, Hozomeen water system, or Colonial Creek electric distribution cable. These items are therefore not included in Table 3-2.

### 3.6.2 New Facilities

The new facilities proposed in the recreation plan are intended to provide new recreation opportunities in currently unused locations or to provide more formal facilities for current informal uses at some sites. In the former case, there are generally no existing-use data for the site or comparable sites on which to base capacity requirements. Capacity and use figures for new facilities that would serve existing uses are based on the best current-use estimates available. Specific explanatory notes for these facilities are provided below.

- PAOT capacity for the environmental learning center was negotiated with the NPS and the NCI, which will operate the facility. Annual estimated capacity is based on an assumed 9-month operation season. The City has not discussed projected use levels with NCI.
- The four trails proposed in the recreation plan are not included in Table 3-2, primarily because there are no agency data on which to base capacity and use estimates. Adequate parking capacity already exists or will be provided at trailheads.
- Capacity and use estimates for the Black Peak overlook were developed in proportion to corresponding figures for the Washington Pass overlook, which has room for 40 cars and receives 60,000 visits per year. The Black Peak site is assumed to attract 25 percent as

many viewers but has over 50 percent as much parking capacity because the Washington Pass lot is often full.

- The Rocky Creek site will serve a portion of the river floaters who put in at Marblemount and SR 20 travelers who stop to use the overlook. The nominal capacity of the boat-in picnic facilities (24) is the same as for Damnation Creek and is based on the number of picnic tables, although larger groups would be able to fit in the picnic shelter. Parking capacity for the trail and overlook should be adequate for an attraction of this scale.
- USFS permittee data indicate that the lower Sauk and Suiattle rivers each currently receive about 400 nonmotorized boating visits per year. These figures have been conservatively increased by 50 percent to account for noncommercial boating use. The lower Sauk and Suiattle access sites will be sized to easily accommodate this use. The lower Sauk site will be larger because it serves boaters using both rivers.

## 4.0 SKAGIT PROJECT AESTHETICS (VISUAL QUALITY) MITIGATION PLAN

### 4.1 INTRODUCTION

This section of the Settlement Agreement sets forth the actions to be taken by the City to mitigate visual quality impacts of the Project over the new license period. Together, these actions constitute the Skagit Project's Aesthetics (Visual Quality) Mitigation Plan; this part 4 of the Settlement Agreement is generally referred to as the Skagit Project Visual Quality Mitigation Plan.

This plan is based on studies conducted by the City and reported in its submittal to FERC in response to an additional information request (SCL 1989) and the more recent Report on Aesthetics—Visual Quality Mitigation Analysis (SCL 1991b).

Each element of the Visual Quality Mitigation Plan is discussed in Section 4.2. Section 4.2.1 covers Project facilities improvements; Section 4.2.2 describes landscaping measures for the two townsites—Newhalem and Diablo. Measures to improve the visual quality of the transmission line rights-of-ways (ROW's) are covered in Section 4.2.3. Erosion control measures to mitigate Project impacts are summarized in Section 4.2.4; this issue is the subject of a separate settlement agreement between the City and the National Park Service.

Sections 4.3 contains the plan's implementation schedule and the estimated cost of the plan elements.



## 4.2 PLAN ELEMENTS

### 4.2.1 Project Facilities Improvements

Many Project-related visual impacts can be mitigated by improvements to existing Project facilities. The plan includes the following environmentally sensible and economically feasible measures to mitigate high and moderate visual impacts. Where appropriate, the City shall use native plants when landscaping the townsites, rights-of-way, erosion, and wildlife plantings or other landscaping.

#### 4.2.1.1 Ross Lake Water Levels

The City shall address the visual impacts of Ross Lake drawdowns by filling the reservoir as early as possible after April 15 and keeping it full through the Labor Day weekend consistent with other resource management constraints. The City's obligation is defined in Section 2.11 of this Settlement Agreement.

#### 4.2.1.2 Transmission Towers

The Project transmission line towers shall be painted a less visually contrasting color selected in consultation with the interested intervenors. This action shall occur in the course of the City's routine maintenance schedule for the Project, as indicated in Table 4-3 (Section 4.3.2). In some locations, safety constraints may override visual quality considerations in the selection of color.

#### 4.2.1.3 Surge Tanks

The two surge tanks above the Diablo and Gorge powerhouses shall be painted a less visually contrasting color in the course of the City's routine maintenance schedule for the Project.

#### 4.2.1.4 Gorge Dam Access Bridge

The structural steel bridge on the Gorge Dam access road bridge shall be painted a less visually contrasting color in the course of the City's routine maintenance schedule for the Project.

#### 4.2.1.5 Ross Dam Broome Gate Shed

The Ross Dam Broome Gate Shed shall be redesigned or modified to decrease its contrast in the course of the City's routine maintenance schedule for the Project.

#### 4.2.1.6 Diablo Person Lift Removal

The Diablo person lift shall be removed within the first ten years of the new license.

#### 4.2.1.7 Exterior Lighting

High angle cut-off shielding shall be provided for all exterior lighting and/or the mercury or low-intensity sodium exterior lamps shall be replaced with high-intensity sodium lamps at the three powerhouses to the extent consistent with safe Project operations.



#### 4.2.1.8 Townsite Building Roofs and Siding

Shiny, high contrast or reflective galvanized or aluminum roofing/siding on buildings in Newhalem and Diablo shall be replaced with more visually compatible material in the course of the City's routine maintenance schedule for the Project.

#### 4.2.1.9 General Maintenance Activities

The City spends substantial effort to maintain safe and clean Project environs. In the course of routine Project maintenance, the City shall not increase the contrast of existing Project facilities. In order to facilitate a prevention of a decline in Project visual quality, the City shall consult with the NPS prior to conducting maintenance activities on existing Project facilities in the RLNRA which may significantly alter their external appearance. Significant alteration may occur, for example, by repainting of a bridge across the Skagit River or by residing of a building that is visible to the general public.

Similarly, the City shall consult with the NPS prior to construction of new Project facilities regarding the color and contrast of the publicly visible surfaces.

#### 4.2.2 Landscaping (Townsites)

The City has agreed to improve the visual quality of Newhalem and Diablo towns. The City's basic obligation is to decrease the contrast and views of Project facilities by means of vegetation screening, primarily from State Route 20 (SR 20). The Parties recognize that a number of people come to the towns specifically to see Project facilities, such as the historic Diablo and Gorge Powerhouses. Therefore, the following landscaping plans also provide for improvements to areas used by visitors to the Project who do not expect to find an unaltered landscape.

Each of the following landscape plans is designed to balance the needs for efficient Project operations with the visual quality objectives. As final engineering plans for the sites are prepared, the City shall consult with the Intervenor to ensure that the visual quality objectives are met while the City's goal of efficient use of Project resources is also met.

All townsite landscaping shall be in compliance with the Historic Resources Mitigation and Management Plan and the Cultural Landscape Inventory and Assessment.

##### 4.2.2.1 Town of Newhalem—Engineering Row

This site is located at the western end of the town of Newhalem, south of and adjacent to SR 20. The bridge to the Newhalem campground is just west of this site, and a local park with picnic facilities and tennis courts is immediately to the east.

Three small storage buildings stand on the present site with a modest gravel drive providing the main access to them. The three buildings will be removed from the site. Those portions of the site development that require the removal of the storage buildings will not occur until the City has in place suitable sites for them or replacement storage space.

Much of the area shall be revegetated with grasses, shrubs, and a mixture of deciduous and coniferous trees. The vegetation growing along the steep riverbank shall not be disturbed although vegetation at the top of the slope may be supplemented with other plantings. All plantings shall be native to the area. Trees and tall shrubs shall be planted no closer than 20 feet to SR 20; this restraint is a practical matter as winter snow plowing of the highway often necessitates piling snow as far as 10 feet from the road. The state Department of Highways also wishes to keep deciduous trees back from the highway to prevent excessive leaf drop and to minimize patches of shade which cause visibility and surface icing problems.

A pedestrian walk presently leads from the Newhalem campground bridge, paralleling the top of the riverbank for a short distance before moving to the shoulder of SR 20 at the western edge of this site. From this point the walk parallels the highway going into town. To blend the character of this site with that of its surroundings, as well as to enhance its usability, a new paved barrier free path shall be constructed through the middle of the site and along the riverbank's edge before leading into the neighborhood park to the east.

Figure 4-1 is the preliminary Engineering Row site plan.

#### 4.2.2.2 Town of Newhalem—Greenhouse

The site for a new greenhouse for the Project is on the north side of SR 20, directly across from Engineering Row. The site is presently used primarily as a llama farm although some City storage facilities and a large gravel lot also exist on-site. The City will replace the storage facilities at another location prior to commencement of construction of the greenhouse site. Storage replacement will be accomplished outside the scope of this agreement. The NPS has facilities to the west of the site, and the City maintains a sandblasting facility for powerhouse equipment behind the site to the northwest. Access to both of these facilities must be maintained through the greenhouse site. The north end of the site is bordered by steep rocky bluffs, the base of 6,000-foot Mt. Ross. On the east, the toe of the mountain comes closest to the highway, making this end of the site quite narrow. The RV parking area (Section 4.2.2.3) is a few hundred feet further east.

This site is large enough to accommodate the increasing need for propagated native plants in the area, demands that the present greenhouse facility is much too old and outdated to effectively meet. This new facility is an integral part of various other program measures (townsite plantings, rights of way plantings, erosion control, wildlife plantings).

The details of the greenhouse facilities are covered in the Wildlife Plan, adopted by the Settlement Agreement on Wildlife. Allocated to this plan are those portions of the greenhouse site development along the highway—the screening and publicly visible landscaping portions of the site. Figure 4-2 is a preliminary design for the greenhouse site; the visual quality mitigation plan funded portions are indicated on this site plan.

#### 4.2.2.3 Town of Newhalem—RV Parking Area

This site is a gravel lot located on the north side of SR 20, within the town of Newhalem. Directly across the highway from the lot is the City's public information facility and restrooms. The gravel

lot is presently used for parking by visitors to the area, particularly by those parking oversize vehicles such as RV's or trailers. A small building, currently housing City offices but scheduled to be the town's county branch library, is directly east of the gravelled area. The site is at the center of visitor activity in Newhalem; it is highly visible from SR 20 and other parts of Newhalem. The northern edge of the site is defined by a steep rocky bluff, the base of 6,000-foot Mt. Ross. As there are no other provisions for large vehicle parking within the town of Newhalem, which has the last store for 60+ miles east along SR 20, this gravelled site will continue to be used for trailer and RV parking. The lot shall be paved and marked to indicate traffic circulation, and as a safety measure, access to SR 20 shall be limited by a one-way loop system within the parking area. To visually enhance the area, the parking lot shall be divided into several planting islands for trees and shrubs, and the border with SR 20 shall be clearly delineated.

Because the site is underneath Project transmission lines, any vegetation proposed for this area must grow no higher than approximately 25 feet. Another limiting factor in the visual design of this site is the need to accommodate heavy snow removal along SR 20. Typically, snow is dumped into piles as much as 20 feet away from the road's fogline. Trees planted any closer to the road will interfere with snow plowing operations, and small plants along the shoulder will likely not survive the heavy snow piles. Throughout the site, planting shall be restricted to shrubs, groundcover, and small trees (20 feet to 25 feet in height). All plantings shall be at least 10 feet away from the fogline of SR 20.

Figure 4-3 is a preliminary site plan.

#### 4.2.2.4 Town of Newhalem—Switchyard and Ladder Creek Falls Trail Parking Area

This area, located at the eastern end of Newhalem and across the river from Gorge powerhouse, is comprised mainly of two gravelled sites visible from SR 20. Both gravel lots are used primarily for parking: one, located by the highway in front of the maintenance yard for the powerhouse, is used by employees at the maintenance facility, and the other is at the top of the Skagit River's bank across from the powerhouse and is often used by visitors touring both the powerhouse and Ladder Creek Falls trail.

The City recognizes the need to provide adequate parking for employees. The high fence that currently surrounds the maintenance facility shall be extended and brought about 30 to 40 feet closer to SR 20 on the north side of the maintenance yard, providing enough additional room within the boundaries of the fence for about 30 cars. Between the state highway and this high fence, plantings of deciduous and coniferous trees and shrubs shall be established, and the ground surface shall be treated to support grasses and other groundcovers. These plantings will not only screen the maintenance facility and warehouses from SR 20; the height of the trees and variety of shrubs will also provide a more natural setting for the state highway traveler.

The gravel lot across the river from the powerhouse shall be paved and marked to provide a parking area that is more organized. The rest of the level area at the top of the bank shall then be re-established and developed as an overlook and information area; vegetation and groundcovers will enhance this viewpoint. The enhancement of this tourist area may in turn encourage further development for visitor activities in the future, including a possible pedestrian connection around the river side of the switchyard to the existing Trail of the Cedars, which is part of the Newhalem

Project, FERC No. 2705. Other actions that will be taken in this area of the town include screening a large metal warehouse at the southwest corner of the maintenance facility with trees and shrubs and revegetating the roadside edges of an access road paralleling the river directly south of the maintenance yard.

Figure 4-4 is the preliminary site plan for the main switchyard and trail parking area.

#### 4.2.2.5 Town of Diablo—Diablo Visitor Center

There are two visual concerns about and around the town of Diablo. One is the high visibility of the Diablo powerhouse and surge tank by westbound traffic on SR 20, which looks down onto the town as it descends the opposite hill; the other is the gravel parking area that serves the Diablo Visitor Center and its organized tours of the Project. The surge tank is addressed in Section 4.2.1.3.

Views of Diablo powerhouse shall be softened and partially screened from the highway by planting trees and shrubs on the facility's east side. Trees with low-growing branches will be preferred, as they will provide more effective screening. Growing height of the trees chosen will also be a factor since this area has overhead transmission lines.

The gravel lot that services the tourist facility extends from the building sidewalk to the shoreline of Gorge Lake. The town's small sewage treatment facility is immediately adjacent to this gravel lot, and vehicular access to the powerhouse switchyard is provided through the loosely organized parking area. Some mature trees, mostly maple and sycamore, grow in planting islands at the eastern end of the gravel parking area.

The area used for parking shall be marked to define circulation patterns and better preserve small areas as planting islands. The shoreline area shall be set aside for public use and reclaimed with vegetative growth, both to improve sights of the shoreline from the water and to create a more pleasing viewpoint that looks out over Gorge Lake. Some RV and bus parking slots shall be provided for the tour facility, but the majority of the stalls will be for cars. The planting islands will support trees compatible with surrounding native species and will be further enhanced with indigenous understory growth in the form of small trees, shrubs and groundcover. Existing maintenance facilities, located on the southern edge of the present parking area, shall be screened from public view with trees and shrubs.

The preliminary site plan is Figure 4-5.

### 4.2.3 Rights-of-Way Vegetation Management Plan

#### 4.2.3.1 Introduction

A study conducted for the City by Compliance Services International (CSI) led to a report entitled, "Transmission Rights-of-Way Vegetation Management Plan" (SCL, 1990). With some modifications the City is using the visual quality analysis portion of that report as the basis for the maintenance of Project rights-of-way (ROW) for visual quality purposes. This Section 4.2.3 of



the Agreement, together with the appurtenant figures, constitutes and may be referred to as the Project Rights of Way Vegetation Management Plan.

The rights of way vegetation management plan outlines two major actions by the City. First, prescriptions for management of the rights of way are described. These prescriptions include both the physical actions to be taken and the species of plants to be encouraged or allowed to grow. Second, seven visual quality problem areas have been identified in the Ross Lake National Recreation Area for more intensive treatment. The prescriptions shall be applied in to these areas in a more aggressive manner; instead of letting the vegetation grow into the prescribed configuration, efforts shall be undertaken to speed up the recovery of these areas.

The City is not able to apply the prescriptions universally to Project rights of way. Most of the rights of way are not owned by the City in fee but are held as easements. The City is able to prescribe what the landowner may not grow under the transmission lines for safety reasons (as required by state law) but is not able to order what the landowner must grow. The City is able to control vegetation management completely on the few fee owned portions of the rights of way, and through the FERC licensing process, obtain a similar ability for those portions of the rights of way on federal land.

Most federally owned land under Project rights of way is in the Ross Lake National Recreation Area with a small amount in the Mt. Baker-Snoqualmie National Forest. In addition, the ROW crosses the Skagit Wild and Scenic River corridor twice (the Skagit River at RM 74 and the Sauk River at RM 6) and the lower reach of Diobsud Creek, a USFS recommended Recreation River at the crossing site.

#### 4.2.3.2 Prescriptions

A range of vegetation management prescriptions have been developed that shall be used to reduce the visual impacts of Project rights of way. The prescriptions, Types A through F, are described in detail in Figures 4-6 through 4-15. The planting key for the prescriptions is Table 4-1. The mitigation prescriptions shall be applied individually or combined as necessary to address the unique circumstances of each site. The City may change the prescription applicable to specific ROW sites based on experience, changed safety guidelines, or changes in property ownership. The City shall consult with the appropriate intervenors prior to implementation of changes in the applied prescriptions.

#### 4.2.3.3 Application of Prescriptions—Seven Target Areas

The selection of the seven target areas in the RLNRA was based upon the visibility of the transmission line features and its likely adverse impact to viewers traveling SR 20. The target site selection process is explained in detail in SCL 1990. Of primary concern is the visual compatibility of the transmission features with the surrounding natural landscape.

The seven target areas are:

- Bacon Creek (including portions of the ROW on USFS lands visible from Highway 20)
- Pinkie's/Damnation Creek



- Thornton Creek
- Goodell Creek
- Gorge Dam Viewpoint
- Diablo "Y"
- Diablo Overlook

Figure 4-16 is a map showing the seven target areas in relation to the Project area. Figures 4-17 through 23 indicate the prescriptions to be applied to each area. Prescription Modified Type B is the default (Figure 4-8); where no other prescription is specifically applicable, it shall be used. The City shall complete the additional application of the identified prescriptions to these areas in the first five years of the new license period. After license year five, the City shall continue to apply the prescriptions in the normal course of ROW vegetation management.

#### 4.2.3.4 Application of Prescriptions—Remainder of Rights of Way

The City shall apply the prescriptions described in Figures 4-6 through 4-15 to the remainder of the Project rights of way as appropriate and possible. These rights of way are mapped in the City's application for a new Project license in Exhibit K, Sheets T-12A through T-46A (SCL, 1978).

##### A. SCL Fee Owned Portions of Rights-of-Way

In the minority of areas of the rights of way where the City owns the property in fee, an analysis of the visibility of the transmission line from public places was used to determine the appropriate prescription. The City's fee owned parcels of ROW are listed together with the applicable prescription in Table 4-2. This plan does not affect the City's right to acquire or sell interests in ROW property necessary for Project operations.

##### B. SCL Non-fee Owned Portions of Rights-of-Way

All other areas between Mile 0 and Mile 71 not owned in fee by SCL and not covered above also have normal maintenance with Modified Type B. However, the landowner(s) may remove more vegetation than the prescription recommends; the City has no control over such actions.

##### C. Bacon Creek Crossing to Ross Powerhouse

Most of the right-of-way fee title in this section is held by the United States and managed by the National Park Service; the City's rights are governed by its license from the FERC.

All rights of way outside the seven target areas, covered in Section 4.2.3.3 above, between Bacon Creek Crossing at Mile 71 and Ross powerhouse shall receive normal maintenance, which entails managing vegetation to conform to the greatest extent possible with the natural character of the landscape, where vegetation will not pose a hazard to workers or impact transmission lines. Normal maintenance shall be accomplished by the application of the prescription Modified Type B.

TABLE 4-1  
PLANTING KEY


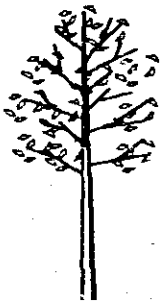


SYMBOL	TYPE/SIZE	EXAMPLE
	EVERGREEN TREES  TALL (OVER 80')  MEDIUM (40-80')	DOUGLAS FIR WESTERN HEMLOCK WESTERN RED CEDAR LODGEPOLE PINE
	DECIDUOUS TREES  TALL (OVER 80')  MEDIUM (40'-80')  LOW (25'-40')	BIG LEAF MAPLE PAPER BIRCH BLACK COTTONWOOD RED ALDER  MOUNTAIN ASH  VINE MAPLE ROCKY MOUNTAIN MAPLE WILLOWS (EXCEPT PACIFIC WILLOW)
	WILDLIFE FORAGING SHRUBS  TALL (OVER 15')  MEDIUM (3'-8')	THIMBLEBERRY HARDHACK GOOSEBERRY WESTERN SERVICE BERRY SALMON BERRY RED OSIER DOGWOOD  RED ELDERBERRY RED HUCKLEBERRY SPIREA OCEANSPRAY
	WILDLIFE FORAGING SHRUBS AND GRASSES  LOW (1'-3')	NATIVE GRASSES KINNIKINNIK LONG-LEAVED OREGON GRAPE MOUNTAIN BOX

Table 4- 2. Vegetation Management Prescriptions for City-owned Rights-of-Way Between Bothell and Bacon Creek

Location of City fee owned right of way (By ROW mile)	Prescription(s) to be Applied	Notes
Mile 0 (Bothell Substation)	Regrowth of low shrubs along street	Too many lines to do anything other than maintain a clean appearance
Mile 1	Modified Type B	No visual impact
Mile 5	Modified Type B	Maintain riparian strip along river (both sides)
Mile 7	Type E	Maintain clean appearance and protect wetlands on both sides of elevated Highway 2
Mile 8	Type E	Maintain clean appearance
Mile 10	Type E	Maintain clean appearance
Mile 14	Modified Type B	Maintain clean appearance; BPA restrains SCL from blocking view
Mile 17	Type E	North side
Mile 20	Modified Type B	No visual impact
Mile 21(a)	Type E	
Mile 21(b)	Modified Type B	No visual impact
Mile 23	Modified Type B	No visual impact
Mile 24	Modified Type B	No visual impact
Mile 25	Modified Type B	No visual impact
Mile 40	Type A and Type E	
Mile 43	Type E	
Mile 45	Modified Type B	No visual impact
Mile 47	Modified Type B	No visual impact
Mile 48	Modified Type B	No visual impact
Mile 53		No mitigation possible (tower too close to bank; no edge)
Mile 56	Modified Type B	No visual impact
Mile 57	Modified Type B	Sauk River crossing (view from river); Soften/reduce square cut at edges
Mile 58	Modified Type B	No visual impact
Mile 59	Modified Type B	No visual impact
Mile 60	Modified Type B	No visual impact
Mile 61	Modified Type B	No visual impact
Mile 63	Modified Type B	No visual impact

Note: Segments of City owned ROW are identified in Exhibit K, Sheets T-12A through T-46A (SCL, 1978). Visual quality analysis for miles 0 through 45 conducted by City. Visual quality analysis for miles 47 through 63 conducted for City by SKU. See Report on Aesthetics: Visual Quality Mitigation Alternatives Analysis (SCL, 1991b).

#### **4.2.3.5 Distribution Rights-of-Way**

The City's Skagit Project contains two distribution lines in addition to the transmission lines from Ross powerhouse to Bothell substation. One supplies power to Ross powerhouse from Diablo powerhouse, and the other supplies power to Gorge Dam from Gorge powerhouse. These two distribution lines present relatively minor visual quality problems.

SCL shall manage the Skagit project distribution rights-of-way with the same degree of visual quality sensitivity as the transmission rights-of-way. Both shall be allowed to regrow native vegetation to the greatest extent possible consistent with safety and access.

#### **4.2.3.6 Use of Herbicides**

The City shall limit use of herbicides on its rights of way consistent with the Settlement Agreement Concerning Wildlife, incorporating the Wildlife Habitat Protection and Management Plan. Prior to pesticide use within the Ross Lake National Recreation Area, the City shall consult with the NPS and obtain permits where required.

#### **4.2.4 Erosion Control Plan**

Several plan elements contained in the Erosion Control Plan simultaneously mitigate visual quality impacts. These measures are designed to minimize the visual impacts of erosion control by using naturally occurring materials (local earth, rock, timber, and vegetation) that blend with the surrounding site conditions. Erosion control planned at 72 erosion sites includes both passive and active measures. Passive measures include monitoring of erosion rates and processes at sites where the severity of erosion is complicated by several environmental factors, or where disturbance is undesirable. Active measures are limited because of the wilderness setting of much of the Project area, which precludes use of large amounts of concrete, chemically treated lumber, or visually obtrusive structures.

The City's specific obligations with regard to erosion control are in a separate Settlement Agreement on Erosion Control.

### **4.3 PLAN IMPLEMENTATION**

#### **4.3.1 Coordination**

The City shall consult with the appropriate intervenors on a regular basis. No less than annually, the City shall notify the affected land management agency Parties of the rights of way activities scheduled for the following year.

#### **4.3.2 Schedule and Cost Estimates**

Table 4-3 shows the City's planned implementation schedule and estimated costs, in 1990 dollars, for the visual quality mitigation plan elements. Both the timing and costs are estimates and are subject to change by the City as circumstances and project scheduling require.

Plan Element (By Section Number)	Cost	Schedule	Notes
<u>4.2.1 Project Facilities Improvements</u>			
1. Foss Lake Levels	2,000,000	Over license term	Estimated cost of measures to fill Ross as early in the season as possible (see Section 2.11).
2. Transmission Towers	4,000 @	Approximately 75 towers per year	Approximate cost to paint each tower; there are 742 towers in the Project transmission line; maintenance cycle is about 20 years.
3. Diablo Surge Tank	200,000	Late in license period	Tank need repainting only after many years.
4. Gorge Dam Access Bridge	20,000	CIP (See note)	Estimated cost of repainting orange railing
5. Ross Dam Broome Gate Shed	60,000	CIP (See note)	Estimated cost of replaced structure.
6. Diablo Person Lift	200,000	CIP (See note)	Removal is part of overall lift rehabilitation project.
7. Lighting	10,000		Cost is minimal; much of action has already occurred
8. Low-rise Building Roofs/Siding	10,000/year	3-5 bldgs per year	Roof replacement will continue over license period.
9. Interim Measures			Unknown until measures proposed and mitigation determined.
<u>4.2.2 Landscaping Improvements</u>			
1. Town of Newhalem—Engineering Row	457,515	CIP (See note)	
2. Town of Newhalem—Greenhouse Screen	107,715	CIP (See note)	The greenhouse facilities are dealt with in the Erosion Control Plan and the Wildlife Plan.
3. Town of Newhalem—Main/RV Parking	568,596	CIP (See note)	
4. Town of Newhalem—Ladder Cr. Parking	135,933	CIP (See note)	
5. Town of Diablo—Visitor Center Parking	313,861	CIP (See note)	
<u>4.2.3 Rights of Way Vegetation Management</u>			
1. Seven Target Areas	400,000	Over first five years of license	The City has committed to spending this amount above normal ROW maintenance activities to speed process.

Note on CIP projects: These measures will be scheduled by the City's Capital Improvement Program Review Committee as early in the license period as possible.



## 5.0 REFERENCES

- NPS (National Park Service). 1989. Environmental Assessment, North Cascades Visitor Center, Environmental Learning Center, and Ross Lake/Happy Flats Overlook. U.S. Department of the Interior, National Park Service, North Cascades National Park Service Complex, Sedro Woolley, Washington. May 5, 1989.
- NPS (National Park Service). 1988c. Construction cost for FY 1991: class "C" estimating only. U.S. Department of the Interior, National Park Service, Denver Service Center, Branch of Estimating. Denver, Colorado. October 1988.
- Means, R.S. 1989. Means site work cost data, 1990. Ninth annual edition. Kingston, Massachusetts.
- SCL (Seattle City Light). 1991a. Report on Recreation Resources: submitted to the FERC in response to a request for supplemental environmental information, FERC no 553. Seattle, Washington. April 1991.
- SCL (Seattle City Light). 1991b. Report on Aesthetics—Visual Quality Mitigation Analysis, submitted to the FERC in response to a request for supplemental environmental information, FERC no 553. Seattle, Washington. April 1991.
- SCL (Seattle City Light). 1990. Transmission Rights of Way Vegetation Management Plan. Prepared for Seattle City Light by Compliance Services International, Seattle, Washington, February, 1990
- SCL (Seattle City Light). 1989. Skagit River Project: submitted to the FERC in response to a request for supplemental environmental information, FERC no 553. Seattle, Washington. October 31, 1989.
- SCL (Seattle City Light). 1978. Application for a new license, Skagit River Project. Project 553-Washington, Volumes I and II. City of Seattle, City Light Department, Revised December 1, 1978.
- USFS (Forest Service). 1989. Land and resource management plan, Okanogan National Forest. U.S. Department of Agriculture, Forest Service, Pacific Northwest Region, Portland, Oregon.

## 6.0 SIGNATURES

IN WITNESS WHEREOF, the City has caused this Settlement Agreement to be executed by its Superintendent of Light pursuant to Ordinance No. 106741 and the Intervenor has executed same pursuant to applicable legal authority.

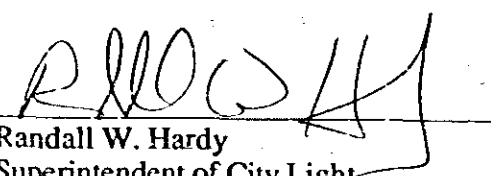
Respectfully submitted.

Dated: April 24, 1991

THE CITY OF SEATTLE

ORIGINAL

By: \_\_\_\_\_

  
Randall W. Hardy  
Superintendent of City Light

Address for Notice:

Seattle City Light  
1015 Third Avenue  
Seattle, WA 98104

Dated: April 23, 1991

**U.S. DEPARTMENT OF THE INTERIOR, NATIONAL PARK SERVICE**

By:



John Earnst  
Superintendent

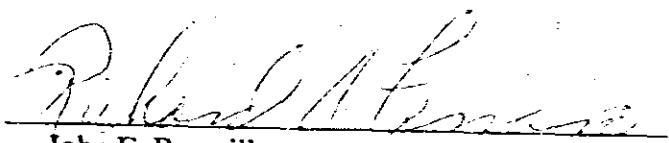
**Address for Notice:**

North Cascades Park Service Complex  
Pacific Northwest Region, National Park Service  
U.S. Department of the Interior  
North Cascades National Park Service Complex  
2105 Highway 20  
Sedro Woolley, WA 98284

Dated: April 12, 1991

U.S. DEPARTMENT OF AGRICULTURE, FOREST SERVICE

By:

  
John F. Butruille

Regional Forester, Pacific Northwest Region

Address for Notice:

Sam Nagel  
U. S. Forest Service  
21905 64th Avenue West  
Montlake Terrace, WA 98043

Dated: April 24, 1991

**NORTH CASCADES CONSERVATION COUNCIL**

ORIGINAL

By: \_\_\_\_\_

*David Fluharty*

David Fluharty  
President

Address for Notice:

NCCC  
P.O. Box 95980  
University Station  
Seattle, WA 98145-1980



Dated: April       , 1991

**UPPER SKAGIT TRIBE**

By: *Floyd Williams*

Floyd Williams  
Tribal Chairperson

Address for Notice:

Upper Skagit Tribe  
2284 Community Plaza  
Sedro Woolley, WA 98284

19910502-0032 FERC PDF (Unofficial) 04/30/1991

Dated: April 17, 1991

**SAUK-SUIATTLE TRIBE**

By: Lawrence Joseph

Lawrence Joseph  
Tribal Chairperson

ORIGINAL

Address for Notice:

Sauk-Suiattle Tribe  
5318 Chief Brown Lane  
Darrington, WA 98241

Dated: April 24<sup>th</sup>, 1991

**SWINOMISH INDIAN TRIBAL COMMUNITY**

By: Robert Joe  
Robert Joe  
Tribal Chairperson

**Address for Notice:**

Swinomish Indian Tribal Community  
P.O. Box 817  
LaConner, WA 98257

## **APPENDIX A**

### **Memorandum of Agreement North Cascades Environmental Learning Center**

# MEMORANDUM OF AGREEMENT

Concerning

**NORTH CASCADES ENVIRONMENTAL LEARNING CENTER**

Between



**City of Seattle  
City Light Department**

---

And



**UNITED STATES OF AMERICA  
DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE  
(NORTH CASCADES NATIONAL PARK)**

---

And



**NORTH CASCADES INSTITUTE**

---

**APRIL 1991**



# MEMORANDUM OF AGREEMENT NORTH CASCADES ENVIRONMENTAL LEARNING CENTER

## TABLE OF CONTENTS

	<u>Page</u>
ARTICLE I. BACKGROUND AND OBJECTIVES .....	1
ARTICLE II. RELATIONSHIP TO SETTLEMENT AGREEMENT ON RECREATION AND AESTHETICS.....	2
SECTION 1. AGREEMENT CONTINGENT ON IMPLEMENTATION OF SETTLEMENT AGREEMENT.....	2
SECTION 2. DURATION OF NCI INVOLVEMENT.....	2
SECTION 3. DURATION OF MEMORANDUM OF AGREEMENT.....	2
SECTION 4. INCORPORATED ATTACHMENTS.....	3
ARTICLE III. STATEMENT AND SCOPE OF WORK.....	3
SECTION 1. NORTH CASCADES NATIONAL PARK (NPS) INVOLVEMENT .....	3
SECTION 2. CITY OF SEATTLE INVOLVEMENT.....	5
SECTION 3. NORTH CASCADES INSTITUTE INVOLVEMENT .....	6
SECTION 4. NORTH CASCADES CONSERVATION COUNCIL INVOLVEMENT .....	7
SECTION 5. NCELCO GOVERNANCE OVERSIGHT COMMITTEE .....	7
SECTION 6. ADVISORY COMMITTEE.....	8
SECTION 7. TECHNICAL ASSISTANCE.....	9
ARTICLE IV. FACILITIES, UTILITIES AND MAINTENANCE.....	9
SECTION 1. UNITED STATES LANDS-FERC LICENSE.....	9
SECTION 2. BUILDINGS-CONSTRUCTION AND LEASE.....	9
SECTION 3. FURNISHINGS.....	10
SECTION 4. UTILITIES .....	10
SECTION 5. MAINTENANCE.....	10
SECTION 6. NCI PROPERTY.....	11
ARTICLE V. REPORTS, MONITORING AND OVERSIGHT .....	12
SECTION 1. ACCOUNTING.....	12
SECTION 2. ANNUAL REPORT .....	12

## TABLE OF CONTENTS (continued)

	<u>Page</u>
ARTICLE VI. INSURANCE AND INDEMNITY .....	12
SECTION 1. LIABILITY INSURANCE.....	12
SECTION 2. LOSS COVERAGE .....	13
ARTICLE VII. HEALTH, SAFETY AND SECURITY .....	14
ARTICLE VIII. TERMINATION, CHANGE IN OPERATING STRUCTURE.....	14
SECTION 1. TERMINATION.....	14
SECTION 2. CONTINUATION OF SERVICES .....	15
SECTION 3. PERIODIC REVIEW .....	15
ARTICLE IX. MISCELLANEOUS PROVISIONS.....	16
SECTION 1. USE OF AREA .....	16
SECTION 2. NONPROFIT STATUS .....	16
SECTION 3. CONSULTATION .....	16
SECTION 4. TAXES .....	16
SECTION 5. NATURAL AND CULTURAL RESOURCES CLEARANCE.....	16
SECTION 6. ACCESSIBILITY .....	17
SECTION 7. TELEVISION, RADIO, PUBLISHING, AND RECORDING RIGHTS.....	17
SECTION 8. NONDISCRIMINATION.....	17
SECTION 9. OFFICIALS NOT TO BENEFIT.....	17
SECTION 10. DISPUTE RESOLUTION.....	18
SECTION 11. FUNDING .....	18
SECTION 12. AMENDMENT OF MEMORANDUM OF AGREEMENT.....	18
SECTION 13. SEVERABILITY .....	18
ARTICLE X. SIGNATURES.....	18

## LIST OF APPENDICES

APPENDIX A – Relevant Portions of Settlement Agreement on Recreation and Aesthetics (Sections 2.5.1, 2.5.2, 2.10, and 3.5.2.1, Figure 3-12, 3-13, 3-14, and Part of Table 3-2).....	23
APPENDIX B – NCI By-Laws .....	33
APPENDIX C – Maps of NPS Lands, Preferred and Alternative Sites .....	39
APPENDIX D – NCELC Site Plan ..	43
APPENDIX E – Description of Facilities to be Constructed by City.....	47
APPENDIX F – Maintenance Responsibilities .....	51
APPENDIX G – NCELC Structure (chart).....	55

## MEMORANDUM OF AGREEMENT NORTH CASCADES ENVIRONMENTAL LEARNING CENTER

This Memorandum of Agreement (Memorandum of Agreement) is entered into this 24th day of April, 1991, by and between the City of Seattle, Department of Lighting (City), the United States Department of the Interior, National Park Service, by and through the Superintendent of the North Cascades National Park Service Complex (NPS), North Cascades Institute (NCI), a non-profit corporation organized under the laws of the State of Washington, and the North Cascades Conservation Council (NCCC). Together, these four entities are referred to herein as the "Parties."

### ARTICLE I. BACKGROUND AND OBJECTIVES

WHEREAS, the North Cascades National Park Service Complex was established in 1968 "In order to preserve for the benefit, use, and inspiration of present and future generations certain majestic mountain scenery, snowfields, glaciers, alpine meadows and other unique natural features in the North Cascade Mountains" (*North Cascades Act, Oct. 2, 1968, 82 Stat. 926*); and

WHEREAS, The City of Seattle owns and operates the Skagit River Hydroelectric Project No. 553 (Project) that is largely located within the Ross Lake National Recreation Area (RLNRA) of the North Cascades National Park Service Complex; and

WHEREAS, the Federal Power Act (16 U.S.C. § 803(a)) authorizes and requires hydroelectric project licensees to provide for recreational and other public beneficial use of project facilities; and

WHEREAS, the City is required to submit to the Federal Energy Regulatory Commission (FERC) a proposed recreation plan as part of the proceedings for the issuance of a new license for the Project by the FERC; and

WHEREAS, the City and the NPS have entered into a Settlement Agreement including a proposed recreation plan for the Project, which plan provides for them to join with the NCI in a memorandum of agreement to institute an environmental learning center in the Project area; and

WHEREAS, North Cascades Institute was created for the specific purpose of providing programs of public education in conservation, natural science and history and related fields of study, in order to foster and enhance understanding and appreciation of the North Cascades environment; and

WHEREAS, NCI is distinctly qualified, experienced, and willing to coordinate, develop and administer such programs;

NOW THEREFORE, in order to develop and operate a North Cascades Environmental Learning Center (NCELC) for the purposes of educating the public about the North Cascades bioregion and its natural and human history and resources consistent with applicable law, the three parties agree as follows:

## **ARTICLE II. RELATIONSHIP TO SETTLEMENT AGREEMENT ON RECREATION AND AESTHETICS**

### **SECTION 1. AGREEMENT CONTINGENT ON IMPLEMENTATION OF SETTLEMENT AGREEMENT**

Implementation of this Agreement is contingent on the full implementation of the Settlement Agreement on Recreation and Aesthetics between the City and the NPS, the North Cascades Conservation Council (NCCC), the United States Department of Agriculture, Forest Service (USFS), and the three Skagit System Cooperative Tribes dated April 24, 1991 as an article in a renewed license for the Project. This Agreement is referred to and incorporated by reference in that Settlement Agreement. Similarly, for purposes of implementing this Agreement, the relevant provisions of that Settlement Agreement are referred to and adopted by this reference, and included as Appendix A. Particular reference is made to the sections of the Settlement Agreement regarding 1) effective date and duration (Section 2.3), 2) monetary figures (Sections 2.5 and 3.2.3), 3) dispute resolution (Section 2.10), and 4) modification (Sections 2.8, 2.9, and 3.2.5). In the event of conflicts between this Agreement and the Settlement Agreement or recreation plan, the terms of this Memorandum of Agreement shall govern.

### **SECTION 2. DURATION OF NCI INVOLVEMENT**

Notwithstanding the provisions of the Settlement Agreement, with regard to the involvement of NCI as the operator of the NCELC, provision is made for periodic reviews of NCI's compliance with this Memorandum of Agreement. See Article VIII. Such reviews will be in addition to the annual meeting of the NCELC Oversight Committee (Article III, Section 4). In consideration of the substantial effort and expenditures to be made by NCI in carrying out this Memorandum of Agreement, NCI's involvement shall not be involuntarily terminated except in good faith and for good cause as provided in Article VIII.

### **SECTION 3. DURATION OF MEMORANDUM OF AGREEMENT**

#### **(a) Effective Date**

This Memorandum of Agreement shall be effective upon the date of the last signature hereto.

#### **(b) Duration**

This Memorandum of Agreement, together with any subsequent modifications, shall remain in effect for the term of the new FERC license period for the Project, which includes the term(s) of any annual license(s) that may be issued after the foregoing new license has expired. This includes ongoing operation and maintenance expenses that shall continue to be funded for the duration of this Memorandum of Agreement.



(c) Termination

This Memorandum of Agreement may not be terminated unless by mutual consent of all Parties, in writing, signed by each Party hereto.

## **SECTION 4. INCORPORATED ATTACHMENTS**

The following documents are attached as appendices to this Memorandum of Agreement and are incorporated herein by this reference:

- Appendix A. Relevant Portions of Settlement Agreement on Recreation and Aesthetics (Sections 2.5.1, 2.5.2, 2.10, and 3.5.2.1, Figures 3-11 and 3-12, and part of Table 3-2)
- Appendix B. NCI By-laws
- Appendix C. Maps of NPS Lands, Preferred and Alternative Sites
- Appendix D. NCELC Preferred Site Plan
- Appendix E. Description of Facilities to be Constructed by City
- Appendix F. Maintenance Responsibilities

## **ARTICLE III. STATEMENT AND SCOPE OF WORK**

### **SECTION 1. NORTH CASCADES NATIONAL PARK (NPS) INVOLVEMENT**

Substantial NPS involvement is anticipated by the Parties during the performance of the activities authorized under this Memorandum of Agreement. The Superintendent of North Cascades National Park Service Complex (Superintendent) will be responsible for the implementation of this Memorandum of Agreement for the NPS. NPS involvement shall include but is not limited to the following:

(a) Liberal Interpretation

NPS shall interpret this Memorandum of Agreement liberally, to further the educational and interpretive purposes for which it is executed. NPS shall take all actions necessary and reasonable consistent with this Memorandum of Agreement, including actions in the course of the relicensing and implementation of a new FERC license for the Project.

(b) Provision of Services

NPS shall provide the following services in support of the NCELC:

- Utilities as provided in Article IV, Section 4.
- Law enforcement.
- Technical assistance as provided in Section 5.

(c) Oversight Committee

NPS shall participate in the NCELC Oversight Committee established under Section 4.

(d) Compliance with Laws

In all circumstances where it has jurisdiction, NPS shall ensure compliance with statutory and regulatory requirements.

(e) Fundraising

NPS encourages the efforts of NCI to raise funds and seek donations in order to support the NCELC and to further the implementation of this Memorandum of Agreement. To the extent consistent with law and policy, NPS may assist the fund-raising efforts of NCI.

(f) Personnel

NPS will provide personnel, subject to availability of staff and funds, to assist with implementation of NCELC programs and to help program participants recognize the joint cooperative efforts of the City, NCI, and NPS.

(g) Public Relations

All printed and promotional material for NCELC programs provided by the NPS shall recognize NCI as the operator and the City as a cooperator in providing funding and other support to the NCELC.

(h) Educational Purposes

It is the intent of the NPS that all land, buildings, and utility systems covered by this Memorandum of Agreement be dedicated to educational purposes for the duration of the new Project license period.

## SECTION 2. CITY OF SEATTLE INVOLVEMENT

The City is committed herein to substantial involvement during the implementation of this agreement and the FERC license for the Skagit Project. The official responsible for the implementation of this Agreement is the Superintendent of Seattle City Light.

(a) Liberal Interpretation

The City shall interpret this Memorandum of Agreement liberally, to further the educational and interpretive purposes for which it is executed. The City shall take all actions necessary and reasonable consistent with this Memorandum of Agreement, including actions in the course of the relicensing and implementation of its new FERC license for the Project.

(b) Support for NCELC

The City shall provide the following in support of the NCELC:

- Construction of buildings and partial furnishing of them as provided in Article IV, Sections 2 and 3;
- Partial utilities support as provided in Article IV, Section 4;
- Partial maintenance support as provided in Article IV, Section 5; and
- Other support as provided in this section.

(c) Oversight Committee

The City shall participate in the NCELC Oversight Committee established under Section 4.

(d) Funding

The City shall fund NCELC programs by transferring money to North Cascades Institute, through the NCELC Oversight Committee, Section 4. The procedures for payment of these obligations shall be governed by Sections 2.5 and 3.2 of the Settlement Agreement. The City's obligations to support the NCELC monetarily are included in the Settlement Agreement (see Appendix A), and are summarized as follows:

- The sum of \$100,000 shall be paid to NCI for startup costs. This sum shall be payable in two payments of equal value in the first two years of the new license period;
- The sum of \$600,000 shall be paid and dedicated to wildlife education programs at the NCELC. This sum shall be payable in equal annual installments over the thirty-year term of the FERC license;
- The sum of \$10,000 per year shall be paid for the first ten years of full NCELC operation to subsidize the NCELC's vehicle expenses. The Oversight Committee may request support beyond that period; and
- The sum of \$4,150,000 shall be paid for general NCELC program and operations by NCI. This sum shall be payable in annual installments of \$25,000 in the first two years,

\$100,000 in the third through ninth years, and the balance, a lump sum payment of \$3,400,000, in the tenth year. The lump sum payment will be used to establish an endowment for the NCELC; the procedural terms and provisions of the NCELC Endowment shall be set out in a supplement to this Memorandum of Agreement to be executed by the City, NPS and NCI (or the operator at the time of execution) prior to the end of the ninth year. Funds will be made available for programs and operations from the foregoing moneys as determined by the NCELC Oversight Committee.

All payments by the City shall be indexed for inflation pursuant to Section 2.5.1 of the Settlement Agreement and are included in Appendix A.

(e) Fundraising

The City shall assist in fundraising activities on behalf of NCELC facilities, programs, and activities through the City's ongoing activities.

(f) Public Relations

All printed and promotional material for NCELC programs produced by the City shall recognize NCI as the operator and the NPS as a cooperator in providing support to the NCELC.

(g) Educational Purposes

It is the intent of the City that all buildings and utility systems covered by this Memorandum of Agreement be dedicated to educational purposes for the duration of the new Project license period.

### SECTION 3. NORTH CASCADES INSTITUTE INVOLVEMENT

(a) The parties to this agreement recognize and agree that, notwithstanding NCI involvement in programs at the NCELC, and in cooperation with NPS and the City, NCI shall retain its identity as an autonomous, nonprofit corporation during the performance of programs and activities authorized by this Memorandum of Agreement.

(b) Activities and operations of NCI conducted apart from the NCELC shall remain under the full control of NCI and are not subject to the terms and conditions of this Memorandum of Agreement.

(c) NCI, under the direction of the NCI Board of Directors and professional staff, shall, during the term of this Memorandum of Agreement, develop, maintain, and administer an environmental education program at the NCELC. The NCI shall operate pursuant to its bylaws, attached as Appendix B. NCI shall notify the City and NPS in writing whenever changes in the bylaws are considered or approved, including a copy of approved changes.

(d) During the term of this Memorandum of Agreement NCI shall have authority and responsibility to undertake and conduct a program of interpretive and educational activities, which may include but are not limited to: residential youth programs, environmental education programs

for educational institutions, outreach programs, wilderness trips, seminars and conferences, teacher training and internship programs in environmental education. NCI may, as available, provide NCELC facilities for seminars and conferences relating to environmental studies and conservation, and develop, sponsor, administer, and coordinate other appropriate community service activities and programs. NCI will, as available and when not in conflict with other programs, provide NCELC facilities for City and NPS seminars and conferences on a for cost basis.

(e) NCI shall select and provide all personnel necessary for the operation of the NCELC program and facilities.

(f) NCI shall take all reasonable steps to see that the conduct of its employees is consistent with NCI personnel policies and standards and the enjoyment and protection of visitors to the NCELC.

(g) All printed and promotional material for NCI programs at the NCELC shall recognize NPS and the City as cooperators in providing funding and other support to the NCELC.

(h) NCI shall offer in its programs a wide variety of interpretive and educational activities with both popular and specialized appeal to different ethnic, age, cultural, and educational groups.

(i) The activities and management of the NCELC shall be as prescribed in these Articles and in the Bylaws of NCI.

(j) Beyond the City's basic support, NCI shall coordinate the activities of the Oversight and Advisory Committees (Sections 5 and 6).

#### **SECTION 4. NORTH CASCADES CONSERVATION COUNCIL INVOLVEMENT**

(a) NCCC shall participate in the work of the Advisory Committee and shall become a member of the Oversight Committee as provided in Article VIII.

#### **SECTION 5. NCELC GOVERNANCE: OVERSIGHT COMMITTEE**

(a) An NCELC Oversight Committee shall be established to implement this Memorandum of Agreement and to ensure that the provisions of this Memorandum of Agreement are being followed. The City shall provide staff support to the operator in support of the annual meetings provided for in subsection (g) below.

(b) The Oversight Committee shall consist of three members. One voting member each shall be appointed by the NPS, NCI and the City, provided that if NCI is removed as the operator of the NCELC pursuant to the Article VIII termination process, the NCCC Advisory Committee member (Section 5) shall take the place of the NCI Oversight Committee member.



(c) The Oversight Committee shall have authority to conduct public relations and fund raising programs at the request of NCI in order to promote educational activities sponsored by NCI at the NCELC or to otherwise further the purposes of this Agreement, provided that the Oversight Committee members representing the NPS and the City are not authorized to commit the NPS or the City beyond the terms of this Memorandum of Agreement unless otherwise agreed by the proper authority.

(d) The Oversight Committee shall, in cooperation with the NCI Board of Directors, review programs and curricula offered at the NCELC.

(e) The Oversight Committee shall, in cooperation with the NCI Board of Directors, review and approve the budget for NCELC operations and capital expenditures, as provided in Article V.

(f) The Oversight Committee shall be responsible for the management of the endowment to be established under Article III. Management of the endowment shall be subject to the fiduciary standards established under Washington state law at RCW Chapter 11.100.

(g) The Oversight Committee shall meet at least annually for the purposes put forth above. If the Oversight Committee meets only once in any year, that meeting should be in the fall in order to facilitate review of the annual budget and report (Article V). The annual fall meeting of the Oversight Committee shall be at the facility.

(h) At all meetings of the Oversight Committee decisions will be made by consensus agreement. The Oversight Committee will establish its procedures. All three voting members must be represented to conduct business. Dispute resolution shall initially be subject to procedures established by the Oversight Committee. Unresolved disputes may be referred by any Party to the process established by Section 2.10 of the Settlement Agreement on Recreation and Aesthetics, provided that commencement of the time periods specified in Section 2.10.1 must be invoked in writing.

## SECTION 6. ADVISORY COMMITTEE

(a) An Advisory Committee consisting of up to twelve members (membership optional) appointed one each by each intervenor in the Skagit River Hydroelectric Project No. 553 relicensing proceedings (excluding the NPS that is on the Oversight Committee), and the Washington State Superintendent of Public Instruction (Environmental Education Office) will be established. Parties choosing to be on the Advisory Committee will give the name and address of their designated contact persons to the Oversight Committee.

(b) Advisory Committee members shall be notified of Oversight Committee meetings and actions taken. The Advisory Committee will make recommendations to the Oversight Committee regarding programs and operations at the NCELC.

## **SECTION 7. TECHNICAL ASSISTANCE**

(a) Upon request by NCI staff, NPS and the City agree, subject to the availability of personnel and funds, to provide technical and other assistance to NCI staff and programs in support of this Memorandum of Agreement.

(b) Upon request by NCI staff, and subject to availability of personnel and equipment, the NPS agrees to provide appropriate staff and equipment to assist NCI in meeting needs arising out of programs conducted or sponsored by NCI under this Memorandum of Agreement.

(c) Upon request by NCI staff, subject to availability of personnel and equipment and at the discretion of the City, the City shall provide staff and equipment to assist NCI in meeting needs arising out of programs conducted or sponsored by NCI under this Memorandum of Agreement.

## **ARTICLE IV. FACILITIES, UTILITIES AND MAINTENANCE**

### **SECTION 1. UNITED STATES LANDS--FERC LICENSE**

Should the preferred site become available pursuant to Section 3.5.2.1 of the Settlement Agreement, the NPS, retaining right of entry, shall assign for use by the NCELC and NCI, during the term of this Memorandum of Agreement, the parcels of land described in Appendix C, Map 1, for the conduct of the operations authorized in this Memorandum of Agreement. Should the learning center be constructed at the alternative site—adjacent to the NPS visitor center near the Newhalem Campground—the NPS, retaining right of entry, shall assign for use by the NCELC and NCI, during the term of this Memorandum of Agreement, the parcels of land generally described in Appendix C, Map 2, for the conduct of the operations authorized in this Memorandum of Agreement. The Superintendent of the NPS reserves the right to withdraw such assignments or parts thereof at any time during the term of this Agreement if, in his reasonable judgement, such withdrawal is necessary for the purpose of protecting visitors or area resources.

### **SECTION 2. BUILDINGS—CONSTRUCTION AND LEASE**

(a) The NCELC site plan for the preferred site is Appendix D. The facilities shall be constructed to the standards set forth in Appendix E. The building standards, site plan, and schedule shall be developed by the City under the direction of the Oversight Committee and in consultation with the Advisory Committee.

(b) Nothing herein shall be deemed to create in NCI or any of its cooperators any right or title to the buildings or structures made available for their use by the City or NPS under this Memorandum of Agreement beyond the rights set forth in this Memorandum of Agreement.

(c) The City shall lease the NCELC facilities to NCI with terms consistent with this Memorandum of Agreement. The consideration shall be one dollar per year rental and the services provided by NCI required by this Memorandum of Agreement, and the term of the lease shall be the length of the new license for the Project with provision for periodic review by the Oversight Committee as set forth in Article VIII, Section 3, and subject to termination under the conditions set forth in Article VIII, Section 1. The lease shall be reviewed and approved by the Oversight Committee.

(d) NCI shall have an interest in any improvements added to the NCELC site and facilities during the term of this Memorandum of Agreement in accordance with Section 6 of this Article.

### SECTION 3. FURNISHINGS

The City shall make available the sum of \$200,000 to NCI to purchase furnishings and equipment for use at the NCELC. This sum shall be payable during the final construction phase of the project. Title to furnishings purchased with these monies shall remain with the City.

### SECTION 4. UTILITIES

(a) NPS shall be responsible for the construction, operation and maintenance of water and sewer systems for the NCELC. The City will pay for the connections of the water and sewer mains to the individual structures as part of the site construction.

(b) The City shall provide electric power distribution facilities to the NCELC site and individual buildings as designed and will provide electric power to the NCELC at no cost up to a capped amount of electricity based upon reasonable operation of the initially constructed facilities, which amount shall be determined by the Oversight Committee during final design of the project.

(c) NCI shall be responsible for paying for all telephone service to the site. At the preferred site the City will maintain the telephone lines to the site.

(d) Garbage disposal shall be the joint responsibility of NCI, NPS, and the City. At the preferred site NCI will be responsible for transporting all garbage to either NPS or City dumpsters at Diablo Dam or Colonial Creek Campground. NCI shall maintain recycling and composting programs at the site to minimize the amount of disposable garbage produced. NCI shall be responsible for removing all recyclables from the site unless the NPS or the City make other provisions for such removal.

### SECTION 5. MAINTENANCE

(a) The City shall maintain and repair all its leased physical facilities used in the operation of the NCELC, including maintenance of assigned lands and structures, with the total cost capped at \$500,000 over the length of the license for the Project. This obligation is independent of the City's

independent, self-insured obligation to replace or repair facilities substantially damaged or destroyed by casualty. The City's maintenance obligations are defined in Appendix F. The maintenance work by the City will be made available to the NCELC on an equal annual basis starting in the year following completion of the buildings, provided that unexpended amounts may be carried forward from year to year, and that unexpended funds will be indexed for inflation annually pursuant to Section 2.5 of the Settlement Agreement. Maintenance needs not covered by these funds will be completed by NCI out of the endowment fund established in Section 2(d), under the guidance of the Oversight Committee. In order to maintain a high standard of physical appearance, operations, repair, and maintenance, periodic inspections shall be carried out jointly by NCI, NPS and the City but no less than annually.

(b) NCI shall be responsible for all housekeeping, groundskeeping and minor maintenance activities. NCI's maintenance responsibilities are defined in Appendix F.

(c) NPS shall maintain the access road to the NCELC from the City facilities (boat house) near the north end of Diablo dam (preferred site).

(d) The City shall keep the access road to the NCELC open through the winter, as personnel and equipment availability allow (preferred site).

## SECTION 6. NCI PROPERTY

(a) "NCI improvements" as used herein shall apply to all buildings and structures constructed by NCI for the purposes of this Agreement, as well as improvements to such buildings paid for by NCI. Such buildings, structures and improvements shall not be considered to be a part of the land, but shall be regarded and treated as the personal property of NCI. At the time of this Memorandum of Agreement there are no NCI improvements at either NCELC site or in the RLNRA. To qualify as a NCI improvement, said facility shall be constructed by NCI with funds other than those provided to the NCELC by the City and constructed upon or affixed to lands assigned to NCI with the prior written approval of NPS. NCI shall have legal title in NCI improvements. Ownership of the new improvements shall not be transferred without the approval of the NPS. NCI agrees and hereby grants to the NPS a right of first refusal, and the City a right of second refusal to acquire any or all major NCI improvements whether this agreement is still in effect or not; the intent of this sentence is to preserve the integrity of the facilities. Exercise of the City's second right shall not be subject to further NPS approval. If NPS or the City chooses to exercise its right, the value of the NCI improvements and full and just compensation to be paid for said improvements shall be determined as the fair market value of said NCI improvements. If this right is not exercised, and if the NPS determines that some other use consistent with NCELC objectives can be found for NCI improvements, NPS may authorize the sale of the NCI improvements to another party for the purpose of fulfilling that use with concurrence by the City.

(b) Any personal property that NCI purchases for use at the NCELC, including furnishing and equipment in excess of the \$200,000 provided by the City, will remain the personal property of NCI. NCI will maintain an inventory of personal property at the NCELC belonging to the City and to the NCI and other parties.



## ARTICLE V. REPORTS, MONITORING AND OVERSIGHT

### SECTION 1. ACCOUNTING

NCI shall maintain an accounting system whereby its accounts can be readily identified. NCI shall no later than January 31 of each year of the term of this Memorandum of Agreement submit to the Oversight Committee a financial statement for the preceding year. NCI shall submit a proposed budget for the next year to the NCELC Oversight Committee no less than sixty days before the annual fall meeting. The financial statements may be audited or otherwise verified by an independent individual or agency at the discretion of the NCELC Oversight Committee. After the creation of the endowment under Article III, Section 2(d), the Oversight Committee shall provide for an independent annual audit of its assets and expenditures. For purposes of this Agreement, an audit by the NPS or the City may be considered an independent audit.

### SECTION 2. ANNUAL REPORT

(a) No later than January 31 of each year, NCI shall present an annual report of NCELC programs and activities for the preceding calendar year to the NCELC Oversight Committee. The report shall include but need not be limited to the following:

- statement of purpose
- statement of goals and objectives for previous fiscal year, together with an analysis of how well they were met
- statement of goals and objectives for the current fiscal year
- description of programs
- description and condition of facility
- met and unmet maintenance needs of the facility
- schedule of progress and accomplishments
- staffing
- sources of support
- inventory of personal property and equipment.

(b) Upon receipt of the annual report, the members of the Oversight Committee will notify NCI within thirty (30) days of any elements that are perceived as compliance problems under this Memorandum of Agreement. NCI will then schedule meetings with the Oversight Committee to identify and discuss solutions to the perceived problems.

## ARTICLE VI. INSURANCE AND INDEMNITY

### SECTION 1. LIABILITY INSURANCE

NCI shall purchase and maintain during the period it operates the NCELC comprehensive general liability insurance against claims occasioned by actions or omissions of NCI in carrying out the



programs and operations authorized hereunder. Such insurance shall be in amounts commensurate with the degree of risk and the scope and size of activities authorized herein, but in any event not less than one million dollars (\$1,000,000) per person and three million dollars (\$3,000,000) per occurrence for bodily injury, and five hundred thousand (\$500,000) per occurrence for property damage. The City shall be named an additional insured under this policy. The level of insurance coverage required to be carried by NCI under this section may be adjusted by the Oversight Committee on an annual basis to maintain the level of risk protection.

## SECTION 2. LOSS COVERAGE

(a) It is understood by the Parties that the City and NPS are self-insured for losses to capital facilities owned by the City and NPS. In the event that there is a loss due to fire, flood or other calamity to the facilities leased to NCI for the NCELC, the City shall repair or replace them at its earliest convenience, provided that should the loss have been occasioned by the gross negligence or malfeasance of NCI, or its agents, employees, or representatives, or due to the failure by NCI to properly supervise NCELC program attendees, such loss may be considered a breach of this Memorandum of Agreement by the City and the terms of Article VII may be invoked to remove NCI from its position as operator of the NCELC.

(b) NCI shall insure itself as it sees fit for losses to NCI improvements and personal property.

(c) For vehicles provided by the City and operated by NCI, NCI will obtain: Comprehensive Automobile Liability, Uninsured Motorist coverages, and Statutory "No-Fault" coverages, as required by the State of Washington. The City shall be named as an additional insured under these policies.

(d) NCI will maintain for all employees: Statutory Workers' Compensation as required by the State of Washington; Employer's Liability coverage; and Voluntary Compensation endorsement. NCI will also maintain personal injury insurance for its employees authorized to operate the NCELC's motor vehicles.

## ARTICLE VII. HEALTH, SAFETY AND SECURITY

(a) NCI shall provide for the safety of its employees, cooperators, and the general public in their use of any facilities assigned to NCI under this Memorandum of Agreement. NCI shall take such steps as are necessary to provide a safe and healthful work environment for its employees, cooperators, program participants, and the general public.

(b) NCI, NPS and the City shall participate in a regular program of fire and safety inspections covering all facilities and programs authorized under this Memorandum of Agreement. All facilities shall be inspected on an annual basis. Provision and maintenance of fire safety equipment shall comply with National Fire Protection Association Standards and shall be the responsibility of the City.

(c) NCI shall provide and maintain adequate first aid equipment and qualified personnel to serve the basic first aid needs of NCI employees and program participants in NCELC facilities.

(d) NCI, NPS, and the City shall take immediate steps to correct health, safety and sanitation infractions called to their attention by any Federal, State, or local inspection officials when such infractions, in the opinion of the inspecting official, pose an immediate threat to the health and/or safety of persons or property. NCI shall immediately report all accidents involving personal injury other than minor first aid or property damage and fires occurring within the NCELC to the Oversight Committee.

(e) NCI, NPS and the City shall jointly be responsible for the security of the buildings assigned under this Memorandum of Agreement and property contained therein during the normal operating season. Discovery of any break-in or other criminal act shall be immediately reported to the Oversight Committee. During the winter season when the NCELC is not occupied or otherwise being used for programs, security shall be the responsibility of the City and NPS.

(j) NPS, in cooperation with the Whatcom County Sheriffs Department, shall provide appropriate levels of day-to-day routine law enforcement, investigative services and traffic control and shall undertake to enforce all applicable laws and regulations pertaining to the conduct of persons at activities conducted by NCI. NPS will provide adequate law enforcement, traffic control and other necessary visitor services required by program activities produced within the NCELC.

## **ARTICLE VIII. TERMINATION, CHANGE IN OPERATING STRUCTURE**

### **SECTION 1. TERMINATION**

(a) This article may be invoked by a vote of the Oversight Committee. For all actions under this Article, the NCCC shall replace NCI as the third member of the Oversight Committee.

(b) The Parties expect that any deficiencies by NCI in conforming to this Memorandum of Agreement will be corrected whenever practicable and is aware that NCI will incur substantial expenses in performing its obligations under this Memorandum of Agreement in anticipation that the Memorandum of Agreement will not be terminated prior to the end of the new FERC license term for the Project.

(c) NCI may be terminated as operator of the NCELC for reasonable cause by the Oversight Committee. Reasonable cause for termination is considered to be:

- identified deficiencies in the performance of activities and operations under this Memorandum of Agreement; or

- failure on the part of NCI to carry out the terms of this Memorandum of Agreement in an appropriate manner consistent with the goals and purposes of the Settlement Agreement; and
- failure of NCI to remedy identified deficiencies to the satisfaction of the Oversight Committee when given written notice and a reasonable amount of time to correct the situation.

## SECTION 2. CONTINUATION OF SERVICES

- (a) To avoid interruption of services to the public upon the expiration or termination of this contract, NCI, upon direction of the Oversight Committee, and as directed by the NCI Board of Directors, shall continue to conduct operations authorized under this agreement to allow the Oversight Committee a reasonable period of time to select a successor. This obligation may be waived by the Oversight Committee if NCI is terminated for cause under Section 1.
- (b) In the event of termination of NCI as the operator of the NCELCL, the Oversight Committee (NPS, SCL, and NCCC) will select a new operator. Upon selection the new operator will become NCI's assignee under this Memorandum of Agreement, or a new memorandum of agreement will be negotiated.
- (c) Upon termination of the NCI as operator, NCI agrees to vacate the NCELCL facilities within ninety (90) days and to remove all NCI improvements and personal property.
- (d) Upon termination of this Memorandum of Agreement all NPS property assigned to NCI shall be returned to NPS, less ordinary wear and tear.
- (e) Upon termination of this Memorandum of Agreement all City property leased or assigned to NCI shall be returned to the City, less ordinary wear and tear.

## SECTION 3. PERIODIC REVIEW

At the end of five years of NCELCL occupation of the facilities or in year ten of the license whichever occurs first, the Oversight Committee, with NCCC replacing the NCI as Oversight Committee member, shall conduct a review of NCI's tenure as operator of the NCELCL. The Oversight Committee shall review the five years of operation and determine if the NCI should continue as the operator of the NCELCL. The decision of the Oversight Committee shall be issued in writing and will be supported by analysis of the NCI's accomplishments and compliance with the terms of this Memorandum of Agreement during the period reviewed. If the Oversight Committee determines that NCI should be terminated as the operator of the NCELCL, this article is invoked. Similar reviews shall be conducted five, twelve, and nineteen years after the first review and during the last year of the term of the license for the Project; the last review shall result in a document to be used in helping the Parties determine the future of the NCELCL at that time.

## **ARTICLE IX. MISCELLANEOUS PROVISIONS**

### **SECTION 1. USE OF AREA**

This Memorandum of Agreement is entered into by NCI with the knowledge that the natural, historic and recreational qualities of the North Cascades National Park Service Complex are to be preserved. NCI shall not use any premises or any of the rights or privileges herein provided for, except to the extent necessary for the purposes of this Memorandum of Agreement.

### **SECTION 2. NONPROFIT STATUS**

During the term of this Memorandum of Agreement NCI must retain its nonprofit status pursuant to the General Nonprofit Corporation Laws of the State of Washington. Intentional or negligent permanent loss of this status shall be cause for termination of this Memorandum of Agreement.

### **SECTION 3. CONSULTATION**

NCI, NPS, and the City through their representatives on the Oversight Committee shall maintain close liaison with each other and shall consult regularly on all matters pertaining to activities authorized or required under this Memorandum of Agreement.

### **SECTION 4. TAXES**

Any and all taxes which may be lawfully imposed by any State or its political subdivisions upon the activities of NCI shall be paid by NCI. Any and all taxes which may be lawfully imposed by any State or its political subdivisions upon the activities or properties owned by the City shall be paid by the City.

### **SECTION 5. NATURAL AND CULTURAL RESOURCES CLEARANCE**

No Party may undertake any ground-disturbing activities, such as gardening, landscaping, utility trenching, without advance written approval for such activity from the Superintendent of the North Cascades National Park Service Complex. NCI shall consult with NPS regarding any NCELC activities that might affect the wildlife, water quality, soils, vegetation, or other natural or cultural resources at the NCELC.



## **SECTION 6. ACCESSIBILITY**

All public structures shall, to the greatest extent possible, comply with the Architectural Barriers Act of 1968, the Rehabilitation Act of 1973, and the Americans with Disabilities Act of 1990. If it is intended that the facilities be open for public use and if major construction work is undertaken, then such work must be performed in compliance with accessibility standards. If the location or intended use of a facility or portion of the facility precludes its use by disabled persons, the Superintendent of the North Cascades National Park Service Complex may waive this provision.

## **SECTION 7. TELEVISION, RADIO, PUBLISHING, AND RECORDING RIGHTS**

NCI retains the right to contract for, produce itself, or assign the rights to radio broadcasting, televising, recording, publishing, or any other kinds of reproduction, of whatsoever nature relating to both the history and method of NCI's own existence and growth, and to any of the programs produced by it or any of the groups participating in its activities, subject to the consent of those groups and subject to NCI's compliance with all rules and regulations with respect to filming on NPS lands including and obtaining permits therefore whenever applicable. NCI will retain copyright to any and all materials produced by NCI during the course of this Memorandum of Agreement.

## **SECTION 8. NONDISCRIMINATION**

NCI shall comply with the requirements of (a) Title VII of the Civil Rights Act of 1964, as well as Executive Order No. 11246 of September 24, 1965, as amended by Executive Order No. 11375 of October 13, 1967, (b) Title V, Section 503 of the Rehabilitation Act of September 26, 1973, P.L. 93-112, which requires affirmative action to employ and to advance in employment qualified disabled individuals, and with regulations heretofore or hereafter promulgated, relating to nondiscrimination in employment and in providing facilities and services to the public, and shall do nothing in advertising for employees that will prevent those covered by these laws from qualifying for such employment.

## **SECTION 9. OFFICIALS NOT TO BENEFIT**

No member or delegate to Congress or resident Commissioner shall be admitted to any share or part of this Memorandum of Agreement or to any benefit that may rise therefrom, but this provision shall not be construed to extend to this Memorandum of Agreement if made with a corporation for its general benefit.



## **SECTION 10. DISPUTE RESOLUTION**

Dispute resolution shall be governed by the procedures of Section 2.10 of the Settlement Agreement which is included in Appendix A. Unanimous decisions of the Oversight Committee under Section 2.10.1 or at the policy review level under Section 2.10.2 shall bind all Parties to the dispute resolution process, and in the case of termination proceedings under Article VIII, shall bind NCI as well.

## **SECTION 11. FUNDING**

No legal liability on the part of the NPS shall arise for any performance under this Memorandum of Agreement or any subsequent agreements between the Parties until funds are made available from funds appropriated by Congress for that purpose.

## **SECTION 12. AMENDMENT OF MEMORANDUM OF AGREEMENT**

No waiver, modification, or amendment of this Memorandum of Agreement shall be valid unless in writing duly executed by each Party. Amendment to this Memorandum of Agreement may be proposed by any Party and shall become effective only upon being executed by each Party hereto.

## **SECTION 13. SEVERABILITY**

If any provisions of this Memorandum of Agreement or its application to any person or any circumstances shall be invalid and unenforceable, the other provisions of this Agreement shall not be affected by such invalidity or unenforceability.

## **ARTICLE X. SIGNATURES**

IN WITNESS WHEREOF, the City has caused this Settlement Agreement to be executed by its Superintendent of Light pursuant to Ordinance No. 106741 and the Intervenors have executed same pursuant to applicable legal authority.

Respectfully submitted.

Dated: April 24, 1991

THE CITY OF SEATTLE

ORIGINAL

By: 

Randall W. Hardy  
Superintendent of City Light

Address for Notice:

Seattle City Light  
1015 Third Avenue  
Seattle, WA 98104

Dated: April 23, 1991

ORIGINAL

**U.S. DEPARTMENT OF THE INTERIOR, NATIONAL PARK SERVICE**

By: John D. Earnst  
John Earnst  
Superintendent

**Address for Notice:**

North Cascades Park Service Complex  
Pacific Northwest Region, National Park Service  
U.S. Department of the Interior  
North Cascades National Park Service Complex  
2105 Highway 20  
Sedro Woolley, WA 98284

Dated: April 22, 1991

**NORTH CASCADES INSTITUTE**

By: \_\_\_\_\_

  
John Miles

Chair, Board of Directors

**Address for Notice:**

NCI

2105 Highway 20

Sedro Woolley, WA 98284

**MEMORANDUM OF AGREEMENT  
NORTH CASCADES ENVIRONMENTAL LEARNING CENTER**

**APPENDIX A**

**Relevant Portions of Settlement Agreement  
on Recreation and Aesthetics**



## MEMORANDUM OF AGREEMENT NORTH CASCADES ENVIRONMENTAL LEARNING CENTER

### APPENDIX A

#### Relevant Portions of Settlement Agreement on Recreation and Aesthetics (Sections 2.5.1, 2.5.2, 2.10, and 3.5.2.1, Figures 3-12, 3-13, 3-14, and part of Table 3-2)

##### 2.5.1 Adjustments For Inflation/Deflation

All dollar amounts listed in this Agreement are defined as 1990 dollars and shall be adjusted annually for inflation or deflation by using the revised Consumer Price Index ("CPI-U") for All Urban Consumers as published by the United States Department of Labor for the Seattle metropolitan area. The indices used shall be those published for the last half of 1990 and, for subsequent years, the last half of the calendar year preceding that in which a payment or expenditure is to be made. Indexing of items in this Agreement shall continue until the year of actual payment unless otherwise provided in this Agreement. The percentage of change from the earlier index to the later index shall be multiplied by the amount specified in this Agreement and the result added to or subtracted from that amount to arrive at the total payment or expenditure. Should the CPI-U index not be available, the Parties agree to negotiate another statistical basis for determining annual changes in the City's monetary commitments.

##### 2.5.2 Time Basis For Payments and Obligations

Payments and obligations by the City for this Agreement will be made and met on a license-year basis. License years are based on the date of the FERC order issuing a new license for the Project; however, unless specifically provided otherwise in the plan, the City's monetary obligations do not become payable until the license becomes effective (see Section 2.3.1). The City will make project specific moneys due in license year one available at the time they are needed as soon as possible after the license becomes effective. In subsequent license years, the City will make payments to the Intervenor for the implementation of specific Recreation Plan projects at the time they are needed. Moneys required to be paid to or on behalf of the Intervenor for non-project specific purposes will be paid on the last day of each license year. If the license is issued and accepted during a season critical for implementation, it may be impossible to implement a particular program element that year. Therefore, the Parties agree that implementation of such elements may not occur until the license year following its stated schedule in the Plan. Agreed upon rescheduling of projects solely as a result of seasonal considerations shall not be considered a license compliance violation.

## **2.10 DISPUTE RESOLUTION**

### **2.10.1 Technical Level Review**

Any dispute among the Parties concerning compliance with this Settlement Agreement shall first be referred to technical representatives of the contact persons identified in Section 2.7. The technical representatives will meet as soon as possible after written notification of a dispute by any Party. A quorum for meetings of the technical representatives to discuss disputes shall consist of the City and the Party(s) having a financial, administrative or other interest in the subject matter. Decisions of the technical representatives must be unanimous. In the event that the technical representatives cannot resolve the dispute within ninety (90) days after first meeting on said dispute, the City will give notice of such failure to all Parties. For purposes of implementation of the Memorandum of Agreement (MOA) between the City, NPS, and the North Cascades Institute under Section 3.5.2.1 (North Cascades Environmental Learning Center), the technical level review shall be conducted by the Oversight Committee created pursuant to Article III, Section 5 of the MOA, which is Appendix A to this Agreement.

### **2.10.2 Policy Level Review**

The Parties may, at their option prior to elevating an issue to the FERC, convene an in-person or telephone conference of the policy-level representatives, identified in Section 2.7, after notice of the failure of the technical level representatives. Any Party through its designated contact (persons identified in Section 2.7 or their designated technical representative) may invoke the optional policy level review by contacting the other Parties' designated contacts and arranging a suitable conference. For purposes of decisionmaking, a quorum shall consist of the physical or telephonic presence of all representatives who desire to participate. Decisions by unanimous consent shall bind all Parties. The policy level representatives may by unanimous consent agree to binding arbitration or mediation subject to rules as they determine appropriate. In the event that the policy representatives cannot resolve the dispute within fifteen (15) days, the matter may be taken to the next level.

### **2.10.3 FERC Review**

In the event that disputes are not resolved at the technical level review or the optional policy level review, any Party may refer the matter to the FERC for resolution pursuant to the FERC's Rules of Practice and Procedure. Should any hearings be held at this stage, they shall be held in Seattle, Portland, or elsewhere in the Pacific Northwest unless another location is agreed upon by the Parties or mandated by FERC order upon a finding of special circumstances.

### **2.10.4 Noncompliance**

Notwithstanding any other provision of this Agreement, any Party may seek relief arising solely from non-compliance with this Agreement by any Party.

### 3.5.2.1 North Cascades Environmental Learning Center

#### *Purpose and Intent*

An environmental learning center is the centerpiece of the City's proposed recreation plan. The NPS and North Cascades Conservation Council (NCCC) strongly desire such a facility. The City agrees that an environmental learning center can provide vital support to a management philosophy for the North Cascades as an ecosystem. The City also accepts this action as appropriate to increasing the depth and breadth of public appreciation for the North Cascades ecosystem. The City shall therefore fund the initial development of a North Cascades Environmental Learning Center (NCELC) and contribute to its long-term operation and maintenance as indicated in this section and on Table 3-2.

The North Cascades Institute (NCI), an established regional environmental education institution, has agreed to initially operate the learning center and provide its program structure. The City, the NPS and the NCI have entered into a memorandum of agreement (MOA) regarding the construction, operation and management of the NCELC. The MOA is included as Appendix A to this Agreement and incorporated by reference. In any instance where there is a conflict between the provisions of the MOA and this Agreement, the MOA shall govern. A summary of the basic relationships between the three parties as set forth in the MOA is found in Appendix G of the MOA.

Under the procedures established in the MOA, the City shall acquire rights to and prepare the preferred or alternative site and construct new facilities as specified in this Agreement and the MOA. As federal lands, possession of the preferred or alternative site will be granted to the NCELC operator under the terms of the new FERC license for the Project. The City shall lease the facilities, which will be owned by the City, to the operator in consideration of the operator's obligations under the MOA.

#### *Diablo Lake Site*

The preferred learning center site is on the north shore of Diablo Lake. The location is relatively secluded and private, being situated across the lake from SR 20, but it does have road access. The existing road crosses Sourdough Creek, which borders the site to the west. Although steep foothills prevent development of much of the area, the selected site is relatively flat along its shoreline. The site was created over time as part of an alluvial fan by the creek's seasonal turbulence. The site, facing south-southwest, rises gently into a wooded hillside. The Diablo Lake site is indicated in Figure 3-12.

The site, originally developed as a temporary work camp during construction of Ross dam and powerhouse, is currently being used as a resort. Although the land is now owned by NPS, the buildings still standing are owned by the resort operator, Diablo Resort, Inc., which also holds a contractual right to occupy the site until 1998. Most of the buildings are resident cabins, left over from work-camp days, but a newer restaurant in operating condition stands on the eastern portion of the site. Existing facilities on-site include water, sewer, and power utilities. The City uses an

existing road through the site to access a boathouse, located on the eastern edge of the site, as well as facilities at Buster Brown cove further east.

The City will use good faith efforts to obtain clear title to the preferred site by purchase of the concession contract and resort assets from the current owner.

### ***Newhalem Campground Site***

In the event that the City is not able to obtain rights to the Diablo Lake site, the City will construct environmental learning center facilities comparable to those set forth in this Appendix E of this Agreement at the alternative site adjacent to the NPS visitor center, near the Newhalem Creek Campground. The Newhalem Creek site is indicated in Figure 3-13.

The Newhalem Creek Campground site is located on a bench about eighty feet in elevation above the Skagit River. It is located on the south shore of the river, about 1000 feet west of the town of Newhalem. The site is adjacent to the site selected for construction of a new visitor center for the North Cascades National Park Service Complex. Construction of that facility is scheduled to commence in 1991. In conjunction with visitor center construction, access improvements and utilities will be put in place which can be extended to the learning center site. The siting of the learning center at this location was analyzed by the NPS in a 1989 environmental assessment. (NPS, 1989).

### ***Facility Development and Operation***

A residential learning facility is proposed that will offer programs on many aspects of the natural environment. The initial capacity of the NCELC will be 40 students plus 12 faculty and staff. The facility will be designed so that it can be expanded to accommodate 60 students and 18 faculty and staff. There are no existing facilities in the North Cascades region that can accommodate this type of learning center. This proposed use will provide a valuable educational resource for the area.

Under the direction of the Oversight Committee created pursuant to Article III, Section 5 of the MOA and in consultation with the Parties, the City will provide the following facilities:

- dormitories capable of housing students, faculty and staff in a variety of gender ratios;
- one main service building with classrooms, library, laboratory, and offices;
- a cafeteria;
- a covered shelter;
- an outdoor amphitheater;
- grassy recreation area;
- outdoor "rooms" for small learning groups;
- adequate parking;
- staff housing;
- a central exhibit area; and
- trails.



A tentative site plan for the NCELC preferred site is provided as Figure 3-14. Preliminary evaluation of the existing facilities on that site indicates that most of the existing buildings will have to be replaced. The restaurant is the newest building and will remain and be used as a cafeteria and meeting rooms, library, or similar uses. The existing utilities will continue to serve the site. The facility will be developed to best take advantage of the site's features and views, including relocation of the existing overhead utility poles and lines to the back (north) edge of the site. The central area of the site will remain open to accommodate views across the water, thus emphasizing the natural, outdoor landscape as the central focus for this development. The surrounding wooded hillsides will provide numerous opportunities for trails and observation areas, and the lake will be easily accessible for purposes of various shoreline and lacustrine life studies.

The alternative site has similar siting benefits (NPS, 1989).

All public facilities and one of the staff residences will be handicapped-accessible. Environmental conservation practices such as on-site recycling facilities will be included in NCELC facilities design and operation at either site. This and similar programs may serve a double purpose: not only would they provide opportunities for education and research, but they would illustrate the possibilities for development that integrate and balance basic everyday human needs with those of the natural environment. Educational seminars, covering a broad variety of topics, generally will last from one day to several weeks. The programs will be directed toward many different age groups, including seniors.

NPS will maintain water and sewer facilities. The USFS, the State Superintendent of Public Instruction's Environmental Education Office, and the Skagit System Cooperative Tribes will be invited to serve in an advisory capacity to the learning center. Details on site and facility management responsibilities are included in the MOA. Further details on the construction of each NCELC site are also included in the MOA.

The City shall provide the following operation and maintenance services:

- electricity service up to an amount to be determined in the design phase by the Oversight Committee, based on the facility as designed, at no cost;
- maintenance of the NCELC physical plant up to \$500,000 over the life of the facility (scheduled in equal annual increments from completion of construction through the new license period, exclusive of routine janitorial and gardening services for which the operator is responsible, and further exclusive of losses due to calamities as described in Article VI, Section 2 of the MOA);
- program startup costs, after the issuance of the new Project license, \$100,000 (scheduled in two equal payments in years 1 and 2), to be allocated by the Oversight Committee;
- ongoing NCELC program and staffing costs up to \$4,150,000 over the course of the license (scheduled to start in year 1, with annual payments of \$25,000 in years one and two, \$100,000 in years three through 9, and a lump sum endowment payment of \$3,400,000 in year 10), to be allocated by the Oversight Committee;



- wildlife education funding at \$600,000 over the term of the license (scheduled in equal annual payments starting in year 1), to be allocated by the Oversight Committee;
- furnishings up to \$200,000, to be allocated by the Oversight Committee;
- vehicles—the City shall provide three fifteen person vans, or the equivalent, from the first full year of NCELC operations through the term of the license by lease or purchase and will maintain them or pay for their maintenance;
- vehicle operation—the City will support the operation of the vehicles by making capped payments of \$10,000 per year for the first ten years of full NCELC operation (the operator shall be responsible for all other costs of operation, including gas, oil and insurance), and, if necessary, the Oversight Committee may request support beyond that period; and
- continuation of utility, vehicle, and maintenance support into the period of annual licenses after the term of the new license, to be allocated by the Oversight Committee, at the levels existing at the end of the regular license period.

The City will begin preparations for construction of the learning center facilities as soon as a new Project license is issued and accepted. The City estimates that it will take three to five years to have the site and facilities completed. The City will use its best efforts to have the facility in an operable condition by the third June of the new license period, with funding availability not to be a limiting factor.

Figures 3-12, 3-13, and 3-14 are in Appendices C and D of this MOA

Part of Table 3-2. North Cascades Environmental Center Cost Estimates and Budget Schedule

PLAN ELEMENT	YEAR OF NEW LICENSE PERIOD (figures in 1990 dollars)										TOTAL COST	Total License Fee
	1	2	3	4	5	6	7	8	9	10		
North Cascades Environmental Learning Center (5-year assumed operation starts year 3)												
- Planned Site Purchase/Expenses	356,000	50,000	1,300,000	400,000							356,000	19
- Startup/Temporary Facilities	50,000	800,000	100,000	100,000							100,000	1
- Site Development, including contingency	175,000		6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	60,000	6,000
- Furnishings			26,607	26,607	26,607	26,607	26,607	26,607	26,607	26,607	186,071	15,500
- Electricity			26,607	18,519	18,519	18,519	18,519	18,519	18,519	18,519	185,185	15,000
- Vehicles			120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	200,000	20,000
- Maintenance	45,000	45,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	200,000	20,000
- Program Support and Endowment	180,000	875,000	1,732,807	651,126	151,126	151,126	151,126	151,126	151,126	3,451,126	431,257	41,500
TOTAL	1,000,000	875,000	1,732,807	651,126	151,126	151,126	151,126	151,126	151,126	3,451,126	431,257	6,908,000

Notes

e. Amount is outlay.

1. Amount is estimate; the City's obligation is to construct facility (or undertake action) as described in Recreation Plan and MOA.

g. Site purchase may occur prior to expected license issuance date.

n. Amount is estimate; actual outlay amount will be determined during design phase.

l. \$10,000 per year for first ten years is capped amount for insurance and operating expenses. Remainder is capitalization of vehicles (including maintenance) and is an estimated amount.

1. Total amount is capped. Annual amount is determined based on completion date of facility; total is divided equally into years remaining in license (MOA Article IV, Section 5).

k. \$20,000 per year of use listed amount (total = \$600,000) is allocated to the Project Wildlife Plan and is included in the annual payment amounts but is not included in the total.

## Notes

- Amount is out-of-pocket.
- Amount is estimate; the City's obligation is to construct facility (or underwrite a portion) as described in Recreation Plan and MOA.
- Site purchase may occur prior to expected license issuance date.
- Amount is estimate; actual out-of-pocket amount will be determined during design phase.
- \$10,000 per year for first ten years is capped amount for insurance and operating expenses. Remainder is capitalization of vehicles (including maintenance) and is an estimated amount.
- Total amount is capped. Annual amount is determined based on completion date of facility; total is divided equally into years remaining in license (MOA, Article IV, Section 5).
- \$20,000 per year of use listed amount (total = \$600,000) is allocated to the Project Wildlife Plan and is included in the annual payment amounts but is not included in the total.

**MEMORANDUM OF AGREEMENT  
NORTH CASCADES ENVIRONMENTAL LEARNING CENTER**

**APPENDIX B**

**NORTH CASCADES INSTITUTE**

**BYLAWS  
(Revised April 6, 1990)**

# MEMORANDUM OF AGREEMENT NORTH CASCADES ENVIRONMENTAL LEARNING CENTER

## APPENDIX B

### NORTH CASCADES INSTITUTE

#### BYLAWS

(Revised April 6, 1990)

#### ARTICLE I. NAME

The name of the organization shall be NORTH CASCADES INSTITUTE.

#### ARTICLE II. PURPOSE

Section 1. The corporation has been organized to operate exclusively for educational, scientific, artistic, literary, and charitable purposes, within the meaning of section 501(c)(3) of the Internal Revenue code.

Section 2. The mission of the organization is to increase understanding and appreciation of the rich natural, historical, and cultural legacy of the North Cascades region. Our goal is to provide leadership and excellence in wilderness, outdoor, and environmental education; to help people learn about, appreciate, and ultimately care for the land and all its inhabitants. The Institute believes in an engaged and empowered public, one which speaks responsibly for the land, its creatures, and the people, of this special place.

Section 3. This mission will be met through North Cascades Institute offering a series of educational programs in natural and human history, environmental education, and artistic expression. Courses may include, but are not limited to; seminars and workshops, family nature programs, backpacking field studies, school programs, research, publications, and symposia on selected topics.

#### ARTICLE III. LOCATION

Section 1. The activities of this organization shall focus on the North Cascades region which for these purposes shall include those areas dominated by the northern Cascade Mountains and stretching from Puget Sound and the San Juan Archipelago east to the Columbia Basin.

Section 2. The principal office of the corporation, at which the general business of the corporation will be transacted and where the records of the corporation will be kept, will be at such place in the state of Washington, as may be fixed from time to time by the Board of Directors. Unless otherwise fixed, it will be at: 2105 Highway 20, Sedro Woolley, WA 98284.



#### ARTICLE IV. MEMBERSHIP

Members of the corporation will consist only of the members of the Board of Directors.

#### ARTICLE V. BOARD OF DIRECTORS

Section 1. Directors will share the mission and goals of the corporation.

Section 2. The number of members of the Board of Directors will not be less than 5 or more than 19. Directors will be elected by a 2/3 majority vote of the current directors.

Section 3. Whenever the membership of the Board of Directors is below 19, the Board may nominate and elect director(s) to serve on the Board.

Section 4. Any director may be removed from the Board of Directors by a 2/3 majority vote of the Board at an official meeting of the corporation. The director involved will be given all opportunity to be present and heard at the meeting at which his/her removal is considered.

Section 5. No compensation will be paid to any member of the Board of Directors for services as a member of the Board. Nothing herein shall be construed to preclude any director from serving the corporation in any other capacity and receiving compensation therefor. By resolution of the Board, reasonable expenses may be allowed for attendance at regular and special meetings of the Board.

#### ARTICLE VI. MEETINGS OF THE BOARD OF DIRECTORS

Section 1. An annual meeting of the Board of Directors will be held in November of each year for the purpose of electing officers. The Board of Directors will hold regular quarterly meetings at such place and time as may be designated in the notice of the meeting. Notification of such meetings shall occur at least 14 days prior to such meetings.

Section 2. Special meetings of the Board of Directors may be called at any time by agreement of at least three members of the Board. Notification of all such meetings will occur at least three days prior to the day such a meeting is to be held. All reasonable attempts must be made to notify all Board Members of such a meeting.

Section 3. At all meetings of the Board of Directors, each director present will be entitled to cast one vote on any motion coming before the meeting. The presence of a majority of the membership will constitute a quorum at any meeting. At a meeting at which there is a quorum present, a 2/3 majority affirmative vote of the directors present is required to pass a motion before the Board. Proxy voting will not be permitted.

Section 4. Routine business of the Institute may be conducted through mail or telephone polls of the Board, provided that, should any Board member request, the poll will be terminated, and a meeting of the Board will be held.

Section 5. Robert's Rules of Order will be the authority for all questions of procedure at any meetings of the corporation.

## ARTICLE VII. OFFICERS

Section 1. The officers of this corporation will be a chair, vice-chair, treasurer, secretary, and such other officers with duties as the Board prescribes.

Section 2. The officers of the corporation will be elected annually by a majority vote of the members of the Board at its annual meeting. Each officer will serve a one year term. Officers may serve more than one consecutive term. Any officer may be removed by the Board of Directors by a 2/3 majority vote of the members of the Board.

Section 3. Duties of officers are as follows: The chair shall preside over meetings of the Board; the vice-chair shall serve in the chair's absence; the treasurer shall chair the finance committee and provide financial oversight; the secretary shall keep the minutes of all meetings. Other duties for all officers may be assigned as needed by the Board.

## ARTICLE VIII. EXECUTIVE DIRECTOR

The Board of Directors shall employ an Executive Director to carry out the mission and programs of the Institute. Duties and responsibilities of the Executive Director shall include: development and management of all programs; development and management of the budget; hiring and supervision of staff; and other duties as required by the Board of Directors.

## ARTICLE IX. COMMITTEES

Section 1. Standing committees of the Board of Directors will include 1) an Executive Committee, whose members will include all officers and the Executive Director; and 2) a Finance Committee which shall be chaired by the treasurer.

Section 2. The Board of Directors may designate other committees as needed. Committee members may be members of the Board of Directors or other interested individuals. Committees may adopt such rules for the conduct of business as are appropriate, and are not inconsistent with these bylaws, the articles of incorporation, or state law.

## ARTICLE X. ADVISORY COUNCIL

There shall be an Advisory Council appointed by the Board of Directors to assist the Board and Staff as needed.

## ARTICLE XI. FINANCIAL MATTERS

Section 1. The corporation will keep correct and complete books and records of account and will also keep minutes of the proceedings of the Board of Directors, and committees having any of the authority of the Board of Directors. It will keep at the principal office a record giving the names and addresses of the members entitled to vote. All books and records of the corporation may be inspected by any member for any proper purpose at any reasonable time.

Section 2. The fiscal year of the corporation will be January 1 through December 31. All checks, drafts, and other orders for payment of funds will be signed by such officers or such other persons as the Board of Directors may from time to time designate.

## ARTICLE XII. NON-DISCRIMINATION

North Cascades Institute is committed to a policy of non-discrimination. Employees, Board members, and program participants will not be discriminated against on any basis, including but not limited to: sex, age, color, religion, race, national origin, physical handicap, or sexual orientation.

## ARTICLE XIII. AMENDMENTS

The Board of Directors may amend these bylaws to include or omit any provision that it could lawfully include or omit at the time the amendment is made. Upon written notice of at least 14 days, any number of amendments or an entire revision of the bylaws may be submitted and voted upon at a single meeting of the Board of Directors and will be adopted at such meeting upon receiving a 2/3 vote of the members of the Board of Directors.

## ARTICLE XIV. LIABILITY

The corporation will have the power to indemnify and hold harmless any director, officer, or employee from any suit, damage, claim, judgement, or liability arising out of, or asserted to arise out of, conduct of such person in his or her capacity as a director, officer, or employee (except in cases involving willful misconduct). The corporation will have the power to purchase or procure insurance for such purposes.

## ARTICLE XV. DISSOLUTION

Upon the dissolution of the corporation and after the payment or the provision for payment of all the liabilities of the corporation, the Board of Directors will dispose of all of the assets of the corporation exclusively for the purposes of the corporation or to organizations that are then qualified as tax-exempt organizations under section 501(c)(3) of the Internal Revenue code. Any assets not so disposed of will be disposed of by a court of jurisdiction in the country in which the principal office of the corporation is located.

## ARTICLE XVI. RATIFICATION

These bylaws were ratified unanimously by a quorum of the Board of Directors present at a meeting held on April 6, 1990.

**MEMORANDUM OF AGREEMENT**  
**NORTH CASCADES ENVIRONMENTAL LEARNING CENTER**

**APPENDIX C**

**Maps of NPS Lands, Preferred and Alternative Sites**

Figure 3-12 Diablo Lake Site Area Map

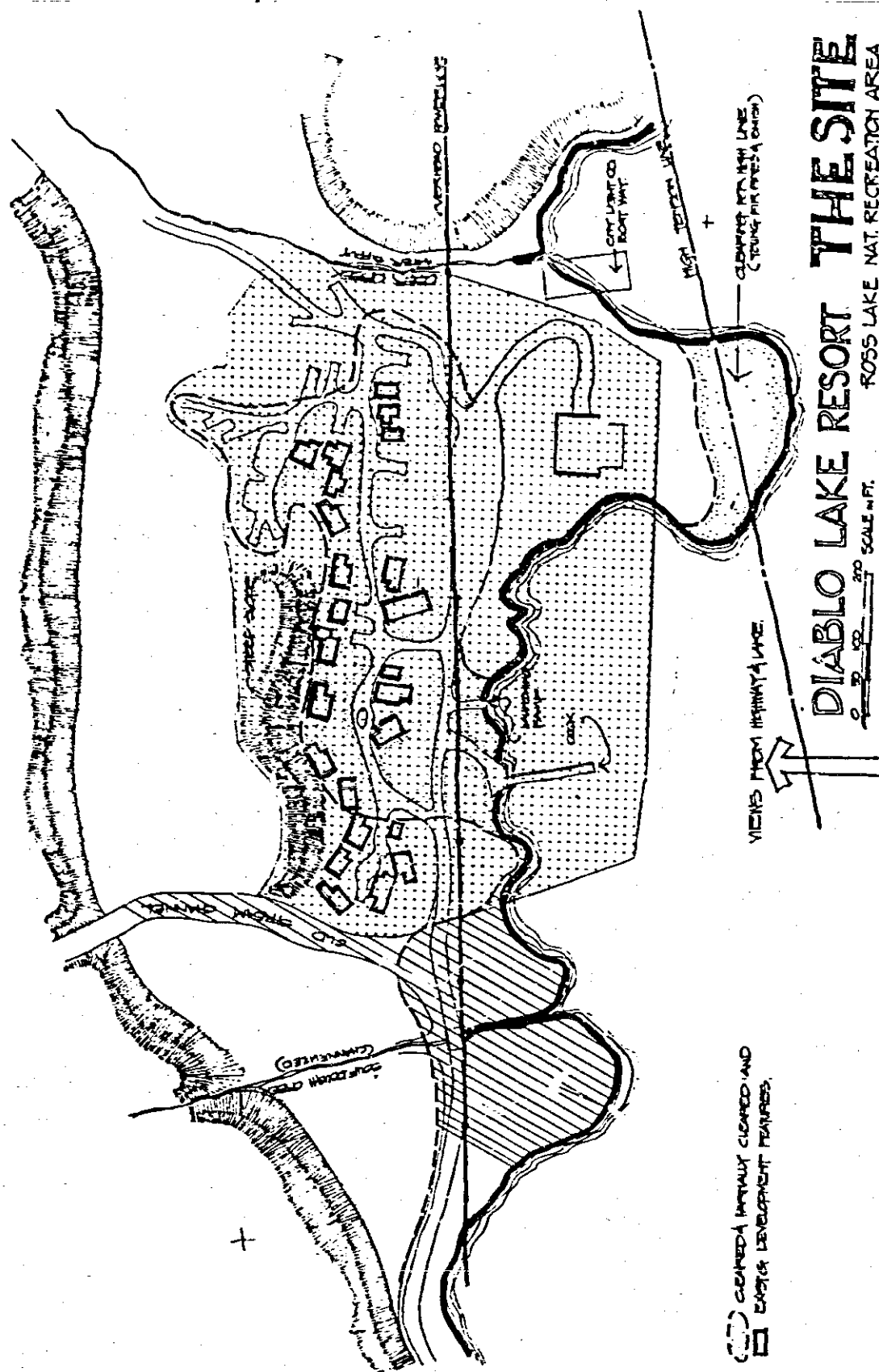
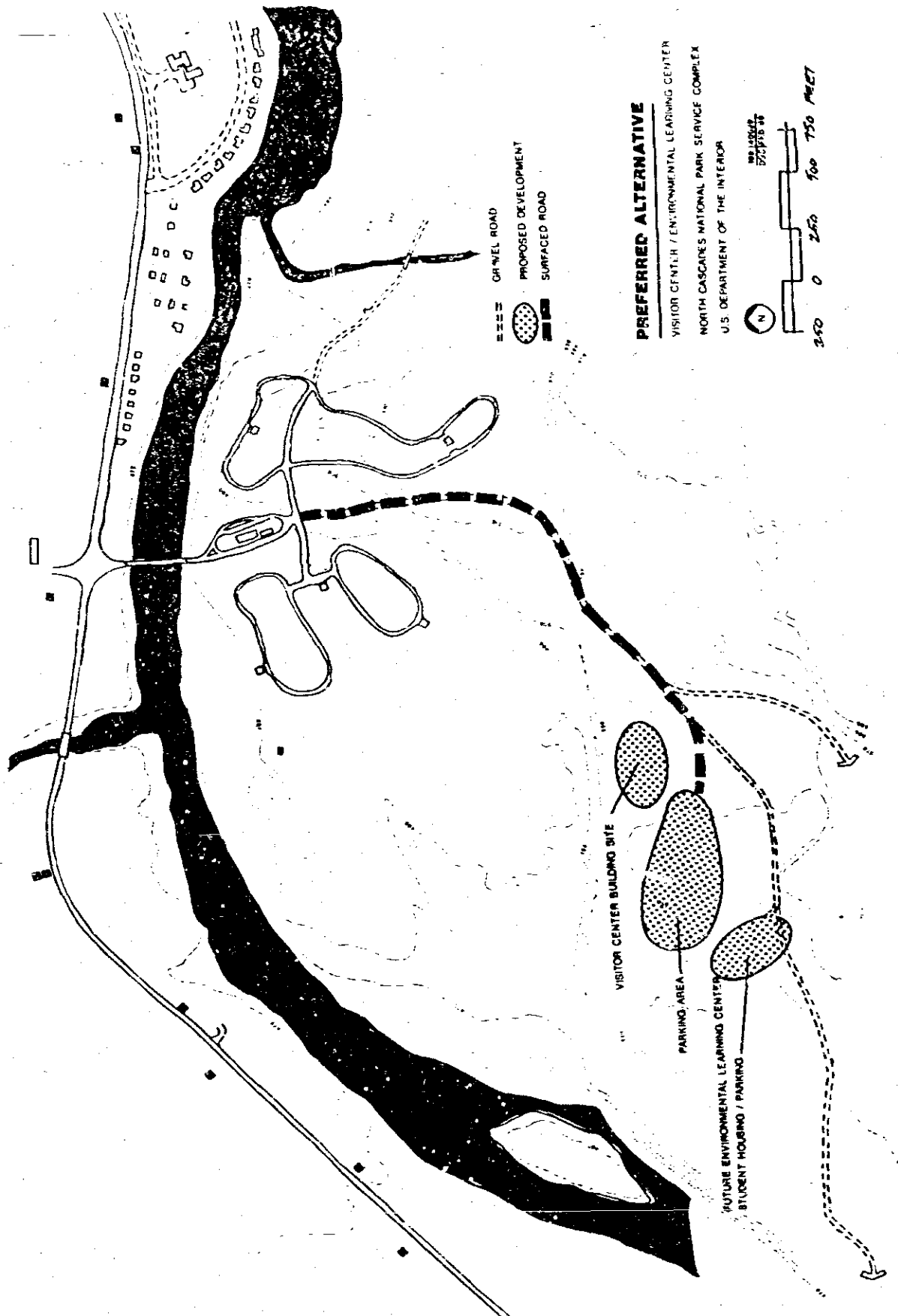




Figure 3-13. Newhalem Campground Site Area Map



**MEMORANDUM OF AGREEMENT  
NORTH CASCADES ENVIRONMENTAL LEARNING CENTER**

**APPENDIX D  
Preferred Site Plan**

*[Handwritten signature]*

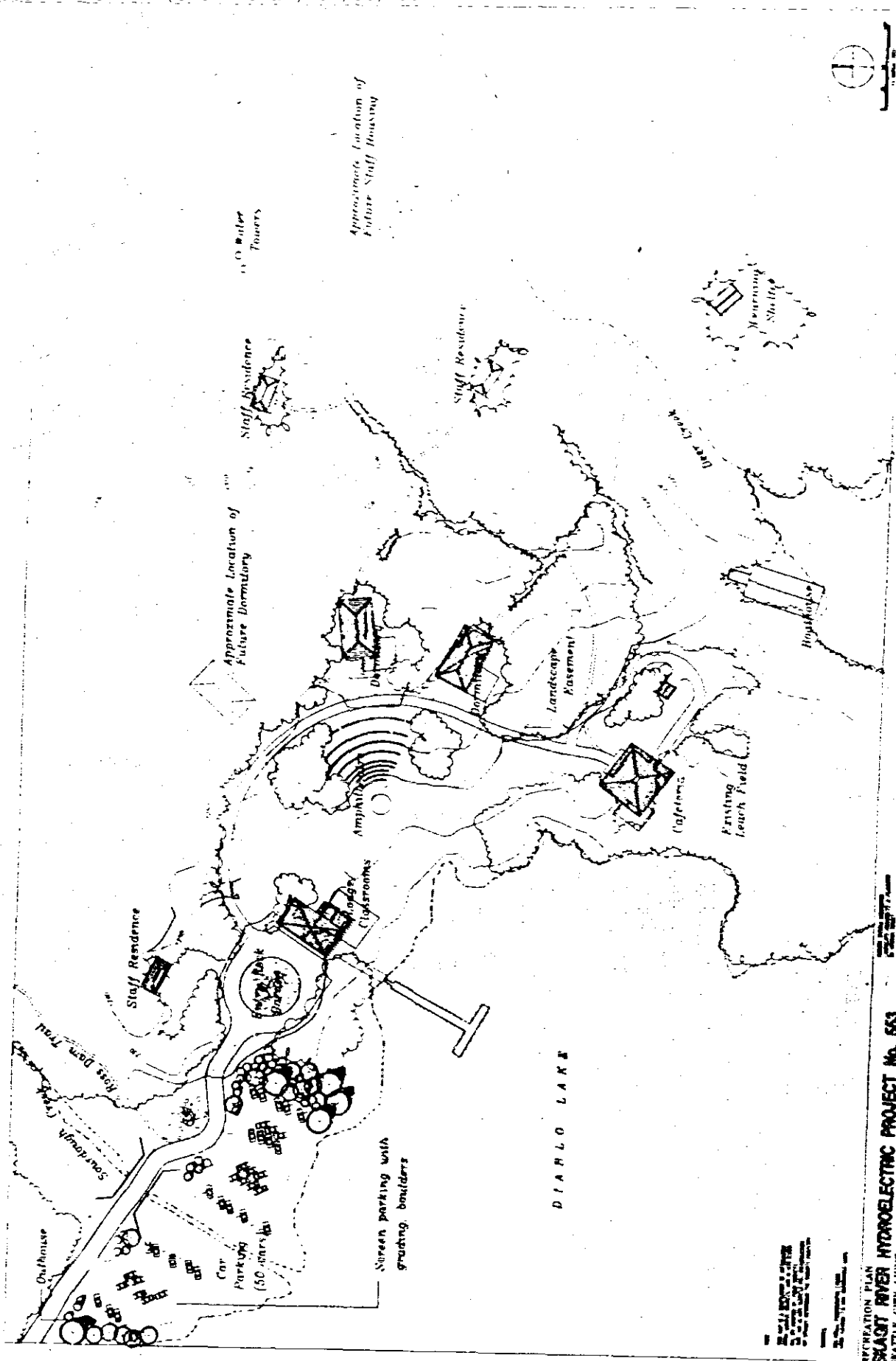


Figure 3-13  
Environmental Learning Center

OPERATION PLAN  
SKAGIT RIVER HYDROELECTRIC PROJECT No. 563  
SEATTLE CITY LIGHT

**MEMORANDUM OF AGREEMENT  
NORTH CASCADES ENVIRONMENTAL LEARNING CENTER**

**APPENDIX E**

**Description of Facilities to be Provided by City**

## MEMORANDUM OF AGREEMENT NORTH CASCADES ENVIRONMENTAL LEARNING CENTER

### APPENDIX E

#### Description of Facilities to be Provided by City

The following is a preliminary outline of facilities to be constructed by the City on the learning center site. The governing standards for the facilities is included in Section 3.5.2.1 of the Settlement Agreement (see Appendix A). This description of the facilities is only one possible configuration which meets those standards. The City will provide the following facilities under the direction of the Oversight Committee created pursuant to Article III, Section 5 of this Memorandum of Agreement and in consultation with the Parties.

1. Two dormitories, each housing 22 to 26 people. The capacity and size of each dormitory shall be sufficient to:
  - accommodate unequal gender ratios in class groups up to 40;
  - provide single beds for each resident (no bunk beds);
  - accommodate adults as well as children;
  - provide adequate bathroom facilities for full occupancy;
  - provide sitting areas; and
  - allow for adequate supervision by one adult for each dormitory.
2. One central service building of approximately 4,000-square-foot building with:
  - classroom with seating for at least 40;
  - labs (wet and dry) with capacity for 20 each;
  - main office;
  - staff offices/workrooms;
  - exhibit space
  - bathrooms; and
  - storage.
3. Three staff duplexes, each with two bedrooms, two single beds each bedroom, except one or two units with double beds for families.
4. Laundry facilities, either attached to each dormitory or as a separate facility.
5. Each building should have porch or mudroom.
6. A cafeteria (the existing restaurant) with library in current bar.



(Unofficial) 04/30/1991

7. All buildings with appropriate utilities and connections to service.
8. Amphitheater with seating for 78.
9. A covered outdoor shelter.
10. Bear proof recycling and compost area.
11. Docks (existing).
12. Parking area (upgrade existing).
13. Trails connecting facilities.

**MEMORANDUM OF AGREEMENT  
NORTH CASCADES ENVIRONMENTAL LEARNING CENTER**

**APPENDIX F**

**Maintenance Responsibilities**

**MEMORANDUM OF AGREEMENT  
NORTH CASCADES ENVIRONMENTAL LEARNING CENTER**

**APPENDIX F**

**Maintenance Responsibilities**

**I. INTENT**

This appendix defines the relative responsibilities of the City and the NCI regarding maintenance of the NCELC site and facilities. It is the intent of the Parties that the NCI will make its best efforts to undertake its responsibilities without excessive reliance on the City, and will utilize the City's resources in the most efficient manner possible. Disputes regarding interpretation of this appendix shall be brought to the Oversight Committee (Article III, Section 5) for resolution.

**II. SCL RESPONSIBILITIES**

Within the framework of Article IV, Section 5 of the Memorandum of Agreement, major maintenance, repair and site upkeep shall be the responsibility of the City. The City shall provide labor, materials, and supervision to adequately maintain the facility's structures to commonly accepted standards of structural soundness, safety and appearance. Included within the term structures are foundations, roofs, walls, windows, doors, and all other structural components, major electrical, heating and mechanical systems, and internal water and sewer components with connections to the systems on site (the NPS is responsible for sewer and water supply systems under Article IV, Section 4). The City shall be responsible for major grounds' keeping activities involving any use of major machinery to move or repair the grounds and premises excepting the main access road which is the responsibility of the NPS under Article IV, Section 5. The City shall undertake the foregoing responsibilities in compliance with any applicable code, statute, ordinance or regulation.

**III. NCI RESPONSIBILITIES**

Minor maintenance, housekeeping, and groundskeeping shall be the responsibility of NCI. NCI shall keep the facilities and premises clean and sanitary; properly dispose of all trash and waste; properly use and operate all electrical, gas, heating, plumbing, cooking, dishwashing, clothes washing and drying and other fixtures and appliances. Minor maintenance, housekeeping, and groundskeeping includes the following tasks: cleaning the facilities, premises and outside areas, including scrubbing, sweeping, washing, trash removal, vacuuming, dusting, mopping, mowing and raking, weeding, care of existing plantings, and cleaning of appliances. The City will not be responsible for the cost of repairs to equipment caused by NCI's failure to comply with these obligations. The NCI will also be responsible for repair of small appliances, including, but not limited to, electric lights, leaky plumbing fixtures, and plumbing fixture blockages. In the event that such repair requires expertise beyond that of the NCI staff, the City shall assume responsibility for said repair.

**MEMORANDUM OF AGREEMENT  
NORTH CASCADES ENVIRONMENTAL LEARNING CENTER**

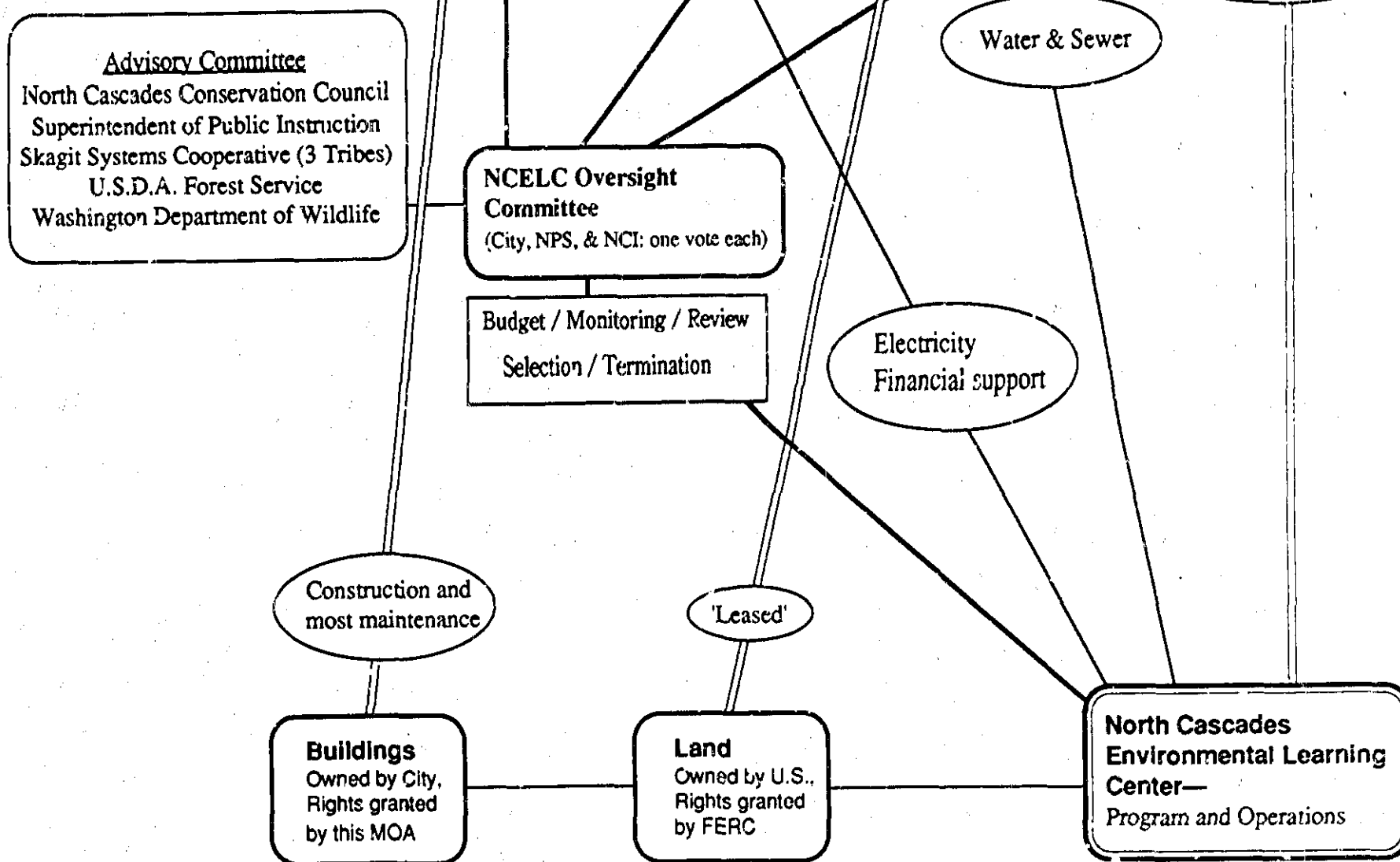
**APPENDIX G**

**NCELC Structure (chart)**

North Cascades  
Environmental Learning Center  
(NCELC)—Governance Structure

Memorandum of Agreement, North Cascades Environmental Learning Center

Page 57



Ex. G-165



## **APPENDIX B**

### **FERC Additional Information Request**

## ADDITIONAL INFORMATION REQUEST NO. 1 - RECREATION

Because considerable time has elapsed since the preparation of the recreation information included in your application, filed on September 29, 1977, the existing and proposed recreational uses, facilities, and needs may have changed. For the staff to analyze the potential for recreational impacts from construction and operation of the proposed project, you must provide a revised recreation plan that includes updated information and reaches the level of detail described in § 4.51 (f)(5).

- You should provide scaled map(s) (1 inch equals 50 to 100 feet) that clearly show the locations and dimensions of existing and proposed facilities and enhancements of the project site or off-site areas. A map should also show the locations of the existing and proposed facilities and enhancements in relation to the components of the proposed project.
- Describe how the proposed recreational facilities would be constructed of sufficient size to meet existing recreational demand.
- Describe how the size of the recreational facilities planned for future development would be determined based on anticipated demand.
- Indicate any facilities that would be constructed to assist in the access of handicapped individuals to the proposed recreational facilities.
- Provide comments from the National Park Service (NPS), the Forest Service (FS), and the North Cascades Conservation Council on your revised plan.

### 18 CFR, SECTION 4.51 (F)(5)

#### (5) Report on recreational resources

The report must discuss existing and proposed recreational facilities and opportunities at the project. The report must be prepared in consultation with local, state, and regional recreation agencies and planning commissions, the National Park Service, and any other state or Federal agency with managerial authority over any part of the project lands. Consultation must be documented by appending to the report a letter from each agency consulted indicating the nature, extent, and results of the consultation. [Note: FERC letter also includes "Provide comments from the National Park Service (NPS), the Forest Service (FS), and the North Cascades Conservation Council on your revised plan.] The report must contain:

- (i) A description of any existing recreational facilities at the project, indicating whether the facilities are available for public use;
- (ii) An estimate of existing and potential recreational use of the project area, in daytime and overnight visits;

(iii) A description of any measures or facilities recommended by the agencies consulted for the purpose of creating, preserving, or enhancing recreational opportunities at the project and in its vicinity (including opportunities for the handicapped), and for the purpose of ensuring the safety of the public in its use of project lands and waters;

(iv) A statement of the existing measures or facilities to be continued or maintained and the new measures or facilities proposed by the applicant for the purpose of creating, preserving, or enhancing recreational opportunities at the project and in its vicinity, and for the purpose of ensuring the safety of the public in its use of project lands and waters, including an explanation of why the applicant has rejected any measures or facilities recommended by an agency and described under paragraph (f)(5)(iii) of this section;

(v) The following materials and information regarding the measures and facilities identified under paragraphs (f)(5)(i) and (iv) of this section:

(A) Identification of the entities responsible for implementing, constructing, operating, or maintaining any existing or proposed measures or facilities;

(B) A schedule showing the intervals following issuance of a license at which implementation of the measures or construction of the facilities would be commenced and completed;

(C) An estimate of the costs of construction, operation, and maintenance of any proposed facilities, including a statement of the sources and extent of financing;

(D) A map or drawing that conforms to the size, scale, and legibility requirements of 18 CFR Section 4.39 showing by the use of shading, cross-hatching, or other symbols the identity and location of any facilities, and indicating whether each facility is existing or proposed (the maps or drawings in this exhibit may be consolidated); and

(vi) A description of any areas within or in the vicinity of the proposed project boundary that are included in or have been designated for study for inclusion in, the National Wild and Scenic Rivers Systems, or that have been designated as wilderness area, recommended for such designation, or designated as a wilderness study area under the Wilderness Act.

## ADDITIONAL INFORMATION REQUEST NO. 2— LAND MANAGEMENT AND AESTHETICS

The existing project for relicensing occurs in an area of high scenic quality which is frequently used by the public for recreation. Since the original project was completed, public use patterns and recreation experience expectations have changed. Awareness of alterations to natural landscapes has increased. There is a heightened concern for visual quality. Your application for relicensing does not adequately address how the project affects the area's visual quality. In order for the Commission's staff to evaluate the effects of relicensing your project, additional information is needed. Therefore, provide a current report on land management and aesthetics that reaches the level of detail described in § [4.51 (f)(6)], and conduct a study evaluating:

- (a) the level of sensitivity that the viewers of the project area have for visual quality, including the viewer's locations, and including all facilities and the bypassed reach;
- (b) The visual compatibility of your facilities with the surrounding landscape;
- (c) average monthly stream flows in the bypassed reach during the last 10 years;
- (d) alternative ways to enhance the visual quality of your project facilities and stream flows to reduce the visual contrast of your facilities with the surrounding landscape;
- (e) the construction, operation, and maintenance costs for each alternative discussed in (d) above, and the effects of these costs on the economics of the project;
- (f) a 1/2-inch, VHS, color, narrated, videocassette tape recording and color photographs of the exterior of all project facilities and stream flows in the bypassed reach; and
- (g) comments on the study from the NPS, FS, and the North Cascades Conservation Council.

The revised report on land management and aesthetics should also include the following:

- (h) identify and describe other existing uses of project lands, such as residential, farming, forestry, grazing, and commercial use;
- (i) identify, locate, and describe nonpower uses of project waters, such as irrigation, industrial, and municipal; and
- (j) identify by administering agency and respective acreage any public lands or reservations of the United States within the project boundary.

## **APPENDIX C**

### **Cost Estimate Details**



STAGIT PROJECT  
RECREATION PLAN

Itemized Reconciliation Level Cost Estimate

Plan Element: Gorge Lake Boat Ramp

NO	DESCRIPTION	QUANT	UNIT	PRICE	TOTAL AMOUNT	REFERENCE	MIN	MAX	NOTES 1 (Min ref)	NOTES 2 (Max ref)	NOTES 3
<b>SITE DEMOLITION</b>											
1	Remove Existing Conc Boat Ramp	160	SY	24.00	3,840	M 020 754 0420 M 020 754 4250	3,840	11,520	REMOVAL 5 Mile Haul	M 020 754 4000; Equip \$/SF	
<b>SITE PREPARATION</b>											
2	Clear & Grub	0.20	AC	7,000	1,400	MPS-P11	400	2,400	M 021 104 0015; M 021 104 0300	Equip \$/SF	
3	Fine Grading	3,340	SY	0.60	2,004	M 025 122 0100	1,438	3,540	M 025 122 0100; M 025 122 0010		
4	Channel Bedding (180x60x4)	1,600	CY	16.82	26,912	See Road WS See drag line	6,800	32,000	Dry excav MPS-P11	MS Based on Means	
<b>NEW FACILITIES</b>											
6	Boat Ramp, 6" Reinf Conc	160	ST	30.00	4,800	M 12 7-140 2140	2,521	14,400	SLB on grid MPS-P5 Mat 1-incl 11	Site Work (8) p. 316 Equip \$/LF, 4' walk	
7	Parking Lot, 6" Gravel	3,340	SY	7.00	23,380	MPS-P11	15,898	23,380	M 022 308 0100		
8	Road Signs	3	EA	200.00	600	MPS-P12	300	900	M 020 412 1300	how 505	
9	Interpretation Signs	2	EA	2,000	4,000	USFS Exp'r	550	4,000	MPS-P13 (13) Kona Kuluhan	Interpret Signs \$2,000 ea	
10	Vault Toilet (1 Std & Handcp)	1	EA	35,000	35,000	Kona Kuluhan	35,000	50,000	LEP Bid		
<b>LANDSCAPING</b>											
15	Tree (7'-8' ht Native Spec)	7	EA	200.00	1,400	Shimbo Quote	1,400	1,400			
17	Hydroseeding (Std seed mix)	7,000	SF	0.08	560	Shimbo Quote	560	1,000			
18	Topsoil	130	CY	19.00	2,470	Shimbo Quote	2,470	2,470			Min incld hoo
<b>SUBTOTAL DIRECT COSTS</b>											
					108,366		71,175	147,010			
<b>ROUND OFF VALUE</b>											
					108,000		71,000	147,000			
<b>State Sales Tax (6.5%) N/O</b>											
					7,000		5,000	10,000			
<b>Overhead and Profit (15%) N/O</b>											
					16,000		11,000	22,000			
<b>Contingency (25%) N/O</b>											
					27,000		18,000	37,000			
<b>Owner's Cost (30%)</b>											
					32,000		21,000	44,000			
<b>SUBTOTAL INDIRECT COSTS</b>											
					82,000		55,000	113,000			
<b>TOTAL ESTIMATED COSTS</b>											
					\$188,000		\$126,000	\$260,000	Maximum		

Revised Cost Est

20-Mar-91

SMOIT PROJECT  
RECREATION PLAN

## Itemized Reconnaissance Level Cost Estimate

Plan Element: Colonial Creek Boat Ramp

NO	DESCRIPTION	QUANT	UNIT	PRICE	TOTAL AMOUNT	REFERENCE	MIX	MAX (Min ref)	NOTES 1 (Max ref)	NOTES 2 (Max ref)	NOTES 3
<b>SITE PREPARATION</b>											
1	Channel Dredging (180x60x4)	1,000	CY	16.82	16,820	See Blue WS Wet drag line	4,250	20,000	Dry excav	MPS-p11(7)	WS Based on Messon
2	Repeat Dredging @ 10-yf Inter	2.15		17,000	34,000	See Above	8,500	40,000	See Above	MPS-p11(7)	See Above
<b>NEW FACILITIES</b>											
3	Boat Ramp Ext. 6" Reinf Conc	320	ST	30.00	9,600	M12.7-140 2140	5,042	28,800	Slb on grd	MPS-p5(1)	Messon Hwy Const p276 Kaviv 5/16 4' x 1/2 190' x 32' x 5'
<b>LANDSCAPING</b>											
4	Hydroseeding (Std seed mix)	5,000	SF	0.08	400	Shabo Quote	400	1,800	Mat 1' install	M029 304 1100	Spill Pile 70' x 70'
<b>SUBTOTAL DIRECT COSTS</b>											
	Rounded off Value				60,820		18,192	90,400			
	State Sales Tax (6.5%) B/O				61,000		18,000	90,000			
	Overhead and Profit (15%) B/O				4,000		1,000	6,000			
	Contingency (25%) B/O				9,000		3,000	14,000			
	Owner's Cost (30%)				15,000		5,000	23,000			
					18,000		5,000	27,000			
<b>SUBTOTAL INDIRECT COSTS</b>											
					46,000		14,000	70,000			
<b>TOTAL ESTIMATED COSTS</b>											
					\$107,000	Minimum	\$32,000	\$180,000	Maximum		

Revised Cost Est

20-Mar-21

SLAGIT PROJECT  
RECREATION PLAN

## Itemized Reconciliation Level Cost Estimate

Plan Element: Goodell Creek Ball Access Site

NO	DESCRIPTION	QUANT	UNIT	PRICE	TOTAL AMOUNT	REFERENCE	MIN	MAX	NOTES 1 (Min ref)	NOTES 2 (Max ref)	NOTES 3
<b>SITE PREPARATION</b>											
1	Rough Grading	356	SY	6.00	2,136	WPS-p11	1,602	4,272	Unit Price X .75 Unit Price X 2		
2	Final Grading	480	SY	0.60	288	W 025 122 0100	206	509	W025 122 0100 W025 122 0010		
<b>SITE ACCESS</b>											
3	Paving Road & Walk (6" bit)	480	SY	37.80	18,144	W12.5 1.0 3000	8,160	22,680	W12.5 510 1620 Wore X 1.25 Equiv \$/car		Site Work (6") Equiv \$/LF, 20' paveat
4	Wheel Stops, Concrete	2	EA	80	160	WPS-p14 (9)	60	240	W026 408 1100 Non XL.5		
<b>NEW FACILITIES</b>											
5	Ballistic Board	1	EA	600	600	WPS-p13(12)	600	2,600	Non+Interp Sign/Consider separate Interpret Sign		
6	Board Signs	6	EA	200.00	1,200	WPS-p12	600	1,800	W028 412 1300 Non+50X		
7	Sand Capping	46	CT	25	1,150	W041 033 0300	1,150	1,725	Non+50X		Screened & Washed (30 mt haul)
<b>LANDSCAPING</b>											
8	Trees (7"-8" bt native spec)	10	EA	200.00	2,000	Shinob Quote	2,000	2,000			
9	Shrub (18"-24" blg)	97	EA	30.00	2,910	Shinob Quote	2,910	2,910			
10	Topsoil	33	CT	19.00	627	Shinob Quote	627	627			
11	Grass seed mix (Std seed mix)	1,800	SF	0.08	144	Shinob Quote	144	1,000		Min Incid Mob	
<b>SUBTOTAL DIRECT COSTS</b>					<b>29,215</b>		<b>17,915</b>	<b>39,383</b>			

19910502-0032 FERC PDF (Unofficial) 04/30/1991

20-Mar-91

## Revised Cost Est

SLAGIT PROJECT  
RECREATION PLAN

## Itemized Reconnaissance Level Cost Estimate

Plan Element: Goodell Creek Raft Access Site

NO	DESCRIPTION	QUANT	UNIT PRICE	UNIT AMOUNT	TOTAL AMOUNT	REFERENCE	MIN	MAX	NOTES 1 (Min ref)	NOTES 2 (Max ref)	NOTES 3
	Bounded off Value			29,000			10,000	39,000			
	State Sales Tax (6.5%) R/O			2,000			1,000	3,000			
	Overhead and Profit (15%) R/O			4,000			3,000	6,000			
	Contingency (25%) R/O			7,000			5,000	10,000			
	Owner's Cost (30%)			9,000			5,000	12,000			
	SUBTOTAL, INDIRECT COSTS			22,000			14,000	31,000			
	TOTAL ESTIMATED COSTS			\$51,000		Minimum	\$32,000	\$70,000 Maximum			

Revised Cost Est

20-Mar-91

SLAGIT PROJECT  
RECREATION PLAN

## Itemized Reconnaissance Level Cost Estimate

Pilot Element: Damation Creek Be-L-in Picnic Site

NO	DESCRIPTION	QUANT	UNIT	PRICE	TOTAL AMOUNT	REFERENCE	MIN	MAX	NOTES 1 (Min ref)	NOTES 2 (Max ref)	NOTES 3
<b>SITE ACCESS</b>											
1	Access Trail	0.15	MI	30,000	4,500	Map NPS-P13(4)	2,250	6,000	NPS-P13(4)	NPS-P13(4)	NPS-P10/Max
<b>NEW FACILITIES</b>											
2	Picnic Table	4	EA	500	2,000	NPS-P4(13)	2,000	4,000	None	None	4 Labor & Bura
3	Remove Knot Willow Toilet	1	LS	1,000	1,000		1,000	3,000	None	None	
4	Fiberlase Vault Toilet	1	MA	5,000	5,000	NPS-P18(6)	5,000	20,000		NPS-P18(7)	
5	Road Signs	1	EA	200.00	200	NPS-P12(14)	100	300	MOB 412	1300	None
<b>SUBTOTAL DIRECT COSTS</b>											
					12,700		10,350	34,200			
<b>Rounded off Value</b>											
					12,000		10,000	34,000			
<b>State Sales Tax (6.5%) 9/0</b>											
					1,000		1,000	2,000			
<b>Overhead and Profit (15%) 8/0</b>											
					2,000		2,000	5,000			
<b>Contingency (25%) 8/0</b>											
					3,000		3,000	9,000			
<b>Owner's Cost (30%)</b>											
					4,000		3,000	10,000			
<b>SUBTOTAL INDIRECT COSTS</b>											
					10,000		9,000	26,000			
<b>TOTAL ESTIMATED COSTS</b>											
					\$23,000	Discussion	\$19,000	\$60,000	Maximum		



Revised Cost Est

SAGIT PROJECT  
RECREATION PLAN

Itemized Reconnaissance Level Cost Estimate

Plan Element: Marblemount Boat Access Site

NO	DESCRIPTION	QUANT	UNIT	PRICE	TOTAL AMOUNT	REFERENCE	MIN	MAX	NOTES 1 (Min ref)	NOTES 2 (Max ref)	NOTES 3
<b>SITE PREPARATION</b>											
1	Remove Fence (barbed wire)	650	LF	1.00	650	020 554 055C	650	975		Non A 1.5	
2	Rough Grading	833	SY	6.00	4,998	NPS-p11	3,749	9,998	Unit Price x .75 Unit Price x 1.2		
3	Final Grading (Road & Parking)	2,989	SY	0.60	1,793	N 025 122 0100	1,235	3,168	025 122 0100 025 122 0010		
<b>SITE ACCESS</b>											
4	Road & Parking, 6" Gravel	2,989	SY	7.00	20,923	NPS-p11 (11)	14,228	20,923	022 308 0100		
5	Wheel Slope, Timber	20	EA	50	1,000	NPS-p14 (10)	1,000	1,500		Non A 1.5	
6	Barbed Wire Fence	630	LF	3.10	1,953	028 320 0010	1,008	3,750	028 320 4800 NPS-p8(3)		Chicken Wire Fence
<b>NEW FACILITIES</b>											
7	Vault Toilet (1 Std & 1 Hndcp)	1	EA	35,000	35,000	Yoma Toilet	35,000	50,000		IFP Bid	
8	Bulletin Board	1	EA	600	600	NPS-p13 (12)	600	2,600		Non-Interp Sign Consider separate Interpret Sign	
9	Road Signs	7	EA	200.00	1,400	NPS-p12	700	2,100	028 412 1300 Non-50X		
<b>LANDSCAPING</b>											
10	Trees (7'-8" ht native spec)	6	EA	200.00	1,200	Shilbo Quote	1,200	1,200			
11	Shrub (18"-24" h/ab)	15	EA	30.00	450	Shilbo Quote	450	450			
12	Topsoil	25	CY	19.00	475	Shilbo Quote	475	475			
13	Hydroseeding (Std seed mix)	6,000	SF	0.08	640	Shilbo Quote	640	1,000		Min Incld Mob	
<b>OTHER</b>											
14	Land/Basement Acquisition	10	AC	2,000	20,000	Dark Source	20,000	20,000			Land cost by others
<b>SUBTOTAL DIRECT COSTS</b>					<b>78,442</b>		<b>60,344</b>	<b>96,537</b>			

20-Mar-01

Revised Cost Est.

20-Mar-91

STAGIT PROJECT  
REGULATION PLAN

## Itemized Reconnaissance Level Cost Estimate

## Plan Element: Marblemont Boat Access Site

NO	DESCRIPTION	QUANT	UNIT	PRICE	AMOUNT	REFERENCE	M/A	MAX	NOTES 1 (Min ref)	NOTES 2 (Max ref)	NOTES 3
	Rounded off Value				70,000			60,000	97,000		
	State Sales Tax (6.5%) B/O				5,000			4,000	6,000		
	Overhead and Profit (15%) B/O				11,000			9,000	15,000		
	Contingency (25%) B/O				18,000			15,000	24,000		
	Owner's Cost (30%)				21,000			18,000	29,000		
	SUBTOTAL, INDIRECT COSTS				55,000			46,000	74,000		
	TOTAL ESTIMATED COSTS				\$125,000			Minimum \$106,000	\$171,000 Maximum		

22-Mar-31

## Barland Cost List

SEASIDE PROJECT  
RECREATION PLAZA

## Itemized Reconciliation Level Cost Estimate

## Plan Element: North Chesapeake Environmental Learning Center

NO	DESCRIPTION	QTY	UNIT	PRICE	TOTAL AMOUNT	REFERENCE	MIN	MAX	NOTES 1 (Min ref)	NOTES 2 (Max ref)	NOTES 3
<b>SITE DEMOLITION</b>											
1	Bituminous Roads	2,600	ST	3.90	10,140	IN 020 554 1710 IN 020 554 5600	10,140	10,140	REMOVAL 5MI 240L		
2	Buildings	24	EA	2,100	50,400	IN 020 604 1000	46,000	80,400	IN 020 604 1001 IN 020 604 1021 Min & Max Values for Means		
<b>SITE PREPARATION</b>											
3	Clear & Grub	1.30	AC	7,000	9,100	MPS-p11	2,600	15,600	IN021 104 0015 IN021 104 0300 IL.5		
4	Tough Site Grading	1,400	ST	6.00	8,400	MPS-p11	6,300	12,600	IN014 010 0101 75001 Price IL.5		
5	Final Grading	6,200	ST	3.60	2,208	IN 025 122 0100	2,700	8,657	IN025 122 0100 IN025 122 0010		
<b>SITE ACCESS</b>											
6	Access Roads, 4" bitum	2,850	ST	30.60	85,500	IN12.5-110 2100	52,725	108,300			100% 2/10 for 20' pave
7	Parking Lot, 6" Gravel	50	WT	822.00	41,100	MPS-p14	41,100	41,100			
8	Doc Wheel Stops	50	EA	80.00	4,000	MPS-p14	1,500	4,000			
9	Barrier Free Paths (6" paved)	0.35	MI	70,400	24,640	MPS-p13(1)	0,193	46,200	IN 025 104 0201 0000 0000 0000		
10	Foot Trail	2.50	MI	15,000	37,500	MPS-p13	37,500	37,500			
<b>BOULDERING</b>											
11	Domestic (2)	5,000	ST	85.00	476,000	MPS-p1	372,960	530,064	IN 171 310 0010 IN 171 310 0010		
12	Staff Run Bldg	3	EA	70,400	203,200	Means ST (calc)	177,000	294,000	Median val Bulw+10% Median + 25%		
13	Adult/Classroom	4,000	ST	85.00	340,000	MPS-p1	256,000	320,000	IN 2.520 Min+25%		
14	Reference Restaurant	1	LS	100,000	100,000	IN 2.520 (Base)	50,000	150,000	LS-50%		
15	Parade/Stage for Bldg above	1	LS	121,000	121,000	Base approx	121,000	121,000			
16	Shiller	240	ST	40.00	9,600	MPS-p4	9,600	9,600			
<b>LANDSCAPING</b>											
15	Trees (6"-7" Ht Native Spec)	65	EA	150.00	9,750	Shabo Quote	9,750	9,750			
16	Shrub (18" Ht Native Spec)	120	EA	20.00	2,400	Shabo Quote	2,400	2,400			
17	Hydroseeding (Std seed mix)	12,300	ST	0.08	1,008	Shabo Quote	1,008	1,008			
18	Topsoil	233	CT	19.00	4,427	Shabo Quote	4,427	4,427			

EX-G-178

Revised Cost Estimate

22-Nov-91

SLAGIT PROJECT  
RECREATION PLAN

## Itemized Reconnaissance Level Cost Estimate

Pilot Element: North Cascades Environmental Learning Center

NO	DESCRIPTION	QUANTITY	UNIT	PRICE	TOTAL AMOUNT	REFERENCE	MIS	MAI (this ref)	NOTES 1 (this ref)	NOTES 2 (this ref)	NOTES 3
<b>OTHER MATERIALS</b>											
19	Stage/Tripole	1 LS		17,000	17,000	See backup	17,000	21,000			
20	Bench	120 LF		32.00	3,840	1212.7 336 1000	3,840	3,840			
21	Lighting (100w, 6' post aux)	106 EA		86.00	9,116	Shade Quake	9,116	9,116			
22	Vault Toilet (1 Std & 1 Indep)	1 EA		35,000	35,000	Lower Facilities	35,000	50,000	MR Bid		
23	Recreate Distribution Line	3,500 LF		20	70,000		70,000	70,000			
24	Utility, Water Line	1,725 LF		10	17,250	Measure calcs	17,250	25,875	Calc +50%		
25	Utility, 6" Sewer Line	1,320 LF		38	50,160	Measure calcs	50,160	75,240	Calc +50%		
26	Utility, 6" Main Sewer Line	1,060 LF		54	57,240	Measure calcs	57,240	85,860	Calc +50%		
<b>SUBTOTAL DIRECT COSTS</b>											
(Excluding Site Purchase)					1,833,539		1,473,309	2,145,681			
Excluded off Value					1,834,000		1,473,000	2,146,000			
<b>Mobilization Allowance (10%)</b>					183,400		147,000	215,000			
<b>State Sales Tax (6.5%) R/O</b>					119,000		96,000	139,000			
<b>Overhead and Profit (15%) R/O</b>					275,000		221,000	322,000			
<b>Contingency (25%) R/O</b>					459,000		366,000	537,000			
<b>Owner's Cost (30%)</b>					550,000		442,000	644,000			
<b>SUBTOTAL INDIRECT COSTS</b>					1,566,000		1,274,000	1,857,000			
<b>TOTAL ESTIMATED COSTS</b>					3,399,539		2,747,309	4,002,681			
<b>(Including Site Purchase)</b>					3,420,000		2,768,000	4,023,000	Maximum		

Revised Cost List

20-Mar-91

SACIT PROJECT  
RECREATION PLAN

## Itemized Reconciliation Level Cost Estimate

Plan Element: George Creek Overlook											
NO	DESCRIPTION	QUANT	UNIT	PRICE	TOTAL AMOUNT	REFERENCE	MIN	MAX	NOTES 1 (Min ref)	NOTES 2 (Max ref)	NOTES 3
SITE PREPARATION											
1	Clear & Grub	0.20	AC	7,000	1,400	MPS-p11 (ued)	400	2,400	M021 104 0015	M021 104 0300	N1.5
2	Rock Blasting & Removal	40	CY	30	1,200	Boas Exper	800	2,400	Boas Exper	Boas Exper	
3	Rough Grading (slope)	80	SY	6.00	360	MPS-p11	270	720	Unit Price X 75	Unit Price X 12	
4	Yield Grading (Trails)	400	SY	1.65	660	M 025 122 1100	420	990	M025 122 0010	Nom X 1.5	
SITE ACCESS											
5	Barrier Free Trail, 6' paved	0.11	MI	70,400	8,000	MPS-p13(1)	2,660	15,000	M025 104 0200	Iowa Kulshan	
6	New Trail	0.50	MI	15,000	7,500	MPS-p13 (4)	7,500	23,000		MPS-p13 (4)	
NEW FACILITIES											
7	Interpretation Signs	6	EA	2,000	12,000	USFS Exper	1,650	12,000	MPS-p13	Iowa Kulshan	Interpret Signs \$2,000 ea
8	Wood Benches	6	EA	800	4,800	MPS-p24	4,800	4,800			
9	Wooden Railings	680	LF	55.00	33,000	MPS-p13	33,000	41,250		Nom X 1.25	
10	Vault Toilet (1 Std & 1 Handcp)	1	EA	35,000	35,000	Iowa Kulshan	35,000	50,000		KIP Bid	
11	Road Signs	4	EA	200.00	800	MPS-p12	400	1,200	M028 412 1300	Nom X 150%	
LANDSCAPING											
12	Trees (7"-8" ht native spec)	6	EA	200.00	1,200	Shlabo Quote	1,200	1,200			
13	Shrubs (18"-24" high)	15	EA	30.00	450	Shlabo Quote	450	450			
14	Ground Cover (4" pots, 12"OC)	700	SF	2.50	1,750	Shlabo Quote	1,750	1,750			
15	Topsoil	25	CY	19.00	475	Shlabo Quote	475	475			
SUBTOTAL DIRECT COSTS					108,955		90,775	157,635			



STAGIT PROJECT  
RECREATION PLAN

Itemized Reconciliation Level Cost Estimate

Plan E, encl: Gorge Creek Overlook

NO	DESCRIPTION	QUANT	UNIT	PRICE	TOTAL AMOUNT	REMARKS	MIN	MAX	NOTES 1 (Min ref)	NOTES 2 (Max ref)	NOTES 3
	Rounded off Value				109,000		91,000	158,000			
	State Sales Tax (4.5%) R/O				7,000		6,000	10,000			
	Overhead and Profit (15%) R/O				16,000		14,000	24,000			
	Contingency (25%) R/O				27,000		23,000	40,000			
	Owner's Cost (30%)				33,000		27,000	47,000			
	SUBTOTAL, INDIRECT COSTS				83,000		70,000	121,000			
	TOTAL ESTIMATED COSTS				\$192,000		Minimum \$161,000	Maximum \$279,000	Maximum		

Revised Cost Est.

20-Apr-91

SEACIT PROJECT  
RECREATION PLAN

## Idealized Reconnaissance Level Cost Estimate

## Plan Element: Thunder Knob Trail

NO	DESCRIPTION	QUANT	UNIT	PRICE	AMOUNT	REFERENCE	MIN	MAX	NOTES 1 (Min ref)	NOTES 2 (Max ref)	NOTES 3
<b>SITE ACCESS</b>											
1	Wheel Slope, Conc	15	EA	80	1,200	NPS-p14 (9)	450	1,800	N023 408 1100	Max 11.5	
2	New Trail	2.50	MI	25,000	62,500	Trail Consult	37,500	115,000	NPS-p13(4) 110 NPS-p13(4) max		
<b>NEW FACILITIES</b>											
3	Interpretation Signs	3	EA	2,000	6,000	USFS Exper	825	6,000	NPS-p13(13)	Tomalelehan	Interpret Signs \$2,000e
4	Wood Benches	4	EA	800	3,200	NPS-p24	3,200	3,200			
5	Wooden Railing	500	LF	55.00	27,500	NPS-p13	27,500	34,375	Norm X 1.25		
6	Vault Toilet (1 Std & 3Bndep)	1	EA	35,000	35,000	Tomalelehan	35,000	50,000	KIP Bid		
7	Seasonal Bridge	30	LF	250.00	7,500	Trail Consult	3,000	12,000	Trail Consult Trail Consult		day Site Access; High Maint & non instal
8	Road Signs	4	EA	200.00	800	NPS-p12 (14)	400	1,200	N028 412 1300	Norm+50%	
<b>SUBTOTAL DIRECT COSTS</b>											
	Bonded off Value				143,700		107,875	223,575			
	State Sales Tax (6.5%) R/O				9,000		108,000	224,000			
	Overhead and Profit (15%) R/O				22,000		16,000	34,000			
	Contingency (25%) R/O				36,000		27,000	56,000			
	Owner's Cost (30%)				43,000		32,000	67,000			
<b>SUBTOTAL INDIRECT COSTS</b>											
					110,000		82,000	172,000			
<b>TOTAL ESTIMATED COSTS</b>											
					\$254,000	Minimum	\$190,000	\$396,000	Maximum		

Revised Cost Est.

20-Mar-91

STAGIT PROJECT  
RECREATION PLAN

## Itemized Reconnaissance Level Cost Estimate

## Plan Element: Happy Flats-Panther Creek Trail

NO	DESCRIPTION	QUANT	UNIT	PRICE	UNIT TOTAL AMOUNT	REFERENCE	MIN	MAX	NOTES 1 (Min ref)	NOTES 2 (Max ref)	NOTES 3
<b>NEW FACILITIES</b>											
1	New Trail	4.50	MI	25,000	122,500	Trail Consult	98,000	225,400	Trail Consult NPS-p13(4)max		Some rocky terrain assume 15" w. avg frd 15% for 24" w. w/machine const; 14" w. fl/2m
2	Foot Bridge (4' x 15')	30	LF	300.00	9,000	Trail Consult	3,000	12,000	Trail Consult Trail Consult		
3	Bridge Found, Conc Abut	4	EA	2,750	11,000	Trail Consult	8,000	16,500	Trail Consult Max + 50%		
4	Road Signs	2	EA	200.00	400	NPS-p12 (14)	200	600	NPS-p12 412 1300 Max+50%		
<b>SUBTOTAL DIRECT COSTS</b>											
					142,900		109,000	254,500			
<b>Rounded off Value</b>											
					143,000		109,000	255,000			
<b>State Sales Tax (6.5%) N/O</b>											
					9,006		7,000	17,000			
<b>Overhead and Profit (15%) N/O</b>											
					21,000		16,000	38,000			
<b>Contingency (25%) N/O</b>											
					36,000		27,000	64,000			
<b>Owner's Cost (30%)</b>											
					43,000		33,000	77,000			
<b>SUBTOTAL INDIRECT COSTS</b>											
					109,000		83,000	195,000			
<b>TOTAL ESTIMATED COSTS</b>											
					\$252,000		Minimum \$192,000	Maximum \$451,000			

Revised Cost Est

20-Mar-91

SLACIT PROJECT  
RECREATION PLAN

Itemized Reconnnaissance Level Cost Estimate

Plan Element: Decontamination-Horween Trail

NO	DESCRIPTION	QUANT	UNIT PRICE	TOTAL AMOUNT	REFERENCE	MIN	MAX	NOTES 1 (Min ref)	NOTES 2 (Max ref)	NOTES 3
<b>NEW FACILITIES</b>										
1	New Trail (4.9 mi)	9.40	MI	36,000	Trail Consult	188,000	432,400	Trail Consult NPS-pl-3(4)sec		Upper elev rocky terrain Assume 18" w, avg grad 15% or 24" w, w/machine const.
2	Food Signs	2	EA	200.00	NPS-pl-2 (14)	200	600	NPS-pl-2 412 1300 New-502		
<b>SUBTOTAL DIRECT COSTS</b>				282,400		188,200	433,000			
<b>Rounded off Value</b>				282,000		188,000	433,000			
<b>State Sales Tax (6.5%) B/O</b>				18,600		12,000	28,000			
<b>Overhead and Profit (15%) B/O</b>				42,000		28,000	65,000			
<b>Contingency (25%) B/O</b>				71,000		47,000	108,000			
<b>Owner's Cost (30%)</b>				85,000		56,000	130,000			
<b>SUBTOTAL, INDIRECT COSTS</b>				216,000		143,000	331,000			
<b>TOTAL ESTIMATED COSTS</b>				\$498,000	Minimum	\$331,000	\$764,000	Maximum		

19910502-0032 FERC PDF (Unofficial) 04/30/1991

PROJECT: Black Peak

PHASE: \_\_\_\_\_

PREPARED BY: Jennifer ReesJOB CODE: SCLDATE: 22 February 1991

NO.	ITEM	QTY.	UNIT	UNIT PRICE	SUB TOTAL	COMMENTS
	MOBILIZATION	1	EA.	20%	\$163,583	20% Of Subtotal
SITE PREP						
1	Embankment	7,870	C.Y.	\$6.00	\$47,220	Means #022-216-4080
2	Import Fill	0		\$0.00	\$0	
3	Fine Grading	30,000	S.Y.	\$0.60	\$18,000	Means #025-122-0100
SITework						
4	Paving	3,724	S.Y.	\$38.00	\$141,512	Means #12.5-110-1880
5	Sidewalk	6,594	S.F.	\$3.00	\$19,782	Means #12.7-140-1620
6	Curbing	602	L.F.	\$12.00	\$7,224	Means #025-250-0443
7	Retaining Wall	4,642	F.F.	\$10.00	\$46,420	Landscape Supply
8	Asphalt Path	200	S.Y.	\$11.00	\$2,200	Means #12.7-120-2120
RECLAMATION						
9	Riprap	995	S.Y.	\$54.00	\$53,730	Means #022-712-0200
10	Topsoil	5,074	C.Y.	\$18.00	\$91,332	Sunland
11	Trees	120	EA.	\$37.50	\$4,500	Walker's, 2 1/2' 5' Ht.
12	Shrubs	328	EA.	\$11.00	\$3,608	DeWildes, 2 Gal.
13	Groundcover	225,000	EA.	\$1.50	\$337,500	Plant Source, 12-14" o.c.
14	Wire Mesh	90	C.S.F.	\$30.00	\$2,688	Means #050-580-2100
MISCELLANEOUS						
15	Benches	7	EA.	\$800.00	\$5,600	NPS, p. 24
16	Vault Toilets	1	EA.	\$35,000.00	\$35,000	Handic. + Std. (Koma Kulshari)
17	Steps	16	EA.	\$100.00	\$1,600	Means #12.7-212-2540
	Subtotal				\$817,916	
	Total				\$981,499	
	O.H., Profit and Contingency (40%)				\$392,600	
	States Sales Tax (6.5%)				\$89,316	
	Grand Total				\$1,463,415	



19910502-0032 FERC PDF (Unofficial) 04/30/1991

PROJECT: Black Peak (Alternative A)

PHASE: \_\_\_\_\_

PREPARER: Jenifer ReesJOB CODE: SCLDATE: 22 February 1991

NO.	ITEM	QTY.	UNIT	UNIT PRICE	SUB TOTAL	COMMENTS
	MOBILIZATION	1	EA.	20%	\$266,330	20% Of Total
	SITE PREP					
1	Embankment	23,513	C.Y.	\$6.00	\$141,078	Means #022-216-4080
2	Import Fill	18,976	C.Y.	\$20.00	\$379,520	Means #022-266-0560
3	Fine Grading	30,000	S.Y.	\$0.60	\$18,000	Means #025 122-0100
	SITWORK					
4	Paving	3,088	S.Y.	\$38.00	\$117,344	Means #12.6--110-3000
5	Sidewalk	4,071	S.F.	\$3.00	\$12,213	Means #12.7-140-1620
6	Curbing	847	L.F.	\$12.00	\$10,164	Means #025-250-0443
7	Stone Retaining Wall	6,350	F.F.	\$30.00	\$190,500	Means #12.7-360-5800
8	Asphalt Path	262	S.Y.	\$11.00	\$2,882	Means #12.7-120-2120
	RECLAMATION					
9	Topsoil	4,161	C.Y.	\$18.00	\$74,898	Sunland
10	Trees	128	EA.	\$37.50	\$4,800	Walker's, 2 1/2'-5' Ht.
11	Shrubs	309	EA.	\$11.00	\$3,399	DeWildes, 2 Gal.
12	Groundcover	224,701	EA.	\$1.50	\$337,052	Plant Source, 12-14" o.c.
	MISCELLANEOUS					
13	Benches	6	EA.	\$800.00	\$4,800	NPS, p. 24
14	Vault Toilets	1	EA.	\$35,000.00	\$35,000	Handic. + Std. (Koma Kulshan)
	Subtotal				\$1,331,650	
	Total				\$1,597,979	
	O.H., Profit and Contingency (40%)				\$639,192	
	States Sales Tax (6.5%)				\$145,416	
	Grand Total				\$2,382,587	

PROJECT: Black Peak (Alternative B)

PHASE: \_\_\_\_\_

PREPARER: Jennifer ReesJOB CODE: SCLDATE: 22 February 1991

NO.	ITEM	QTY.	UNIT	UNIT PRICE	SUB TOTAL	COMMENTS
	MOBILIZATION	1	EA.	20%	\$177,738	20% Of Total
SITE PREP						
1	Embankment	15,075	C.Y.	\$6.00	\$90,450	Means #022-216-4080
2	Import Fill	5,076	C.Y.	\$20.00	\$101,520	
3	Fine Grading	30,196	S.Y.	\$0.60	\$18,118	Means #025-122-0100
SITework						
4	Paving	3,596	S.Y.	\$38.00	\$136,648	Means #12.6--110-3000
5	Sidewalk	3,869	S.F.	\$3.00	\$11,607	Means #12.7-140-1620
6	Curbing	444	L.F.	\$12.00	\$5,328	Means #025-250-0443
7	Retaining Wall	3,740	F.F.	\$10.00	\$37,400	Landscape Supply
8	Asphalt Path	166	S.Y.	\$11.00	\$1,826	Means #12.7-120-2120
RECLAMATION						
9	Riprap	130	S.Y.	\$54.00	\$7,020	Means #022-712-0200
10	Topsoil	5,098	C.Y.	\$18.00	\$91,764	Sunland
11	Trees	109	EA.	\$37.50	\$4,088	Walker's, 2 1/2'-5' Ht.
12	Shrubs	333	EA.	\$11.00	\$3,663	DeWildes 2 Gal.
13	Groundcover	225,000	EA.	\$1.50	\$337,500	Plant Source, 12-14" o.c.
14	Wire Mesh	12	C.S.F.	\$30.00	\$360	Means #050-580-2100
MISCELLANEOUS						
15	Benches	8	EA.	\$800.00	\$6,400	NPS, p. 24
16	Vault Toilets	1	EA.	\$35,000.00	\$35,000	Handic. + Std. (Koma Kulshan)
Subtotal					\$888,691	
Total					\$888,691	
O.H., Profit and Contingency (40%)					\$355,476	
States Sales Tax (6.5%)					\$88,871	
Grand Total					\$1,325,038	

Revised Cost Est

20-Mar-91

SLUGT PROJECT  
RELOCATION PLAN

## Itemized Reconciliation Level Cost Estimate

Plan Element: Rocky Creek River Access Site

NO	DESCRIPTION	QUANT	UNIT	PRICE	TOTAL AMOUNT	REFERENCE	MIN	MAX	NOTES 1 (Min Pct)	NOTES 2 (Max Ref)	NOTES 3
<b>SITE PREPARATION</b>											
1	Clear & Grub	0.50	AC	7,000	4,200	MPS-P11 (and)	1,200	7,200	M021 104 0015 M021 104 0300 K1.5		
2	Fill Grading	2,940	SY	0.50	1,704	M 025 122 0100	1,221	3,010	M025 122 0100 M025 122 0010		
<b>SITE ACCESS</b>											
3	Paving Road & Path (6' bit)	2,110	SY	37.80	79,758	M12.5 110 5000	35,870	99,698	M12.5 510 1620 Norm X 1.25	Site Work (6')	
4	Barrier Free Trail, 6' paved	0.21	MI	70,400	14,784	MPS-P13(1)	4,916	97,720	M025 104 0200 Iowa Eulshan \$	Equiv \$/car	Site Work (6')
5	Edging (2' x 4" treat hemlock)	2,200	LF	2.63	5,786	M025 238 0700	5,786	7,233		Norm X 1.25	Equiv \$/LF 20' prevent
6	Road Gate, USFS Std	1	EA	1,500	1,500	USFS exper	1,500	1,500			
<b>NEW FACILITIES</b>											
7	Interpretation Signs	2	EA	2,000	4,000	USFS Exper	550	4,000	MPS-P13	Iowa Eulshan	Interpret Signs \$2,000 ea
8	Wood Benches	5	EA	200	4,000	MPS-P24	4,000	4,000			
9	Wooden Balling	125	LF	55.00	6,875	MPS-P13	6,875	8,594		Norm X 1.25	
10	Vault Toilet (1 Std & 1 Handp)	2	EA	35,000	70,000	Iowa Eulshan	70,000	100,000		IIP Bid	
11	Dumpster (3 CY)	1	EA	875	875	Cap Ind quote	550	1,094	Small bin	Norm X 1.25	Haulage fees extra
12	Road Signs	4	EA	200.00	800	MPS-P12	400	1,200	M028 412 1300 Norm+50%		
13	Picnic Shelter w/ Firepit	1	EA	10,000	10,000	USFS Exper	9,000	15,000	MPS-P4	USFS Exper	Assume 400 SF e/c/ea
<b>LANDSCAPING</b>											
14	Trees (7'-8" ht native spec)	11	EA	200.00	2,200	Shilbo quote	2,200	2,200			
15	Shrubs (18"-24" high)	61	EA	30.00	1,830	Shilbo quote	1,830	1,830			
16	Ground Cover (4" pots, 12" OC)	1,250	SF	2.50	3,125	Shilbo quote	3,125	3,125			
17	Topsoil	125	CY	19.00	2,375	Shilbo quote	2,375	2,375			
<b>SUBTOTAL DIRECT COSTS</b>					213,812		151,398	289,778			

EX-G-188

Revised Cost Est

20-Mar-91

STAGIT PROJECT  
RECREATION PLAN

Itemized Reconnaissance Level Cost Estimate

Site Element: Rocky Creek River Access Site

NO	DESCRIPTION	QTY	UNIT	PR	UNIT	TOTAL	REFERENCE	MIN	MAX	NOTES 1 (Min ref)	NOTES 2 (Max ref)	NOTES 3
	Rounded off Value					214,000		151,000	290,000			
	State Sales Tax (6.5%) R/O					14,000		10,000	19,000			
	Overhead and Profit (15%) R/O					32,000		23,000	44,000			
	Contingency (25%) R/O					54,000		38,000	73,000			
	Owner's Cost (30%)					64,000		45,000	87,000			
	SUBTOTAL, INDIRECT COSTS					164,000		116,000	223,000			
	TOTAL ESTIMATED COSTS					\$378,000		Minimum \$267,000	\$513,000 Maximum			

PCRAS.1.W01

Page 2 of 2

Staco Service Inc

19910502-0032 FERC PDF (Unofficial) 04/30/1991

PROJECT: ENGINEERING ROW

PHASE: \_\_\_\_\_

PREPARER: Jenifer Rees

JOB CODE: \_\_\_\_\_

DATE: 3/25/91

NO.	ITEM	QTY.	UNIT	UNIT PRICE	SUB TOTAL	COMMENTS
	MOBILIZATION			10%	\$33,811	
	DEMOLITION					
1	Strip Gravel	97	CY	0.75	\$73	Means #022-242-4000
2	Load Gravel	97	CY	6.00	\$582	Means #022-216-5010
3	Haul Gravel	97	CY	2.50	\$243	Means #022-266-0030
4	Remove Buildings	3	EA	2,100.00	\$6,300	Means #020-604-1000
					\$6,615	
	SOIL					
5	Import Topsoil	1,305	CY	19.00	\$24,795	Sunland
6	Spread and Till	7,831	SY	0.07	\$548	6" deep
7	Fine Grade	7,831	SY	0.45	\$3,524	Means #025-122-0100
					\$28,867	
	PLANTING					
8	Trees	59	EA	200.00	\$11,800	Plant Source 8'-10' HT.
9	Shrubs	136	EA	30.00	\$4,080	Plant Source 18"-24" HT.
10	Groundcover	70,000	EA	1.50	\$105,000	Plant Source, 12" O.C.
11	Irrigation	70,000	SF	0.75	\$52,500	Pop-up heads
					\$173,380	
	SITE FEATURES					
12	Asphalt Footpath	1,022	SY	11.00	\$11,242	Means #12.7-120-2120
13	Picnic Tables	3	EA	700.00	\$2,100	Timberform
14	Benches	4	EA	800.00	\$3,200	8', wood w/ backs
					\$16,542	
	SUBTOTAL				\$259,215	
	STATE SALES TAX (6.5%)				\$16,849	
	O.H. & PROFIT (15%)				\$38,882	
	CONTINGENCY (25%)				\$64,804	
	OWNER'S COST (30%)				\$77,765	
	TOTAL				\$457,515	



19910502-0032 FERC PDF (Unofficial) 04/30/1991

PROJECT: GREENHOUSE SCREENING

PHASE: \_\_\_\_\_

PREPARER: Jenifer Rees

JOB CODE: \_\_\_\_\_

DATE: 3/25/91

NO.	ITEM	QTY.	UNIT	UNIT PRICE	SUB TOTAL	COMMENTS
	MOBILIZATION			10%	\$7,960	
	SOIL					
1	Import Soil	72	CY	19.00	\$1,368	Sunland
					\$1,368	
	PLANTING					
2	Trees	53	EA	200.00	\$10,600	Plant Source 8'-10' ht.
3	Shrubs	95	EA	30.00	\$2,850	Plant Source 18"-24" ht.
4	Irrigation	51,000	SF	0.75	\$38,250	Pop-up Heads
					\$51,700	
	SUBTOTAL				\$61,028	
	STATE SALES TAX (6.5%)				\$3,967	
	O.H. & PROFIT (15%)				\$9,154	
	CONTINGENCY (25%)				\$15,257	
	OWNER'S COST (30%)				\$18,308	
	TOTAL				\$107,715	

Urban Design  
Land Planning  
Landscape Architecture**ROBERT SHINBO  
ASSOCIATES**89 Virginia Street  
Seattle, Washington 98101  
(206) 728 9680 FAX (206) 728 7620

19910502-0032 FERC PDF (Unofficial) 04/30/1991

PROJECT: RV PARKING

PHASE: \_\_\_\_\_

PREPARED BY: Jenifer Rees

JOB CODE: \_\_\_\_\_

DATE: 3/25/91

NO.	ITEM	QTY.	UNIT	UNIT PRICE	SUB TOTAL	COMMENTS
MOBILIZATION				10%	\$42,020	
DEMOLITION						
1	Strip Gravel	963	CY	0.75	\$722	Means 022-242-4000
2	Load Gravel	963	CY	6.00	\$5,778	Means 022-216-5010
3	Haul Gravel	963	CY	2.50	\$2,408	Means 022-266-0030
					\$3,130	
SOIL						
4	Import Topsoil	963	CY	19.00	\$18,297	Sunland
5	Spread and Till	5,778	SY	0.07	\$404	6" deep
					\$18,701	
SITework						
6	Fine Grade	11,200	SY	0.45	\$5,040	Means 025-122-0100
7	Concrete Curbing	1,434	LF	9.00	\$12,906	Means 025-254-0443
8	Bituminous Paving	5,424	SY	19.00	\$103,056	Means 12.5-510-2320
9	Concrete Sidewalk	3,306	SF	3.00	\$9,918	Means 12.7-140-1620
10	Road Signs	4	EA	200.00	\$800	NPS, p. 12
					\$131,720	
PLANTING						
11	Trees	23	EA	200.00	\$4,600	Plant Source 8'-10' HT.
12	Shrubs	91	EA	30.00	\$2,730	Plant Source 18"-24" HT
13	Groundcover	53,000	EA	1.50	\$79,500	Plant Source 12" O.C.
14	Irrigation	53,000	SF	0.75	\$39,750	pop-up heads
					\$126,580	
SUBTOTAL					\$322,151	
STATE SALES TAX (6.5%)					\$20,940	
O.H. & PROFIT (15%)					\$48,323	
CONTINGENCY (25%)					\$80,538	
OWNER'S COST (30%)					\$96,645	
TOTAL					\$568,596	

Urban Design  
Land Planning  
Landscape Architecture**ROBERT SHINBO  
ASSOCIATES**83 Virginia Street  
Seattle, Washington 98101  
(206) 728-9686 FAX (206) 728-7620

PROJECT: SWITCHYARD/LADDER CREEK

PHASE: \_\_\_\_\_

PREPARER: Janifer Rees

JOB CODE: SCL

DATE: 3/25/91

NO.	ITEM	QTY.	UNIT	UNIT PRICE	SUB TOTAL	COMMENTS
MOBILIZATION				10%	\$10,046	
DEMOLITION						
1	Strip Gravel	431	CY	0.75	\$323	Means 022-242-4000
2	Load Gravel	431	CY	6.00	\$2,586	Means 022-216-5010
3	Haul Gravel	431	CY	2.50	\$1,078	Means 022-266-0030
					\$1,401	
SOIL						
4	Import Topsoil	431	CY	19.00	\$8,189	Sunland
5	Spread and Till	2,588	SY	0.07	\$181	6" deep
					\$8,370	
SITEWORK						
6	Fine Grade	4,400	SY	0.45	\$1,980	Means 025-122-0100
7	Paving	1,413	SY	15.00	\$21,195	Means 12.5-510-1620
8	Concrete Curbing	750	LF	9.00	\$6,750	Means 025-254-0443
9	Footpath	402	SY	11.00	\$4,422	Means 12.7-120-2120
10	Remove/Reset Fence	454	LF	5.60	\$2,542	Means 020-554-0750
11	Road Signs	2	EA	200.00	\$400	NPS, p.12
12	Interpretive Signage	1	EA	2000.00	\$2,000	USFS
					\$39,289	
PLANTING						
13	Trees	24	EA	200.00	\$4,800	Plant Source 8'-10' ht.
14	Shrubs	106	EA	30.00	\$3,180	Plant Source 18"-24" ht.
15	Groundcover	6,620	EA	1.50	\$9,930	Plant Source 12" o.c.
					\$17,910	
SUBTOTAL					\$77,016	
STATE SALES TAX (6.5%)					\$5,006	
O.H. & PROFIT (15%)					\$11,552	
CONTINGENCY (25%)					\$19,254	
OWNER'S COST (30%)					\$23,105	
TOTAL					\$135,933	

19910502-0032 FERC PDF (Unofficial) 04/30/1991

PROJECT: DIABLO TOUR CENTER

PHASE: \_\_\_\_\_

PREPARER: Janifer Rees

JOB CODE: \_\_\_\_\_

DATE: 3/25/1991

NO.	ITEM	QTY.	UNIT	UNIT PRICE	SUB TOTAL	COMMENTS
				10%	\$23,195	
	MOBILIZATION					
	DEMOLITION					
1	Remove Paving	450	SY	5.00	\$2,250	020-554-1750
2	Remove Curb	1,381	LF	2.00	\$2,762	020-554-2400
3	Strip Gravel	390	CY	0.75	\$293	022-242-4000
4	Load Gravel	390	CY	6.00	\$2,340	022-216-5010
5	Haul Gravel	390	CY	2.50	\$975	022-266-0030
6	Fell and Pile Trees to 12" diam.	8	EA	12.00	\$96	021-116-1550
	12"-24" diam.	12	EA	14.00	\$168	021-116-1650
7	Chip Stumps to 18" diam.	20	EA	24.00	\$480	021-104-3080
					\$9,364	to 18" depth
	SOIL					
8	Fine Grading	5,851	SY	0.45	\$2,633	025-122-0100
9	Import Topsoil	390	CY	19.00	\$7,410	Sunland
10	Spread and Till	2,341	SY	0.07	\$164	6" deep
					\$10,207	
	SITework					
11	Bitumin. Paving	3,510	SY	15.00	\$52,650	12.5-510-1620
12	Sidewalk	1,837	SF	3.00	\$5,511	12.7-140-1580
13	Concrete Curbing	2,106	LF	9.00	\$18,954	025-254-0443
14	Directional Signage	7	EA	200.00	\$1,400	NPS, p.12
					\$78,515	
	PLANTING					
15	Trees	31	EA	200.00	\$6,200	Plantsource 8-10' Ht.
16	Shrubs	98	EA	30.00	\$2,940	Plantsource 18-24" Ht.
17	Groundcover	21,069	EA	1.50	\$31,604	Plantsource 12" o.c.
18	Irrigation	21,069	SF	0.75	\$15,802	Pop-up Heads
					\$56,545	
	SUBTOTAL				\$177,825	
	STATE SALES TAX (6.5%)				\$11,559	
	O.H. & PROFIT (15%)				\$26,674	
	CONTINGENCY (25%)				\$44,456	
	OWNER'S COST (30%)				\$53,348	
	TOTAL				\$313,861	

## **APPENDIX D**

### **Diablo Lake Boat Ramp Site Evaluations**



EBASCO ENVIRONMENTAL

## Interoffice Correspondence

DATE September 26, 1990 FILE REF EBEL-SCL-90-004

TO Chris Lawson OFFICE LOCATION

FROM Tom Stewart *LS* OFFICE LOCATION

SUBJECT Diablo Lake Site Evaluations

## Colonial Creek Campground Boat Launch:

## Statement of Problem

The boat launching ramp at the Colonial Creek campground has experienced siltation and shoaling since construction. Use of the ramp has reportedly been reduced during periods of low lake levels. In some instances rapid lake level fluctuations have stranded boaters who entered the lake during earlier high levels. Consequently, the National Park Service has requested that Seattle City Light incorporate remedial measures for this situation into the City's recreation plan for the Skagit Project.

## General Area Conditions

The Colonial Creek Campground is located on Diablo Lake on the southwestern shore of Thunder Arm (Figure 1). The campground's eastern section is built on the Rhode Creek alluvial fan while the western section is built on the Colonial Creek alluvial fan. The two sections are separated by State Route 20, which crosses the arm at this site. The mountain front above the campground and alluvial fans is abrupt and steep. Thunder Creek enters the arm at its eastern end. All three creeks are constructing deltas into the lake. Colonial and Thunder Creek drain glaciated watersheds. Rhode Creek previously flowed through the center of the eastern section of the campground. It has been trained into a western channel that now flows parallel to State Route 20 along its lower course. Rhode Creek drains into a large grate designed to catch cobbles and boulders and then crosses beneath the campground entrance road. Colonial Creek is entrenched in its own deposits above the highway and is well contained there. Below the highway the creek flows on the fan surface and can migrate across the entire lower fan. Gravel levees have been built to contain the creek along its lower reach.

## Principal Field Observations

There are indications that both Rhode Creek and Thunder Creek are contributing sediment that causes the sedimentation and shoaling at the Colonial Creek boat launch. Comparison of 1978 air photos and observations made from the Thunder Creek Trail show continued advance of the Thunder Creek delta and continued accretion of sediment. In the 1978 photos subaqueous levees, subaqueous levees and subaqueous channels on the Thunder Creek delta front platform are all visible. In the photos the subaqueous channels terminate offshore of the amphitheater at the east end of the campground. Field observations indicate

MDMA/P092/001a

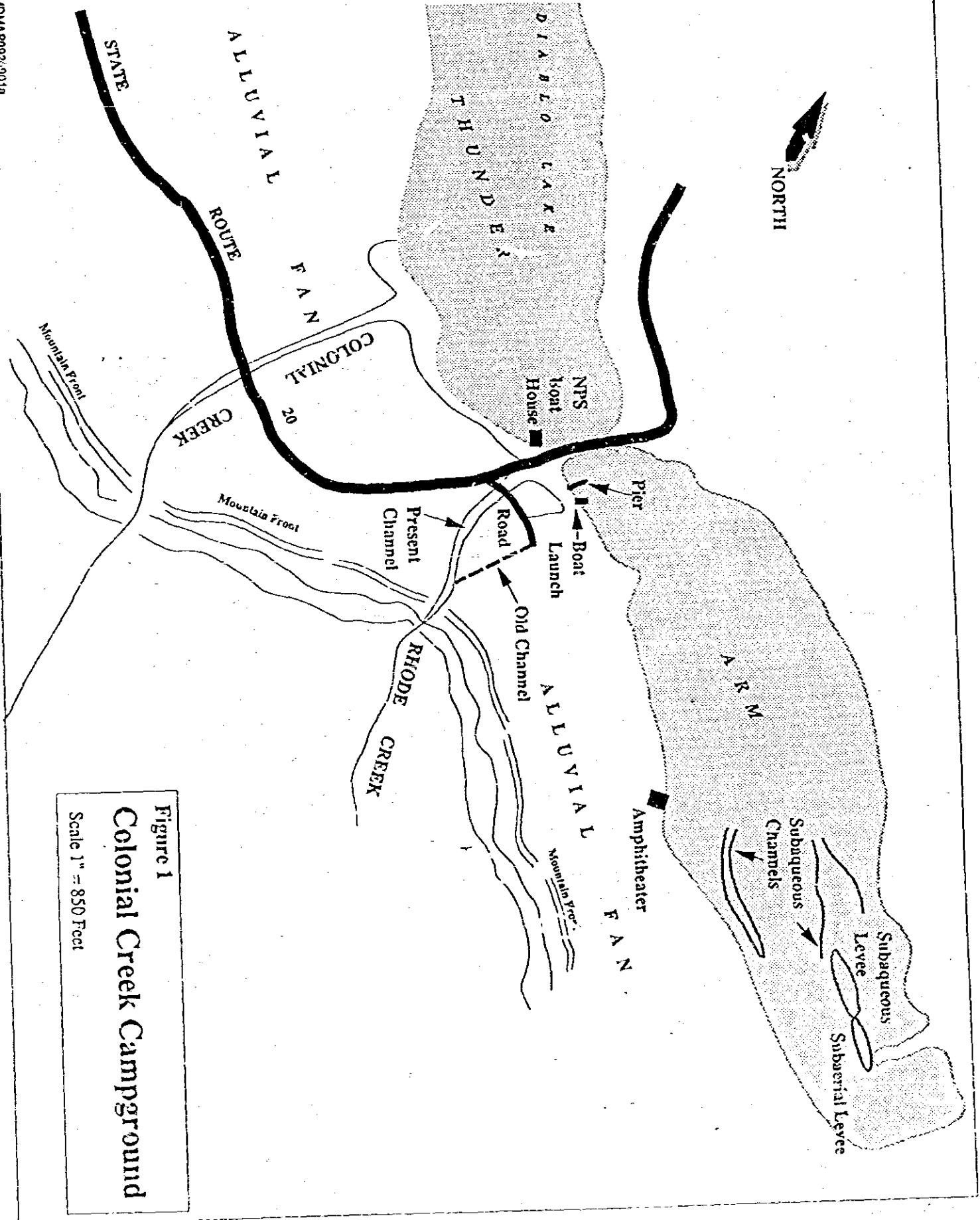


Figure 1  
Colonial Creek Campground  
Scale 1" = 850 Feet

continued growth of the Thunder Creek levees while the portions visible in the photos have been stabilized by sedge growth. Also, gravel has been transported downstream into the lower river channel and out near the levees, which has now formed partially emergent gravel bars.

Even though Thunder Creek is prograding toward the boat ramp at present, it appears Rhode Creek is the dominant sediment source that causes shoaling in the boat ramp area. This is shown by the proximity and coarseness of the Rhode Creek deltaic materials. The edge of the Rhode Creek delta is only some 20 feet from the ramp and is composed of gravels to small cobbles. Near the shoreline, this coarser sediment is overlain by about six inches of finer sediment that is predominantly fine sand and coarse silt. At the two piers east of the boat launch the fine sediment contains more fine silt and clay. This indicates that most of the fine material from Thunder Creek settles out before it reaches the boat ramp. At the boat ramp the fine-grained deposition is dominated by the coarser material contributed from Rhode Creek. The edge of the Thunder Creek delta is at the end of the subaqueous channels noted above. Therefore, the Thunder Creek delta most likely terminates near the amphitheater. This should be the furthest location where coarser silt and sand could be transported and supports the observations at the Rhode Creek delta and the piers.

#### Recommendations

Because of the proximity of the boat launch to the Rhode Creek delta and the continued progradation of the Thunder Creek delta there is no way to protect it from sediment encroachment. Rhode Creek is trained into the only physically available position that does not impact the entire campground. Although presently a minor contributor, the sediment discharge from Thunder Creek cannot be stopped. Given the site conditions, five potential options for maintaining boating areas at Colonial Creek were identified and are evaluated below.

#### Option 1

The most feasible approach is to leave the boat launch at its present site and dredge an entry channel to it. Dredged material could be dumped either in deep water or near the Thunder Creek delta. Thunder Creek carries sufficient sediment that the dredged material would be quickly buried. The sediment at the boat launch is predominantly cobbles, gravels, sand and coarse silt with a small percentage of fine silt and clay. Consequently, the majority of the dredged sediment would quickly settle to the bottom even in deep water. The small amount of finer material would take longer to settle but most would settle out of sight within hours. Dumping of the dredged material on a calm day would increase the settling rate of fine sediment and minimize transport beyond the dump site. Alternatively, this material could be road-hauled for disposal. A large percentage of this sediment is gravel size and it would be valuable fill material. This option provides the best access to the site and allows construction of a longer entry channel than with a backhoe (Options 2 and 3). If this option is used the dredge should also excavate sediment from

the Rhode Creek delta. This will create space for additional sediment accumulation and will delay future shoaling. It is worth emphasizing that whenever a stream is trained into a single channel on an alluvial fan, continued maintenance is required after floods.

#### Option 2

The second option is to leave the boat ramp at its present site and use a large backhoe to excavate accumulated sediment from the boat ramp during a period of extremely low water. The backhoe could also excavate sediment from beyond the ramp to create an entry channel. The backhoe could reach some distance out onto the Rhode Creek delta, taking accumulated sediment from deeper water. A large backhoe could excavate sediment outward to a distance of about 20 feet from the low water line. This would provide new space for the accumulation of sediment. Depending on future flooding activity and shoaling, this procedure could be repeated every few years at minimal expense. With this option the equipment would only move a short distance into the water while the lake level is low. Consequently, there would be little danger to the equipment or operator from slumping of the delta surface.

#### Option 3

This option involves leaving the boat ramp at its present site and extending it outward to greater depth. During a period of low water a backhoe could drive down the boat ramp, excavating accumulated sediment from deeper water. Then a pre-fabricated cement slab could be lowered into place by crane and anchored to the existing boat launch. If this option is considered, the bathymetry and stability of the site must be examined. If the bottom drops off too steeply or if it is unstable, there is a danger of the backhoe or boat launch slab causing a slump, thereby damaging or losing the equipment.

#### Option 4

A fourth option is to move the boat launch to the west side of the State Route 20 crossing. The best site is at or near the National Park Service boat house as this is the furthest distance from the Colonial Creek delta. If this option is considered, the bathymetry of this area should be determined to make certain that sufficient depth exists for easy access with allowance for continued deposition without rapid infilling. Conversely, the depth must not drop off too rapidly or there is danger to vehicles backing onto the boat launch.

The present flood control levees on Colonial Creek will need continued maintenance, thereby continuing protection from Colonial Creek flooding and deposition. Continued deposition from Colonial Creek will occur and will ultimately fill in the area around the boat ramp, although not as rapidly as at Rhode Creek. The present levees will protect the boat ramp somewhat, but a major flood could still spill over towards it. To be certain of effectiveness, the levees would have to contain a 50- to 100-year flood. It is likely that this option would require higher levees than presently constructed in order to



protect the boat ramp and justify the expense of its relocation. Higher levees would restrict access to the creek from the campground and would be visually intrusive when seen from the lake. If this option is chosen, a decision would have to be made as to the degree of flood protection desired. Then flood magnitude and the levee height necessary to contain them would have to be determined for Colonial Creek. Ebasco Environmental could perform the flood frequency analysis and levee design if needed.

It should be recognized that even though Colonial Creek is more stable than Rhode Creek, from a long-term perspective it is unstable on the lower fan despite the presence of the constructed gravel levees. Alluvial fans exist because a mountain drainage basin exits onto an adjacent lowland. The creek exit location is constrained by the valley's bedrock north or, as is the case with Colonial Creek, by incision into its own deposits. Below the exit point the creek deposits sediment which continuously raises the streambed. At some time the streambed is sufficiently higher than the adjacent fan surface that a flood causes the stream to jump its channel, thereby occupying a lower area until the process repeats itself. The lower Colonial Creek streambed is presently in a relatively low position but it will continue to aggrade its bed. Because of this potential instability, observation of conditions on lower Colonial Creek should be a long-term objective.

#### Option 5

The final option is to move the boat launch to a location that is completely isolated from the Rhode and Colonial Creek alluvial fan deltas. Several sites along the bedrock walls exist off State Route 20. This option would involve building new access roads. Also, for safety reasons, the off-shore bathymetry would have to be determined to make certain that the bottom does not drop off too steeply, which would be dangerous to vehicles launching boats. Another consideration for this option is the additional traffic and safety problems that would occur because of vehicles entering and exiting the boat launch access road. This option would clearly be the most expensive and would cause the greatest disturbance to local environmental resources.

#### Sourdough Creek Handicap Accessible Fishing Pier:

##### Statement of Problem

A handicapped accessible fishing pier has been proposed for construction on or near Diablo Lake. One of the three sites under consideration is near the Diablo Lake Resort, at the lower end of the Sourdough Creek alluvial fan. The construction would include the pier, paving of the parking lot and a vault toilet. This site's stability must be assessed to determine the feasibility of fishing pier development at this location, and to investigate alternative locations near Sourdough Creek.



19910502-0032 FERC PDF (Unofficial) 04/30/1991

### General Area Conditions

Diablo Lake Resort is on the north shore of the lake about one-half mile east of Diablo Dam (Figure 2). The resort is located between Deer Creek to the east and Sourdough Creek to the west. Deer Creek has the smaller drainage area and drains into a cove but has not constructed a significant delta. Sourdough Creek has constructed a debris cone/alluvial fan into the lake. Where the resort road crosses Sourdough Creek a culvert is installed with a grate to prevent clogging by large boulders while still allowing water to drain through the culvert.

### Principal Field Observations

Except for Sourdough Creek, there is no significant stream deposition into Diablo Lake in the vicinity of the Diablo Lake Resort that would interfere with construction of a fishing pier.

Sourdough Creek has an unstable debris cone/alluvial fan. There is a moderately large amount of cobble and boulder storage in the lower stream channel which could be mobilized during a flood event. In places this material has accumulated to within five feet of the top of the channel banks, creating potential sites for channel jumping (avulsion). These potential avulsion sites exist on both banks. At these sites any channel obstruction could cause channel filling and overtopping, with creation of a new channel. The left bank (looking downstream) overspill site would allow the creek to reoccupy a former channel that descends downfan and exits right at the "Diablo Lake Trail" sign. Consequently, reoccupying this channel would cause sediment to spill across the road and into the north parking area on the creek's alluvial fan. (Note: The Diablo Lake Resort buildings are on a 10-ft high bank which should have minimal danger from typical flood flows. Bank undercutting could occur, but since the creek flows only intermittently, this should not be a significant danger.) Channel jumping could also occur along the right bank. Any avulsion on the right bank could inundate the south parking area.

Some of the boulders that have previously moved down Sourdough Creek are enormous. A single block perched on the left bank measures 15x10x3 feet. There are several blocks either on the bank or in the channel which approach these dimensions. Normal water floods are incapable of moving blocks of these sizes. These blocks are strong indicators of debris torrent and debris flow activity in addition to the normal high water floods. This observation has two implications for the lower channel and alluvial fan. First, such debris can move all the way down the channel, clogging the grate at the road crossing, allowing sediment buildup and eventually overtopping the road and flooding the parking area with water, cobbles and boulders. Second, a debris torrent which did not reach to the road could infill the channel, allowing either that flow or a subsequent flow to overtop the channel and spill down the fan surface as described above. Debris flows and torrents commonly occur in a series of

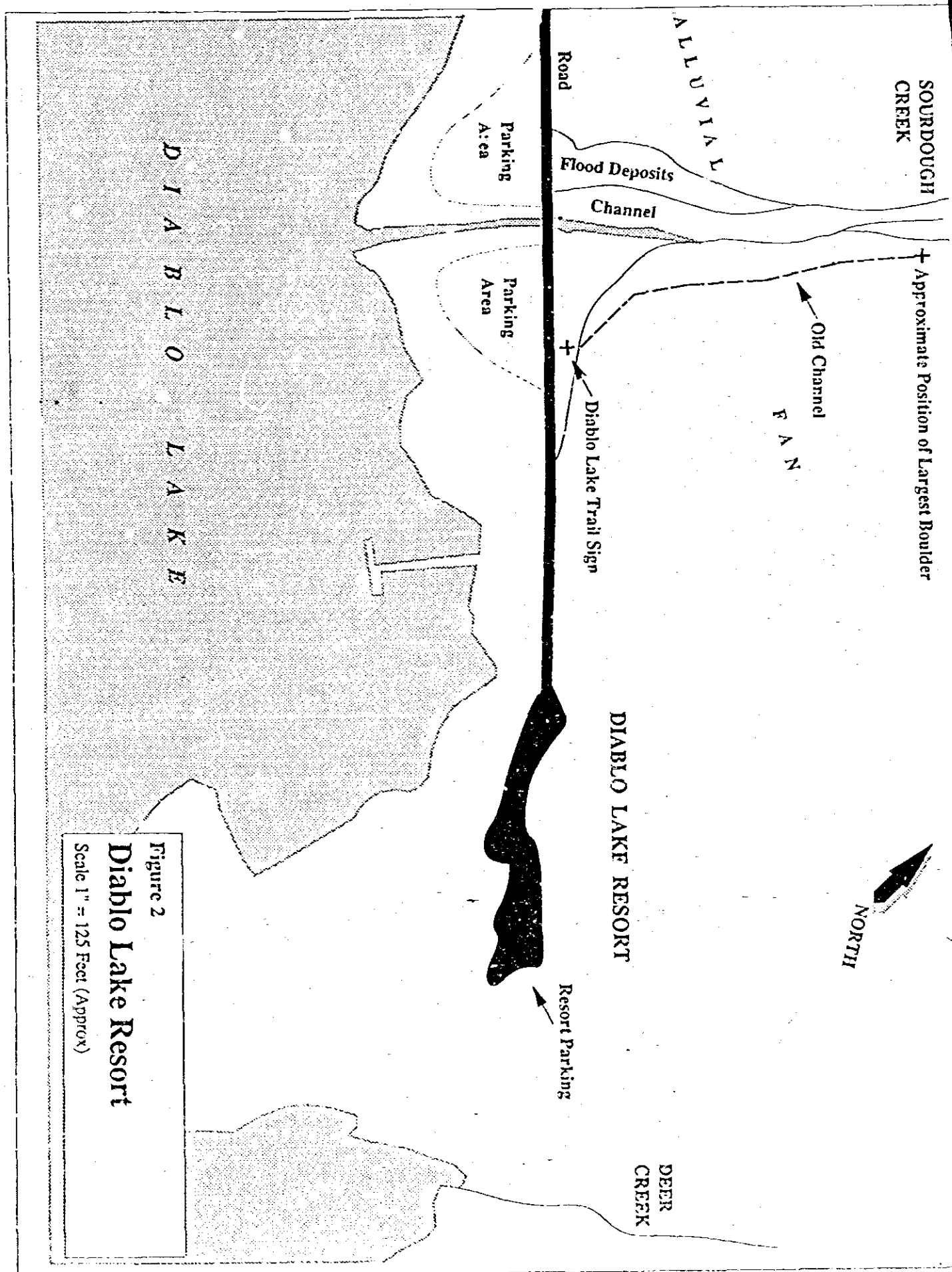


Figure 2  
Diablo Lake Resort  
Scale 1" = 125 Feet (Approx)

surges separated by minutes or hours. Consequently, an initial surge may halt, partially or completely filling the channel, thereby allowing a subsequent surge to avulse.

Recognizing the fact that floods will occur numerous times over a 10 to 15 year period in the Sourdough Creek channel, two options are considered.

#### Option 1

In this option the fishing pier is placed off the Sourdough Creek fan. To reduce the flooding hazard, the creek bottom should initially be cleared of cobbles and boulders, giving a minimum bank height of 10 to 15 feet along both sides. This should be done up the creek to at least 50 feet above the large block on the left bank. If done carefully, once completed this work will not be obvious to the casual viewer. (A similar channel improvement has been done at Rhode Creek and it was not immediately obvious to me as I traversed up it.) This procedure should be part of continued site maintenance. The channel would have to be cleared after any significant sediment deposition, perhaps on the order of once every two to five years. This material would have to be completely removed from the channel and hauled off-site. If the channel depth is maintained, visually obvious bank protection measures such as building a berm are not needed. Note that the grate and culvert beneath the road and the channel below the road would also have to be maintained to insure passage of sediment-charged flood waters and debris flows.

If the channel is maintained in this manner, the pier could be placed off the parking area on either side of the creek with minimal danger of burial. The pier should be as far from the creek outlet as possible. It should be recognized that a major flood (on the order of a 50- to 100-year return period) would likely plug the road grate and inundate the parking area. A method that would minimize any parking lot flooding is to lower the Diablo Lake Resort road four to five feet at the creek crossing. Then if the culvert plugs during a flood, the overflow will pass over the road but be constrained within the road dip. The flood would then be less likely to inundate the parking lot.

Paving of the parking area should provide basic protection from flood scour. The vault toilet should also be placed as far from the creek as possible. Depending on the cost of the vault toilet it may be desirable to protect it from flood debris. In this case, concrete deflection structures could be designed. A V-shaped wall would be placed on the up-fan side. Another wall should be placed on the creek-channel side to protect it from impact and burial from channel overtopping. These walls can be ornamentally designed so their purpose is not obvious. The creek-side wall could be designed with an information sign to further hide its utilitarian purpose.

If substantial buildings or buildings with other than temporary occupancy are ever considered at this site, a bridge should be installed of sufficient height to allow floods and debris flows to pass beneath it.



## Option 2

In this option, alternative sites are considered. As noted under Principal Field Observations, except for Sourdough Creek there are limited flooding or depositional hazard constraints in the vicinity of the Diablo Lake Resort. Consequently sites in this area can be considered viable for pier construction.

One alternative would be to place the pier between the Sourdough Creek fan and the Seattle City Light boathouse. This site is removed from the present entrance of Sourdough Creek into Diablo Lake. Unfortunately, it is still immediately downfan and channel jumping might impact the area. Additionally, this site is removed from the present parking area and would require the placement of fill for construction of a new parking area or the construction of a paved access path.

Another alternative is to place the pier to the east of Sourdough Creek within the existing Diablo Lake Resort site. While there are several stable, non-flooding sites here, clearing and construction near the shoreline would be necessary within the general boundary of the resort property to allow access to the pier. Additionally, depending upon the chosen site, construction of a parking lot at the pier might be necessary to facilitate handicap vehicle access. This area is also planned for use as an environmental resources learning center, and this alternative may be incompatible with that use.

In conclusion, it should be emphasized that facilities on a debris cone/alluvial fan are always at risk from flooding, sediment deposition, and undercutting. This is true even for sites that are apparently inactive. On an alluvial fan all sites are potentially active because of channel avulsion. Construction on alluvial fans has been common in the Skagit Valley because of limited alternatives. Damage to facilities over time is certain; it is just a question of when. Storms and floods that typically generate large sediment loads and debris flows generally occur with a return interval between five and 50 years. Two approaches to this problem can be taken. One is the construction of relatively inexpensive facilities that could be easily replaced after an event. The second is to armor against problems. This can be very costly and still not guarantee success.

TS03:hjd

## **APPENDIX E**

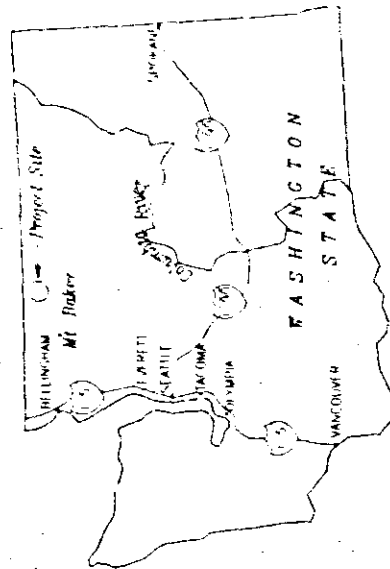
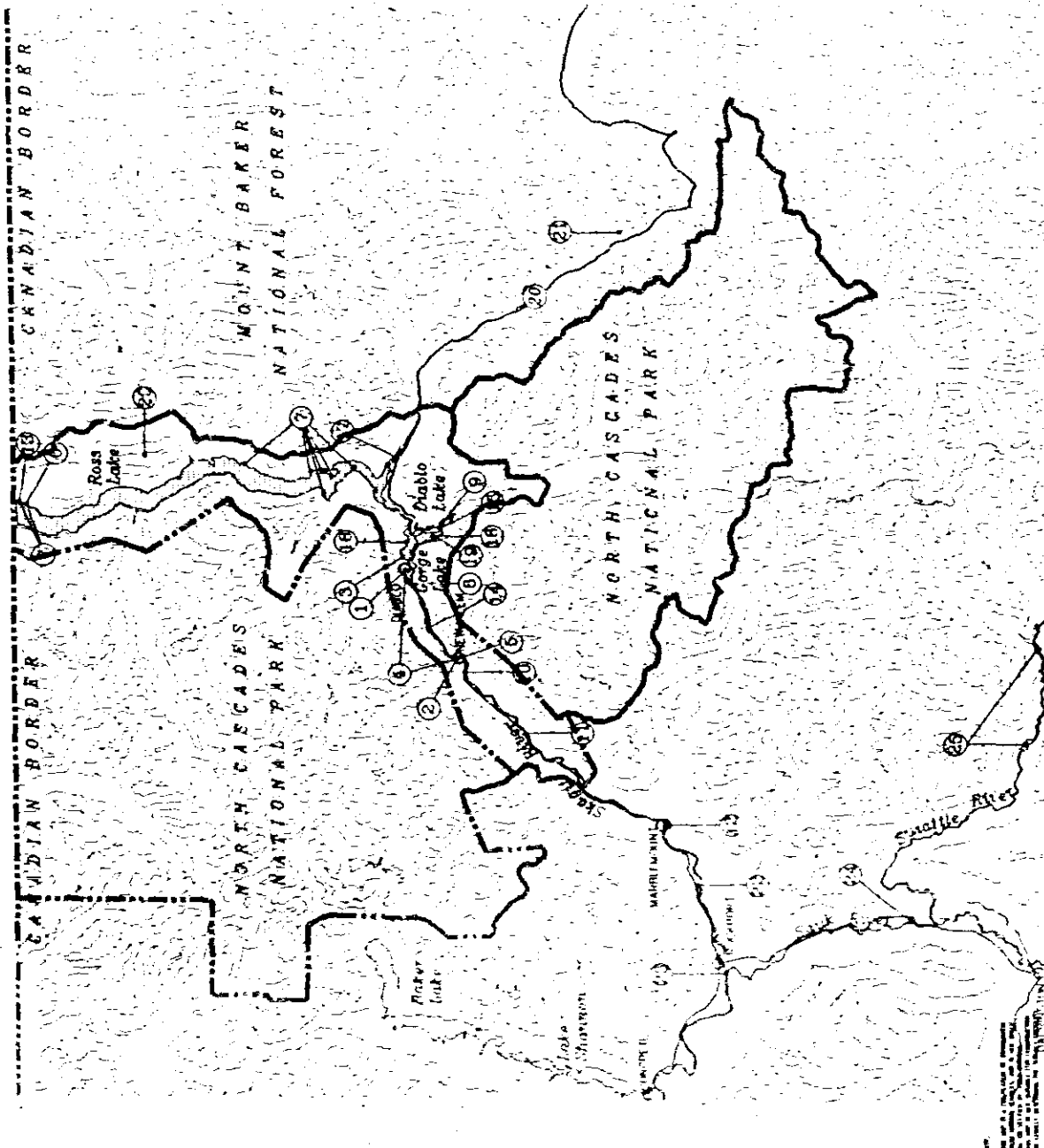
### **Figures and Maps for Settlement Agreement on Recreation and Aesthetics**



19910502-0032 FERC PDF (Unofficial) 04/30/1991

Site Code

1. Skagit' Tours
2. Neuhalem Visitor Contact Station
3. Diablo Lake Ferry Service
4. SCL Picnic Facilities
5. SCL Trails
6. Hosmer Boat Ramp
7. Ross Lake Boat Docks
8. Gorge Lake Boat Ramp
9. Colonial Creek Boat Access Site
10. Goodall Creek Boat-In Picnic Site
11. Dammon Creek Boat-In Picnic Site
12. Marblemount Boat Access Site
13. Hosmer Water Distribution System
14. Gorge Creek Overlook
15. Colonial Creek Underwater Cable
16. North Cascades Environmental Learning Center (Preferred Site)
17. Happy Flats-Panther Creek Trail
18. Thunder Knob Trail
19. Thunder Lake Fishing Facility
20. Desolation-Hosmer Trail
21. Black Peak Overlook
22. Rocky Creek River Access Site
23. Steadhead Park Site
24. Lower Sauk River Boat Access Site
25. Seattle River Boat Access Alternative Sites



BY NATION PLAN  
CHARTER FERRY HYDROELECTRIC PROJECT No. 553  
SEATTLE CITY LIGHT

Figure 3-1  
General Project Area Map and Project Key  
EX. G-206

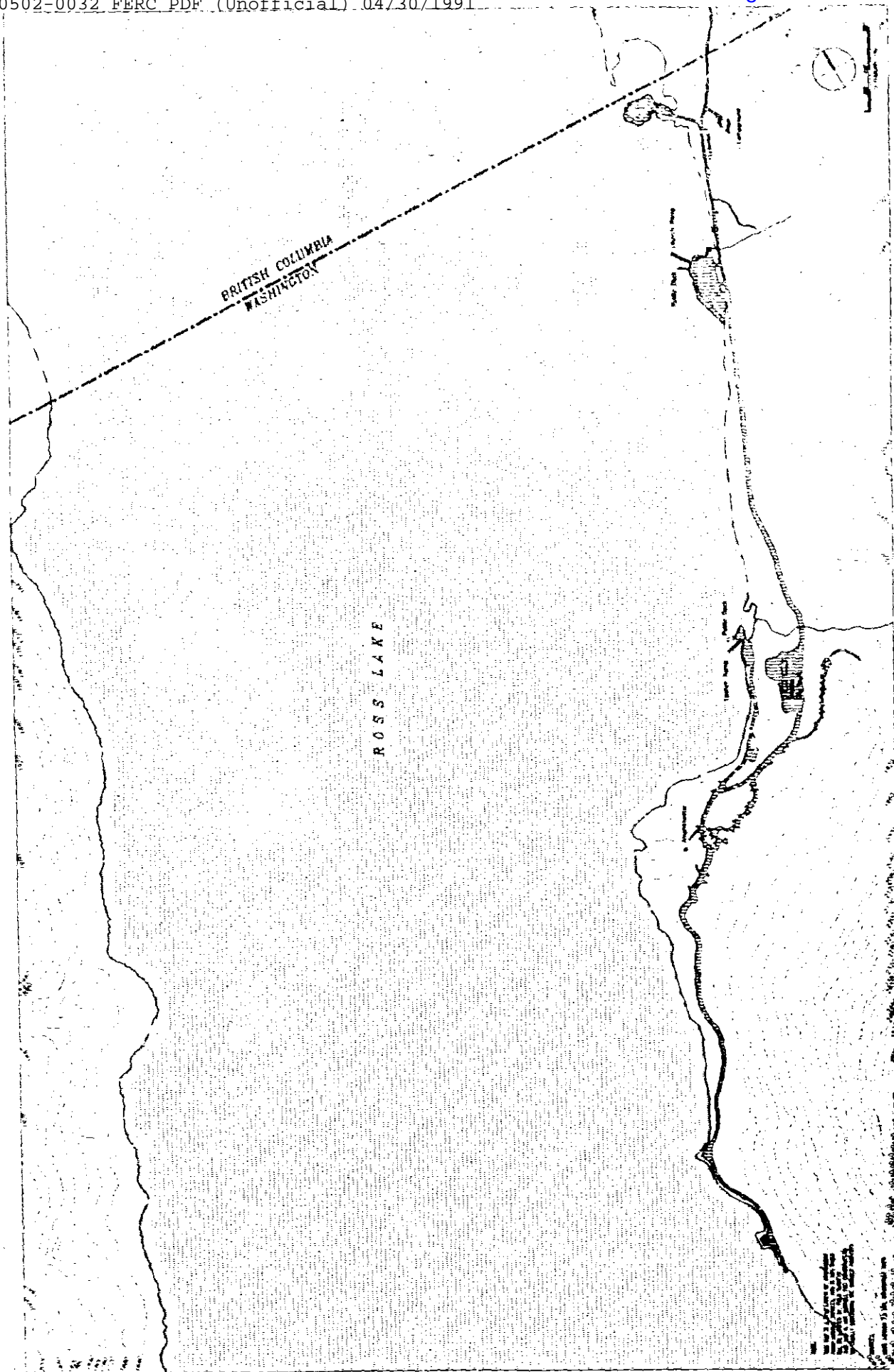
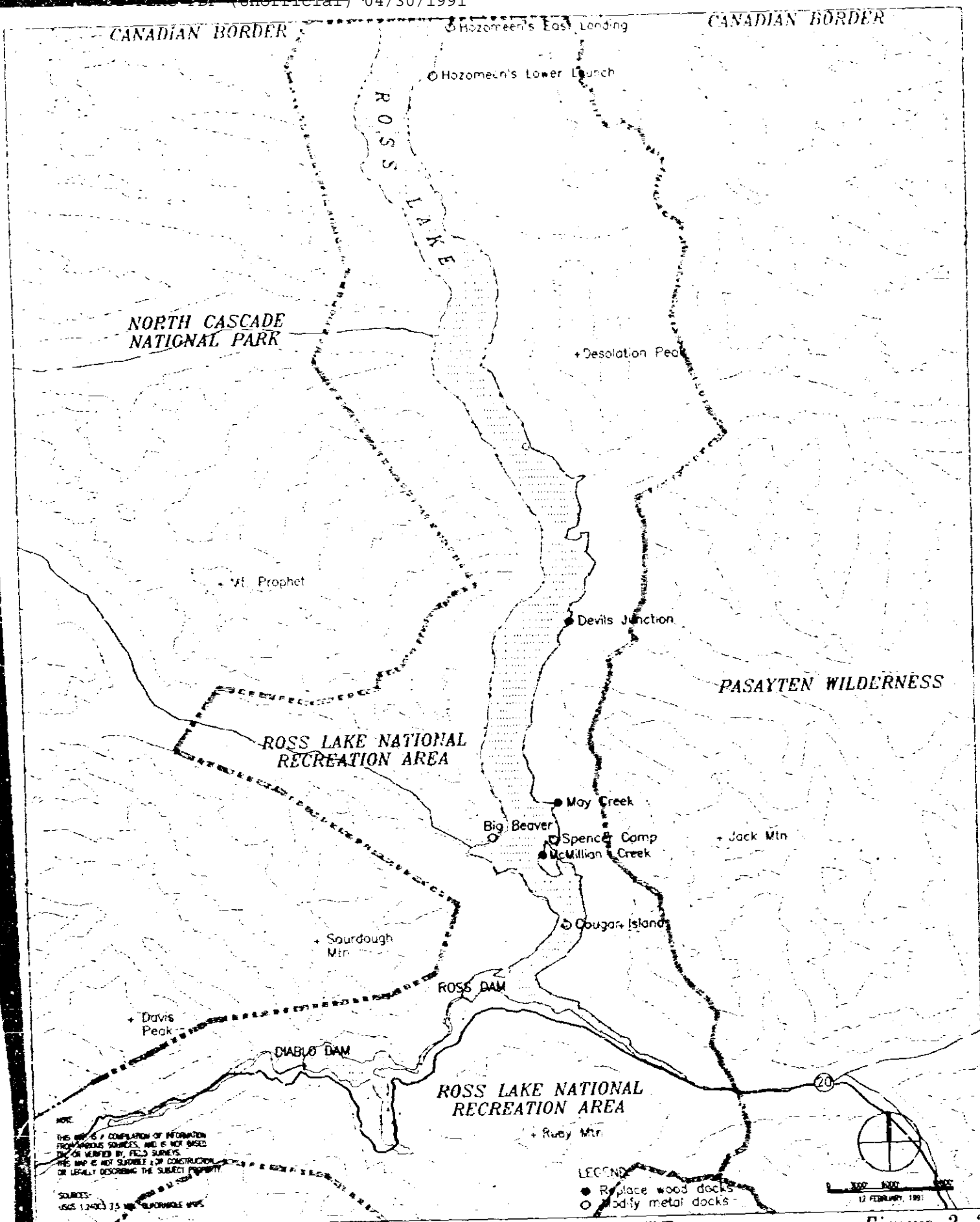


Figure 2-2  
Hozomeen Boat Ramp Area Map

RECREATION PLAN  
SCAGIT RIVER HYDROELECTRIC PROJECT No. 563  
SEATTLE CITY LIGHT  
Scale: 1 inch = 1 mile  
Date: 1987  
Author: Seattle City Light  
Project: Scagit River Hydroelectric Project No. 563

(Unofficial) 04/30/1991



RECREATION PLAN  
SKAGIT RIVER HYDROELECTRIC PROJECT No. 553  
SEATTLE CITY LIGHT

READY TO REVISOR  
LANDSCAPE ARCHITECTS & PLANNERS  
300 VIRGINIA STREET  
SEATTLE, WASHINGTON 98101  
EMSCO PAPERMAN  
1800 P.E. 8TH STREET  
SEATTLE, WASHINGTON 98104-4405

Figure 3-3  
Ross Lake Boat-In  
Campground Docks

Ex. G-208

19910502-0032 FERC PDF (Unofficial) 04/30/1991

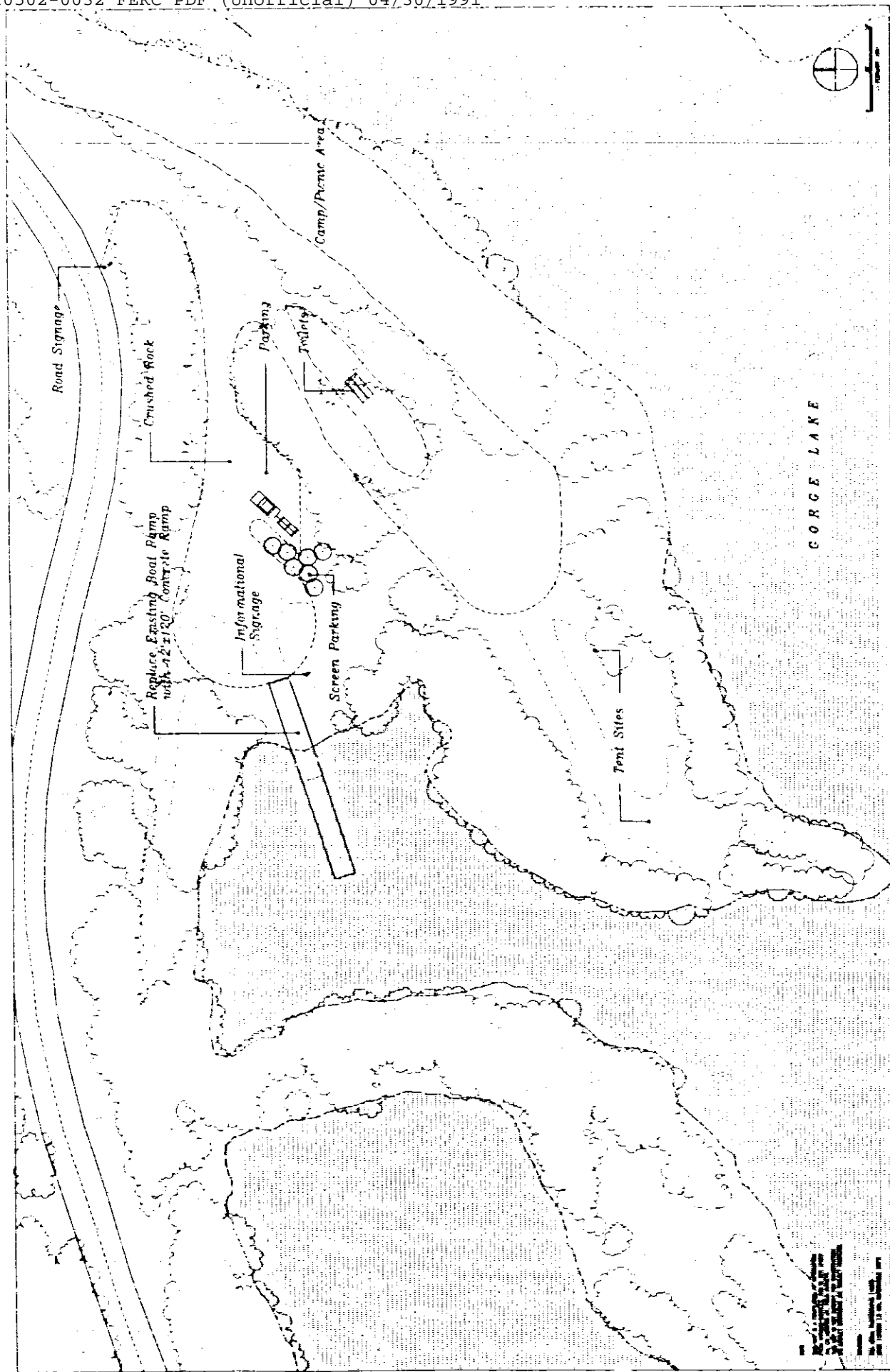


Figure 3-4  
Gorge Lake Boat Ramp

Scale: 1" = 100'  
North Arrow  
0 100 200 Feet

RECREATION PLAN  
SKAGIT RIVER HYDROELECTRIC PROJECT No. 553  
SEATTLE CITY LIGHT



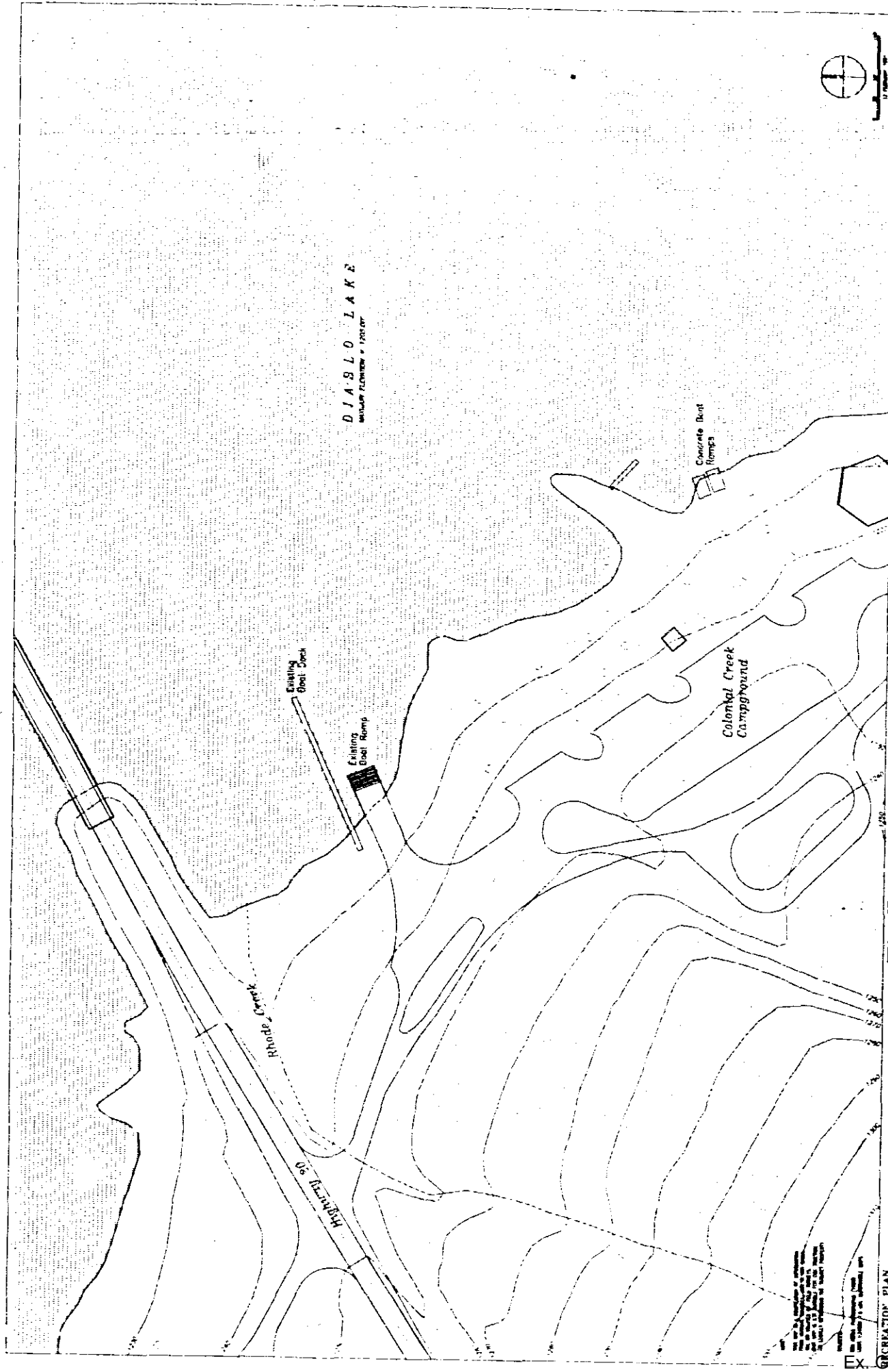


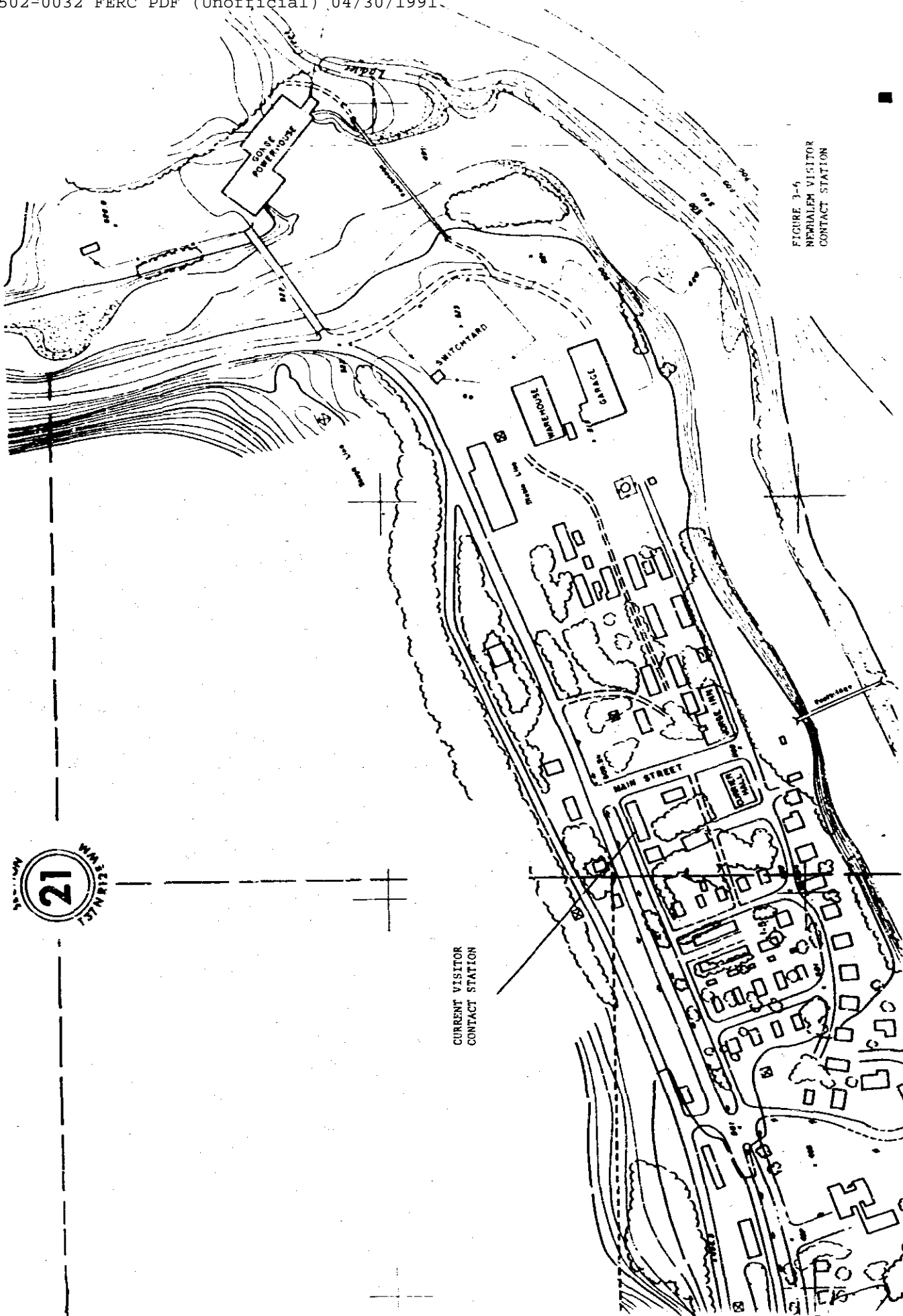
Figure 3-5  
Colonial Creek Boat Ramp

DATE: 1991  
BY: [illegible]  
CHECKED: [illegible]  
APPROVED: [illegible]

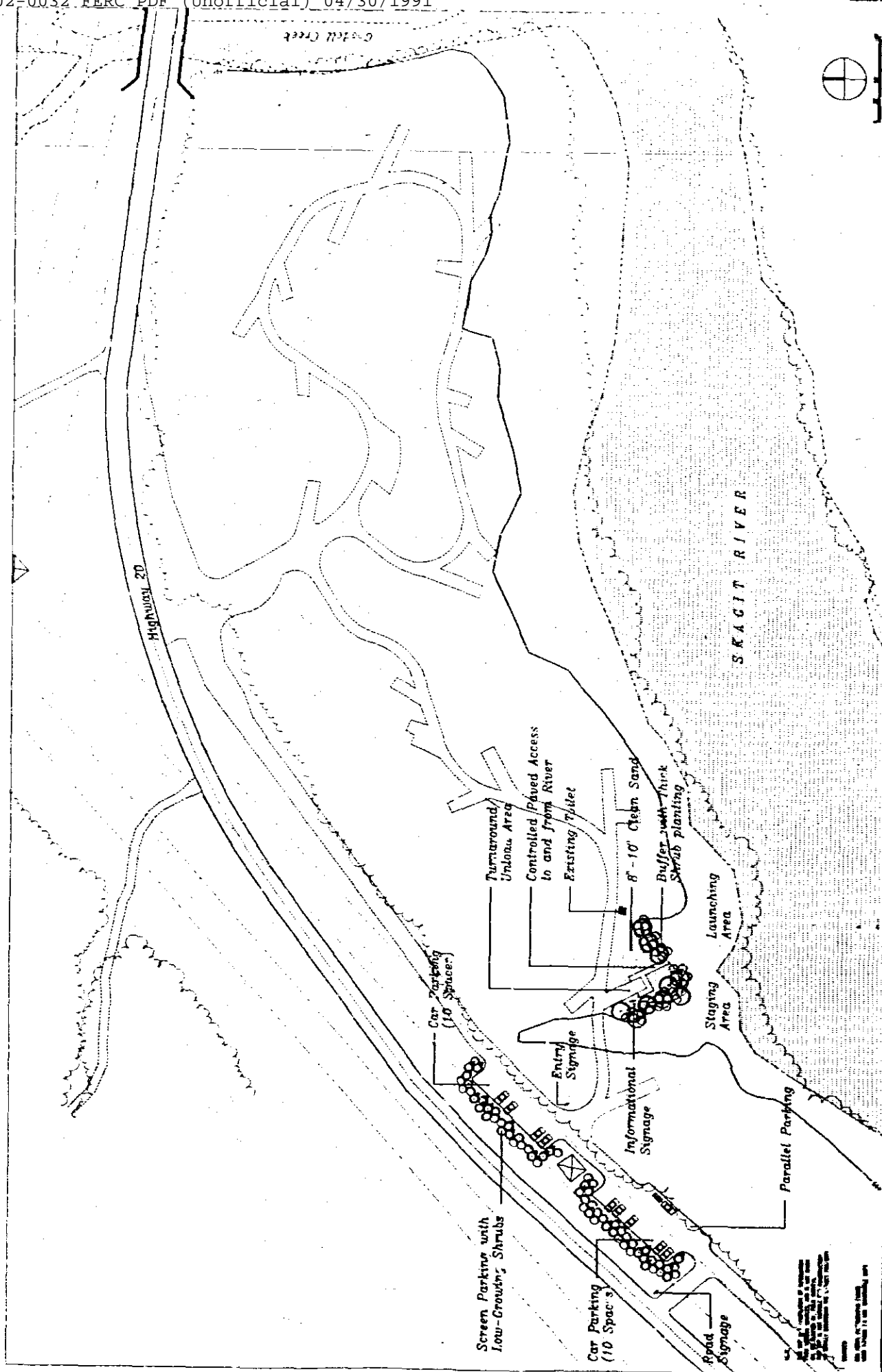
GENERATION PLAN  
KAGOT RIVER, HYDROELECTRIC PROJECT No. 553  
BATTLE CITY LIGHT



FIGURE 3-4  
NEWALEM VISITOR  
CONTACT STATION



19910502-0032 FERC PDF (Unofficial) 04/30/1991



SKAGIT RIVER  
HYDROELECTRIC PROJECT No. 553  
SEATTLE CITY LIGHT

RECREATION PLAN  
SKAGIT RIVER HYDROELECTRIC PROJECT No. 553  
SEATTLE CITY LIGHT

Figure 3--7  
Goodell Creek Raft Access Site

Fig. C-212

19910502-0032 FERC PDF (Unofficial) 04/30/1991

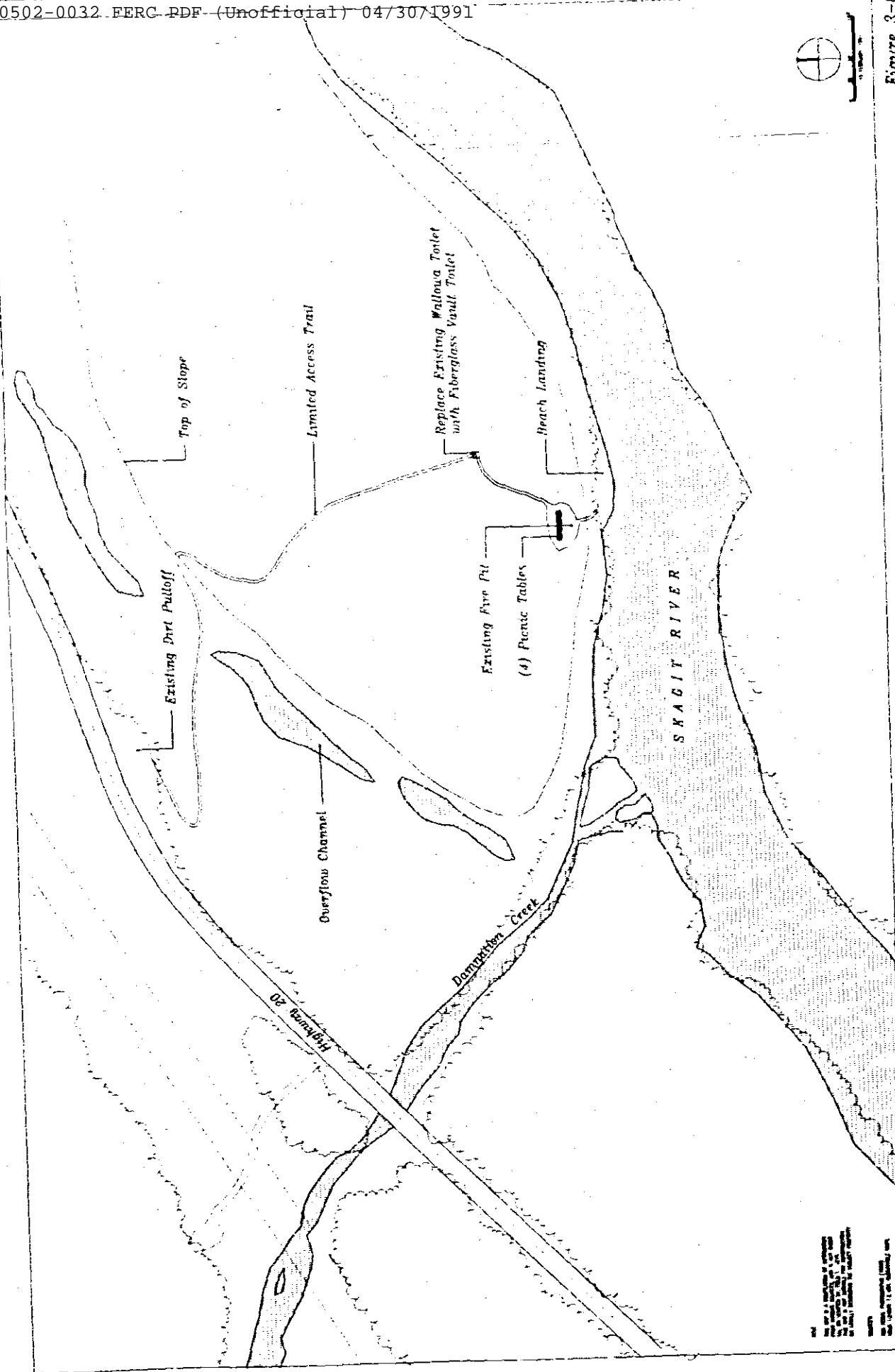


Figure 3-8  
Dammiton Creek Boat-in Picnic Site

RECREATION PLAN  
SKAGIT RIVER HYDROELECTRIC PROJECT No. 563  
SEATTLE CITY LIGHT

Scale: 1 inch = 100 feet  
North Arrow  
Legend: 1. Existing Features  
2. Proposed Features  
3. Project Boundary  
4. Water Body

19910502-0032 FERC PDF (Unofficial) 04/30/1991

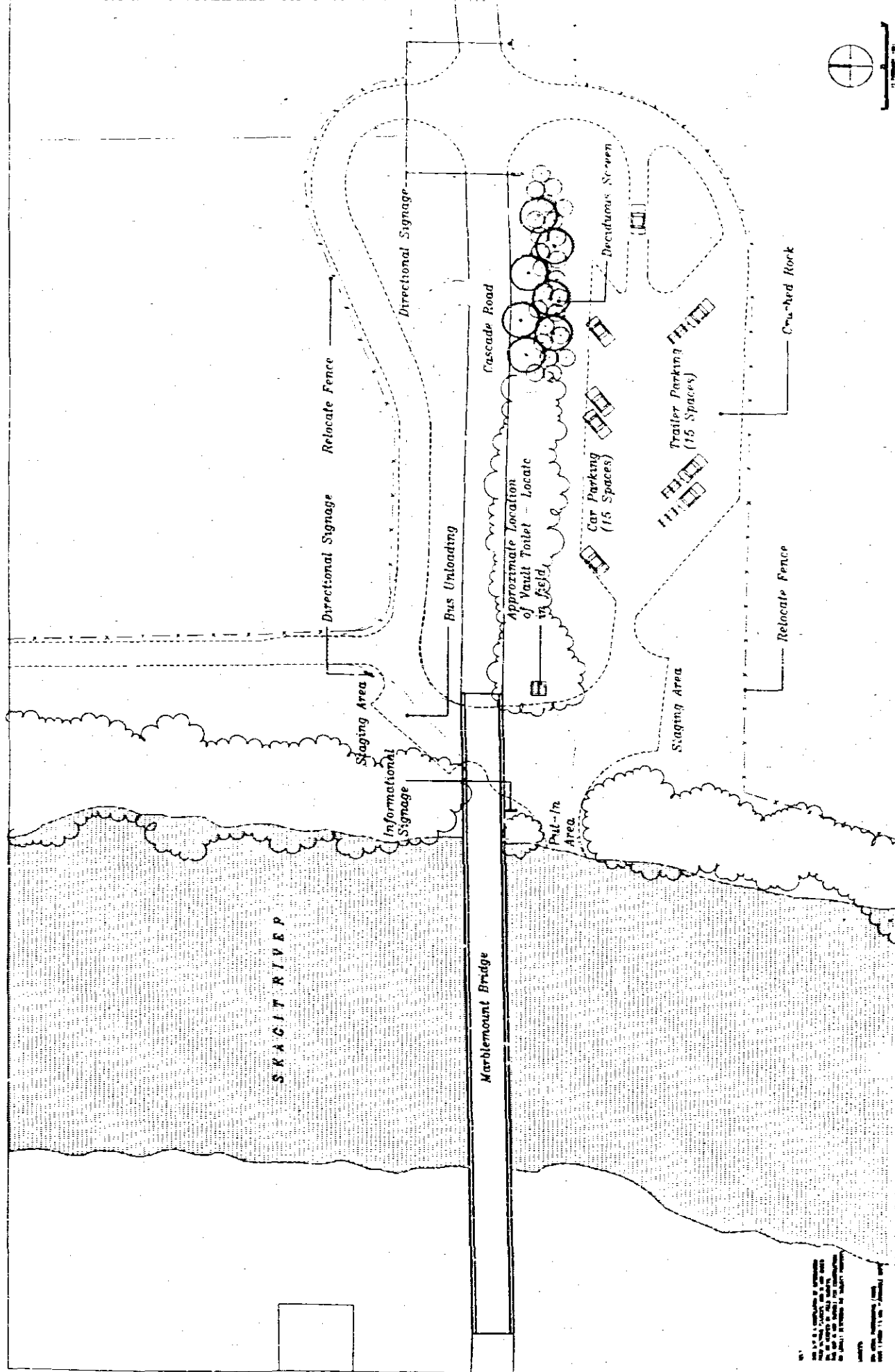


Figure 3-1  
Marblemount Boat Access Site



19910502-0032 FERC PDF (Unofficial) 04/30/1991



19910502-0032 FERC PDF (Unofficial) 04/30/1991

**Figure 3-11. Environmental Learning Center—Organizational structure chart**  
(see Appendix G of NCELC MOA).

1991050

unofficial) 04/30/1991

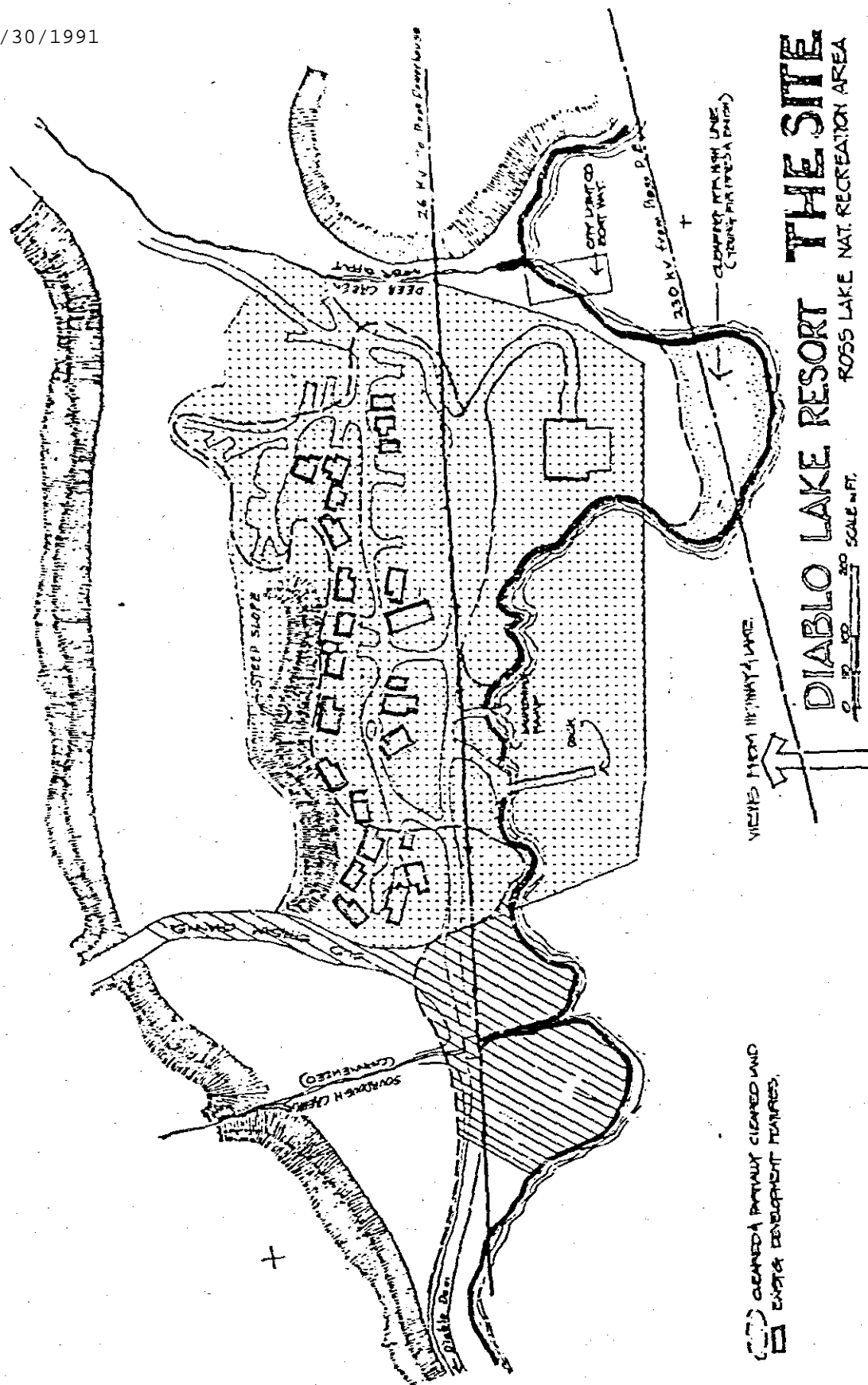


Figure 3-12 Diablo Lake Site Area Map

0909 0000

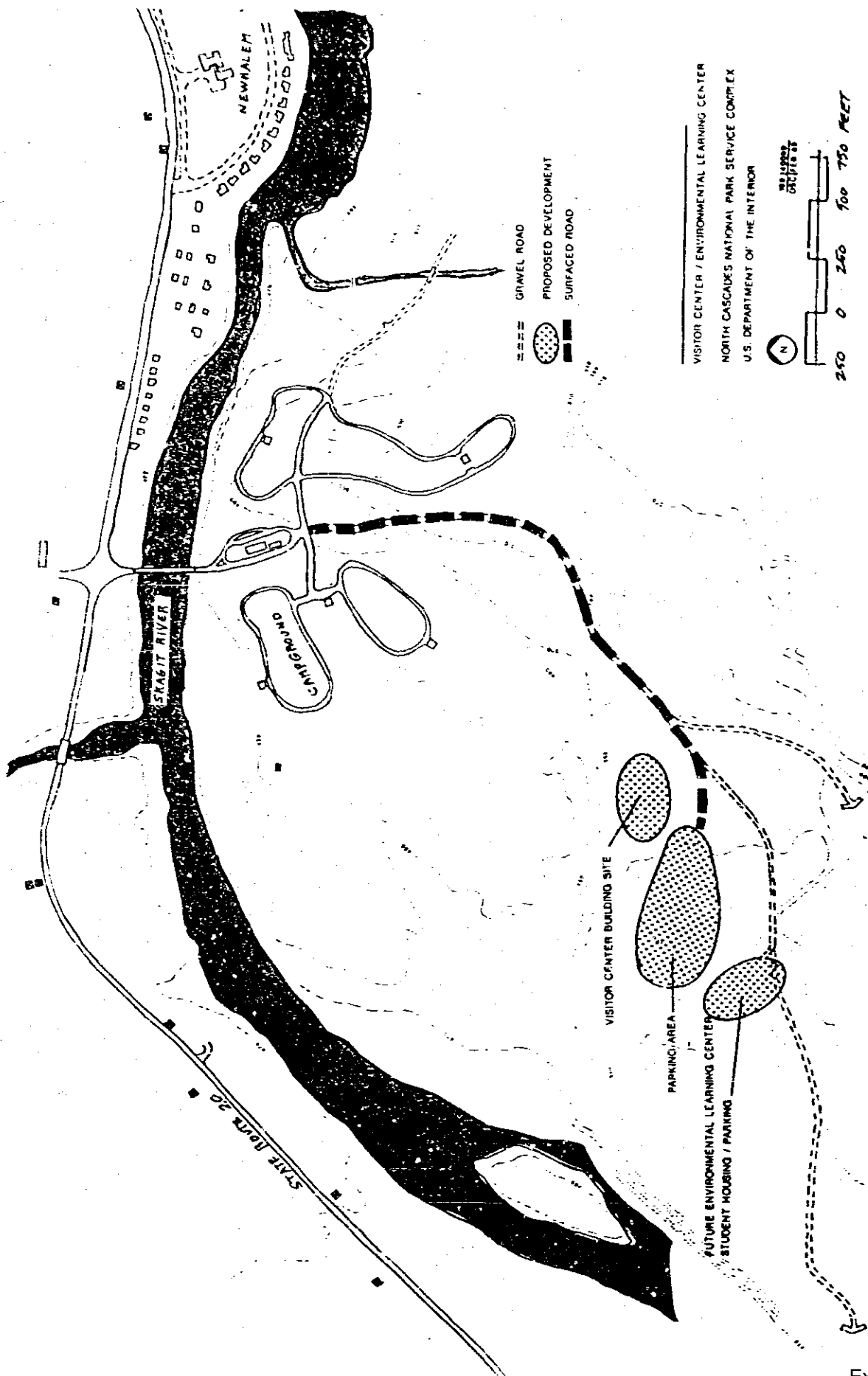


Figure 3-13. Newhalem Campground Site Area Map

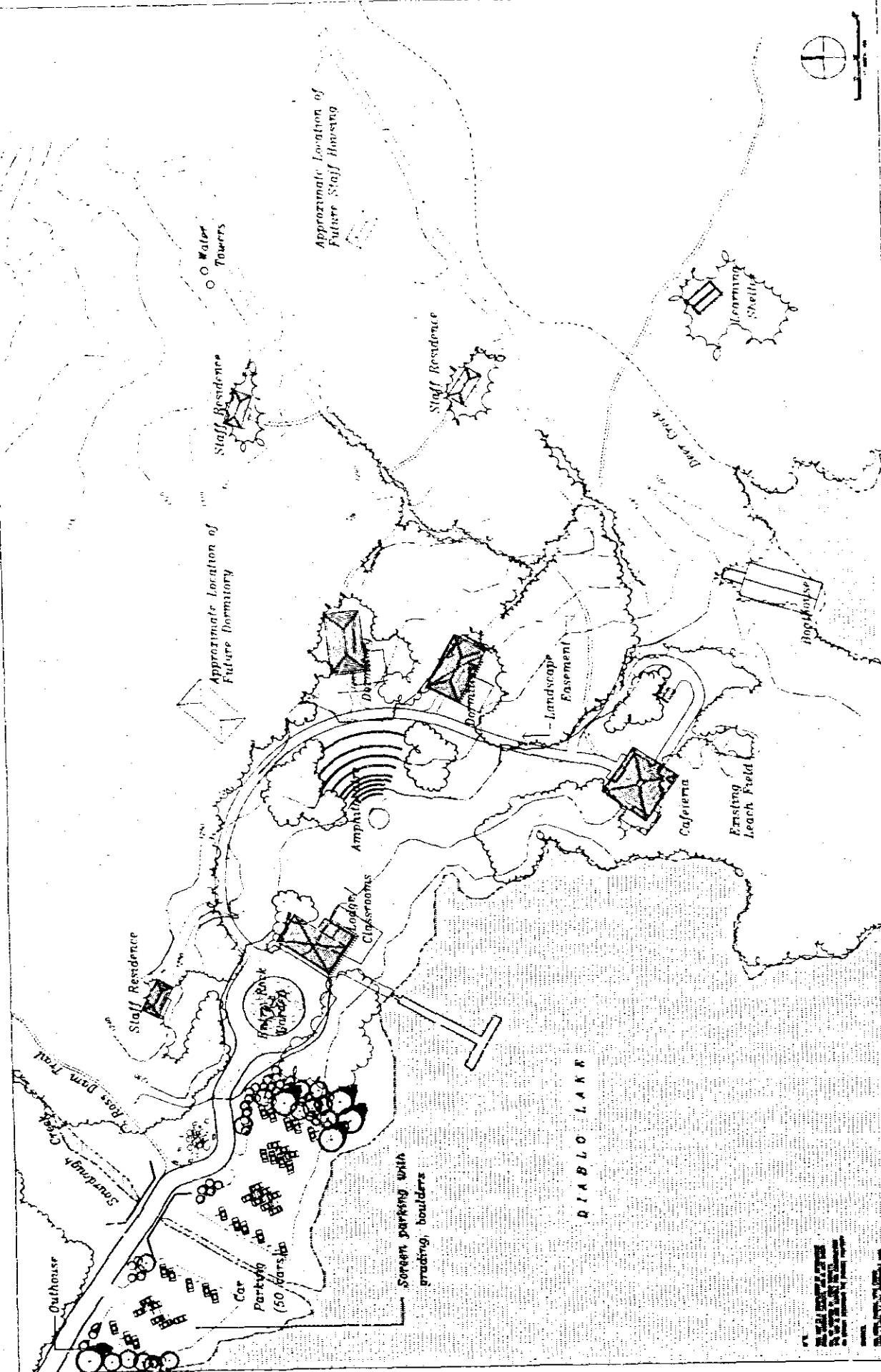


Figure 3-14  
Environmental Learning Center

SKAGIT RIVER HYDROELECTRIC PROJECT NO. 553  
RECREATION PLAN  
SEATTLE CITY LIGHT

RECREATION PLAN  
SKAGIT RIVER HYDROELECTRIC PROJECT NO. 553  
SEATTLE CITY LIGHT



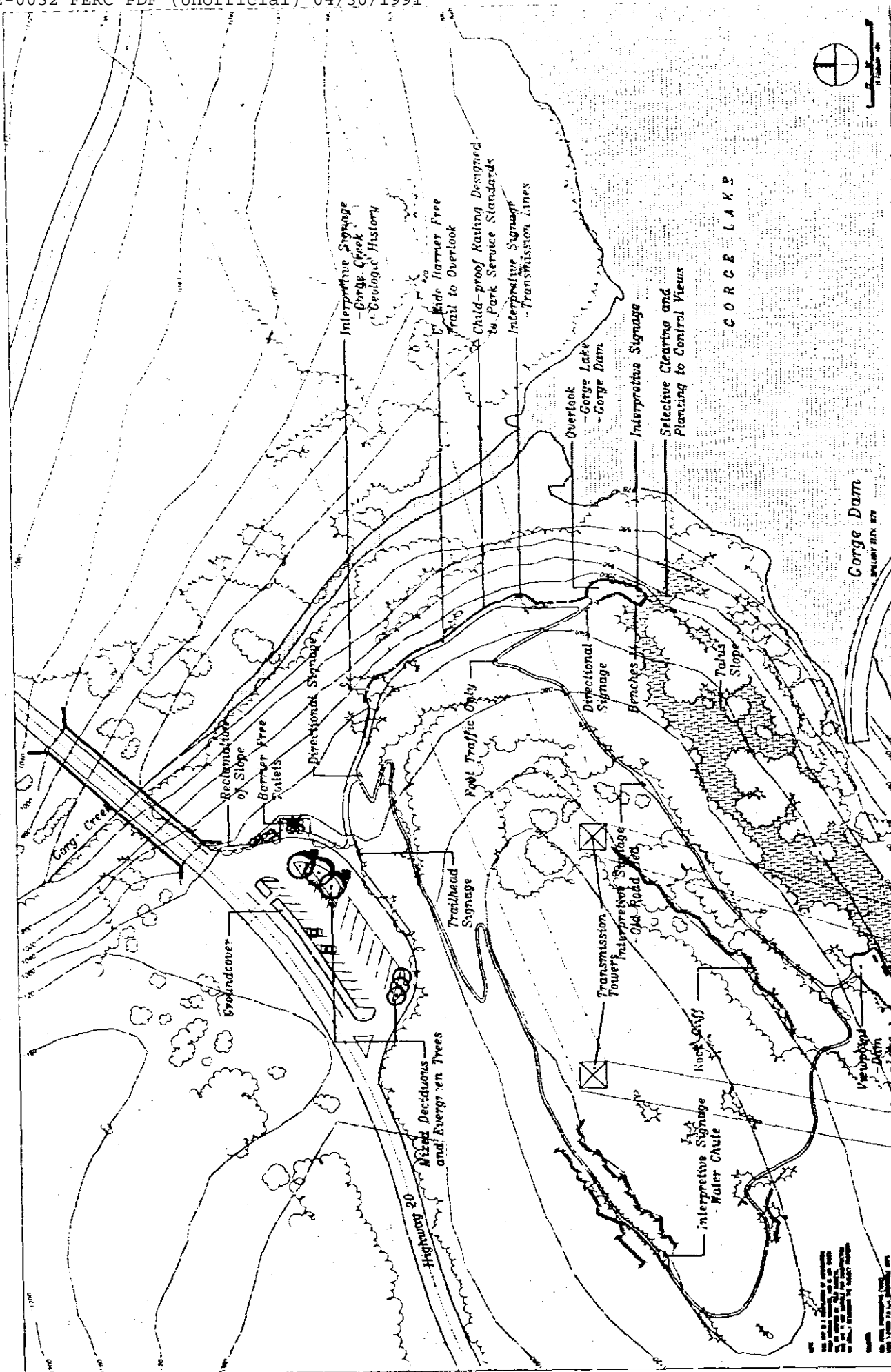


Figure 3-15  
Gorge Creek Overlook

RECREATION PLAN  
SKAGIT RIVER HYDROELECTRIC PROJECT NO. 563  
SEATTLE CITY LIGHT

RECREATION PLAN  
SKAGIT RIVER HYDROELECTRIC PROJECT NO. 563  
SEATTLE CITY LIGHT





Figure 3-16  
Thunder Lake Fishing Facility

RECREATION PLAN  
SKAGIT RIVER HYDROELECTRIC PROJECT No. 553  
SEATTLE CITY LIGHT

RECREATION PLAN  
SKAGIT RIVER HYDROELECTRIC PROJECT No. 553  
SEATTLE CITY LIGHT



Figure 3-1:  
Thunder Knob Trail

RECREATION PLAN  
SKAGIT RIVER HYDROELECTRIC PROJECT No. 553  
SEATTLE CITY LIGHT



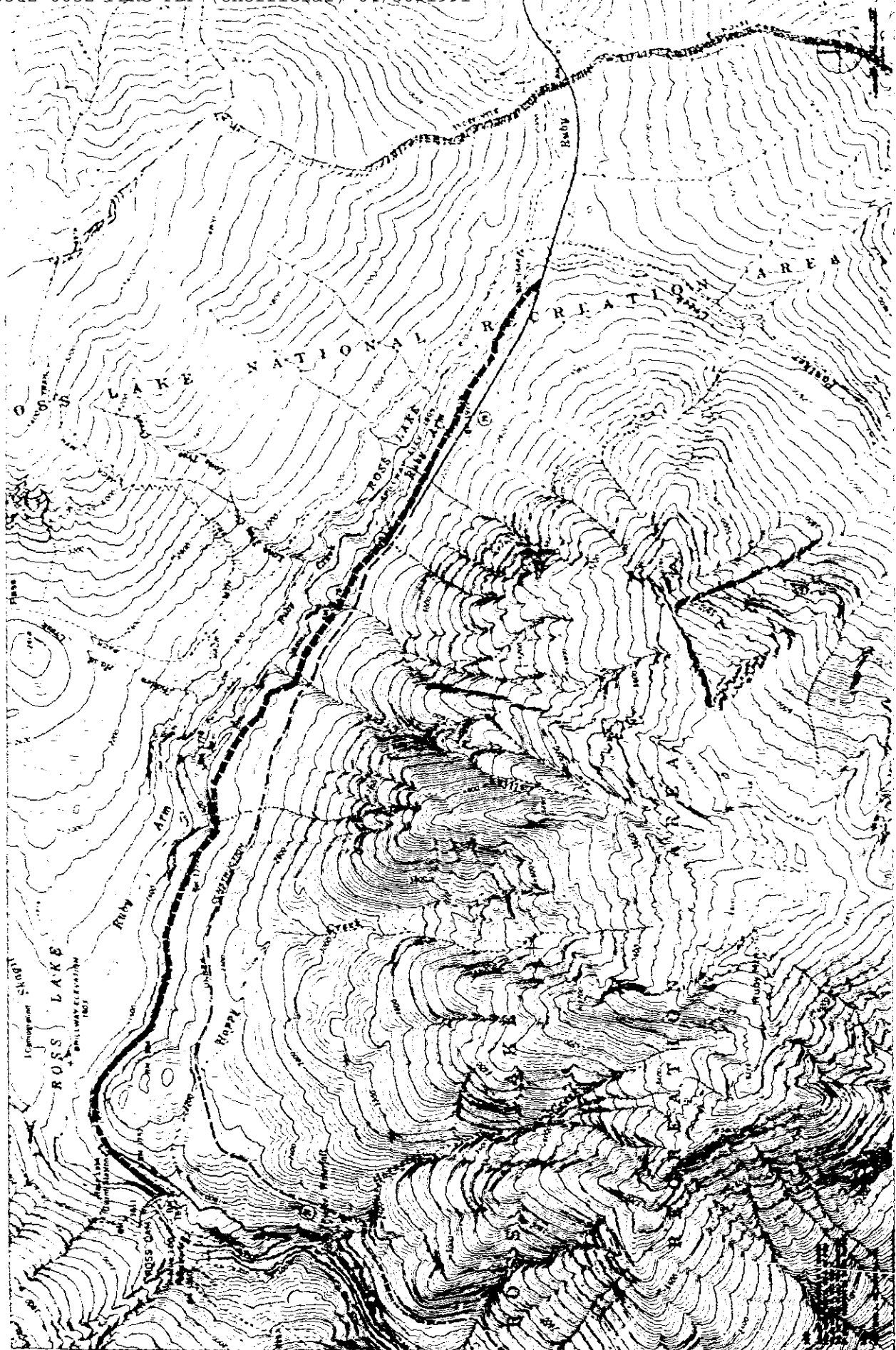


Figure 3-18  
Happy Flats-Panther Creek Trail

Scale 1 inch = 1 mile  
1:62,500  
N.T.S.  
1967 (REVISED)  
USGS

RECREATION PLAN  
SKAGIT RIVER HYDROELECTRIC PROJECT No. 553  
SEATTLE CITY LIGHT



Figure 2-1  
Basalt to Hogman's Line

LOCATION PLAN  
SAGITT RIVER HYDROELECTRIC PROJECT No. 553  
SAGITT CITY LIGHT



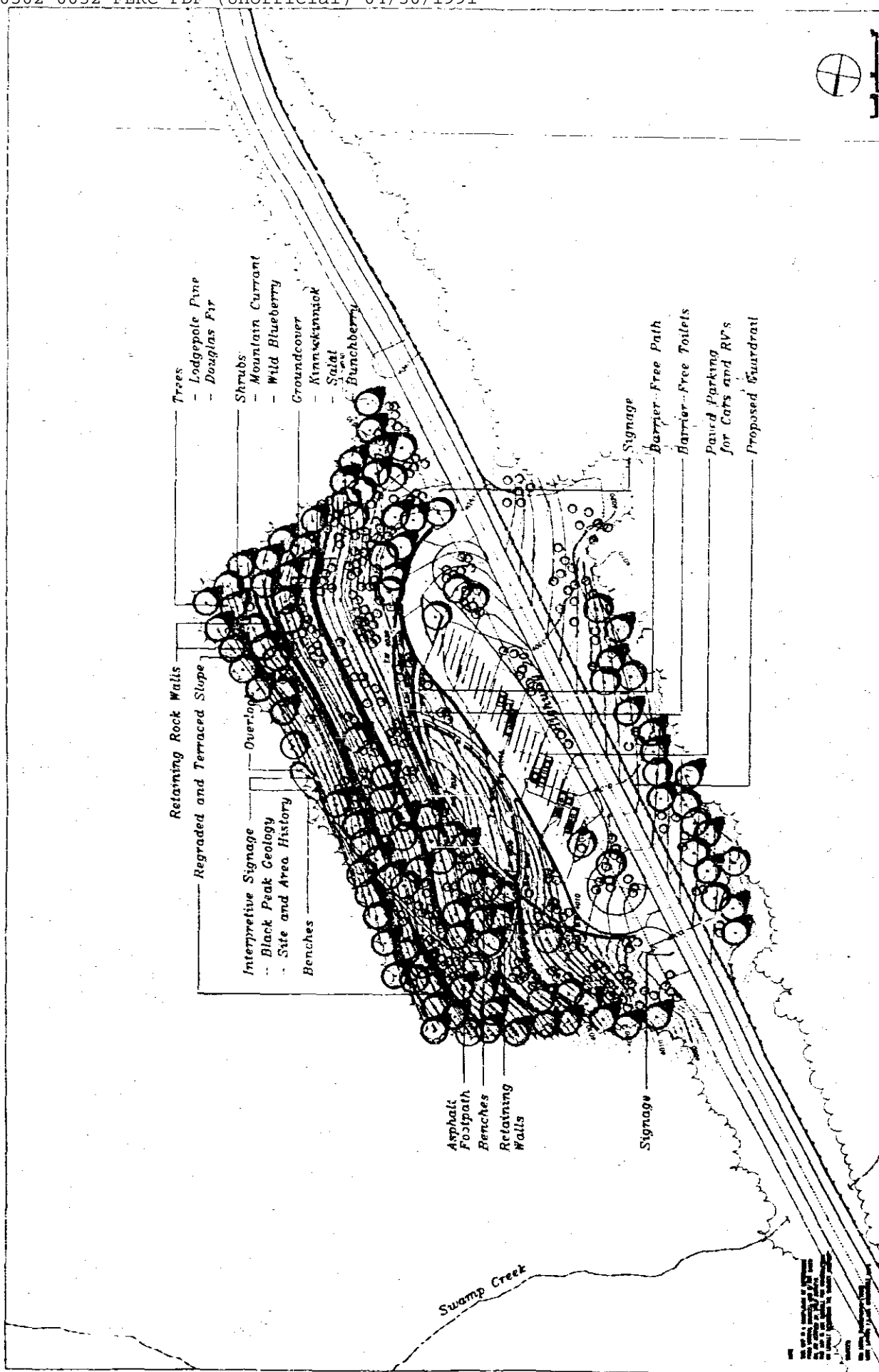


Figure 3-20a  
Black Peak Overlook - Alternative A

RECREATION PLAN  
SKAGIT RIVER HYDROELECTRIC PROJECT No. 553  
SEATTLE CITY LIGHT



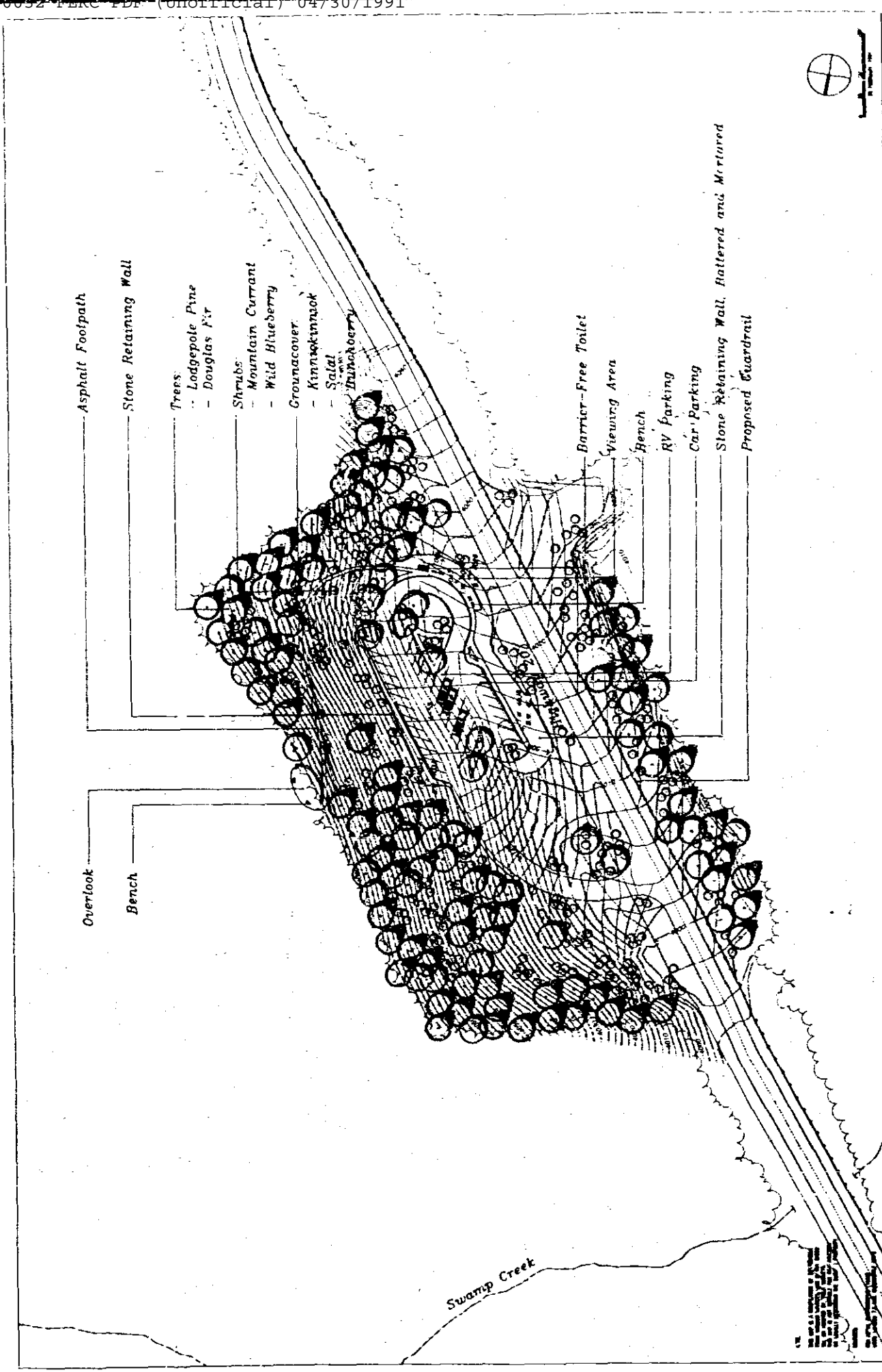


Figure 3-206  
Black Peak Overlook - Alternative 1

SEATTLE CITY LIGHT  
SKAGIT RIVER HYDROELECTRIC PROJECT  
NO. 553

RECREATION PLAN  
SKAGIT RIVER HYDROELECTRIC PROJECT NO. 553  
SEATTLE CITY LIGHT

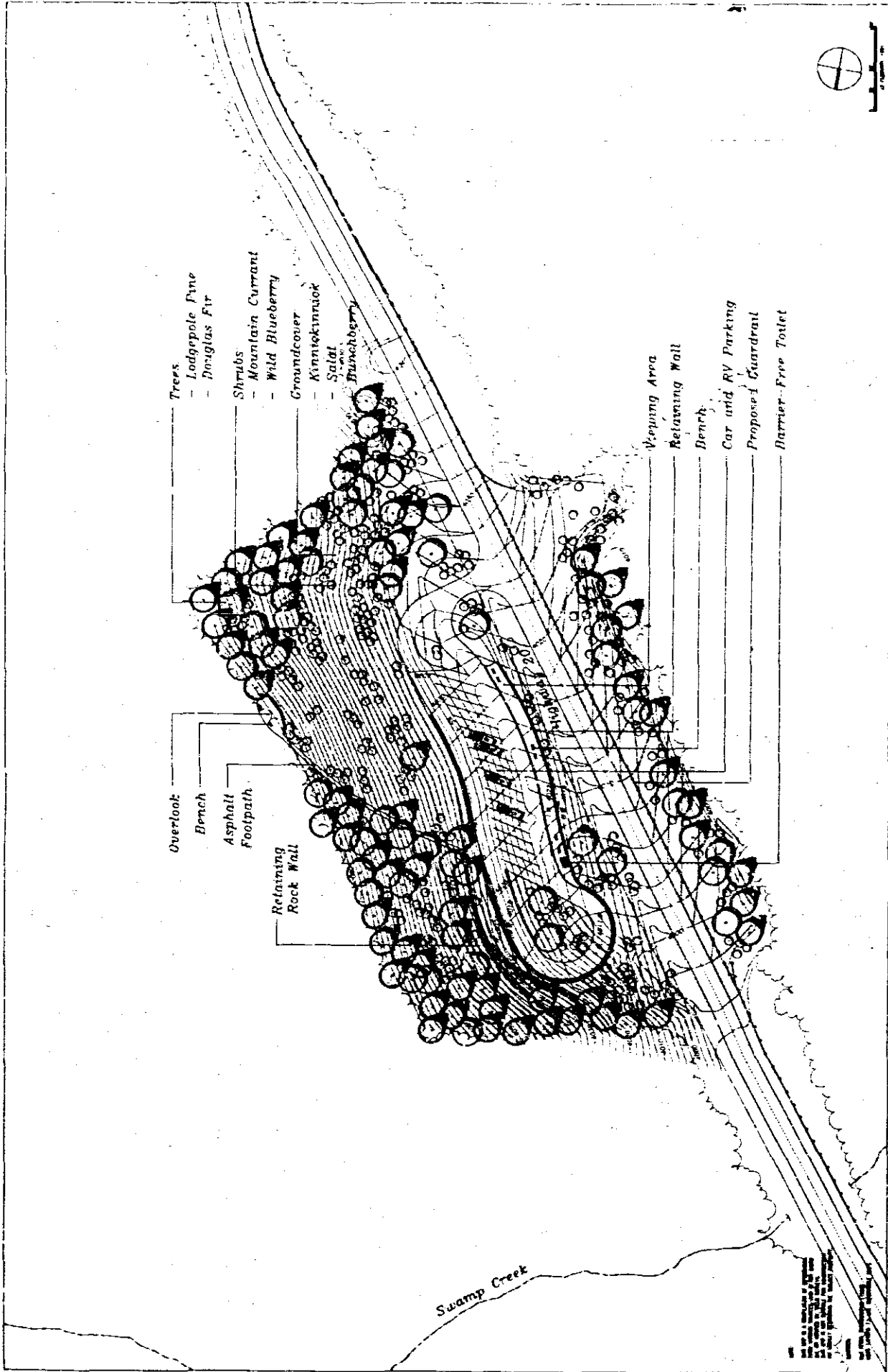


Figure 3-20c  
Black Peak Overlook - Alternative C

RECREATION PLAN  
SWACIT RIVER HYDROELECTRIC PROJECT No. 553  
SEATTLE CITY LIGHT

RECREATION PLAN  
SWACIT RIVER HYDROELECTRIC PROJECT No. 553  
SEATTLE CITY LIGHT

Rocky Creek FDR (unofficial) 04/30/1991

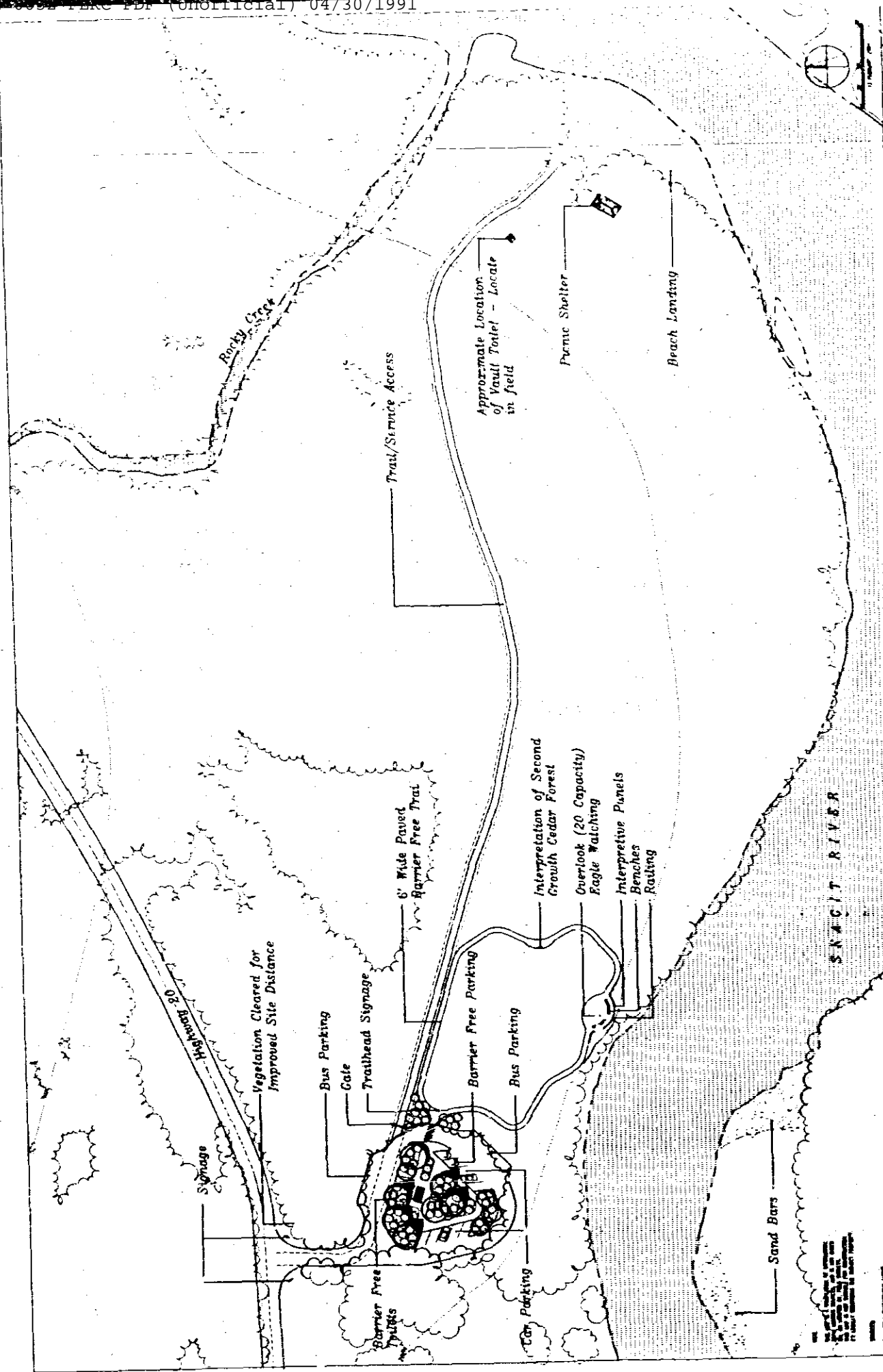


Figure 3-21  
Rocky Creek River Access Site

RECREATION PLAN  
SKAGIT RIVER HYDROELECTRIC PROJECT NO. 563  
SEATTLE CITY LIGHT

RECREATION PLAN  
SKAGIT RIVER HYDROELECTRIC PROJECT NO. 563  
SEATTLE CITY LIGHT

19910502-0032 FERC PDF (Unofficial) 04/30/1991

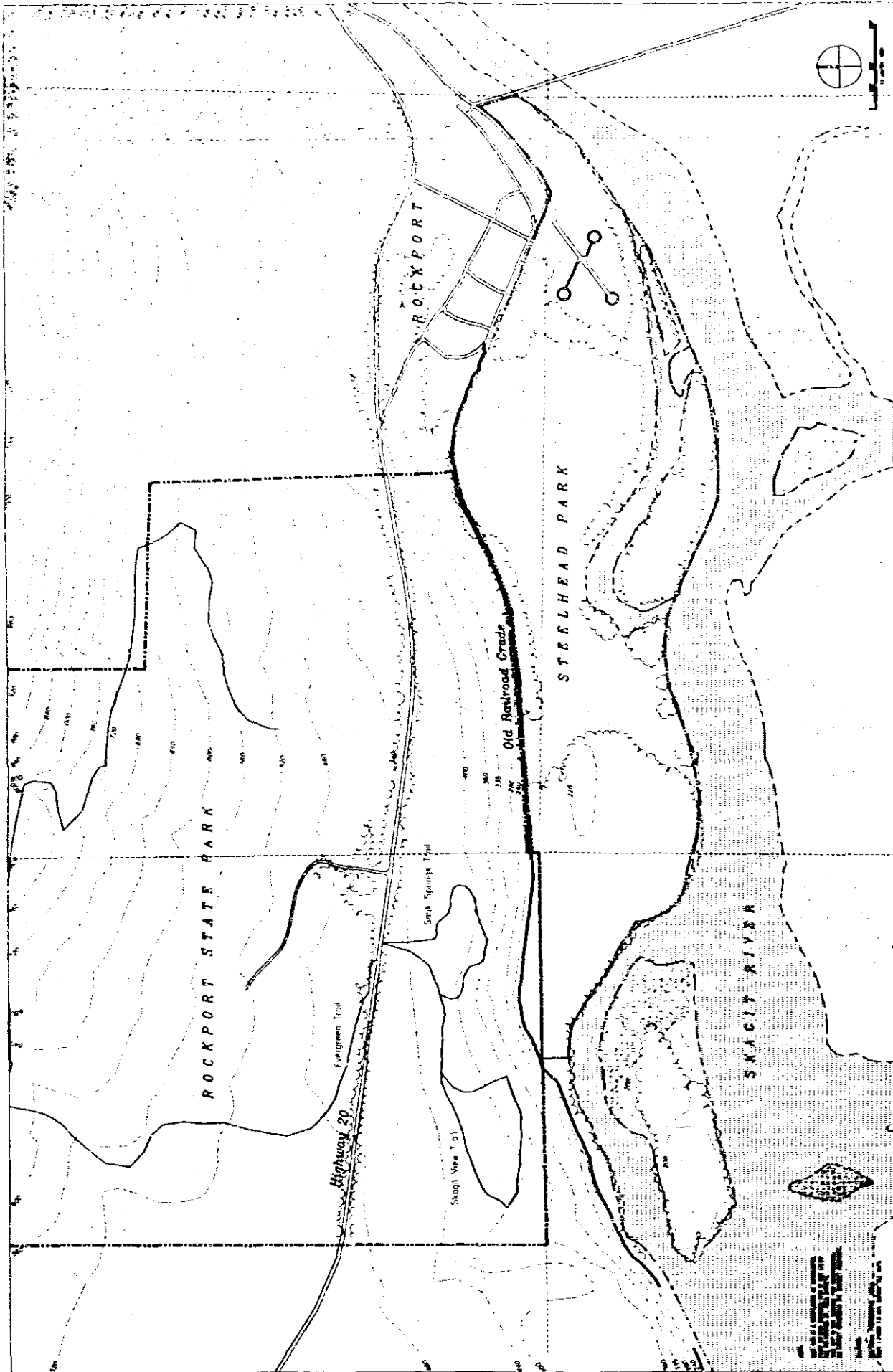


Figure 3-22  
Steelhead Park Trail

Map Scale: 1 inch = 1 mile  
Map Date: 1991  
Map Author: USFS

RECREATION PLAN  
SKAGIT RIVER HYDROELECTRIC PROJECT No. 553  
SEATTLE CITY LIGHT



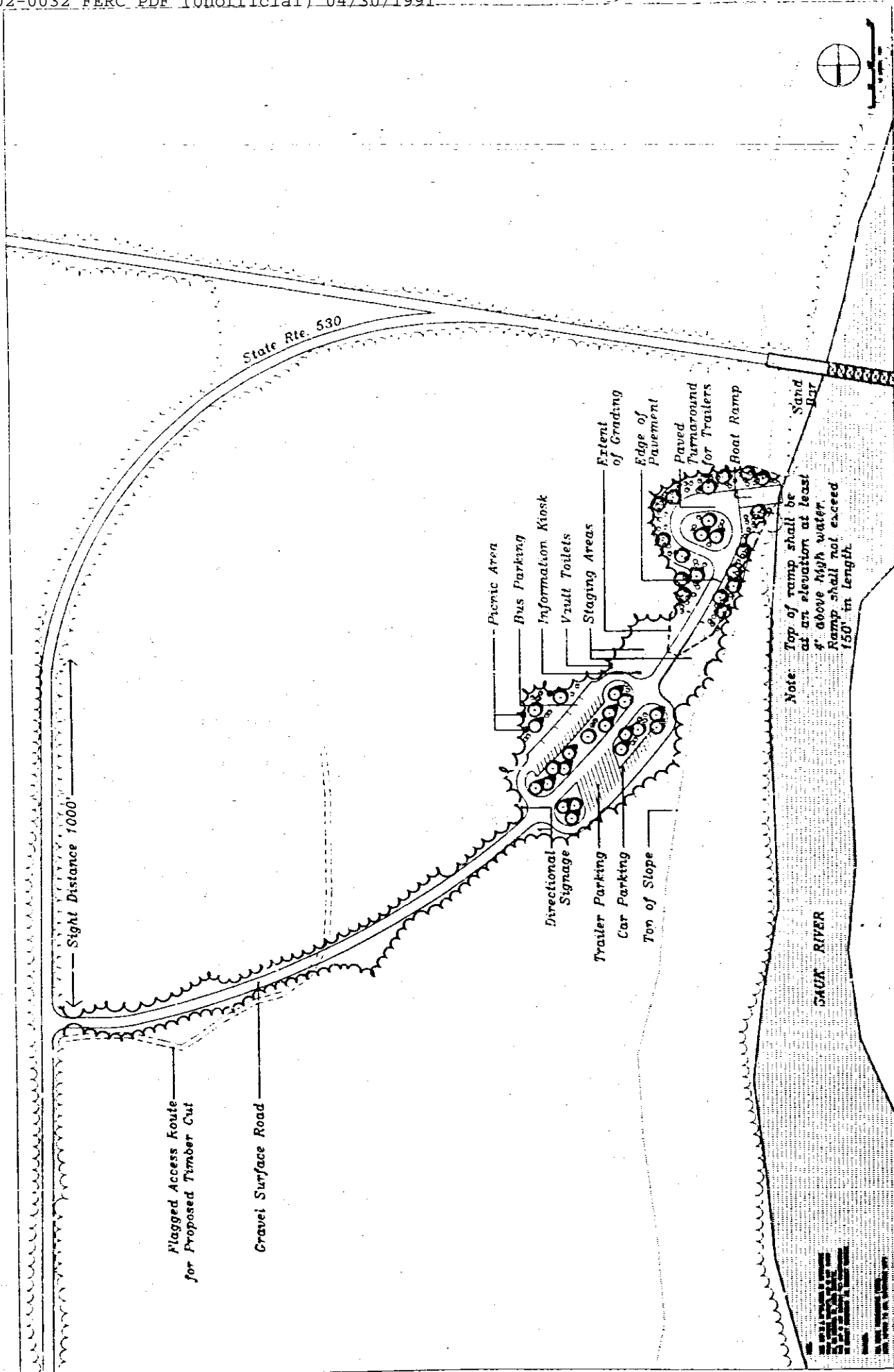


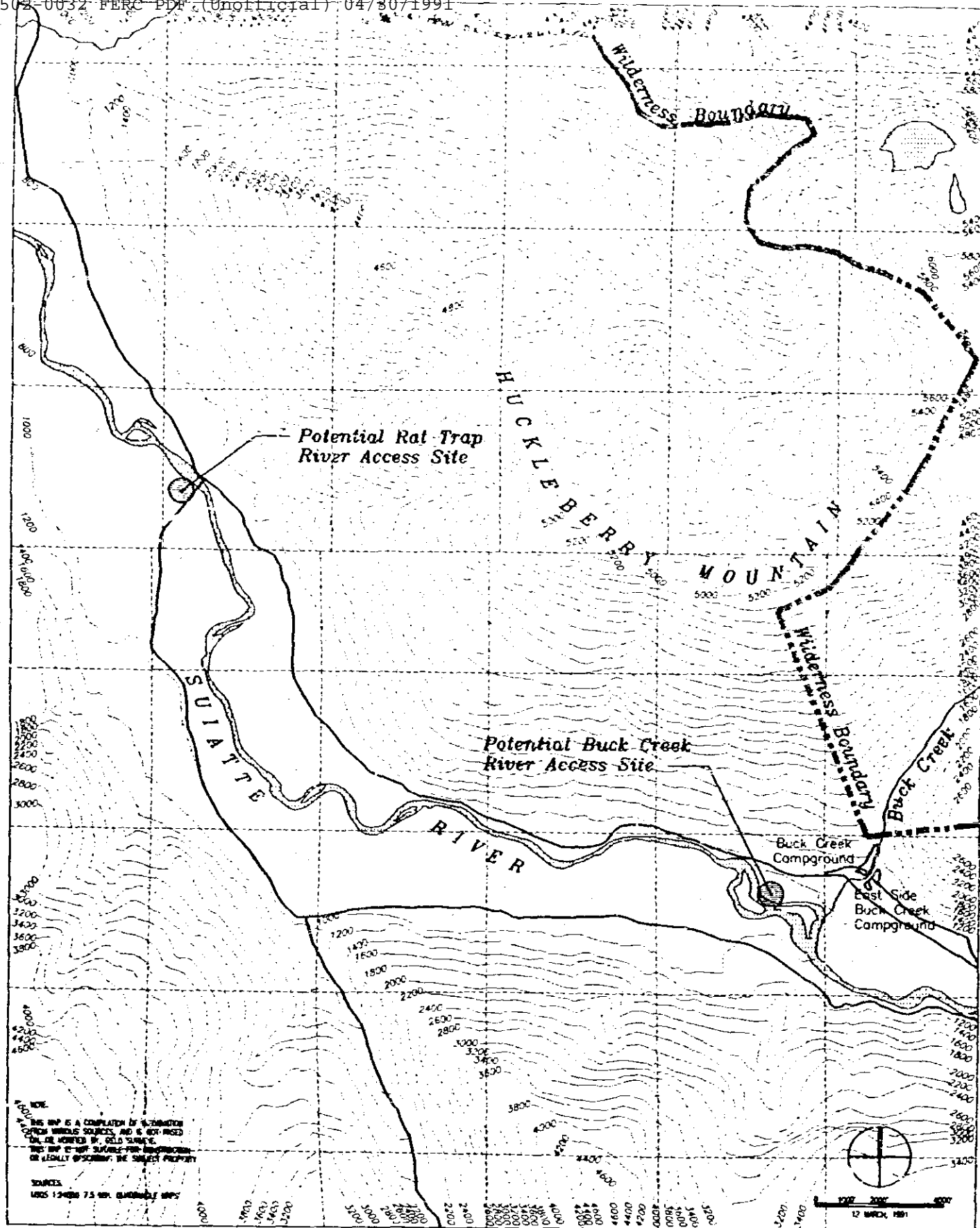
Figure 3-23  
Lower Sauk River Boat Access Site

RECREATION PLAN  
SKAGIT RIVER HYDROELECTRIC PROJECT No. 553  
SEATTLE CITY LIGHT

RECREATION PLAN  
SKAGIT RIVER HYDROELECTRIC PROJECT No. 553  
SEATTLE CITY LIGHT



9910502-0032 FERC PDF (Unofficial) 04/30/1991



RECREATION PLAN  
**SKAGIT RIVER HYDROELECTRIC PROJECT No. 553**  
 SEATTLE CITY LIGHT

**Figure 3-24**  
**Suiattle River Access**  
**Alternative Sites**

19910502-0032 FERC PDF (Unofficial) 04/30/1991

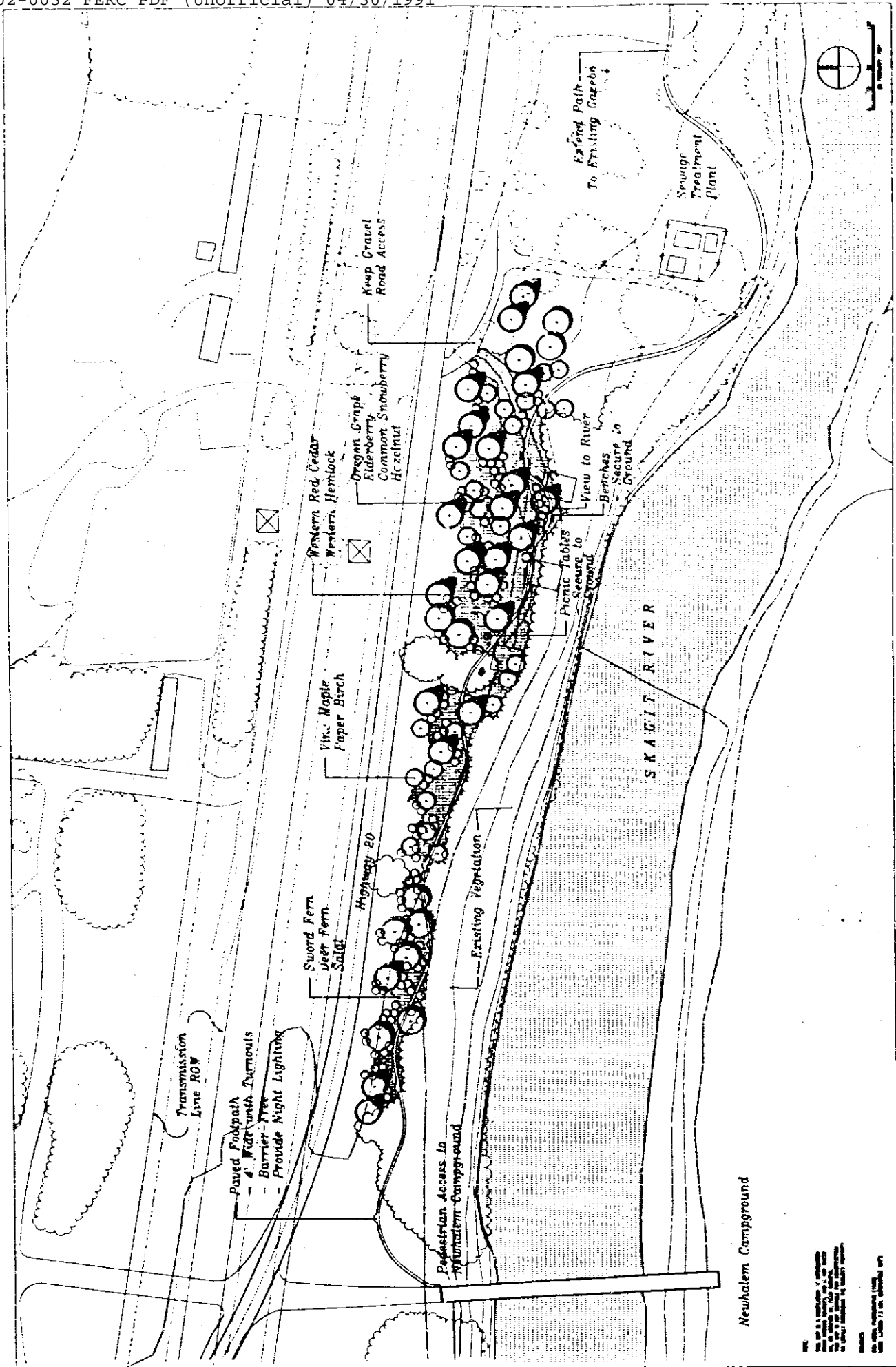


Figure 4-1  
Town of Newhalem - Engineering Rev  
EX. G-232

ALL DIMENSIONS IN FEET  
UNLESS OTHERWISE NOTED  
DATE: 10/1/90  
BY: [Signature]

RECREATION PLAN  
SKAGIT RIVER HYDROELECTRIC PROJECT No. 553  
SEATTLE CITY LIGHT

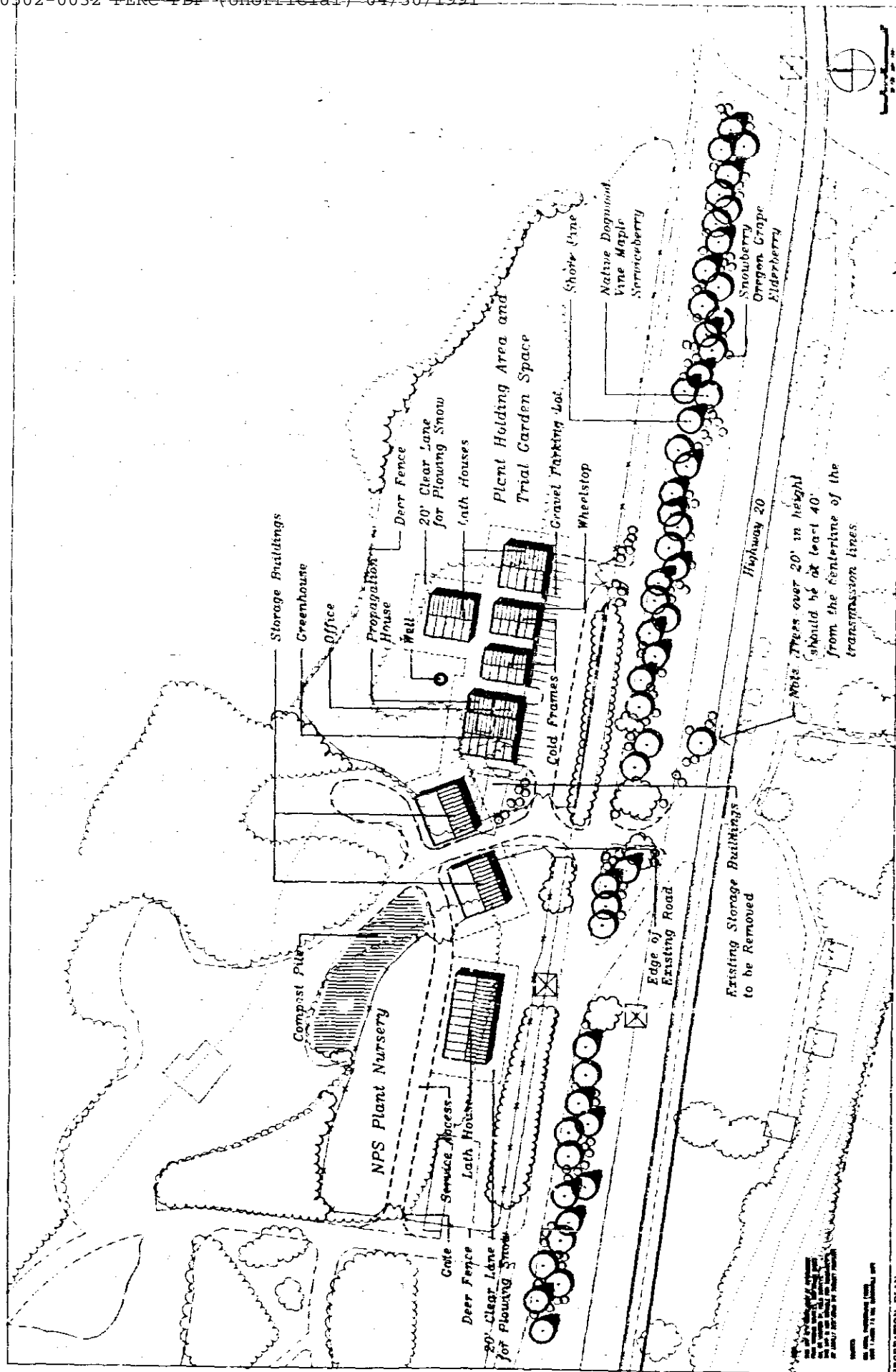


Figure 4-2  
Town of Newhalem - Greenhouse Facility

RECREATION PLAN  
SKAGIT RIVER HYDROELECTRIC PROJECT No. 553  
SEATTLE CITY LIGHT

9910502-0032 FERC PDF (Unofficial) 04/30/1991

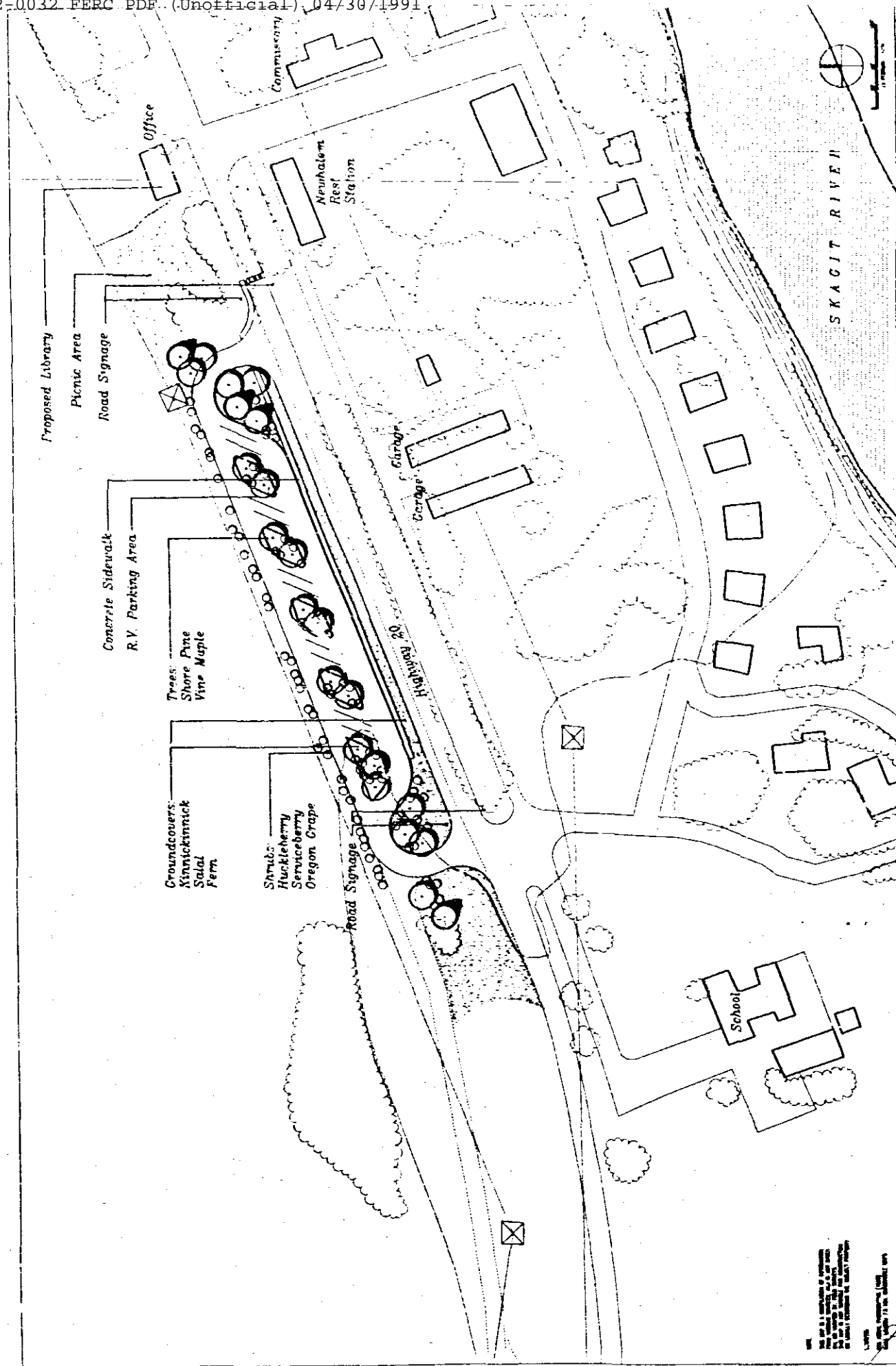


Figure 4-1  
Town of Neuhalem - Recreation Vehicle Parking Area

DATE: 10/1/90  
BY: J. L. HARRIS  
CHECKED: J. L. HARRIS  
DATE: 10/1/90

RECREATION PLAN  
SKAGIT RIVER HYDROELECTRIC PROJECT No. 553  
SEATTLE CITY LIGHT



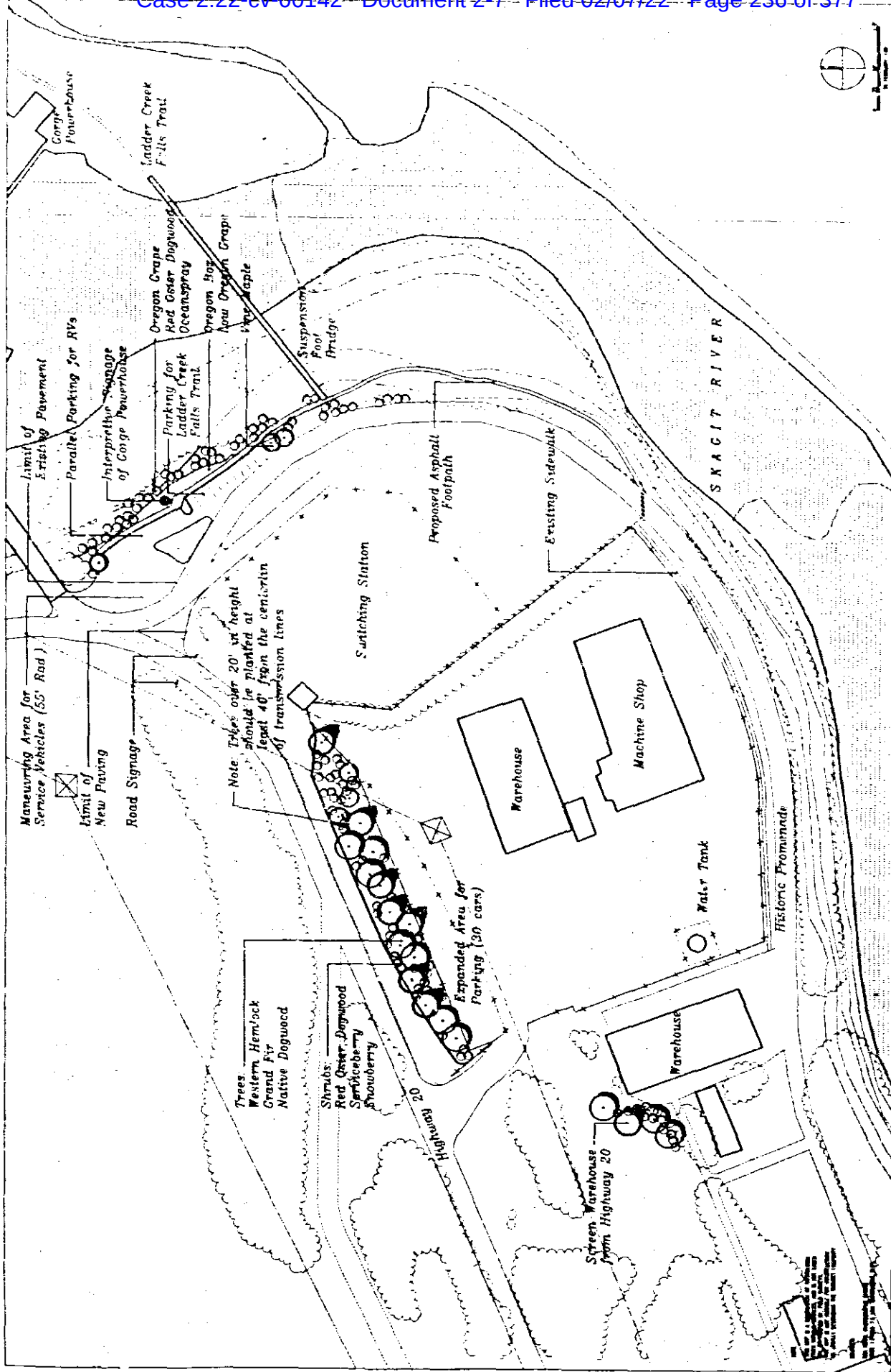


Figure 4-4  
Town of Newhalem - Ladder Creek Falls Trail Parking Area

RECREATION PLAN  
SKAGIT RIVER HYDROELECTRIC PROJECT No. 563  
SEATTLE CITY LIGHT



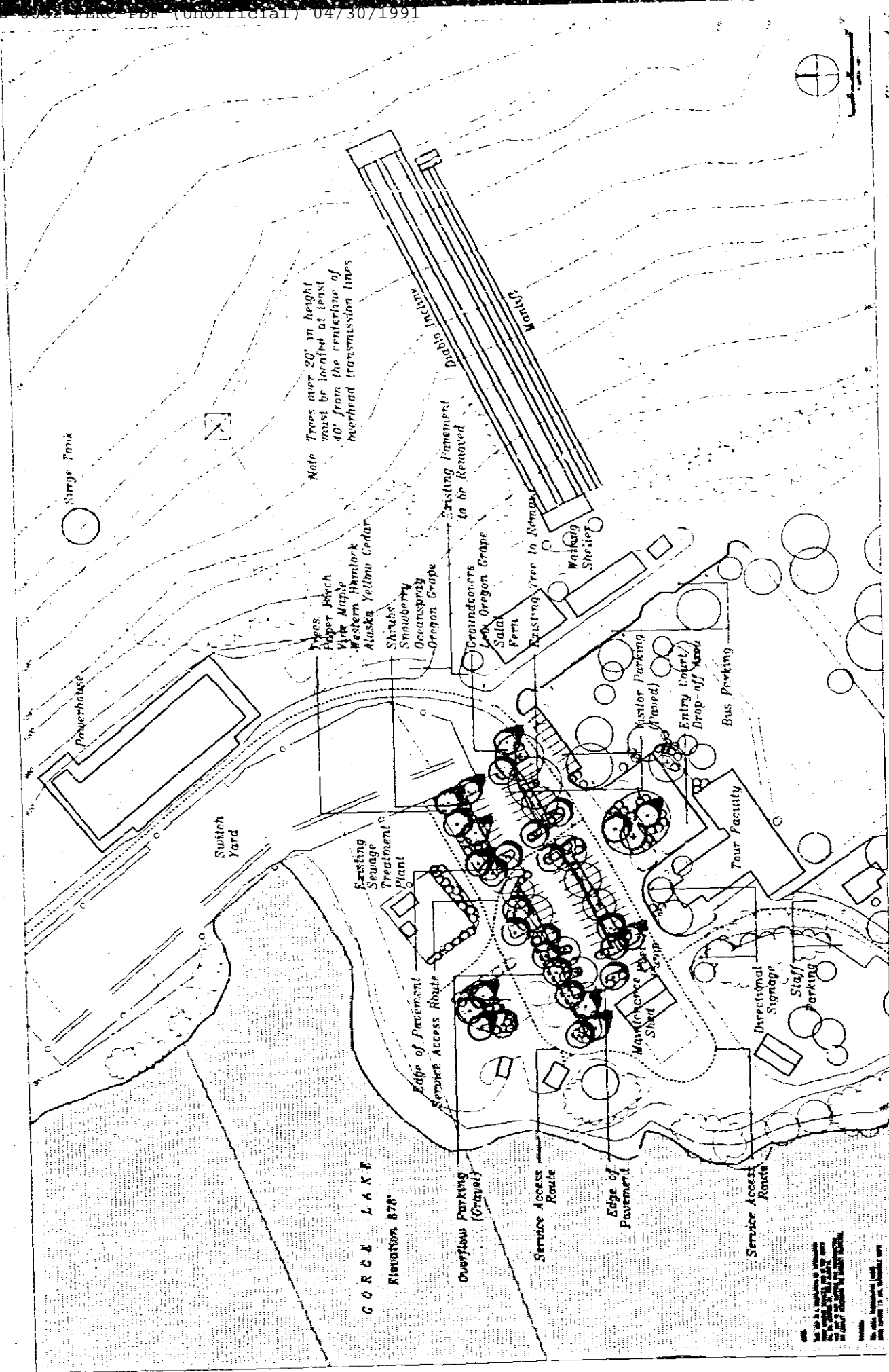
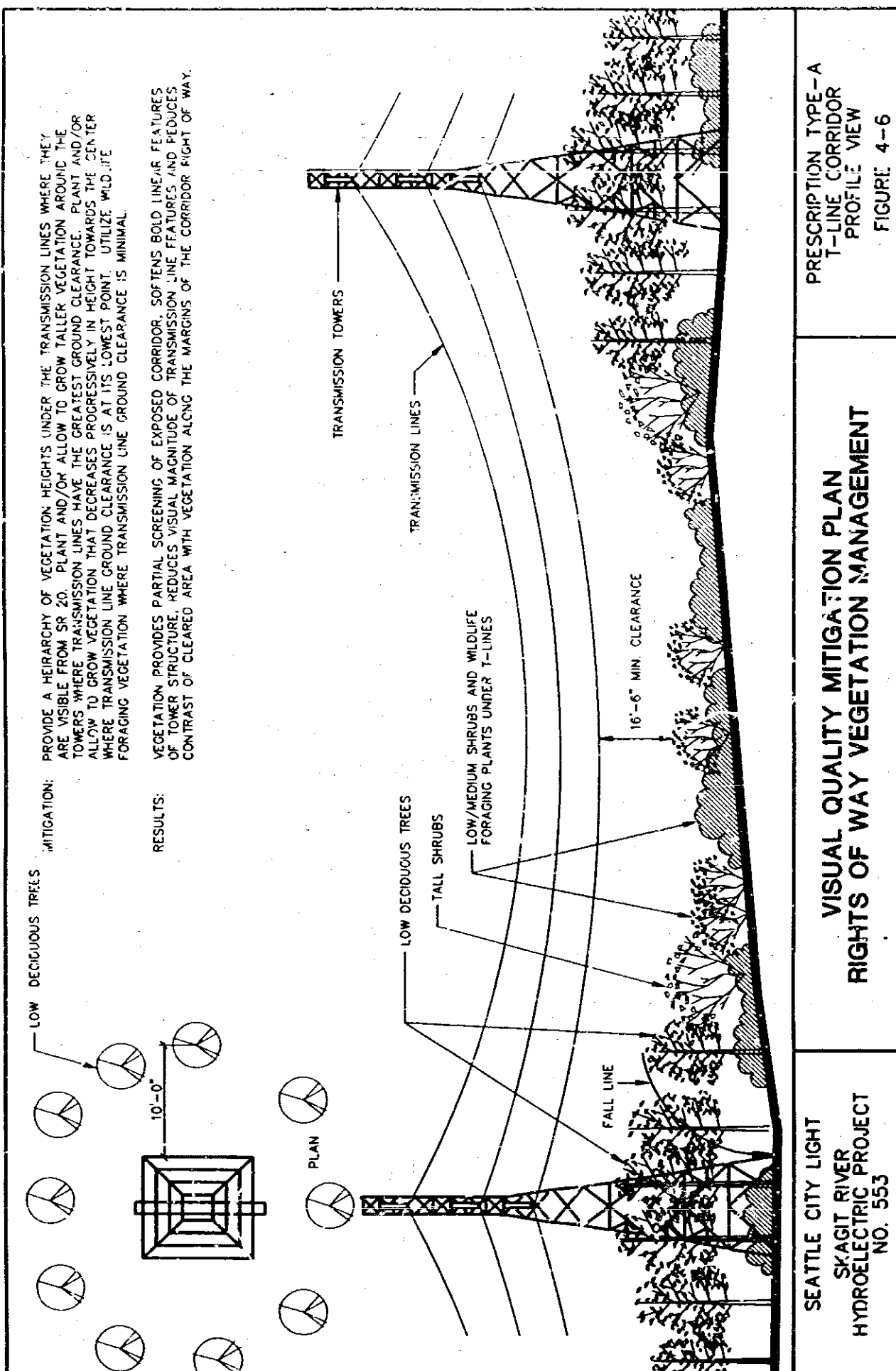
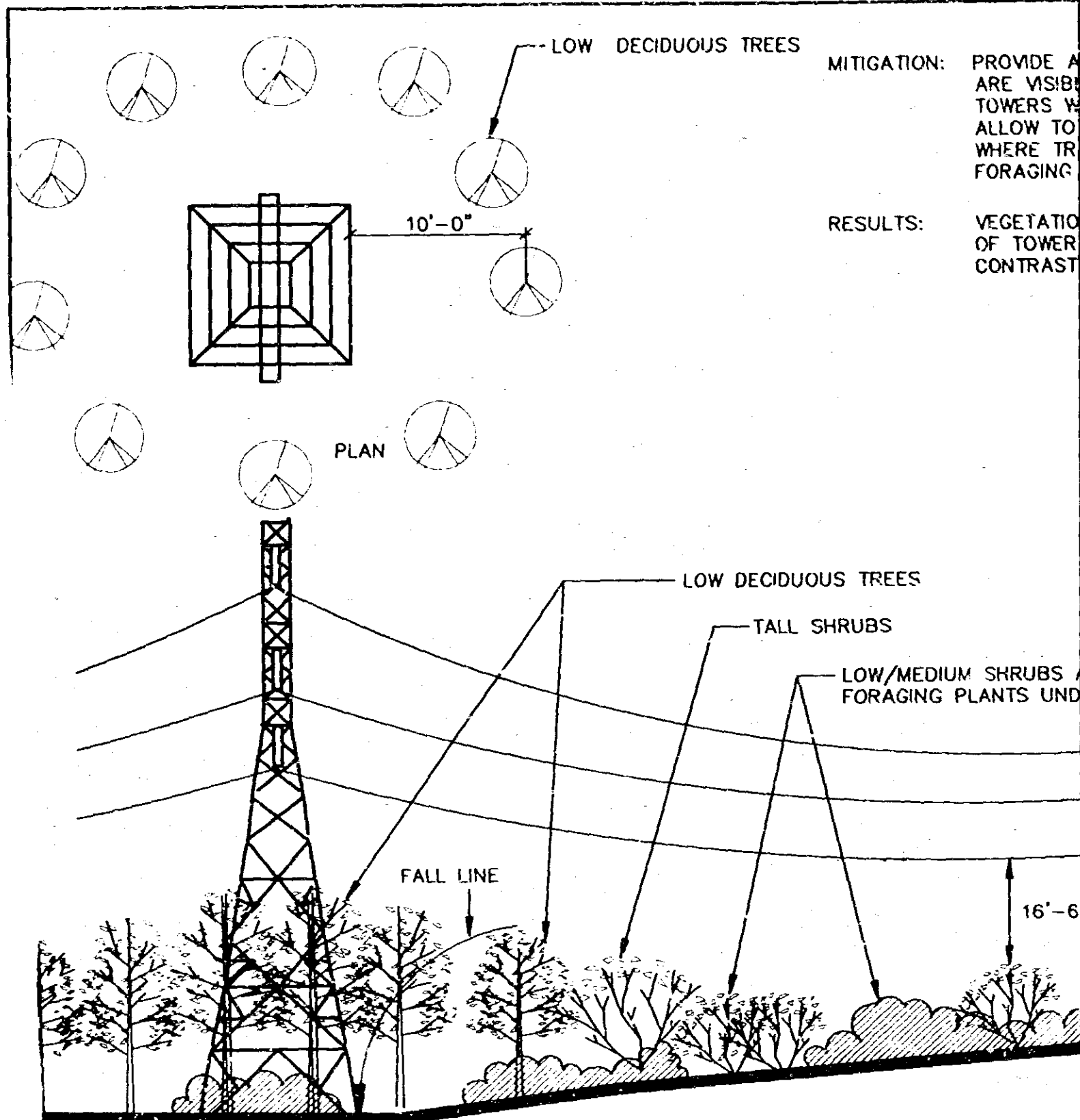


Figure 4- Town of Diablo Visitor Center

Scale: 1" = 100'  
 Date: 10/1/88  
 Drawn: J. Smith  
 Checked: J. Smith  
 Approved: J. Smith

RECREATION PLAN  
 SKAGIT RIVER HYDROELECTRIC PROJECT NO. 553  
 SEATTLE CITY LIGHT



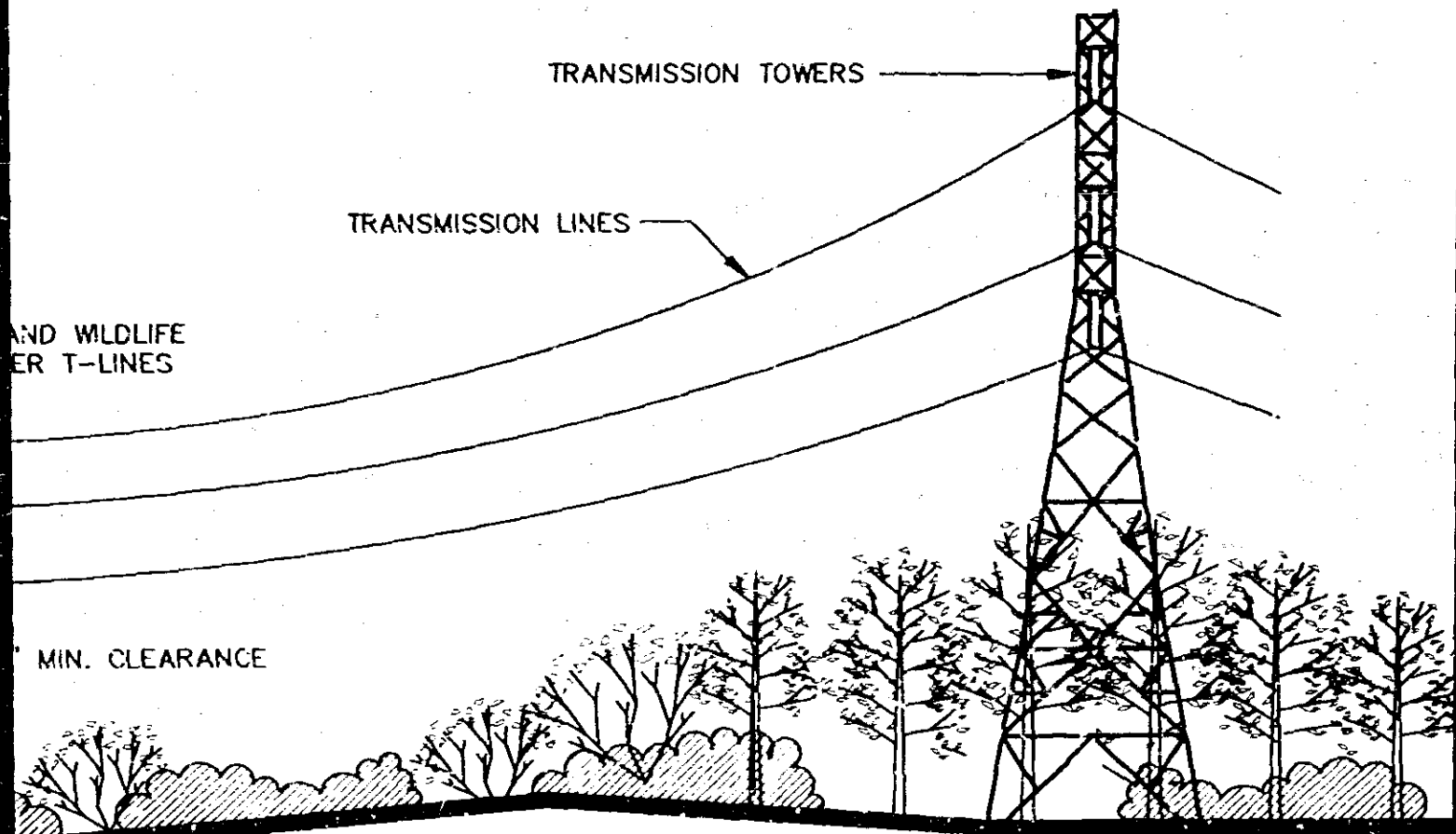


SEATTLE CITY LIGHT  
SKAGIT RIVER  
HYDROELECTRIC PROJECT  
NO. 553

VISUAL QUALITY  
RIGHTS OF WAY VEGE

HEIRARCHY OF VEGETATION HEIGHTS UNDER THE TRANSMISSION LINES WHERE THEY  
E FROM SR 20. PLANT AND/OR ALLOW TO GROW TALLER VEGETATION AROUND THE  
HERE TRANSMISSION LINES HAVE THE GREATEST GROUND CLEARANCE. PLANT AND/OR  
GROW VEGETATION THAT DECREASES PROGRESSIVELY IN HEIGHT TOWARDS THE CENTER  
TRANSMISSION LINE GROUND CLEARANCE IS AT ITS LOWEST POINT. UTILIZE WILDLIFE  
VEGETATION WHERE TRANSMISSION LINE GROUND CLEARANCE IS MINIMAL.

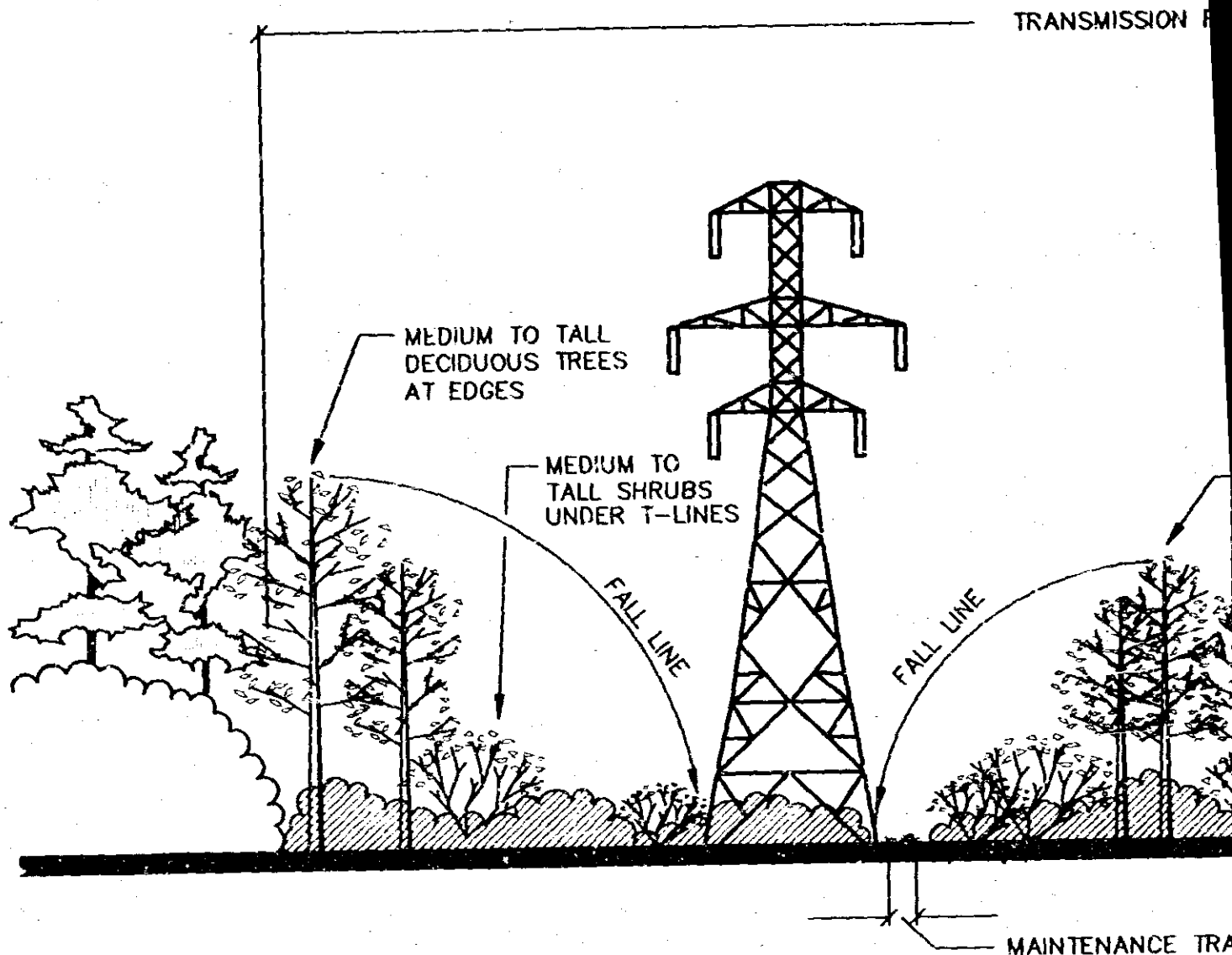
N PROVIDES PARTIAL SCREENING OF EXPOSED CORRIDOR, SOFTENS BOLD LINEAR FEATURES  
STRUCTURE, REDUCES VISUAL MAGNITUDE OF TRANSMISSION LINE FEATURES AND REDUCES  
OF CLEARED AREA WITH VEGETATION ALONG THE MARGINS OF THE CORRIDOR RIGHT OF WAY.



**MITIGATION PLAN  
TATION MANAGEMENT**

**PRESCRIPTION TYPE-A  
T-LINE CORRIDOR  
PROFILE VIEW  
FIGURE 4-6**





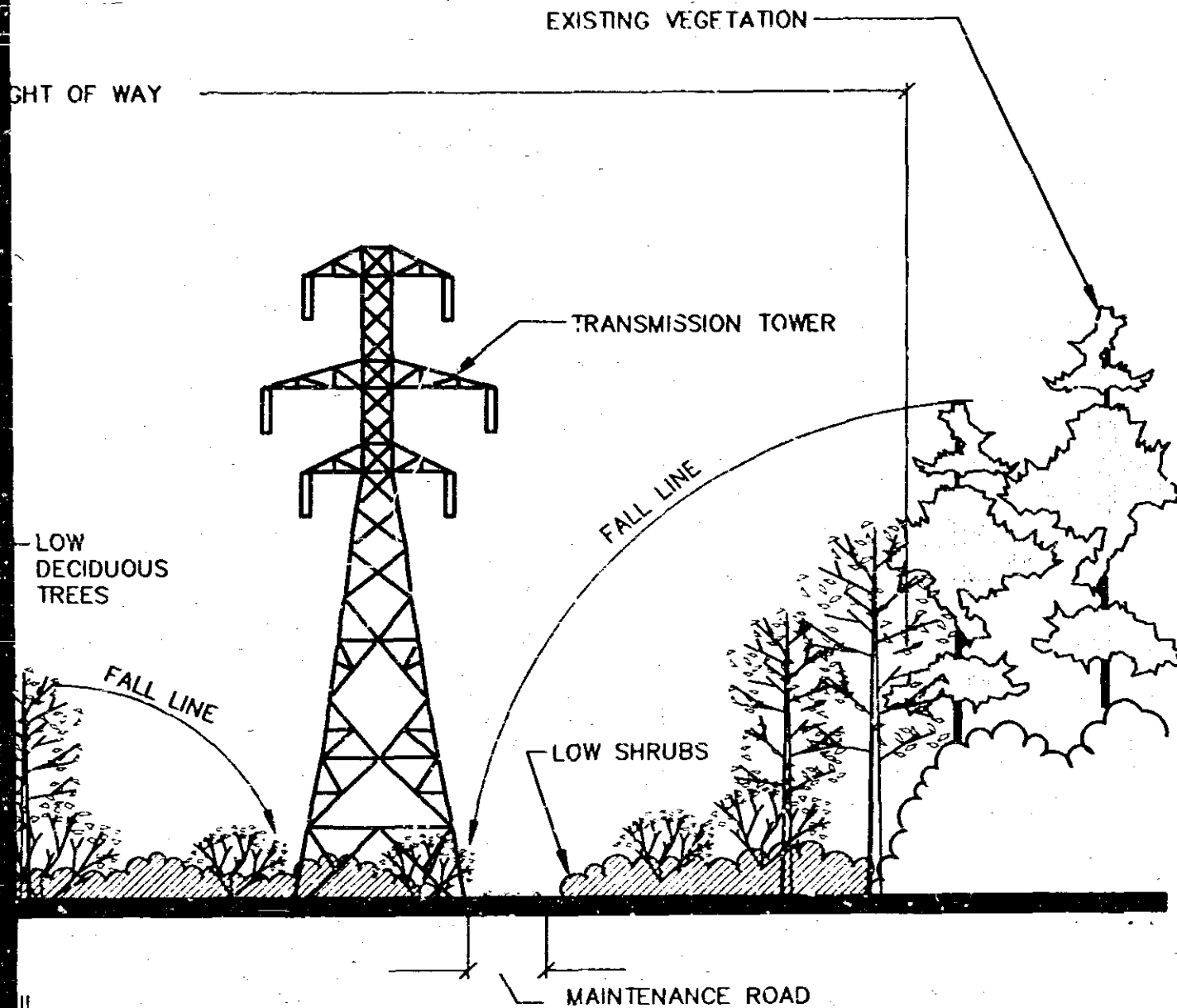
PLANT AND/OR ALLOW VEGETATION TO GROW ALONG THE MARGINS OF THE CORRIDOR, DECREASING PROGRESSIVELY IN HEIGHT UNDER THE TRANSMISSION TOWERS. UTILIZE WILDLIFE FORAGING VEGETATION ALONG THE SIDES OF THE CORRIDOR.

RESULTS: EDGES OF TRANSMISSION LINE CORRIDORS WILL FEATHER INTO THE CORRIDOR VIEWS.

SEATTLE CITY LIGHT  
SKAGIT RIVER  
HYDROELECTRIC PROJECT  
NO. 553

VISUAL QUALITY  
RIGHTS OF WAY VEGETATION





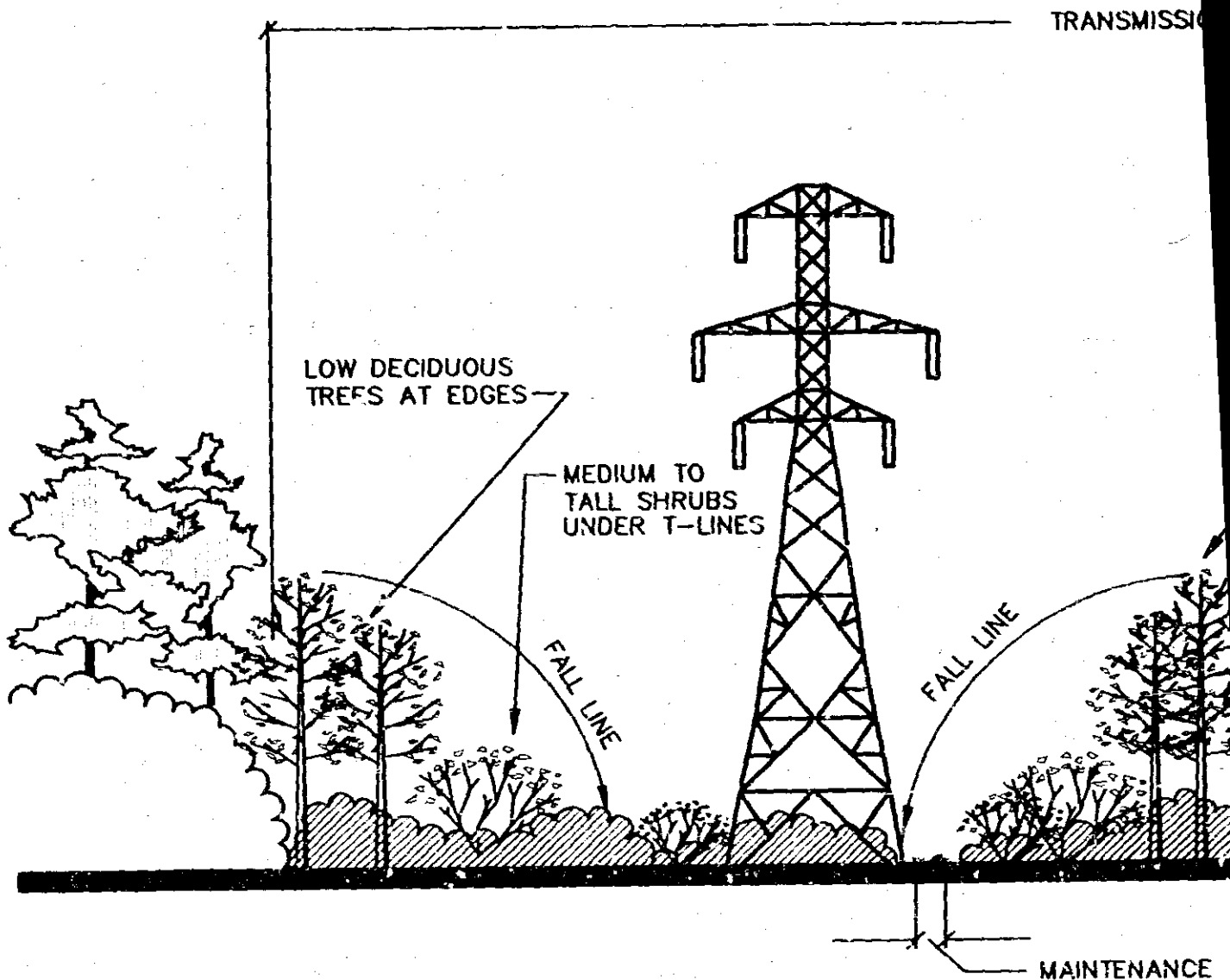
THE CORRIDOR RIGHT OF WAY WITH TALLER VEGETATION ALONG THE OUTERMOST LINES. CLUSTER PLANTINGS TO PROVIDE A MEANDERING EDGE TREATMENT UNDER THE TRANSMISSION LINES.

DOOR, ELIMINATING THE HARD EDGES AND THEREBY BECOMING LESS OBVIOUS TO

**MITIGATION PLAN  
VEGETATION MANAGEMENT**

**PRESCRIPTION TYPE-B1  
T-LINE CORRIDOR  
EDGE PLANTING  
FIGURE 4-7**

19910502-0032 FERC PDF (Unofficial) 04/30/1991

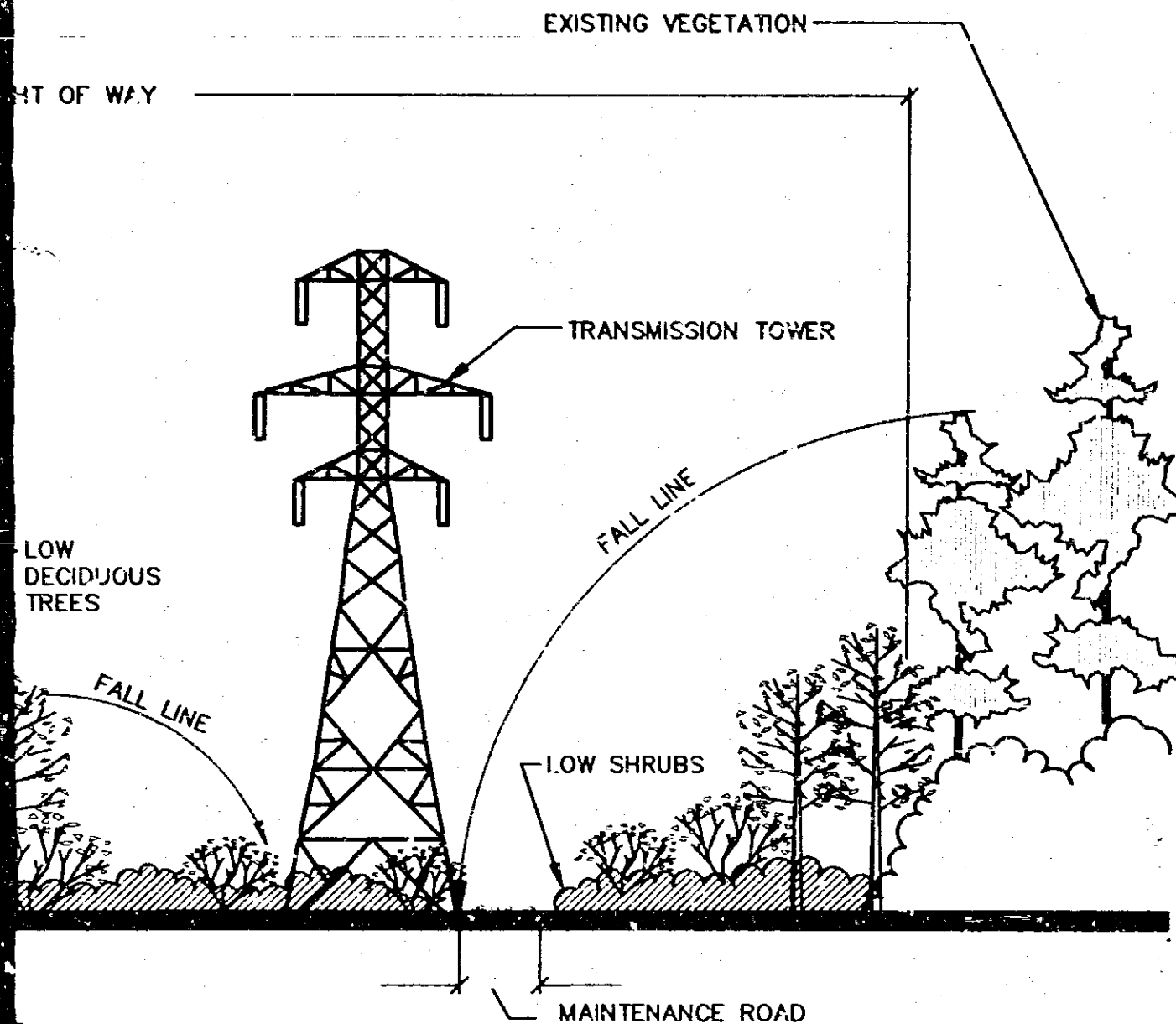


MITIGATION PLANT AND/OR ALLOW TO GROW VEGETATION ALONG THE MARGINS OF EDGE, DECREASING PROGRESSIVELY IN HEIGHT UNDER THE TRANSMISSION LINE CORRIDOR. UTILIZE WILDLIFE FORAGING VEGETATION

RESULTS: EDGES OF TRANSMISSION LINE CORRIDORS WILL FEATHER INTO THE CORRIDOR VIEWERS.

SEATTLE CITY LIGHT  
SKAGIT RIVER  
HYDROELECTRIC PROJECT  
NO. 553

VISUAL QUALITY  
RIGHTS OF WAY VEGETATION



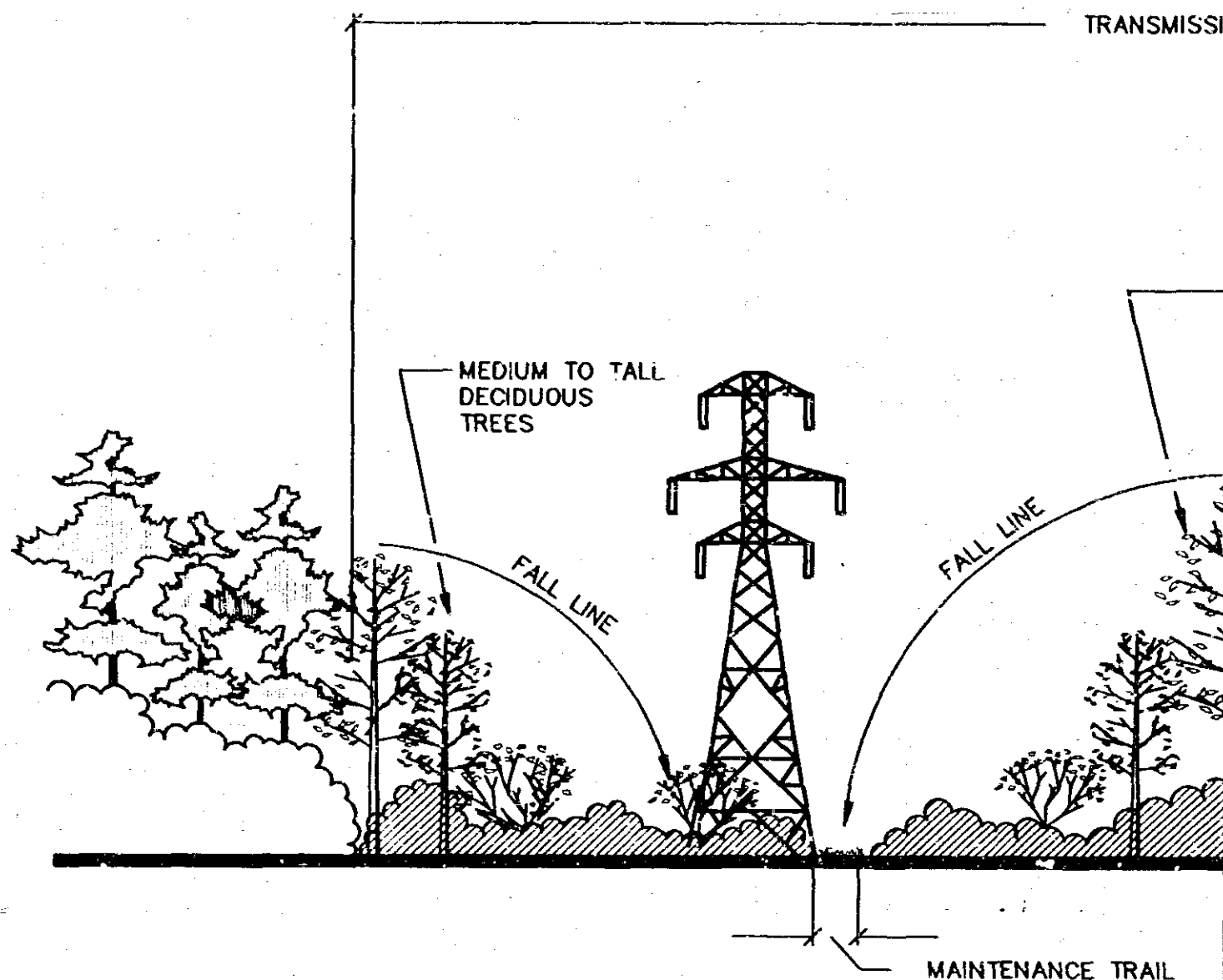
THE CORRIDOR RIGHT OF WAY WITH TALLER VEGETATION ALONG THE OUTER MOST LINES. CLUSTER PLANTINGS TO PROVIDE A MEANDERING EDGE TREATMENT UNDER THE TRANSMISSION LINES.

OR, ELIMINATING THE HARD EDGES AND THEREBY BECOMING LESS OBVIOUS TO

**MITIGATION PLAN  
VEGETATION MANAGEMENT**

**PRESCRIPTION TYPE-B2  
T-LINE CORRIDOR  
EDGE PLANTING**

**FIGURE 4-8**

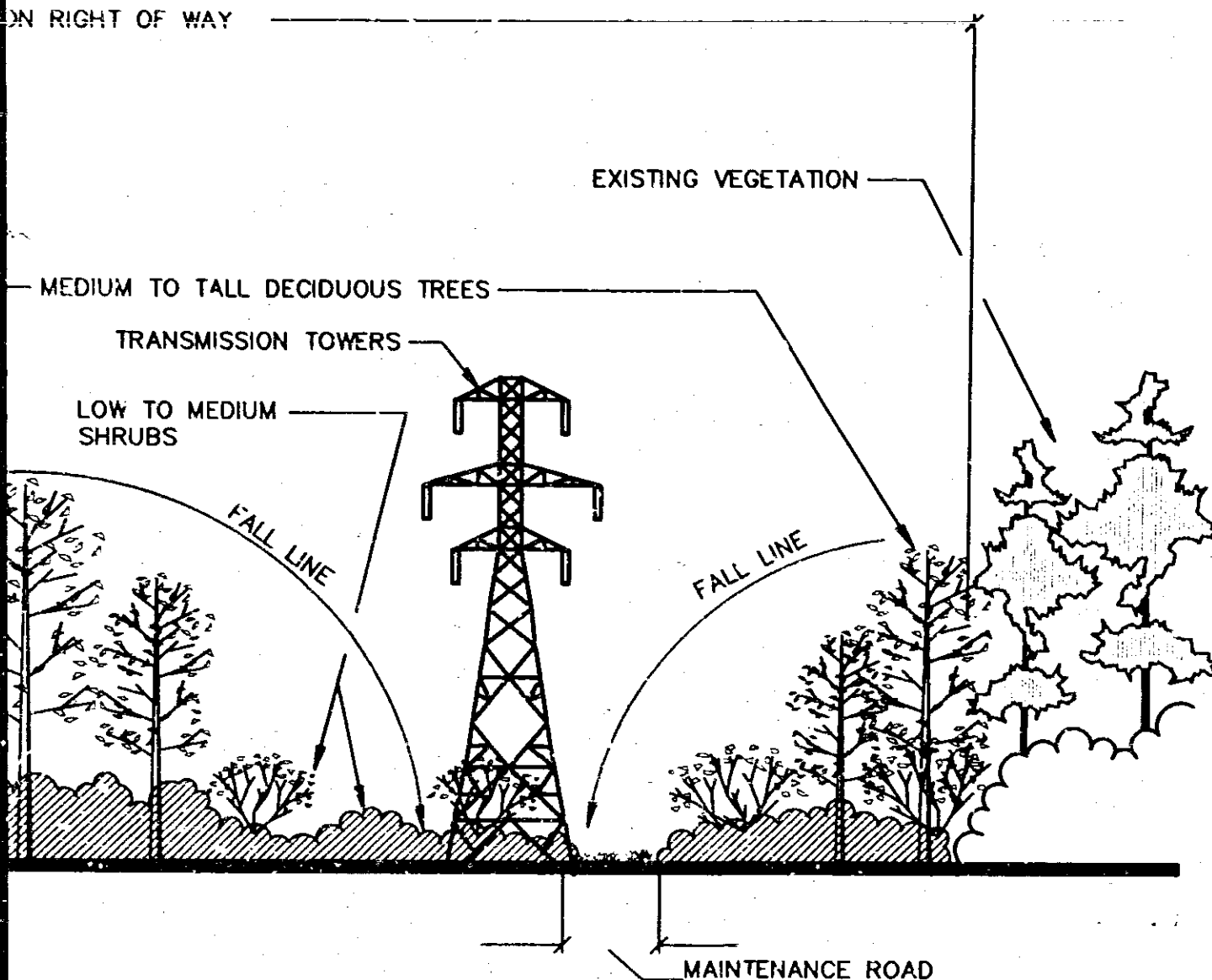


MITIGATION: EDGE TREATMENT IS THE SAME AS TYPE-B ALONG BOTH SIDES OF CORRIDOR. VEGETATION AT CENTER THAT DECREASES PROGRESSIVELY SMALLER TOWARD

RESULTS: EXPOSURE OF THE WIDE CLEARED CORRIDOR WILL BE SIGNIFICANTLY REDUCED

SEATTLE CITY LIGHT  
SKAGIT RIVER  
HYDROELECTRIC PROJECT  
NO. 553

**VISUAL QUALITY**  
**RIGHTS OF WAY VEGE**



OR. PLANT AND/OR ALLOW VEGETATION TO GROW BETWEEN TOWERS WITH TALLER  
DS THE TOWERS.

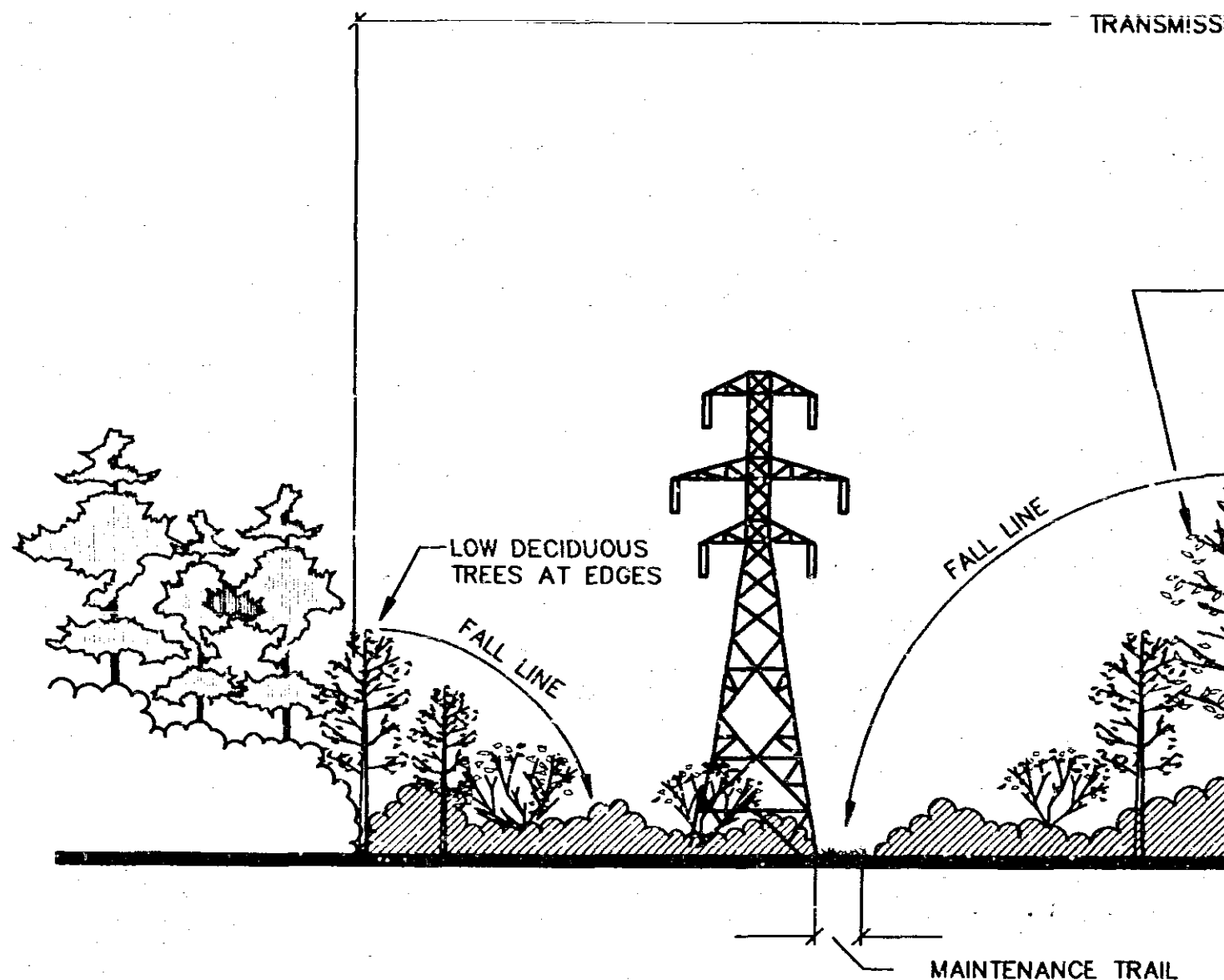
ED AS WELL AS MINIMIZING VIEWS OF THE TOWERS AND TRANSMISSION LINES.

**MITIGATION PLAN  
TATION MANAGEMENT**

**PRESCRIPTION TYPE-C1  
WIDE T-LINE CORRIDOR  
PLANTING**

**FIGURE 4-9**



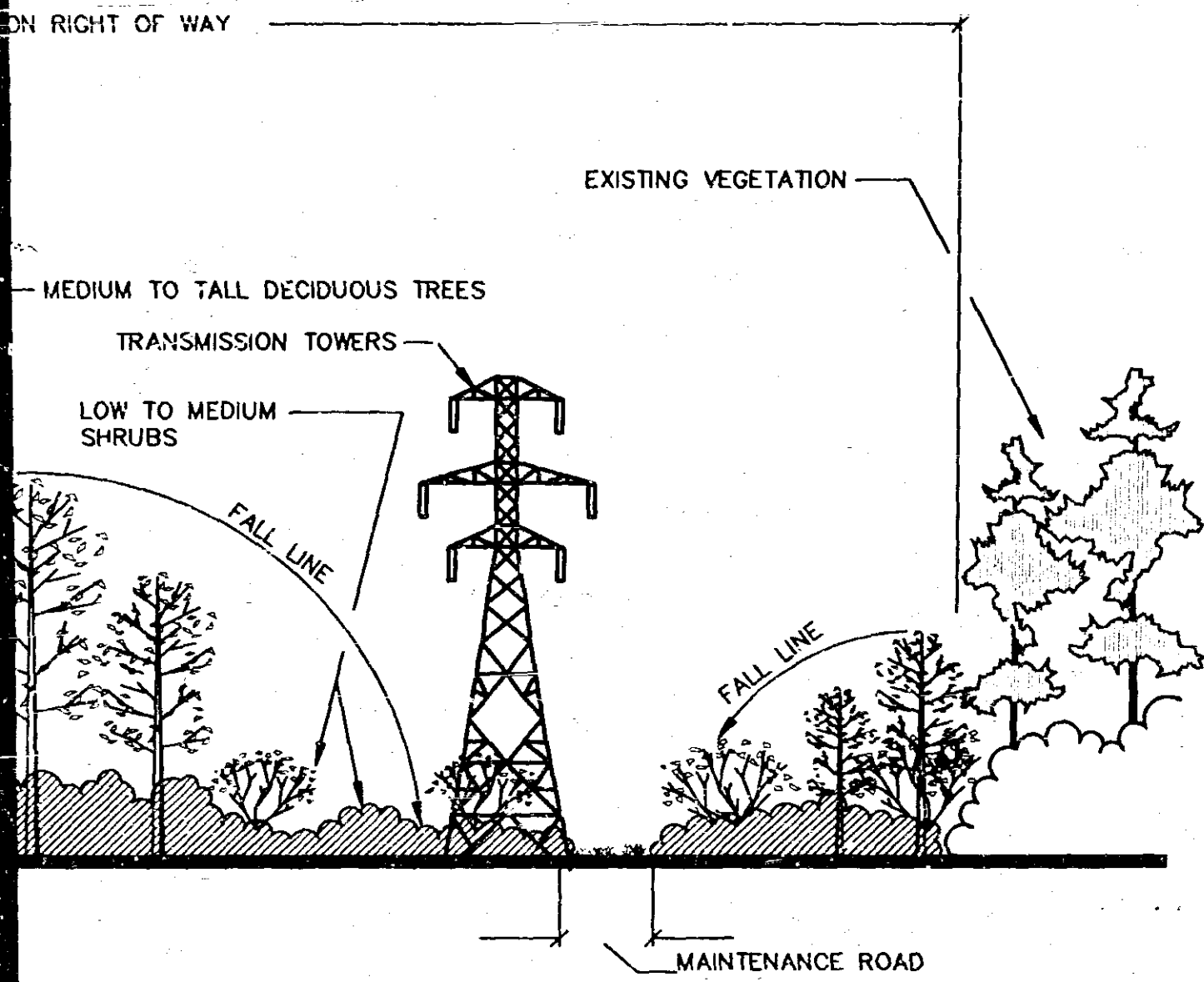


MITIGATION: EDGE TREATMENT IS THE SAME AS TYPE-B ALONG BOTH SIDES OF CORRIDOR. VEGETATION AT CENTER THAT DECREASES PROGRESSIVELY SMALLER TOWARD

RESULTS: EXPOSURE OF THE WIDE CLEARED CORRIDOR WILL BE SIGNIFICANTLY REDUCED

SEATTLE CITY LIGHT  
SKAGIT RIVER  
HYDROELECTRIC PROJECT  
NO. 553

**VISUAL QUALITY  
RIGHTS OF WAY VEGE**



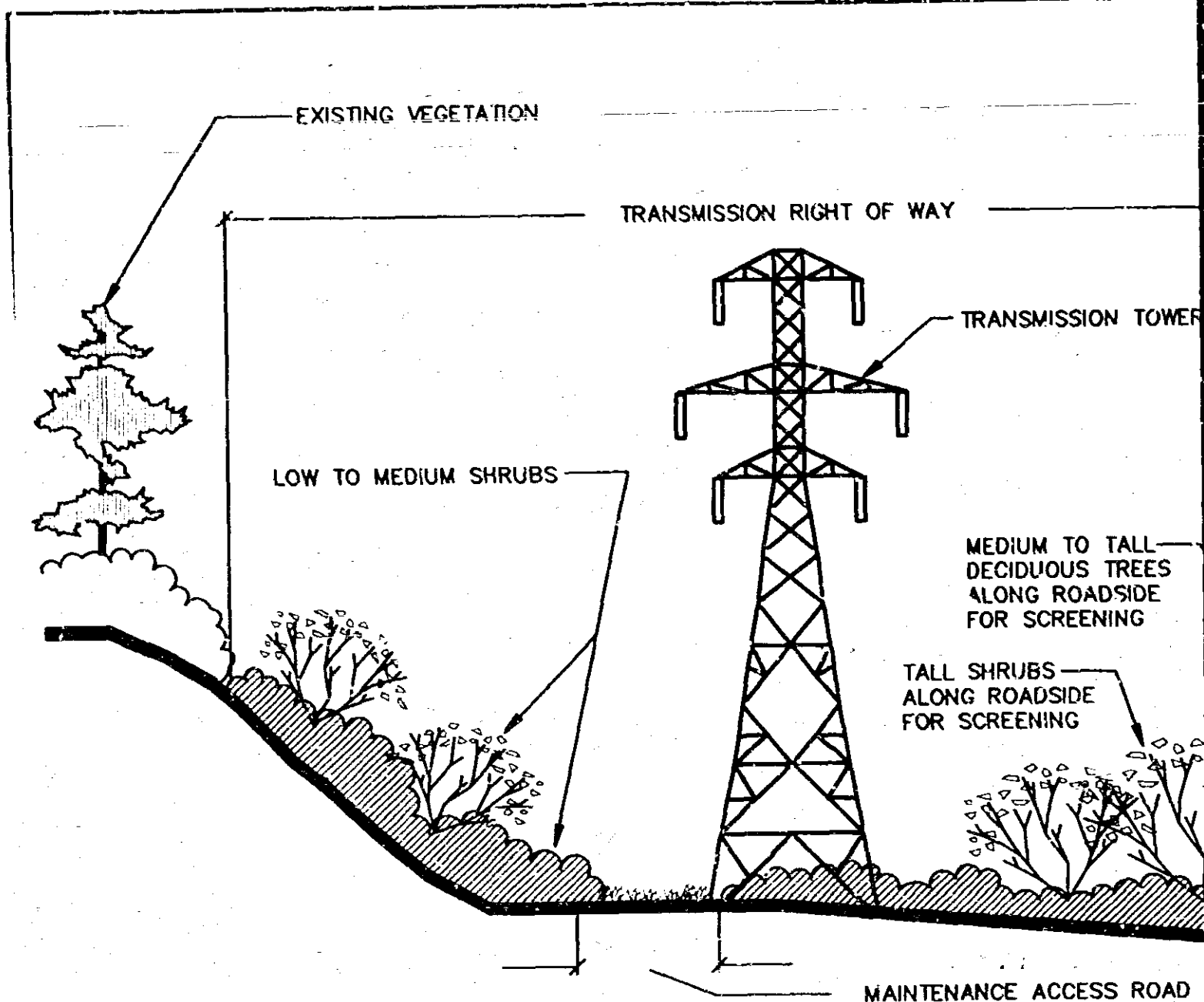
OR. PLANT AND/OR ALLOW VEGETATION TO GROW BETWEEN TOWERS WITH TALLER  
DS THE TOWERS.

ED AS WELL AS MINIMIZING VIEWS OF THE TOWERS AND TRANSMISSION LINES.

**MITIGATION PLAN  
TATION MANAGEMENT**

**PRESCRIPTION TYPE--C2  
WIDE T-LINE CORRIDOR  
PLANTING**

**FIGURE 4-10**

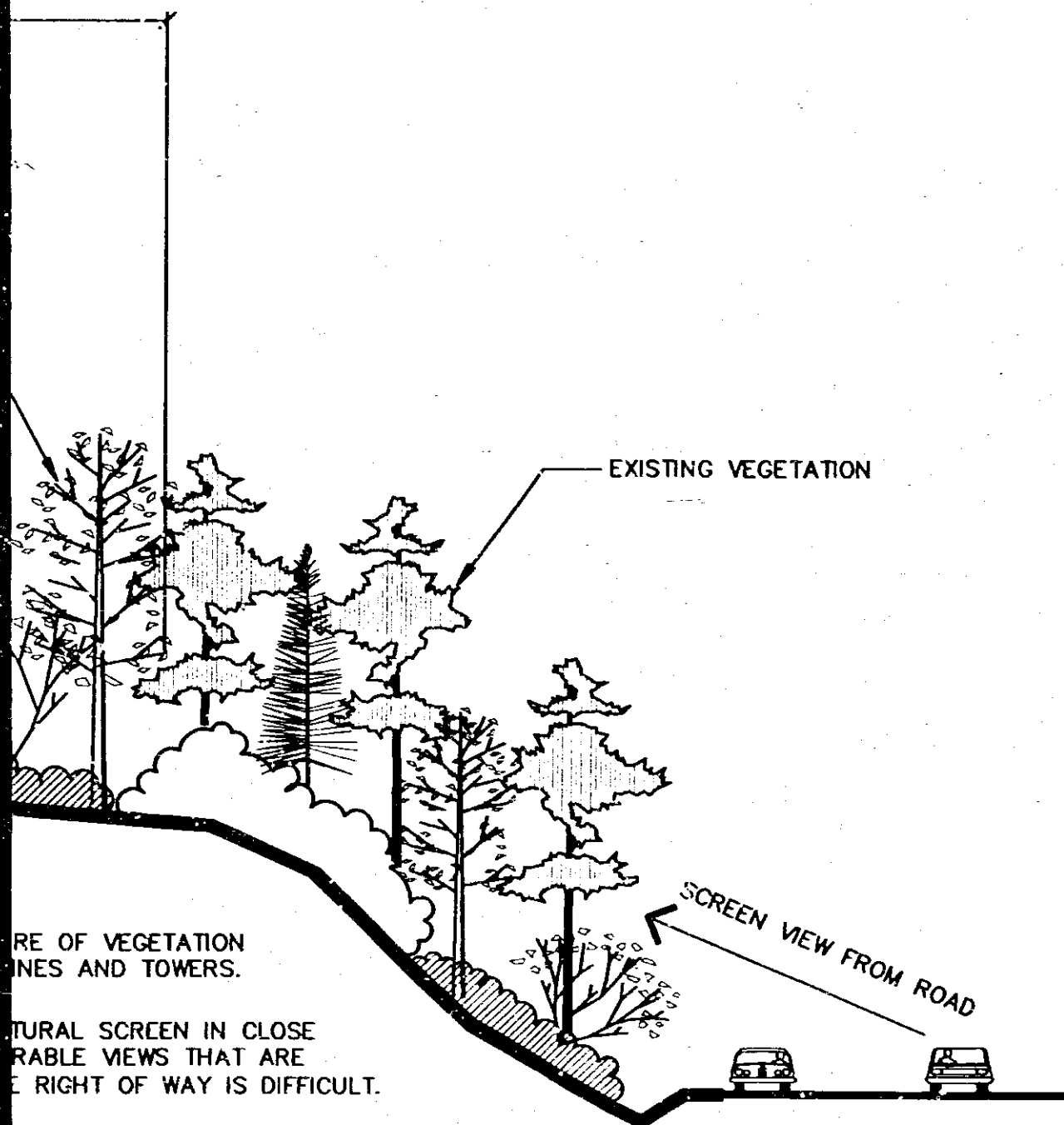


**MITIGATION:** PRESERVE EXISTING VEGETATION ALONG HIGHWAY AND SUPPLEMENT WITH A MIXTURE OF PLANT HEIGHTS IN SUFFICIENT QUANTITIES TO EFFECTIVELY SCREEN THE TRANSMISSION LINE.

**RESULTS:** SCREENING AT ROADSIDE WILL SIGNIFICANTLY MINIMIZE VIEWS BY PROVIDING A NATURAL BARRIER IN CLOSE PROXIMITY TO THE VIEWERS. THIS IS EFFECTIVE IN SCREENING EXTENSIVE UNDERSTANDING CLOSE TO VIEWERS WHERE VEGETATION MITIGATION WITHIN THE TRANSMISSION LINE IS NOT POSSIBLE.

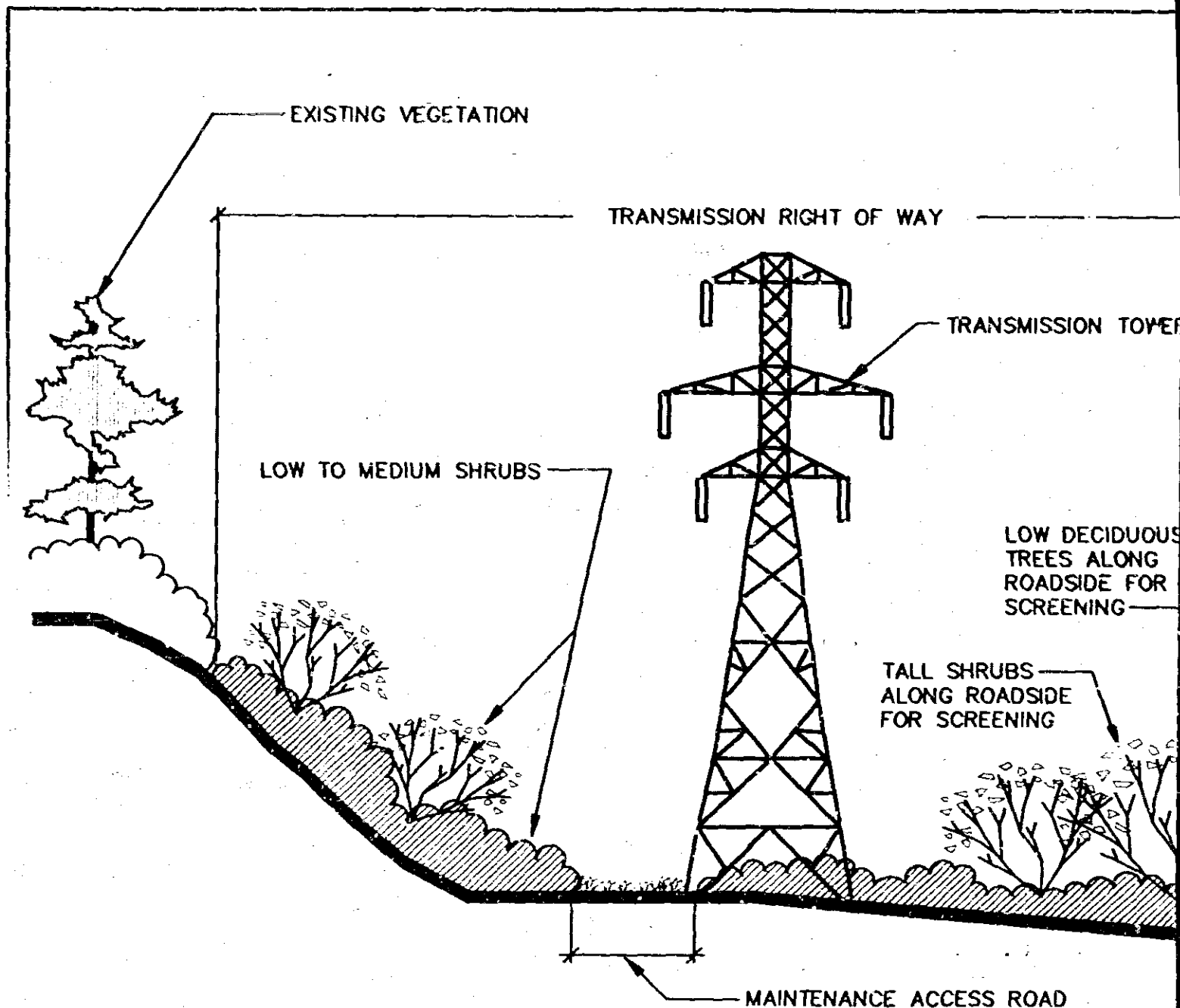
SEATTLE CITY LIGHT  
SKAGIT RIVER  
HYDROELECTRIC PROJECT  
NO. 553

**VISUAL QUALITY  
RIGHTS OF WAY VEGETATION**



**MITIGATION PLAN  
TATION MANAGEMENT**

**PRESCRIPTION TYPE-D1  
ROADSIDE PLANTING  
FIGURE 4-11**



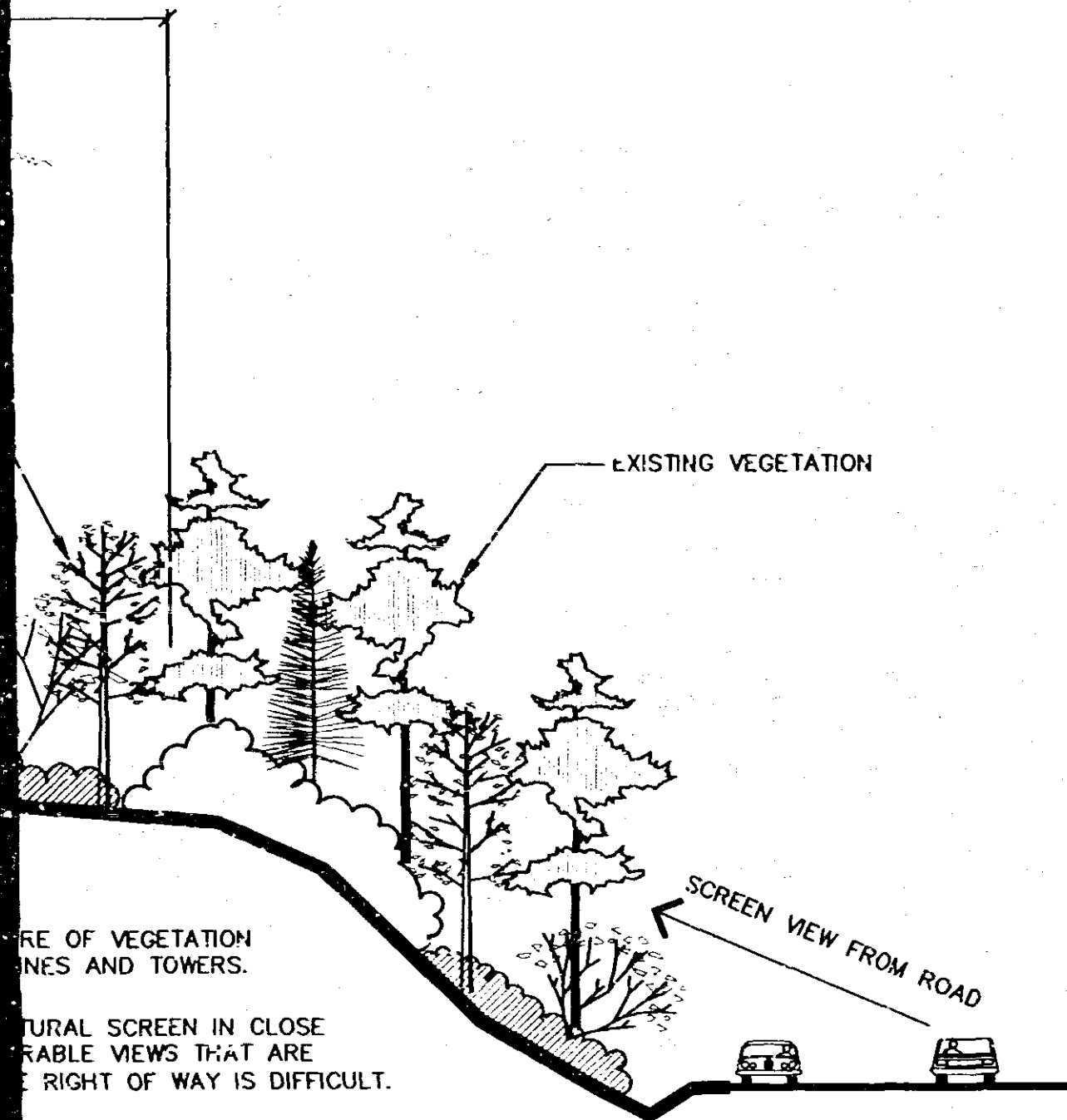
**MITIGATION:** PRESERVE EXISTING VEGETATION ALONG HIGHWAY AND SUPPLEMENT WITH A MIXTURE OF VARIOUS PLANT HEIGHTS IN SUFFICIENT QUANTITIES TO EFFECTIVELY SCREEN THE TRANSMISSION LINE.

**RESULTS:** SCREENING AT ROADSIDE WILL SIGNIFICANTLY MINIMIZE VIEWS BY PROVIDING A NATURAL BARRIER IN CLOSE PROXIMITY TO THE VIEWERS. THIS IS EFFECTIVE IN SCREENING EXTENSIVE UNDESIRABLE VIEWS CLOSE TO VIEWERS WHERE VEGETATION MITIGATION WITHIN THE TRANSMISSION LINE IS NOT FEASIBLE.

SEATTLE CITY LIGHT  
SKAGIT RIVER  
HYDROELECTRIC PROJECT  
NO. 553

**VISUAL QUALITY  
RIGHTS OF WAY VEGETATION**



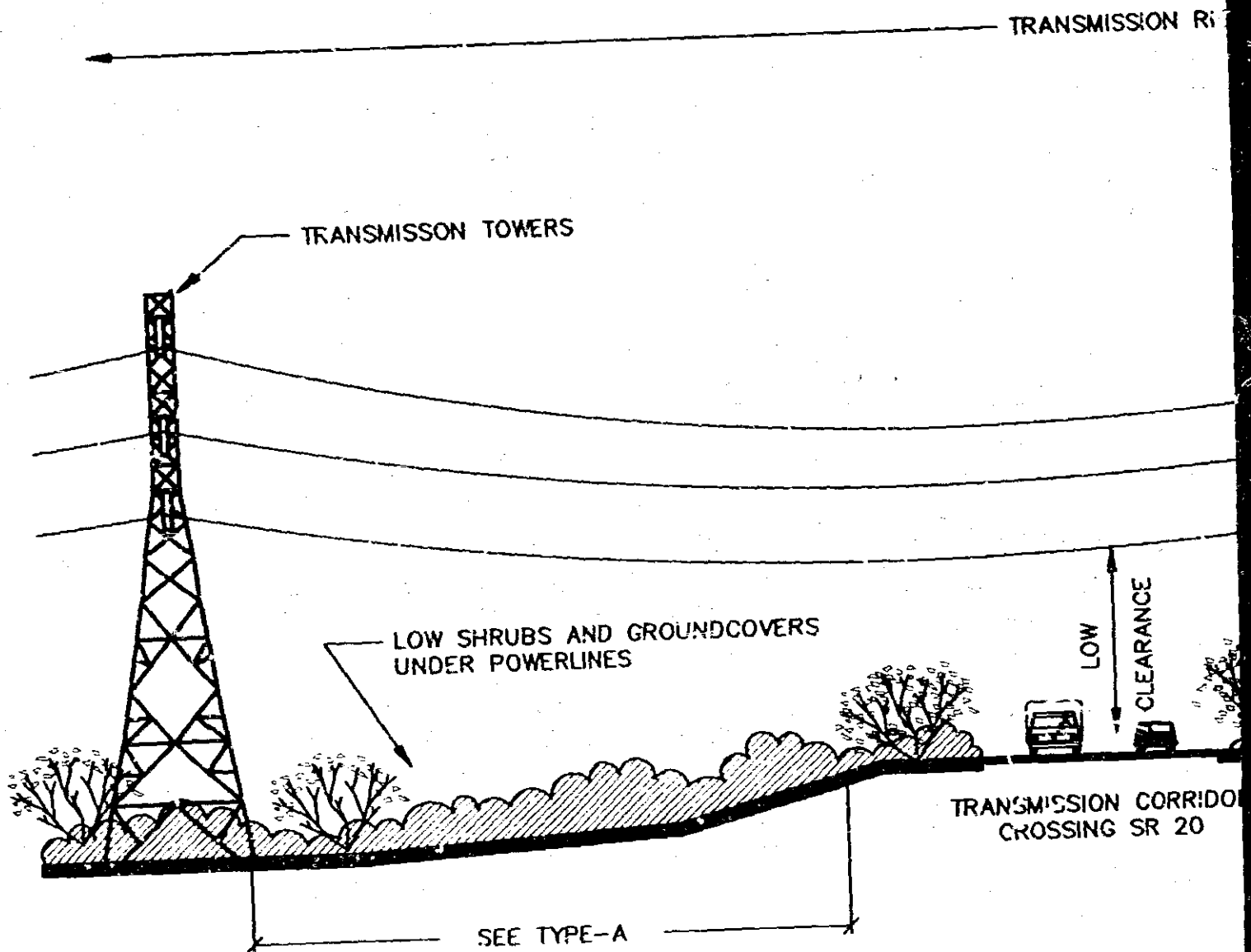


**MITIGATION PLAN  
TATION MANAGEMENT**

**PRESCRIPTION TYPE-D2  
ROADSIDE PLANTING  
FIGURE 4-12**

MITIGATION: PLANT AND/OR ALLOW DENSE MASSES OF MEDIUM SHRUBS TO GROW P  
HIGHWAY. CONTINUE SHRUB PLANTING TO EXISTING VEGETATION ON E

RESULTS: VIEWS OF THE TRANSMISSION LINE CORRIDOR AND TOWERS CAN BE EFF  
WAY ON SR 20 BY PLANTING DENSE VEGETATION ADJACENT TO SR 20.

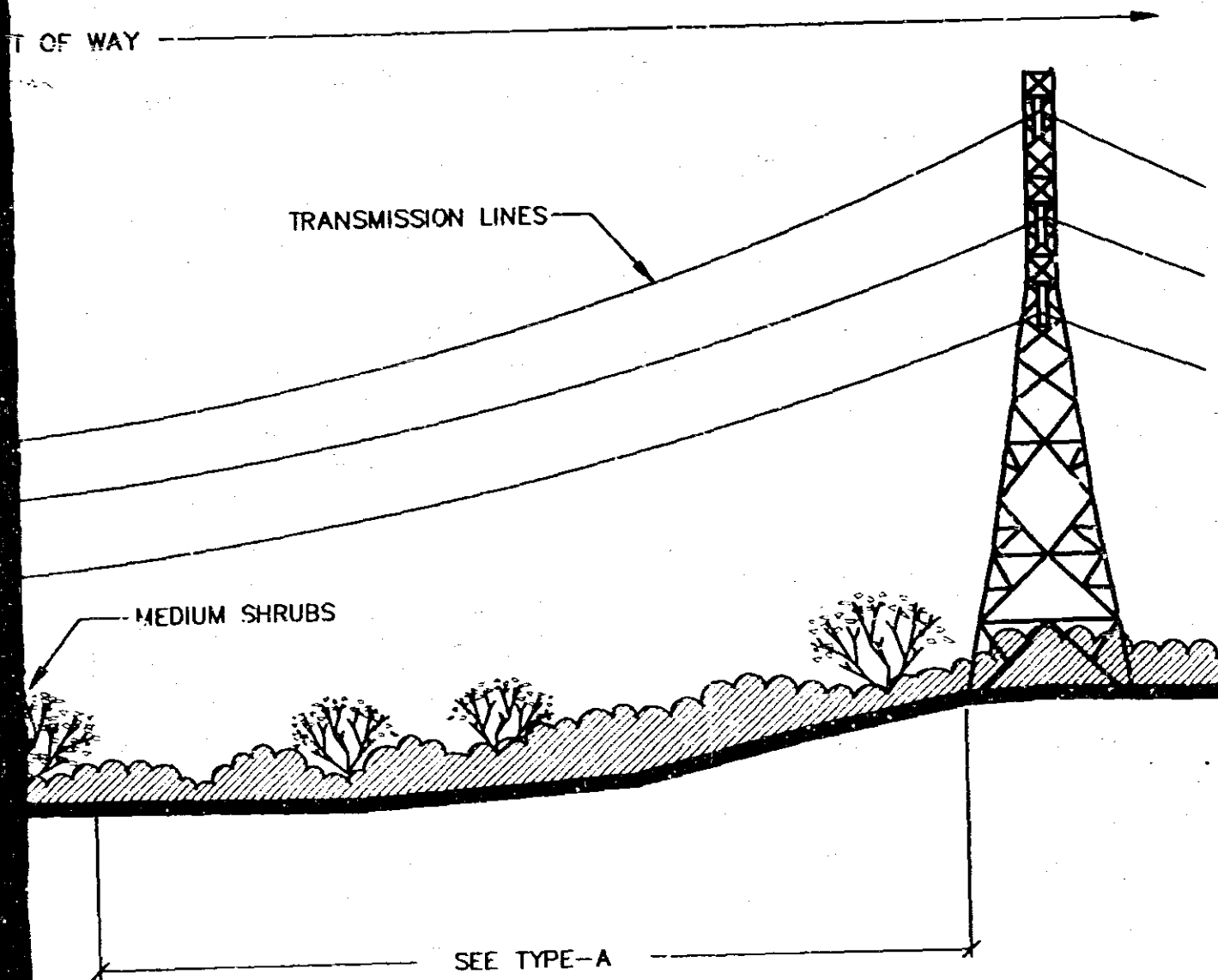


SEATTLE CITY LIGHT  
SKAGIT RIVER  
HYDROELECTRIC PROJECT  
NO. 553

VISUAL QUALITY  
RIGHTS OF WAY VEG

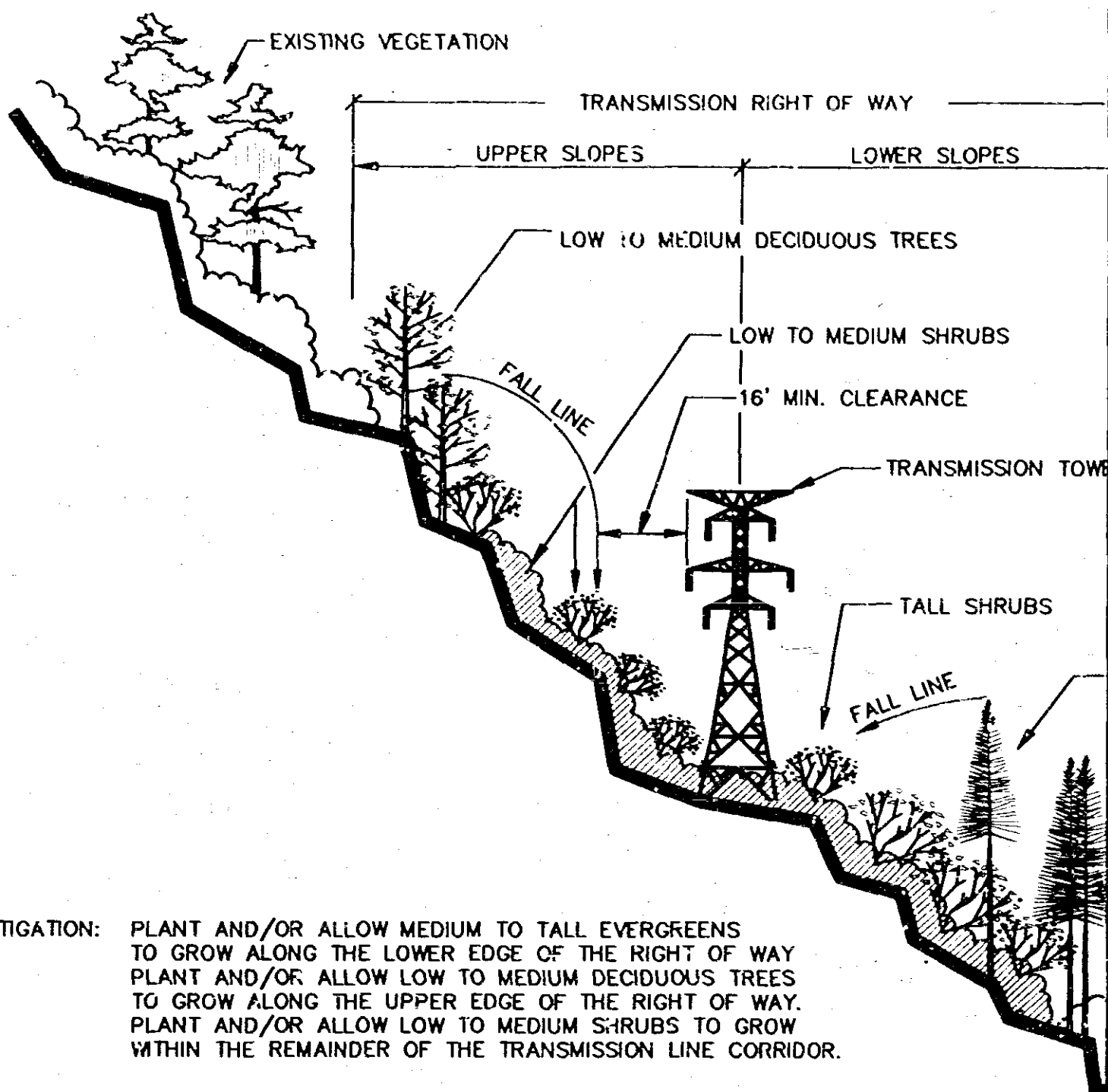
RAILLEL TO SR 20 WHERE TRANSMISSION LINE RIGHT OF WAY CROSSES THE  
ER SIDE OF THE TRANSMISSION LINE RIGHT OF WAY.

CTIVELY SCREENED FOR THOSE WHO ARE TRAVELING THROUGH THE RIGHT OF



**MITIGATION PLAN  
TATION MANAGEMENT**

**PRESCRIPTION TYPE-E  
T-LINE CROSSING  
PLANTING  
FIGURE 4-13**

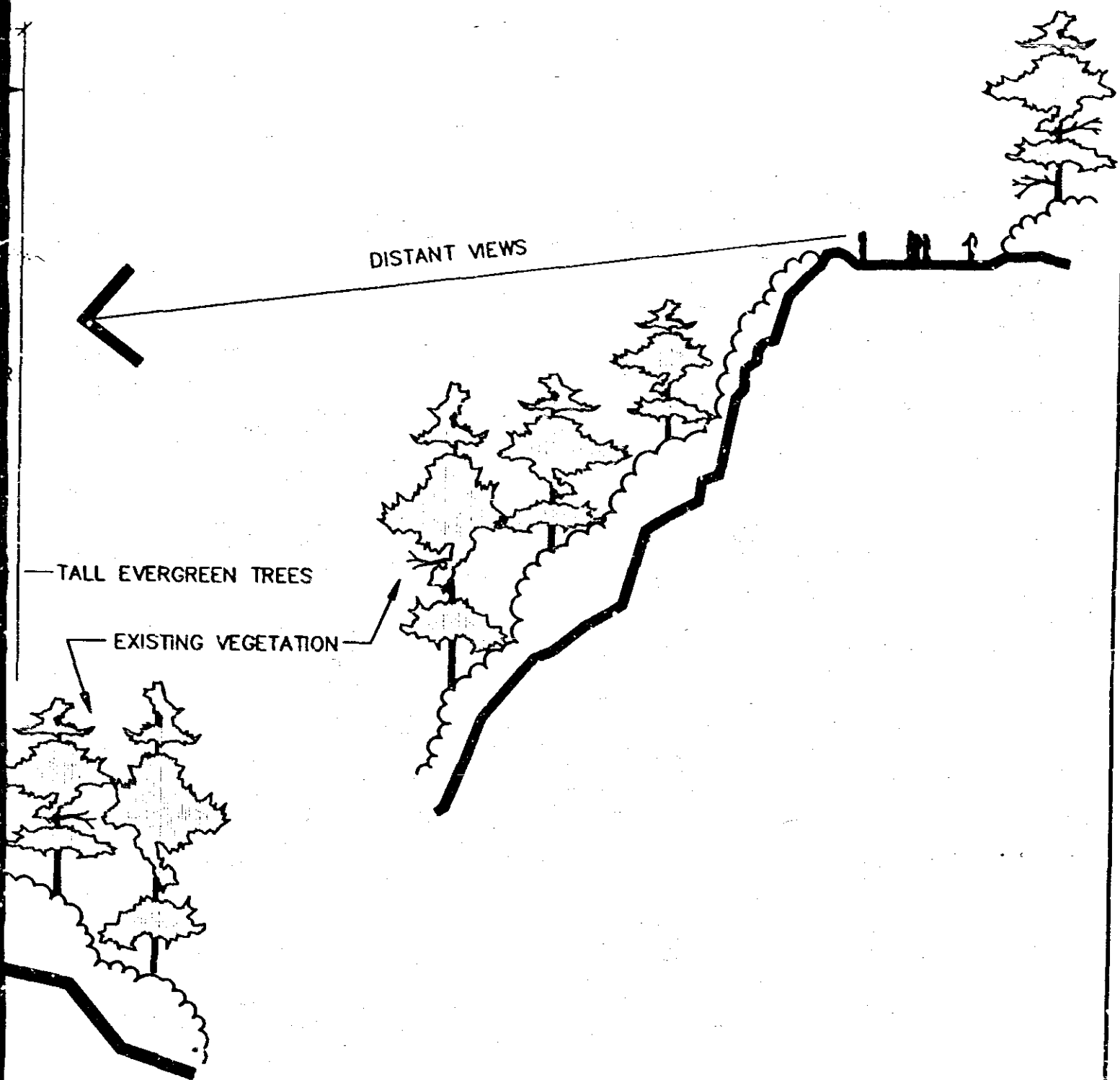


**MITIGATION:** PLANT AND/OR ALLOW MEDIUM TO TALL EVERGREENS TO GROW ALONG THE LOWER EDGE OF THE RIGHT OF WAY. PLANT AND/OR ALLOW LOW TO MEDIUM DECIDUOUS TREES TO GROW ALONG THE UPPER EDGE OF THE RIGHT OF WAY. PLANT AND/OR ALLOW LOW TO MEDIUM SHRUBS TO GROW WITHIN THE REMAINDER OF THE TRANSMISSION LINE CORRIDOR.

**RESULTS:** VISIBILITY OF EXPOSED CLEARED AREAS AND TOWERS ARE PARTIALLY SCREENED BY THE TALL EVERGREENS. THE DECIDUOUS TREES AND LOW TO MEDIUM SHRUBS AT THE UPPER RIGHT OF WAY EDGE PROVIDE A SOFTER TRANSITION INTO THE TRANSMISSION LINE CORRIDOR, SIGNIFICANTLY REDUCING THE VISUAL IMPACT OF THE TRANSMISSION LINE CORRIDOR.

SEATTLE CITY LIGHT  
SKAGIT RIVER  
HYDROELECTRIC PROJECT  
NO. 553

**VISUAL QUALITY  
RIGHTS OF WAY VEGETATION**

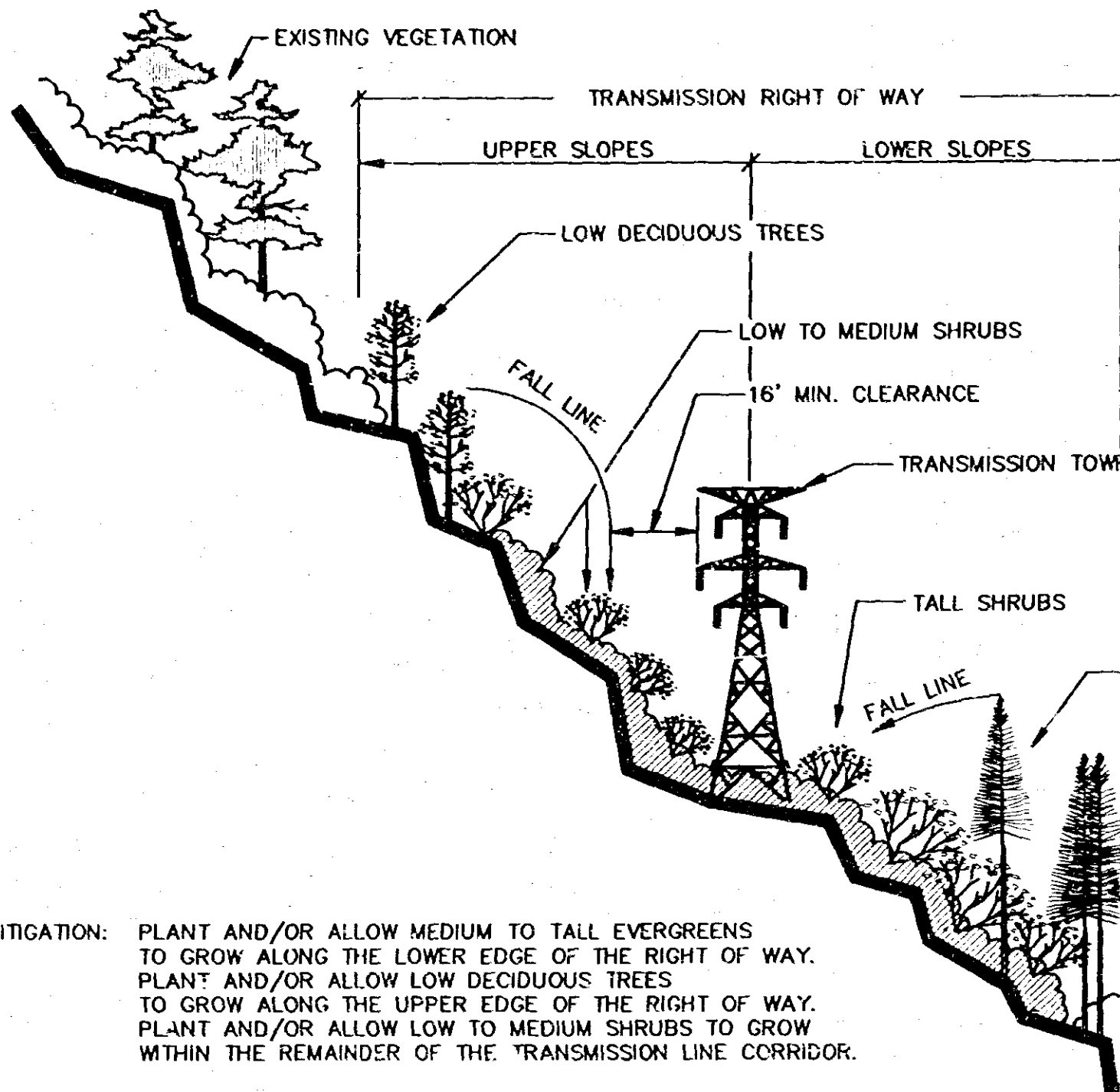


MITIGATION PLAN  
VEGETATION MANAGEMENT

PRESCRIPTION TYPE-F1  
PERPENDICULAR EXPOSED  
CORRIDOR PLANTING

FIGURE 4-14



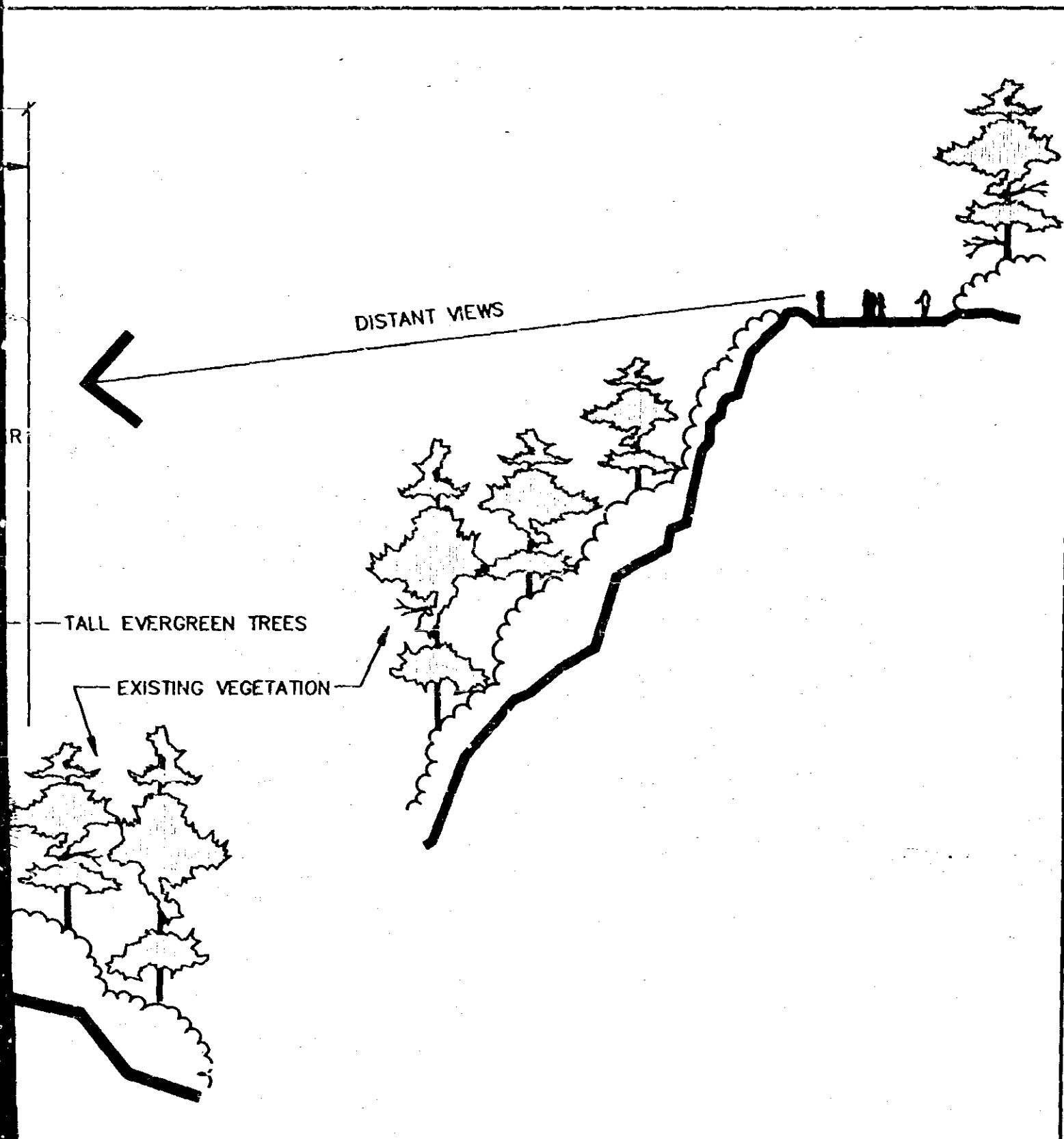


**MITIGATION:** PLANT AND/OR ALLOW MEDIUM TO TALL EVERGREENS TO GROW ALONG THE LOWER EDGE OF THE RIGHT OF WAY. PLANT AND/OR ALLOW LOW DECIDUOUS TREES TO GROW ALONG THE UPPER EDGE OF THE RIGHT OF WAY. PLANT AND/OR ALLOW LOW TO MEDIUM SHRUBS TO GROW WITHIN THE REMAINDER OF THE TRANSMISSION LINE CORRIDOR.

**RESULTS:** VISIBILITY OF EXPOSED CLEARED AREAS AND TOWERS ARE PARTIALLY SCREENED BY THE TALL EVERGREENS. THE DECIDUOUS TREES AND LOW TO MEDIUM SHRUBS AT THE UPPER RIGHT OF WAY EDGE PROVIDE A SOFTER TRANSITION INTO THE TRANSMISSION LINE CORRIDOR, SIGNIFICANTLY REDUCING THE VISUAL IMPACT OF THE TRANSMISSION LINE CORRIDOR.

SEATTLE CITY LIGHT  
SKAGIT RIVER  
HYDROELECTRIC PROJECT  
NO. 553

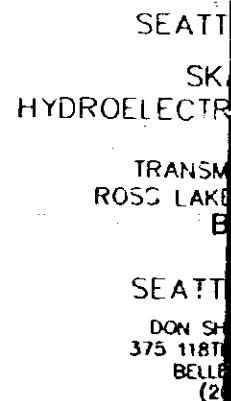
**VISUAL QUALITY  
RIGHTS OF WAY VEGE**



MITIGATION PLAN  
TATION MANAGEMENT

PRESCRIPTION TYPE-F2  
PERPENDICULAR EXPOSED  
CORRIDOR PLANTING

FIGURE 4-15





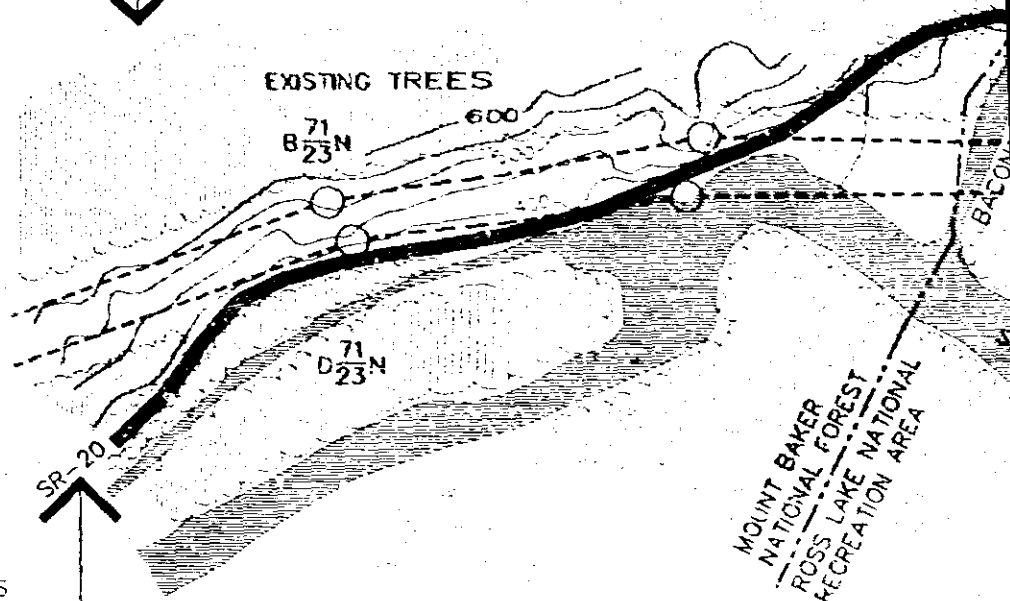
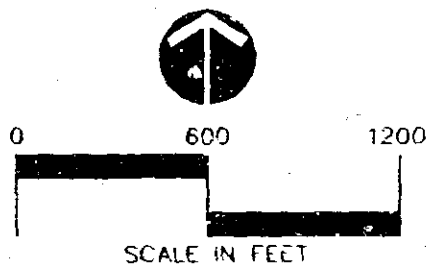
## WESTBOUND VIEW CHARACTERISTICS

- LINEAR VIEW AS ROAD CROSSES CORRIDOR
- ROAD SEPARATES FROM CORRIDOR PROVIDING SOME SCREENING
- SOME SLOPE EXPOSURE NEXT TO ROAD

- TYPE: A,B AND E

## MITIGATION PRESCRIPTIONS

- LEGEND
- TOWERS NOT IN VIEWSHED
  - TOWERS WITHIN VIEWSHED
  - ⊗ VISUALLY DOMINANT TOWERS
  - TRANSMISSION LINES



## EASTBOUND VIEW CHARACTERISTICS

- LONG LINEAR VIEW AS ROAD CROSSES CORRIDOR
- ROAD SEPARATES FROM CORRIDOR PROVIDING SOME SCREENING
- VIEW OF EXPOSED SLOPES AT FAR EAST END OF CORRIDOR

- TYPE: A,B AND E

## MITIGATION PRESCRIPTIONS

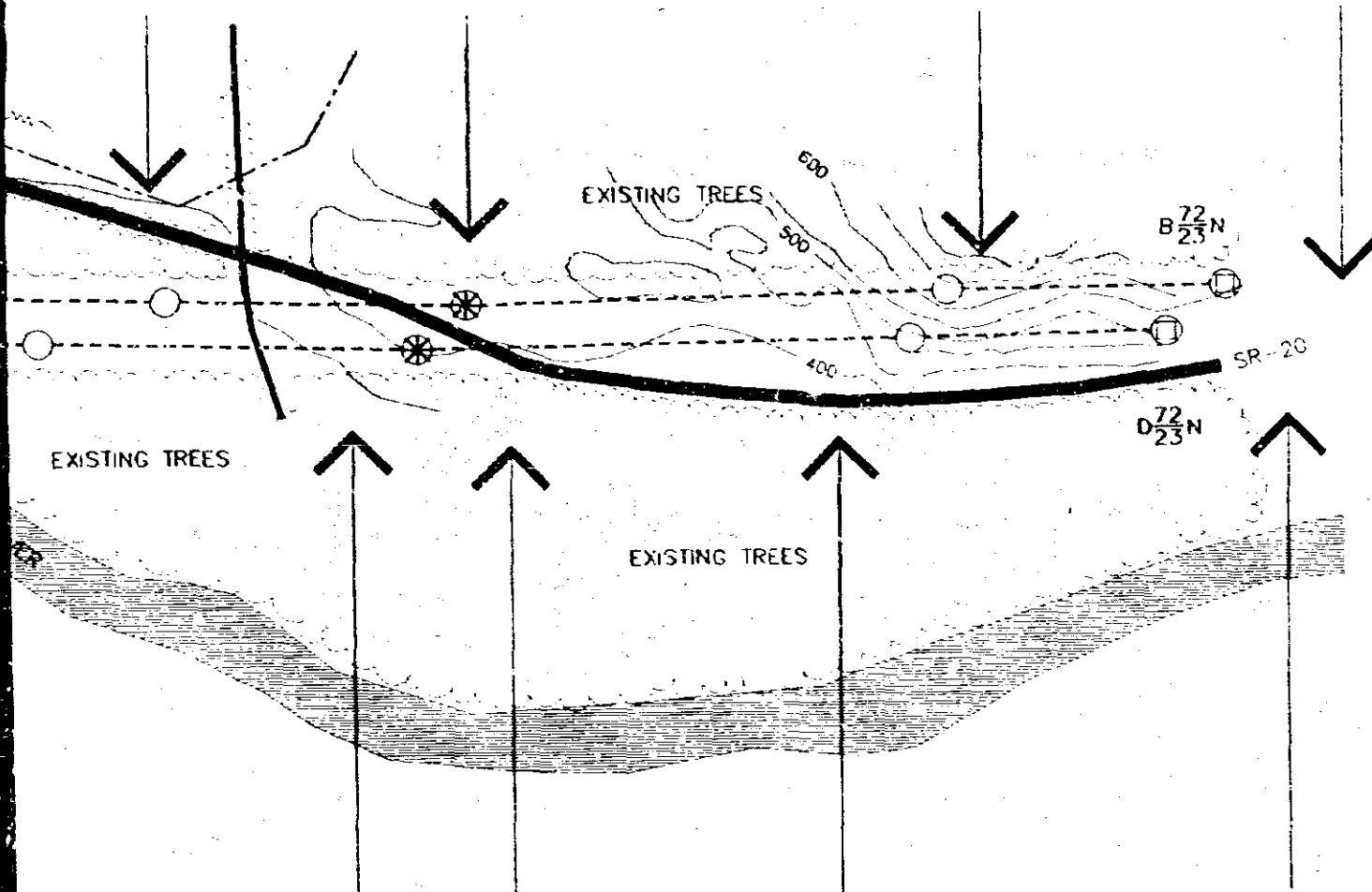
SEATTLE CITY LIGHT  
SKAGIT RIVER  
HYDROELECTRIC PROJECT  
NO. 553

VISUAL QUALITY  
RIGHTS OF WAY VE



19910502-0032 FERC PDF (Unofficial) 04/30/1991

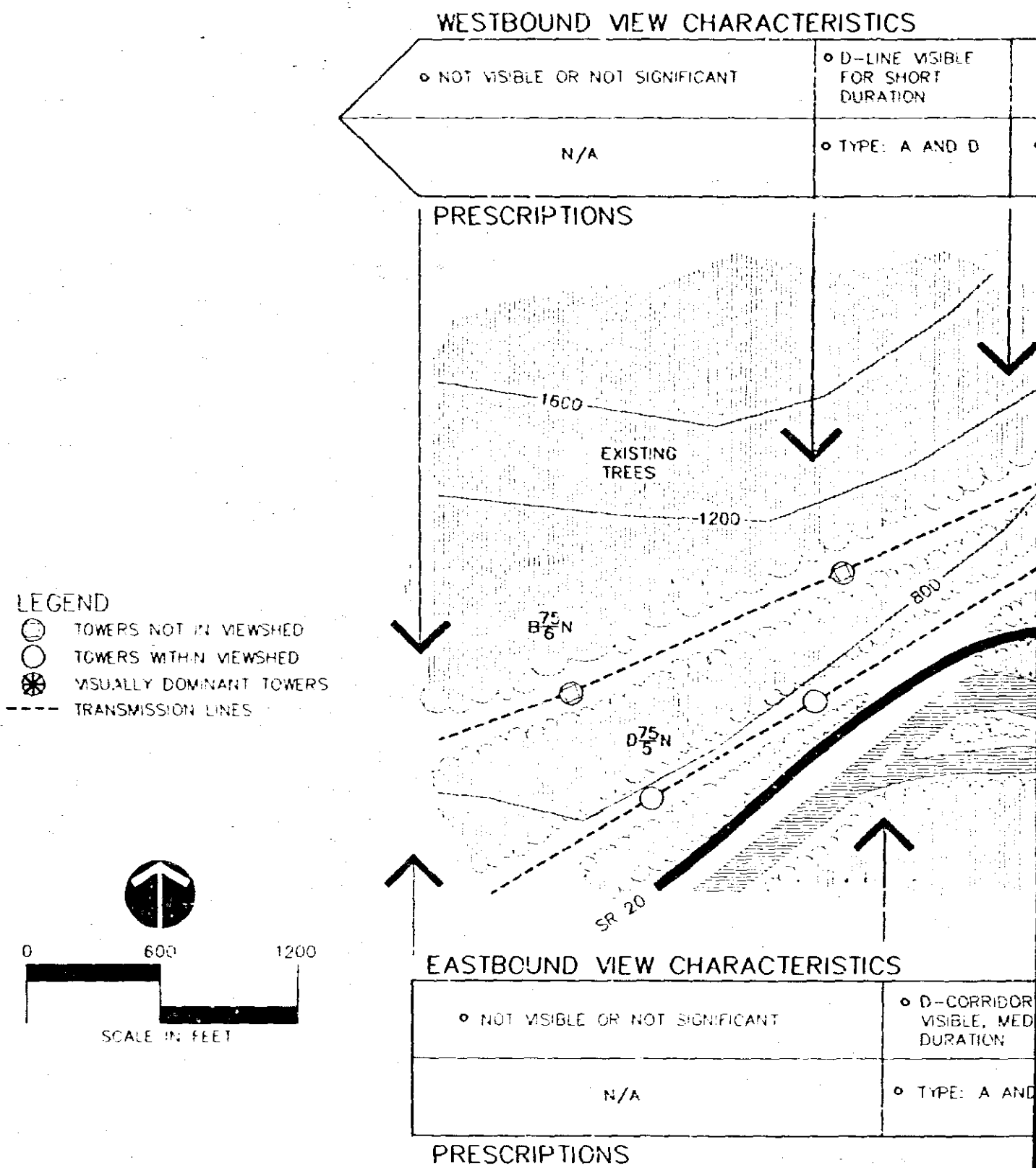
BACON CREEK	<ul style="list-style-type: none"> <li>◦ PARTIALLY SCREENED FROM VIEW</li> <li>◦ SHORT DURATION</li> </ul>	<ul style="list-style-type: none"> <li>◦ LONG LINEAR CORRIDOR HIGHLY VISIBLE WITH EXPOSED SLOPES AT FAR WEST END OF CORRIDOR</li> </ul>	<ul style="list-style-type: none"> <li>◦ NOT SIGNIFICANT</li> </ul>
	<ul style="list-style-type: none"> <li>◦ TYPE: A, B AND E</li> </ul>	<ul style="list-style-type: none"> <li>◦ TYPE: A AND B</li> </ul>	



BACON CREEK	<ul style="list-style-type: none"> <li>◦ EXPOSED SLOPE</li> </ul>	<ul style="list-style-type: none"> <li>◦ LINEAR CORRIDOR</li> <li>◦ MED./SHORT VIEW DURATION</li> </ul>	<ul style="list-style-type: none"> <li>◦ EXPOSED SLOPE</li> <li>◦ LONG DURATION</li> <li>◦ HIGH VISIBILITY</li> </ul>
	<ul style="list-style-type: none"> <li>◦ TYPE: A AND B</li> </ul>	<ul style="list-style-type: none"> <li>◦ TYPE: A AND B</li> </ul>	<ul style="list-style-type: none"> <li>◦ TYPE: A AND B</li> </ul>

MITIGATION PLAN  
TATION MANAGEMENT

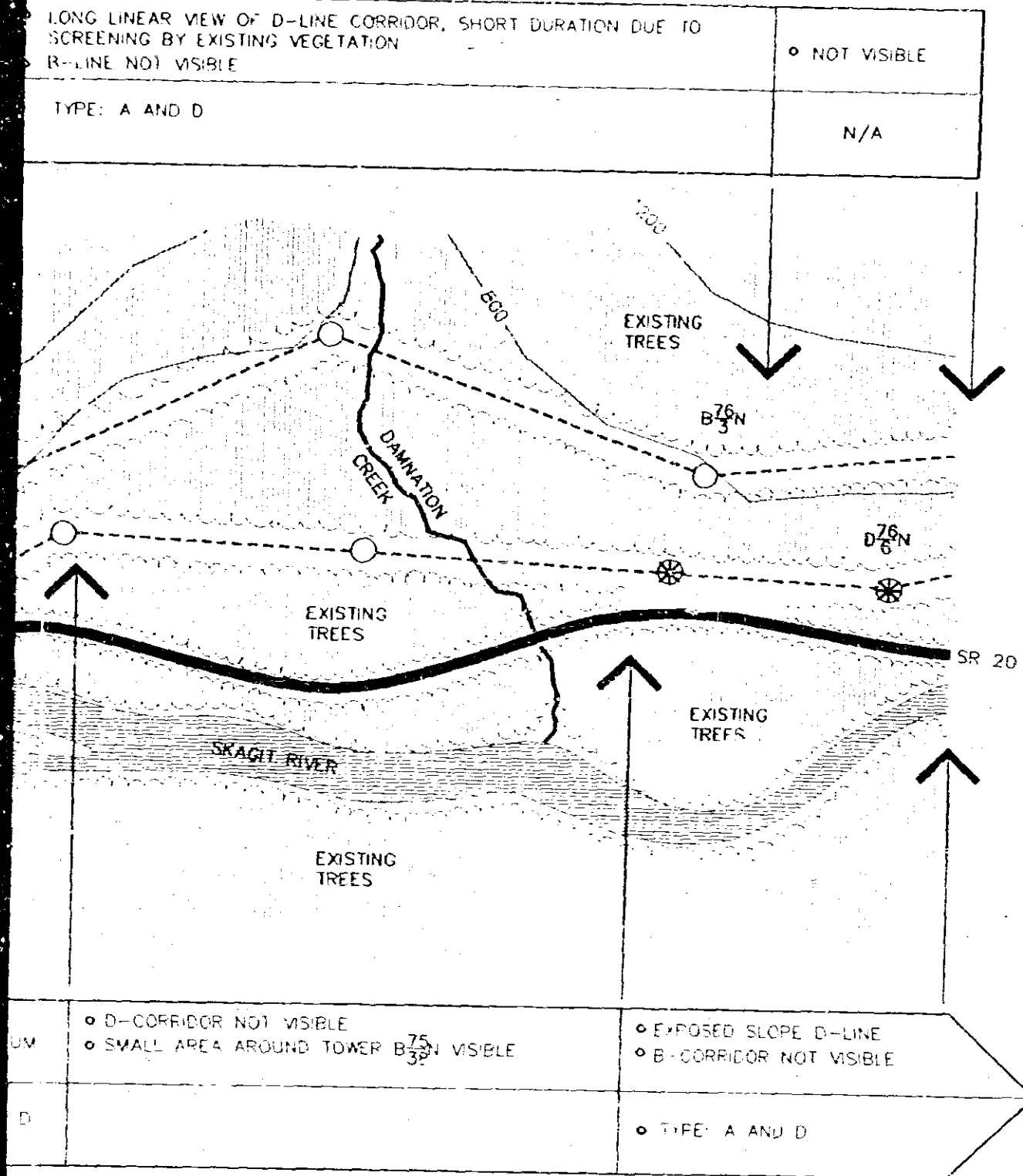
BACON CREEK  
TARGET AREA 1  
FIGURE 4-17



SEATTLE CITY LIGHT  
SKAGIT RIVER  
HYDROELECTRIC PROJECT  
NO. 553

**VISUAL QUALITY  
RIGHTS OF WAY VEG**

910502-0032 FERC PDF (Unofficial) 04/30/1991



**MITIGATION PLAN**  
**VEGETATION MANAGEMENT**

**DAMNATION CREEK**  
**TARGET AREA 2**

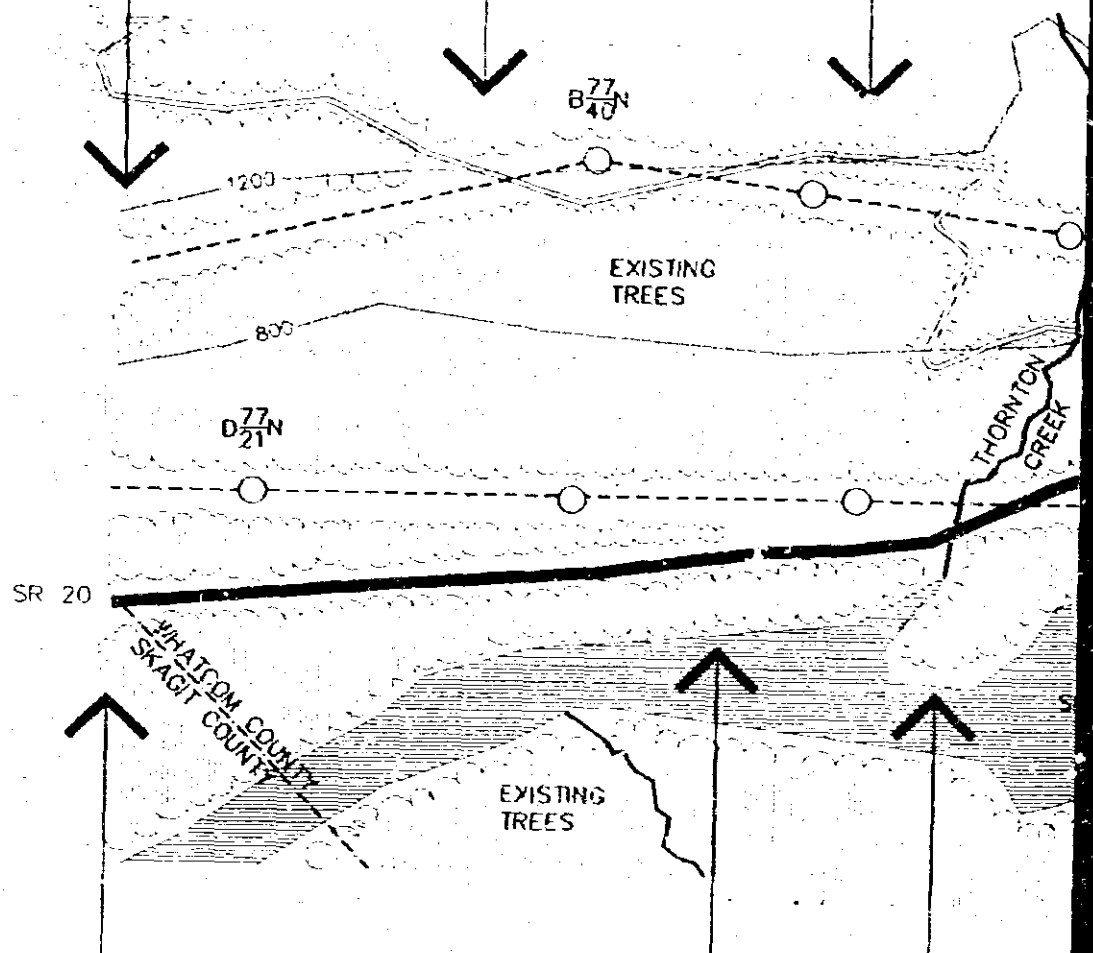
**FIGURE 4-18**

9910502-0032 FERC PDF (Unofficial) 04/30/1991

## WESTBOUND VIEW CHARACTERISTICS

<ul style="list-style-type: none"> <li>• B-LINE: NOT VISIBLE</li> <li>• D-LINE: EXPOSED SLOPE VISIBLE, SHORT DURATION</li> </ul>	<ul style="list-style-type: none"> <li>• B-LINE: NOT VISIBLE</li> <li>• D-LINE: EXPOSED SLOPE VISIBLE, LONG DURATION</li> </ul>	<ul style="list-style-type: none"> <li>• B-LINE</li> <li>• D-LINE</li> </ul>
<ul style="list-style-type: none"> <li>• TYPE: A</li> </ul>	<ul style="list-style-type: none"> <li>• TYPE: A AND D</li> </ul>	<ul style="list-style-type: none"> <li>• TYPE</li> </ul>

## PRESCRIPTIONS



## LEGEND

- TOWERS NOT IN VIEWSHED
- TOWERS WITHIN VIEWSHED
- ⊗ VISUALLY DOMINANT TOWERS
- TRANSMISSION LINES



0 700 1400

SCALE IN FEET

## EASTBOUND VIEW CHARACTERISTICS

<ul style="list-style-type: none"> <li>• NOT VISIBLE</li> </ul>	<ul style="list-style-type: none"> <li>• B-LINE: NOT VISIBLE</li> <li>• D-LINE: EXPOSED SLOPE HIGHLY VISIBLE</li> </ul>
	<ul style="list-style-type: none"> <li>• TYPE: A AND D</li> </ul>

## PRESCRIPTIONS

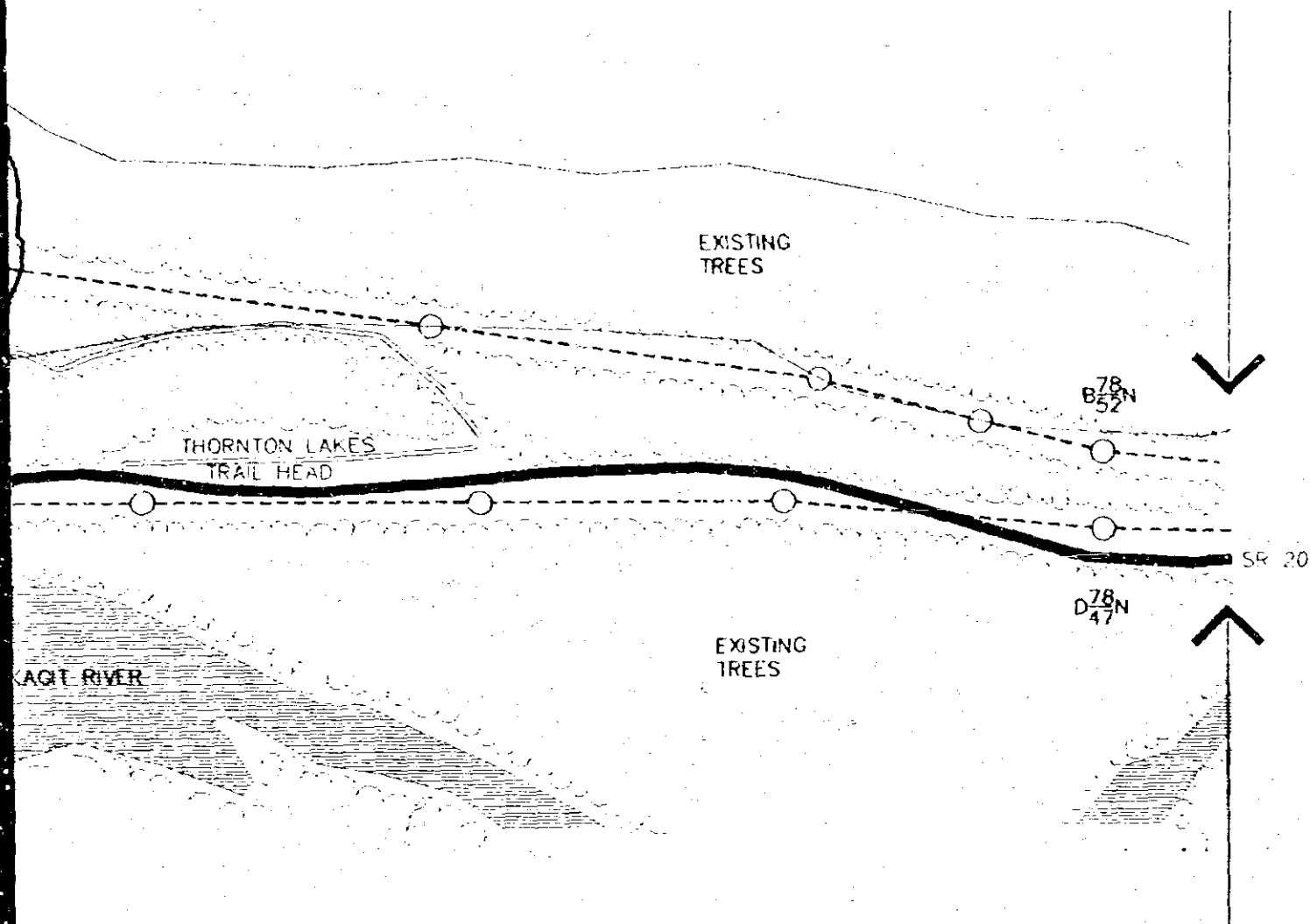
SEATTLE CITY LIGHT  
SKAGIT RIVER  
HYDROELECTRIC PROJECT  
NO. 553

VISUAL QUALITY  
RIGHTS OF WAY VEGE

19910502-0032 FERC PDF (Unofficial) 04/30/1991

E. NOT VISIBLE  
 E. LONG LINEAR VIEW HIGHLY VISIBLE AS ROAD MEANDERS ALONG LENGTH OF CORRIDOR.

A, D AND E



- B-LINE: NOT VISIBLE.
- D-LINE: LONG LINEAR VIEW HIGHLY VISIBLE AS ROAD MEANDERS ALONG LENGTH OF CORRIDOR.

- TYPE: A,D AND E

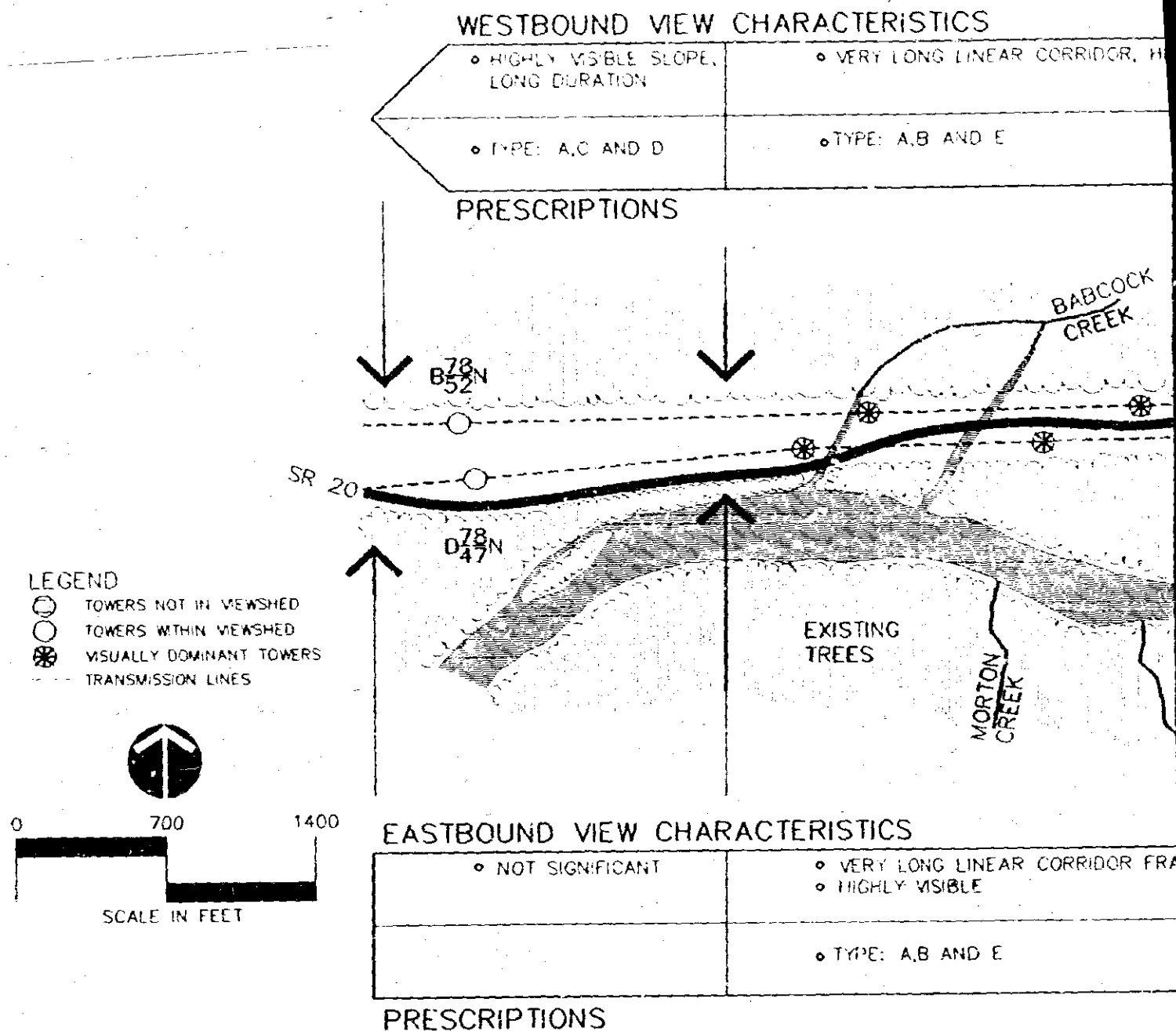
MITIGATION PLAN  
 VEGETATION MANAGEMENT

THORNTON CREEK  
 TARGET AREA 3

FIGURE 4-19



19910502-0032 FERC PDF (Unofficial) 04/30/1991



SEATTLE CITY LIGHT  
 SKAGIT RIVER  
 HYDROELECTRIC PROJECT  
 NO. 553

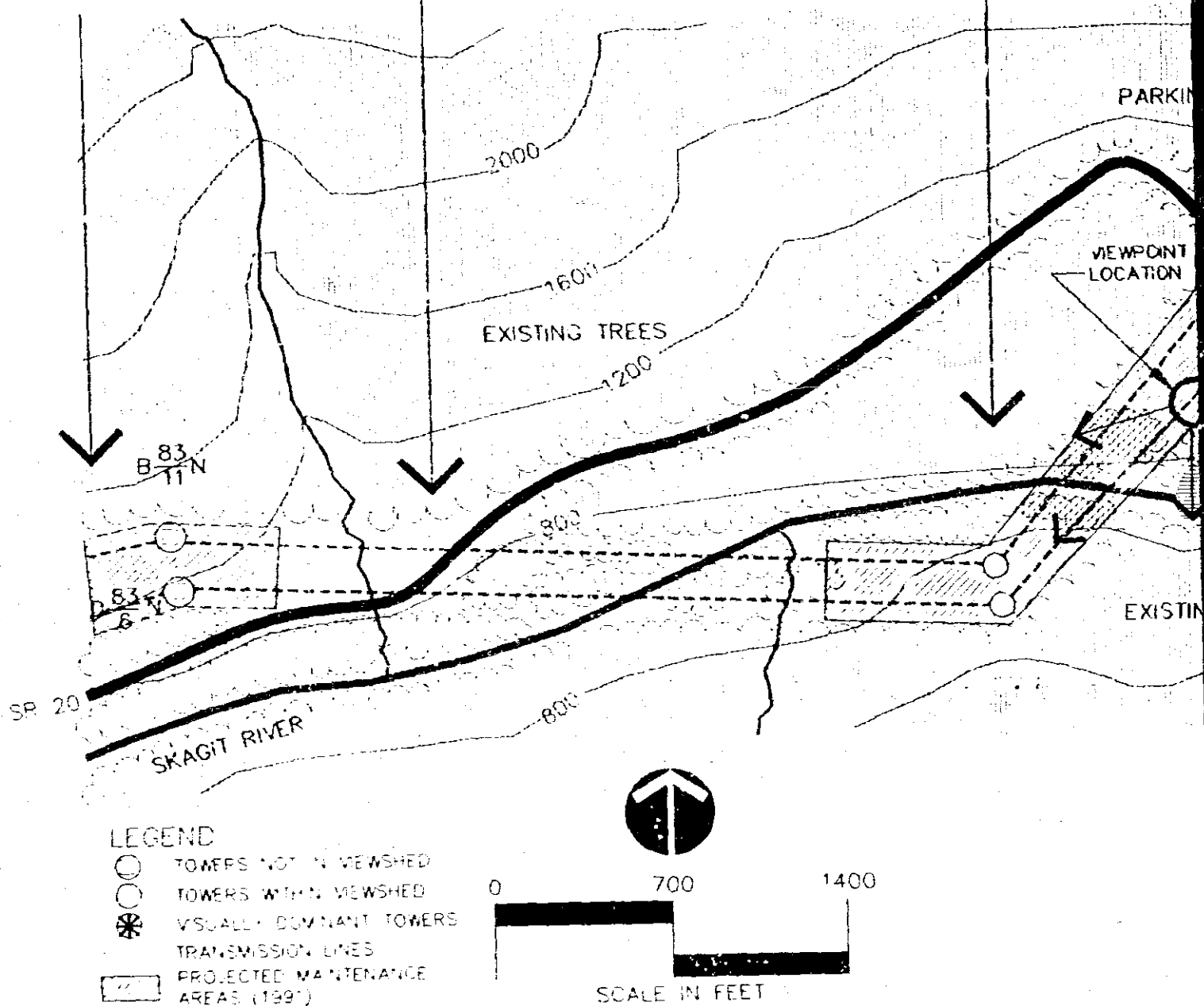
**VISUAL QUALITY  
 RIGHTS OF WAY VEGE**



## SINGLE POINT VIEW CHARACTERISTICS

• NOT SIGNIFICANT	• LINES AND TOWERS FULLY VISIBLE, CLEARED AREA BLENDS WITH ROCK CLIFFS AND EXISTING VEGETATION, MINIMIZING IMPACT	• DRAMATIC VIEW OVERHEAD VIEW
	• TYPE: F	• TYPE: F

## PRESCRIPTIONS



SEATTLE CITY LIGHT  
SKAGIT RIVER  
HYDROELECTRIC PROJECT  
NO. 553

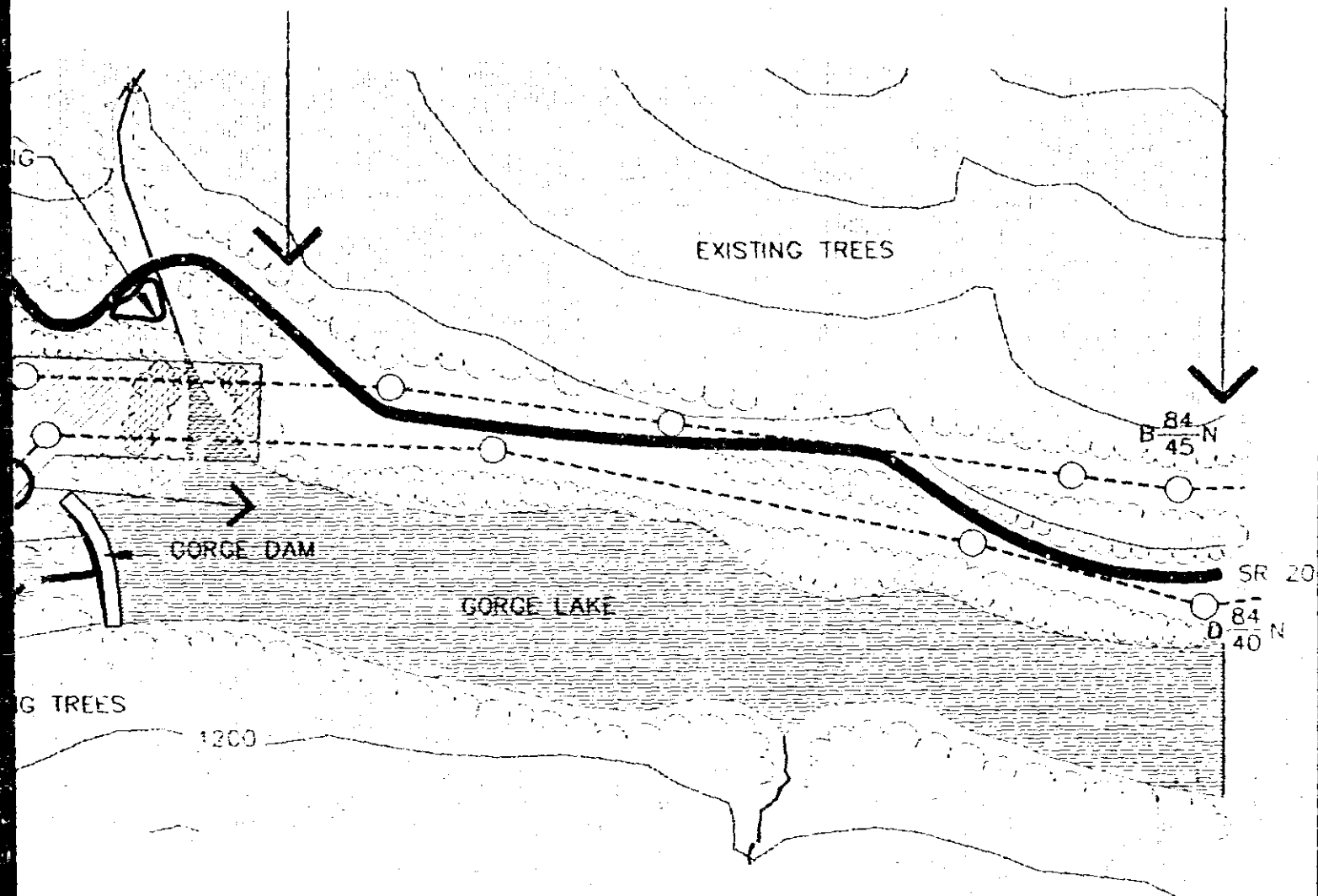
VISUAL QUALITY  
RIGHTS OF WAY VEGE

19910502-0032 FERC PDF (Unofficial) 04/30/1991

S OF DAM AND CANYONS.  
S OF T-LINE

◦ LONG LINEAR VIEW OF BOTH LINES. EXPOSED CORRIDOR HAS SIMILAR  
APPEARANCE TO STEEP ROCK CLIFFS

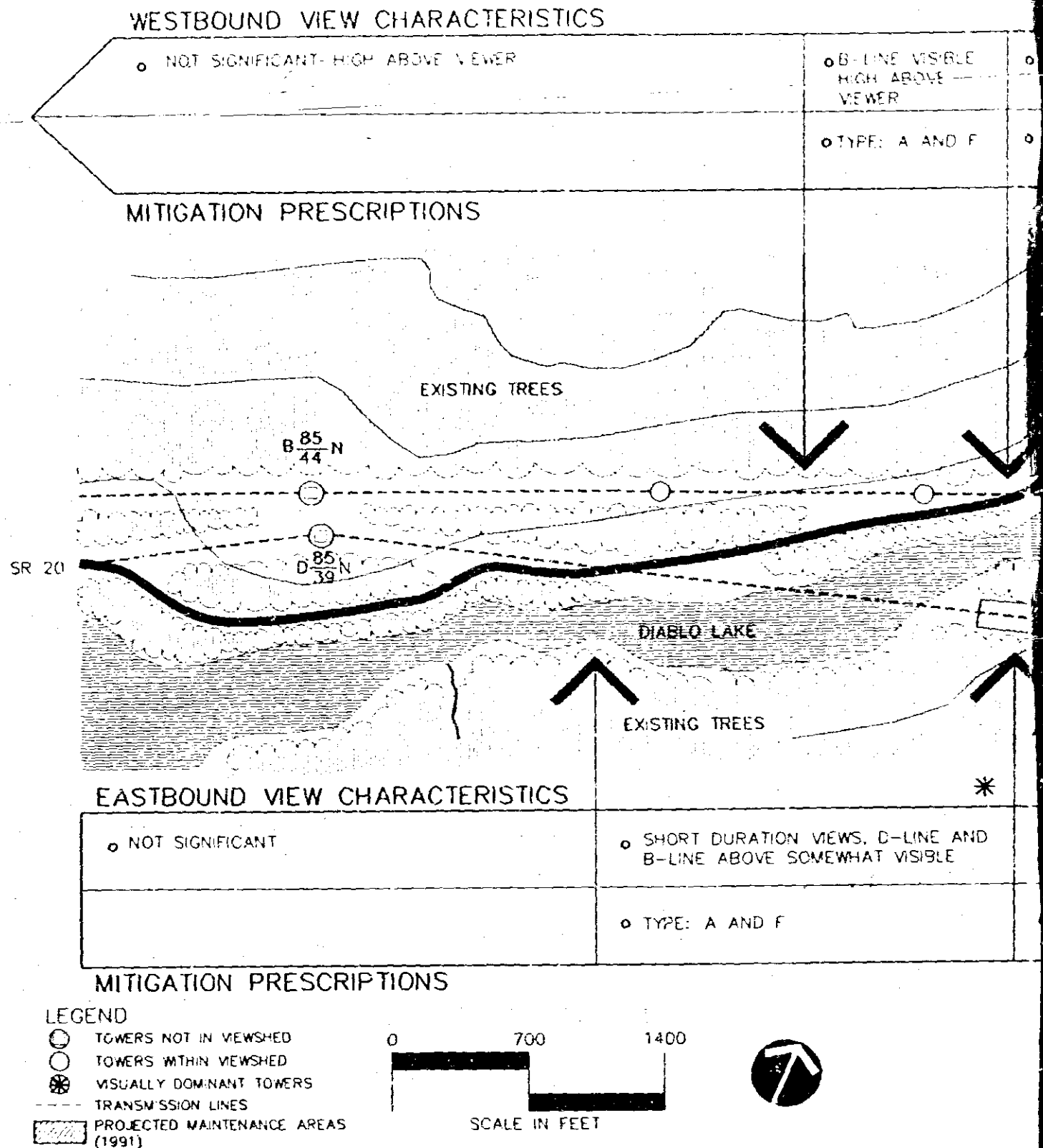
◦ TYPE: A AND B



MITIGATION PLAN  
TATION MANAGEMENT

GORGE DAM VIEWPOINT  
TARGET AREA 5

FIGURE 4-21



SEATTLE CITY LIGHT  
SKAGIT RIVER  
HYDROELECTRIC PROJECT  
NO. 553

**VISUAL QUALITY  
RIGHTS OF WAY VEGETATION**



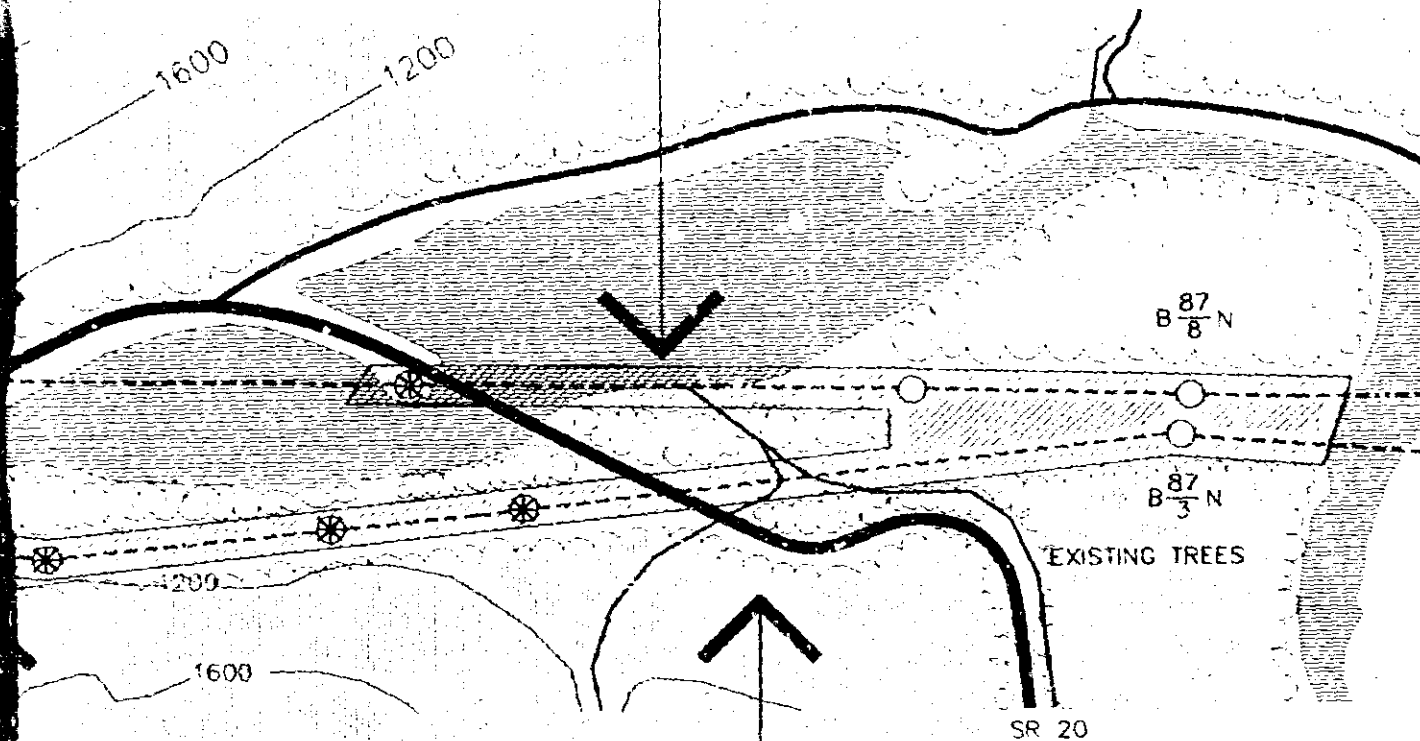
10502-0032 FERC PDF (Unofficial) 04/30/1991

LONG LINEAR AND PERPENDICULAR VIEWS OF  
CORRIDOR, CLIFFS MINIMIZE IMPACTS, LINES  
CONTRAST WITH VEGETATION

◦ NOT SIGNIFICANT

TYPE: F

◦ TYPE: B



LINEAR AND PERPENDICULAR VIEWS OF CORRIDOR,  
CLIFFS MINIMIZE IMPACTS OF CLEARED CORRIDOR,  
LINES CONTRAST WITH VEGETATION

◦ LINEAR VIEWS OF LONG DURATION,  
CORRIDOR HIGHLY VISIBLE, SHARP  
VEGETATION CONTRAST

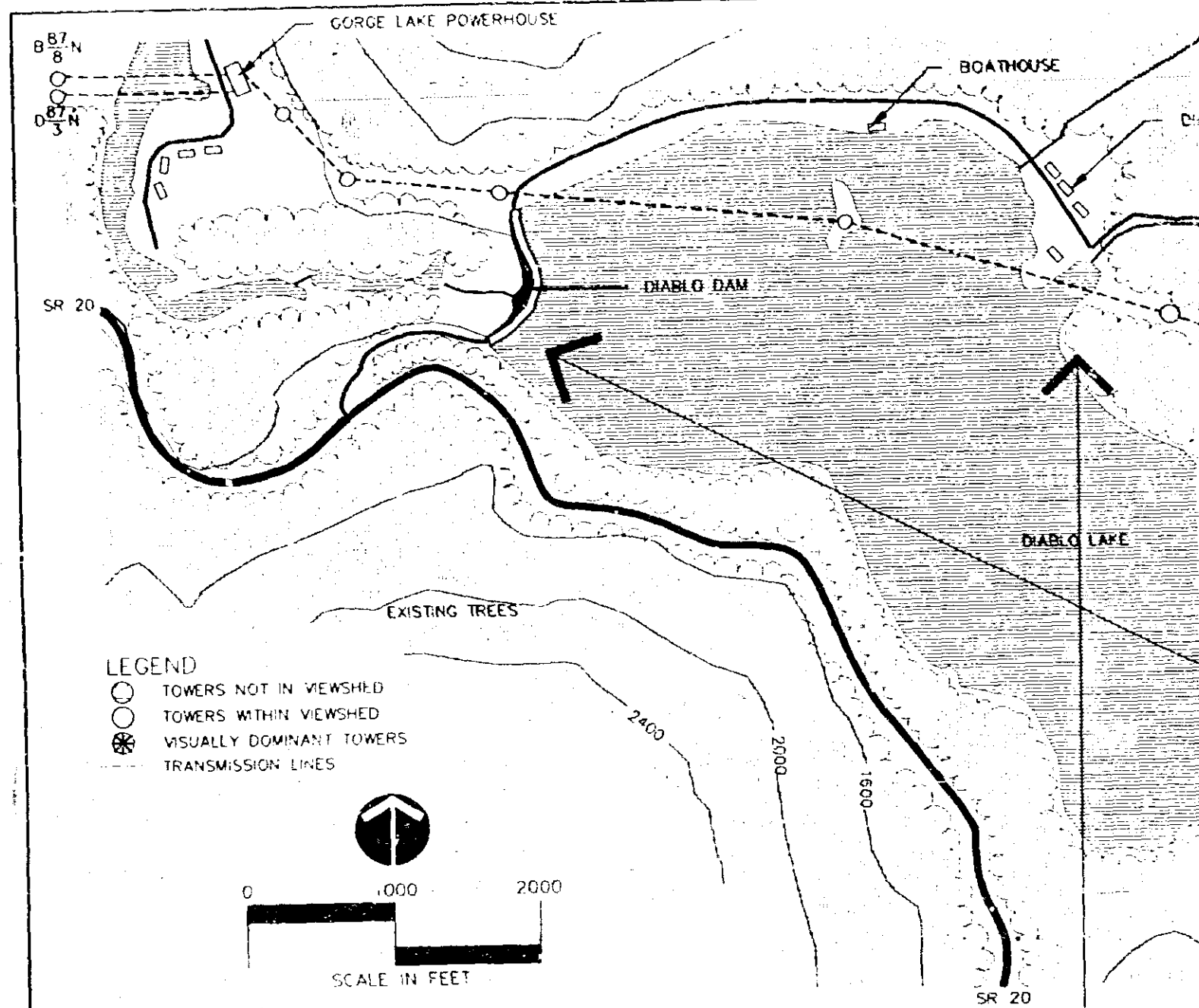
TYPE: F

◦ TYPE: B

MITIGATION PLAN  
TATION MANAGEMENT

DIABLO "Y"  
TARGET AREA 6  
FIGURE 4-22

910502-0032 FERC PDF (Unofficial) 04/30/1991

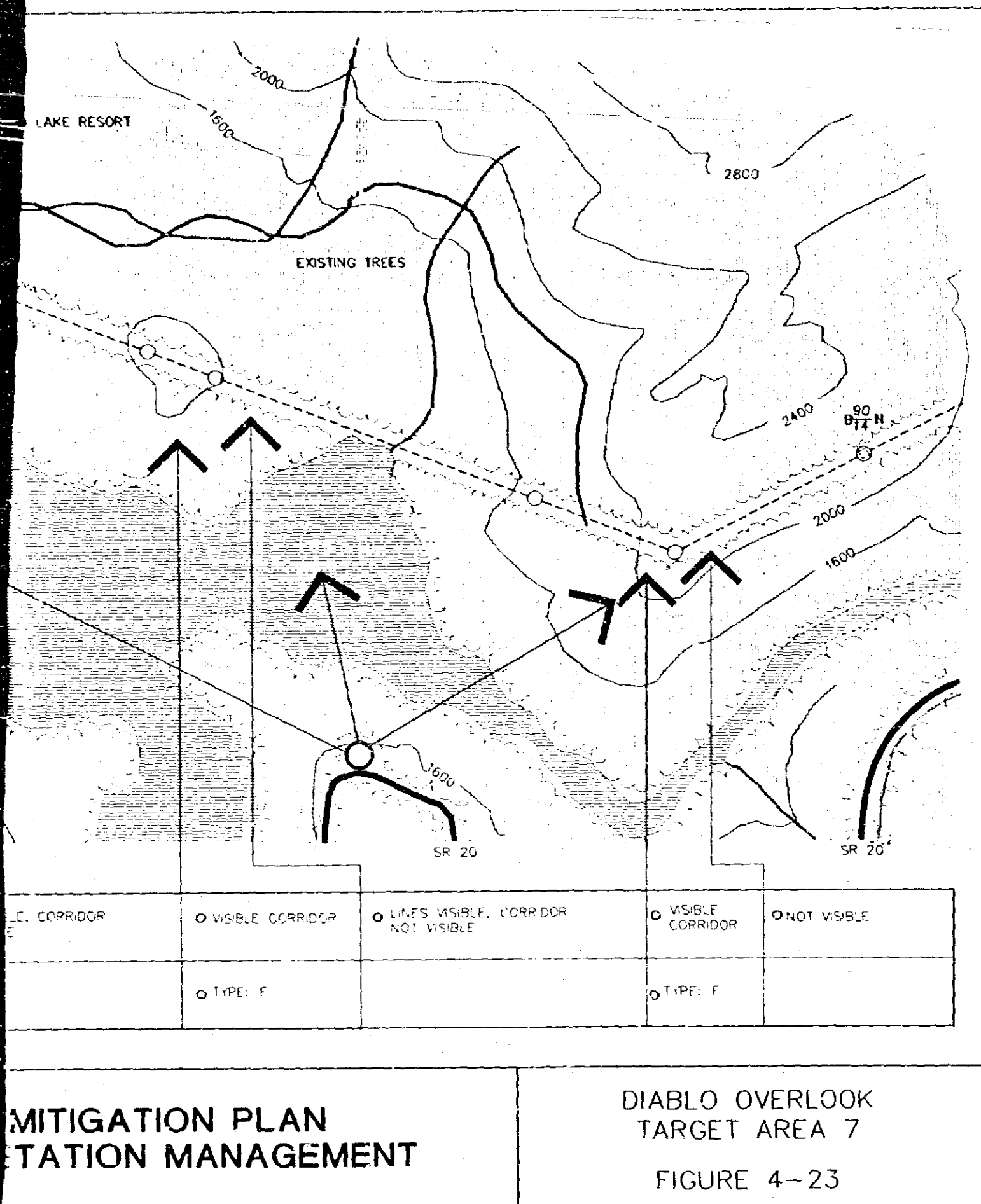


### SINGLE POINT VIEW CHARACTERISTICS

○ LINES AND DAM VISIBLE	○ LINES VIS NOT VISIBLE

SEATTLE CITY LIGHT  
SKAGIT RIVER  
HYDROELECTRIC PROJECT  
NO. 553

**VISUAL QUALITY  
RIGHTS OF WAY VEG**



ORIGINAL

91 APR 30 PM 12:30

---

**SKAGIT RIVER HYDROELECTRIC PROJECT**

**No. 553**

---

**SETTLEMENT AGREEMENT**

**CONCERNING**

**WILDLIFE**

**BETWEEN**

**THE CITY OF SEATTLE**

**AND THE**

**WASHINGTON DEPARTMENT OF WILDLIFE;  
U.S. DEPARTMENT OF THE INTERIOR,  
NATIONAL PARK SERVICE, BUREAU OF INDIAN AFFAIRS,  
AND U.S. FISH AND WILDLIFE SERVICE;  
U.S. DEPARTMENT OF AGRICULTURE;  
U.S. FOREST SERVICE;  
UPPER SKAGIT TRIBE, SAUK-SUIATLE TRIBE,  
AND SWINOMISH INDIAN TRIBAL COMMUNITY;  
AND THE NORTH CASCADES CONSERVATION COUNCIL**

---

**APRIL 1991**

FILED  
MAY 1 1991  
SL 1991 30 PM 12:30

---

**SKAGIT RIVER HYDROELECTRIC PROJECT**  
**No. 553**

---

**SETTLEMENT AGREEMENT**

**CONCERNING**

**WILDLIFE**

**BETWEEN**

**THE CITY OF SEATTLE**

**AND THE**

**WASHINGTON DEPARTMENT OF WILDLIFE;  
U.S. DEPARTMENT OF THE INTERIOR,  
NATIONAL PARK SERVICE, BUREAU OF INDIAN AFFAIRS,  
AND U.S. FISH AND WILDLIFE SERVICE;  
U.S. DEPARTMENT OF AGRICULTURE;  
U.S. FOREST SERVICE;  
UPPER SKAGIT TRIBE, SAUK-SUIATTLE TRIBE,  
AND SWINOMISH INDIAN TRIBAL COMMUNITY;  
AND THE NORTH CASCADES CONSERVATION COUNCIL**

---

**APRIL 1991**



## TABLE OF CONTENTS

	<u>Page</u>
1.0 PARTIES .....	1
2.0 GENERAL PROVISIONS .....	1
2.1 PURPOSE AND INTENT .....	1
2.1.1 Resolution of Issues .....	1
2.1.2 Stipulation of Adequacy .....	2
2.1.3 Release and Waiver of Claims .....	2
2.1.4 Compliance with Laws and Effect on Rights .....	2
2.1.5 Integrated Agreement .....	2
2.1.6 Assignment .....	3
2.1.7 Authority .....	3
2.2 OBLIGATIONS OF THE PARTIES .....	3
2.2.1 The City's Obligations .....	3
2.2.2 The Intervenor's Obligations .....	3
2.2.3 The Parties' Obligations .....	4
2.3 EFFECTIVE DATE AND DURATION .....	5
2.3.1 Execution and Effective Date .....	5
2.3.2 Duration .....	5
2.4 COORDINATED IMPLEMENTATION .....	5
2.4.1 Across Forum Coordination .....	5
2.4.2 Annual Meeting .....	6
2.5 MONETARY FIGURES .....	6
2.5.1 Adjustments For Inflation/Deflation .....	6
2.5.2 Time Basis For Payments and Obligations .....	6
2.6 FORCE MAJEURE .....	7
2.7 DESIGNATED CONTACTS .....	7
2.7.1 Contact Persons .....	7
2.7.2 Notices .....	9
2.8 REOPENER AND MODIFICATION .....	9
2.8.1 Use of Reopener Clause in License .....	9
2.8.2 Modification .....	9
2.8.3 Burden of Proof .....	10
2.8.4 Effect of Reopener Proceedings .....	10

## TABLE OF CONTENTS (continued)

	<u>Page</u>
2.9 PROJECT MODIFICATIONS (HIGH ROSS) .....	10
2.9.1 Project Modifications .....	10
2.9.3 Consultation .....	10
2.9.4 Resolution .....	10
2.9.5 Mitigation Criteria .....	11
2.9.6 Preservation of Rights .....	11
3.0 EXPENDITURES .....	11
3.1 WILDLIFE PLAN EXPENDITURES .....	11
3.2 LAND ACQUISITION AND HABITAT ENHANCEMENT .....	11
3.2.1 Land Acquisition .....	11
3.2.2 Habitat Enhancement .....	12
3.3 CULTURAL RESOURCE EVALUATIONS .....	13
3.4 RESEARCH .....	13
3.4.1 Research Building and Equipment .....	13
3.4.2 Research Study Funding .....	14
3.4.3 Long-term Monitoring in the Ross Lake National Recreation Area .....	14
3.4.4 Bald Eagle Inventory and Planning .....	14
3.5 EDUCATION .....	14
3.6 PLANT PROPAGATION .....	15
3.7 CONTINUATION OF ANNUAL AND PERIODIC PAYMENTS .....	15
4.0 DISPUTE RESOLUTION .....	15
4.1 DISPUTE RESOLUTION PROCEDURE .....	15
4.1.1 Referral of Disputes .....	15
4.1.2 Optional Policy Review .....	15
4.1.3 Referral to the FERC .....	16
4.2 NONCOMPLIANCE .....	16
5.0 PROCEDURES FOR ACQUISITION OF LANDS .....	16
5.1 INITIAL LAND ACQUISITION PROCESS .....	16
5.2 CONSENSUS PROCESS .....	17
5.3 INITIAL LANDS TO BE ACQUIRED .....	17
5.4 SUBSTITUTIONS .....	18
5.4.1 Substitutions during the Initial Acquisition Process .....	18
5.4.2 Replacement Procedure for Wildlife Lands Should Wildlife Values be Adversely Affected Subsequent to Acquisition .....	18

**TABLE OF CONTENTS (continued)**

	<u>Page</u>
5.5 OWNERSHIP OF WILDLIFE HABITAT LANDS AND LONG-TERM INTENT .....	18
5.6 LIMITATIONS.....	18
6.0 ISSUES OF GENERAL CONCERN.....	19
6.1 ROSS LAKE OPERATIONS .....	19
6.1.1 Refill After April 15.....	19
6.1.2 Full Pool Through Labor Day .....	19
6.1.3 Overdraft Years .....	19
6.2 CONTINUING REVIEW OF THE WILDLIFE PLAN AND SETTLEMENT AGREEMENT.....	19
6.2.1 Wildlife Management Review Committee (WMRC) .....	19
6.2.2 Composition of the WMRC.....	20
6.2.3 Meetings .....	20
6.3 WILDLIFE PLAN REPORTING AND REVIEW .....	20
6.4 MEMORANDUM OF UNDERSTANDING CONCERNING MANAGEMENT ACTIVITIES ON NON-RESIDENTIAL FEE TITLE LAND; AND GUIDANCE FOR CITY RESPONSE TO WILDLIFE-HUMAN CONFLICTS.....	21
6.5 WILD AND SCENIC RIVER.....	21
7.0 SIGNATURES.....	21

**LIST OF APPENDICES**

	<u>Page</u>
APPENDIX Wildlife Habitat Protection and Management Plan.....	33

**UNITED STATES OF AMERICA**  
**FEDERAL ENERGY REGULATORY COMMISSION**

**SETTLEMENT AGREEMENT**  
**INCORPORATING**  
**WILDLIFE HABITAT PROTECTION**  
**AND MANAGEMENT PLAN**

**1.0 PARTIES**

This Wildlife Settlement Agreement (Agreement), incorporating the Wildlife Habitat Protection and Management Plan (Wildlife Plan)(see the Appendix to this Agreement), is entered into this 24th day of April, 1991, by and between The City of Seattle, City Light Department (City) and the Washington Department of Wildlife; U.S. Department of the Interior, National Park Service, U.S. Fish and Wildlife Service, and Bureau of Indian Affairs; U.S. Department of Agriculture, U.S. Forest Service; the Upper Skagit Tribe, the Sauk-Suiattle Tribe, and the Swinomish Indian Tribal Community (the Tribes); and North Cascades Conservation Council (collectively referred to as the "Intervenors"). Together the City and the Intervenors are referred to as the "Parties." The Skagit River Hydroelectric Project is referred to as the "Project."

**2.0 GENERAL PROVISIONS**

**2.1 PURPOSE AND INTENT**

This Agreement establishes the City's obligations relating to the wildlife resources affected by the Project, as currently constructed. It also establishes the Intervenors' obligations to support this Agreement, and to submit it to the Federal Energy Regulatory Commission (FERC) as their recommendations relating to said wildlife resources under any applicable provisions of the Federal Power Act (including without limitation Sections 10(a), 10(j), and 4(e) thereof) and the Fish and Wildlife Coordination Act. The U.S. Forest Service agrees that this Agreement constitutes its preferred recommendation under Section 7(a) of the Wild and Scenic Rivers Act.

**2.1.1 Resolution of Issues**

This Agreement resolves all issues related to the effects on wildlife resources of the Project, as currently constructed, for the period October 28, 1977, through the duration of this Agreement. This includes resolution of the effects on wildlife of the absence of flows in the Gorge bypass

reach. It shall be submitted to the FERC for incorporation into the new license for the Project and shall be enforceable as an article thereof. The Parties agree that incorporation and enforcement as a license condition is a material provision of this Agreement.

### **2.1.2 Stipulation of Adequacy**

The Parties stipulate that this Agreement constitutes adequate wildlife resources protection and mitigation for wildlife impacts caused by the Project, as currently constructed, for the period October 28, 1977 through the duration of this Agreement.

### **2.1.3 Release and Waiver of Claims**

For the period October 28, 1977 through the duration of this Agreement, the Intervenor and their successors and assigns, hereby release, waive, and discharge the City, its successors, and assigns, from any and all claims, demands, actions and causes of action of any kind (claims) arising during that period from the effects of the Project as currently constructed on wildlife, so long as the City performs its obligations under this Agreement. This release does not waive claims that may arise from the negligent or intentional misconduct of the City in the operation of the Project.

### **2.1.4 Compliance with Laws and Effect on Rights**

Nothing in this Agreement precludes the City or the Intervenor from complying with their obligations under the National Environmental Policy Act (NEPA), the Endangered Species Act, the Federal Power Act, the Wild and Scenic Rivers Act, the Fish and Wildlife Coordination Act, or any other laws applicable to the Project. This Agreement shall not affect the rights of any Party except as expressly covered in this Agreement.

Nothing in this Agreement or in the plans, memoranda, procedures or other actions taken to further the purposes of this Agreement shall reduce or otherwise impair access to and exercise of implied or explicit Indian rights, including hunting, fishing and gathering rights; nor shall anything in this Agreement be construed as limiting, waiving or otherwise impairing whatever money damage claims the Tribes may have arising out of the construction and operation of the current Project outside the term of this Agreement.

### **2.1.5 Integrated Agreement**

All previous communications between the Parties, either verbal or written, with reference to the subject matter of this Agreement are superseded by the terms and provisions of this Agreement, and, once executed, this Agreement and its companion documents shall constitute the entire agreement between the Parties.



### **2.1.6 Assignment**

This Agreement shall be binding on and inure to the benefit of the Parties and their successors and assigns.

### **2.1.7 Authority**

Each Party to this Agreement represents and acknowledges that it has the full legal authority to execute this Agreement and shall be fully bound by its terms.

## **2.2 OBLIGATIONS OF THE PARTIES**

### **2.2.1 The City's Obligations**

#### **2.2.1.1 Compliance and Submittal**

By entering into this Agreement, the City agrees to comply with all of the terms of this Agreement, including the payment of monies and the funding of activities specified herein. The City further agrees to submit this Agreement, including the Wildlife Plan, to the FERC as its proposed measures relating to the wildlife resources affected by the Project, as currently constructed, as required by applicable provisions of federal and state law, including without limitation the Federal Power Act.

#### **2.2.1.2 Additional Staffing**

The City shall assign adequate professional environmental staff to implement this Agreement. This shall include establishment of two new environmental staff positions with expertise in fisheries, wildlife, recreation, visual quality, cultural resources, and erosion control. One staff position shall be dedicated primarily to implementation of the Anadromous Fish Flow Plan and the Anadromous And Resident Fish Non-Flow Plan. The second staff position shall be dedicated primarily to implementation of the wildlife, recreation/aesthetics, erosion control, and cultural resource agreements.

### **2.2.2 The Intervenor's Obligations**

#### **2.2.2.1 Support for Project Relicense**

The Intervenor agrees to support the expeditious issuance of a new license to the City for the Project, as currently constructed, which is consistent with the provisions of this Agreement, and which includes the Agreement as an article. This support shall include reasonable effort to expedite the NEPA process. The Parties shall file comments on any draft EA or EIS developed by the FERC in the relicensing proceedings for this Project and shall support the measures defined by this Agreement as the preferred action. The Parties, shall exchange drafts of their respective comments

prior to submittal to the FERC and consult with each other to ensure that the comments are consistent with this Agreement.

#### 2.2.2.2 Wildlife Resources Recommendations

The Intervenor shall submit this Agreement to the FERC as their recommendations related to the wildlife resources affected by the Skagit Project under any applicable provision of the Federal Power Act (including without limitation Sections 10(a), 10(j), and 4(e) thereof) and the Fish and Wildlife Coordination Act. The U.S. Forest Service agrees that this Agreement constitutes its preferred recommendation under Section 7(a) of the Wild and Scenic Rivers Act.

#### 2.2.2.3 Gorge Bypass Reach

The Intervenor agrees that this Agreement obviates any need for flow releases in the Gorge bypass reach for wildlife purposes. The Intervenor shall support all efforts by the City to either retain its existing water quality certificate issued by the State of Washington, Department of Ecology (WDOE) on October 27, 1977, or, in the alternative, to obtain a new water quality certificate consistent with the terms and conditions of this Agreement, including the absence of flows in the Gorge bypass reach. In the event efforts are made to reclassify the Gorge bypass reach from a Class AA water to another Class water under WDOE regulations, the Intervenor shall not oppose this action, and shall, at a minimum, provide written comments not opposing this action to the WDOE. Should the City be required to release flows in the Gorge bypass reach at any time before the issuance of a new FERC license and for any reason, this Agreement shall be voidable at the option of the City. Should the City be required to release flows in the Gorge bypass reach at any time after the issuance of a new FERC license and for any reason, this Agreement shall give rise to an immediate right of the City to petition the FERC to reconsider or reopen applicable license provisions to reconsider all wildlife resources provisions in light of such requirement. Under such circumstances, the City's efforts to initiate a proceeding before the FERC to reconsider or reopen shall not be opposed by the Intervenor; the Parties may, however, differ in their respective positions in such a proceeding.

### 2.2.3 The Parties' Obligations

#### 2.2.3.1 Cooperation Among Parties

The Parties shall cooperate in conducting and participating in studies and other actions provided for in this Agreement and shall provide assistance in obtaining any approvals or permits which may be required for implementation of this Agreement.

#### 2.2.3.2 Support of Agreement

The Parties agree to join in the filing of an Offer of Settlement with the FERC based upon this Agreement and to request that the FERC issue appropriate orders approving this Agreement. All Parties shall refrain from seeking judicial review of the FERC's approval of this Agreement. It is expressly agreed by the Parties that this Agreement shall be submitted to the FERC as a unit and

that any material modification of its terms, approval of less than the entire Agreement, or addition of material terms by the FERC shall make the Agreement voidable at the option of any Party.

## **2.3 EFFECTIVE DATE AND DURATION**

### **2.3.1 Execution and Effective Date**

This Agreement shall take effect upon the effective date of a license issued by the FERC consistent with this Agreement. If the FERC issues a new license inconsistent with this Agreement, and if a Party appeals, the Agreement shall not go into effect. The Parties retain the right to appeal the issuance of a license in whole or in part if unacceptable provisions are added, including stay of any provision.

### **2.3.2 Duration**

This Agreement, together with any subsequent modifications, shall remain in effect for the term of the new FERC license period for the Project, which includes the term(s) of any annual license(s) which may be issued after the foregoing new license has expired. This includes ongoing operations and maintenance expenses which shall continue to be funded for the duration of this Agreement.

## **2.4 COORDINATED IMPLEMENTATION**

### **2.4.1 Across Forum Coordination**

It is understood and agreed by the Parties that similar settlement agreements are being executed between the City and these Intervenor as well as other Intervenor (not party to this Agreement) in the Project relicensing proceedings concerning other resources affected by continuing Project operations. These other settlement agreements and mitigation and enhancement plans include:

**Fisheries**—Fisheries Settlement Agreement incorporating the Anadromous Fish Flow Plan, and the Anadromous and Resident Fish Non-Flow Plan

**Recreation and Aesthetics**—Settlement Agreement on Recreation and Aesthetics (including the Recreation Plan and Visual Quality Mitigation Plan)

**Erosion**—Settlement Agreement Concerning Erosion Control, incorporating the Erosion Control Plan

**Cultural Resources**—Settlement Agreement Concerning Cultural Resources (Archaeological and Historic Resources), incorporating the Cultural Resources Mitigation and Management Plan, which includes the historic and archaeological resources mitigation and management plans

## **Traditional Cultural Resources—Settlement Agreements Concerning Traditional Cultural Properties.**

### **2.4.2 Annual Meeting**

The City shall host an annual meeting of the Intervenor to facilitate coordination of implementation of the various settlement agreements. The Intervenor agree to cooperate in across forum coordination as necessary and appropriate to further effective program implementation.

## **2.5 MONETARY FIGURES**

### **2.5.1 Adjustments For Inflation/Deflation**

All dollar amounts listed in this Agreement are defined as 1990 dollars and shall be adjusted annually for inflation or deflation by using the revised Consumer Price Index (CPI-U) for All Urban Consumers as published by the United States Department of Labor for the Seattle Metropolitan area. The indices used shall be those published for the last half of 1990 and, for subsequent years, the last half of the calendar year preceding that in which a payment or expenditure is to be made. Indexing of items in this Agreement shall continue until the year of actual payment, unless otherwise provided in this Agreement. The percentage of change from the earlier index to the later index shall be multiplied by the amount specified in this Agreement and the result added to or subtracted from that amount to arrive at the total payment or expenditure. Should the CPI-U index not be available, the Parties agree to negotiate another statistical basis for determining annual changes in the City's monetary commitments.

### **2.5.2 Time Basis For Payments and Obligations**

Payments and obligations by the City for this Agreement shall be made and met, unless otherwise noted in the plan, on a license-year basis. License years are based on the date of the FERC order issuing a new license for the Project; however, unless specifically provided otherwise in the plan, the City's monetary obligations do not become payable until the license becomes effective (see Section 2.3). The City shall make Project-specific monies due in license year one available at the time they are needed as soon as possible after the license becomes effective. In subsequent license years, the City shall make payments to the Intervenor for the implementation of specific Wildlife Plan projects at the time that they are needed. Monies required to be paid to or on behalf of the Intervenor for non-project specific purposes shall be paid on the last day of each license year. If the license is issued and accepted during a season which is critical for implementation, it may be impossible to implement a particular program element that year. Therefore, the Parties agree that implementation of such elements may not occur until the license year following its stated schedule in the plan. Agreed upon rescheduling of projects solely as a result of seasonal considerations shall not be considered a license compliance violation.



## 2.6 FORCE MAJEURE

The City shall not be liable or responsible for failure to perform or for delay in performance due to any cause or event or circumstance of Force Majeure. For purposes of this Agreement, Force Majeure is any cause or event beyond the City's reasonable control. This may include, but is not limited to, fire, flood, mechanical failure or accidents that could not reasonably have been avoided by the City, strike or other labor disruption, act of God, act of any governmental authority or of the Parties, embargo, fuel or energy unavailability (ancillary to, but not including, basic power generation), wrecks or unavoidable delays in transportation, and inability to obtain necessary labor, materials or manufacturing facilities from generally recognized sources in the applicable industry, or communications systems breakdowns, or for any other reason beyond the City's control. The City shall make all reasonable efforts to resume performance promptly once the Force Majeure is eliminated.

## 2.7 DESIGNATED CONTACTS

### 2.7.1 Contact Persons

For purposes of implementing this Agreement, the Parties agree that the following individuals shall be designated by each to be primary contact persons. The initial contact person for the City is:

Superintendent  
Seattle City Light  
1015 Third Avenue  
Seattle, WA 98104-1198

and the initial contact persons for each of the Intervenor are:

#### National Park Service:

Regional Director  
Pacific Northwest Region  
National Park Service  
83 South King Street, Suite 202  
Seattle, WA 98104

and

Superintendent  
North Cascades National Park  
Service Complex  
2105 Highway 20  
Sedro Woolley, WA 98284  
(206) 856-5700

#### Fish and Wildlife Service:

Regional Director, Region I  
U.S. Fish and Wildlife Service  
Eastside Federal Complex  
911 N.E. 11th Avenue  
Portland, OR 97232-4181

and

Field Supervisor, Olympia Field Station  
Fish and Wildlife Enhancement  
U.S. Fish and Wildlife Service  
3704 Griffin Lane, S.E., Suite 102  
Olympia, WA 98501-2192  
(206) 753-9440



## Washington Department of Wildlife:

Director  
Washington Department of Wildlife and  
600 N. Capitol Way  
Mailstop GJ-11  
Olympia, WA 98504  
(206) 753-3318

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

## North Cascades Conservation Council:

President  
North Cascades Conservation Council  
P.O. Box 95980  
University Station  
Seattle, WA 98145

## Upper Skagit Tribe:

Tribal Chairperson  
Upper Skagit Tribe and  
2284 Community Plaza  
Sedro Woolley, WA 98284  
(206) 856-5501

Doreen Maloney, Natural  
Resources Manager  
Upper Skagit Tribe  
2284 Community Plaza  
Sedro Woolley, WA 98284

## Sauk-Suiattle Tribe:

Tribal Chairperson  
Sauk-Suiattle Tribe and  
5318 Chief Brown Lane  
Darrington, WA 98241  
(206) 436-0131

Lawrence Joseph, Natural  
Resources Manager  
Sauk-Suiattle Tribe  
5318 Chief Brown Lane  
Darrington, WA 98241

## Swinomish Indian Tribal Community:

Tribal Chairperson  
Swinomish Indian Tribal Community and  
P.O. Box 817  
LaConner, WA 98504  
(206) 466-4067

Lorraine Loomis, Natural  
Resources Manager  
Swinomish Indian Tribal Community  
P.O. Box 817  
LaConner, WA 98504

**U.S. Forest Service:**

Forest Supervisor  
Mt. Baker-Snoqualmie National Forest  
21905 - 64th Avenue West  
Mountlake Terrace, WA 98043  
(206) 744-3393

**Bureau of Indian Affairs:**

Area Director, Portland Area Office  
Bureau of Indian Affairs  
Portland Area Office  
Attention: Land Services  
Eastside Federal Complex  
911 N.E. 11th Avenue  
Portland, OR 97232-4169  
(503) 231-6749

Notification of changes in the contact persons must be made in writing and delivered to all other contact persons.

**2.7.2 Notices**

All written notices to be given pursuant to this Agreement shall be mailed by first class mail or overnight express, service postage prepaid to each Party at the addresses listed above or such subsequent address as a Party shall identify by written notice to all Parties. Notices shall be deemed to be given five (5) working days after the date of mailing.

**2.8 REOPENER AND MODIFICATION****2.8.1 Use of Reopener Clause in License**

Notwithstanding any other provision of this Agreement, any Party may at any time invoke or rely upon any reopener clause(s) in the license for the Project in order to request the imposition by the FERC of different or modified measures for wildlife. Any provision of this Agreement that might be read to limit or preclude a Party from raising any relevant material issue of fact or law in reopening or to otherwise conflict with reopening (e.g., Sections 2.1, 2.1.1, 2.1.2, 2.1.3, 2.1.4, and 2.2.2.2) shall be inoperative to the extent of any such limitation, preclusion or conflict.

**2.8.2 Modification**

Before invoking any reopener clause under Section 2.8.1, a Party shall request all other Parties to commence negotiations for a period of up to 90 days to modify the terms and conditions of this

Agreement in whole or in part. Any such modification shall be subject to FERC approval, except that the Parties may agree to implement on an interim basis, pending FERC approval, any measure not requiring prior FERC approval.

### **2.8.3 Burden of Proof**

In any action under this Section 2.8, the petitioning Party shall have the burden of proof.

### **2.8.4 Effect of Reopener Proceedings**

The Parties shall continue to implement this Agreement pending final resolution of any modification sought from the FERC, or until the relief sought becomes effective by operation of law, or unless otherwise agreed. At the time of petitioning the FERC under Section 2.8.1, nothing shall prevent any Party from requesting the imposition of different or modified measures or from bringing any cause of action in any appropriate forum, or from taking other actions relating to any issue or matter addressed by this Agreement.

## **2.9 PROJECT MODIFICATIONS (HIGH ROSS)**

### **2.9.1 Project Modifications**

This Agreement applies to the Project excluding High Ross or any modified High Ross construction. It does not address mitigation for the effects of raising Ross Dam. In the event the City decides to consider raising Ross Dam, separate provision will be made for additional mitigation. The Parties shall initiate discussions regarding wildlife mitigation according to the following procedures.

### **2.9.2 Notice**

The City shall notify the Intervenor of its decision to consider raising Ross Dam at least 30 months before construction would commence.

### **2.9.3 Consultation**

At the same time, the City shall commence consultation on necessary wildlife studies and possible mitigation measures using the Wildlife Management Review Committee.

### **2.9.4 Resolution**

At least 180 days before construction would commence, the City shall either agree with the Intervenor on modifications to this Agreement, or remaining disputes over wildlife measures may proceed to dispute resolution as described in Section 4.0 at the option of any Party.

### **2.9.5 Mitigation Criteria**

Mitigation for the effects on the hunting opportunity of the Tribes of raising Ross Dam shall be at least comparable to the mitigation provided for here for the effects of the current project and shall, at a minimum, replace the resources lost by resources of like kind, quality, and quantity or by mutually agreed arrangements in lieu of such replacement.

### **2.9.6 Preservation of Rights**

Nothing in this Agreement shall preclude any Party from challenging the construction and operation of High Ross or modified High Ross, including disputed mitigation, in any proceeding. The mitigation procedures set out in this Section are not exclusive and need not be commenced or exhausted prior to such challenges.

## **3.0 EXPENDITURES**

### **3.1 WILDLIFE PLAN EXPENDITURES**

The City shall make a total of \$19,940,000 available, to be paid either in lump sum amounts or annual payments as indicated within Section 3.0 for the purpose of funding the measures and programs in the Wildlife Plan (as indicated in the Cost Summary Table 10-1 in the Wildlife Plan). The procedures and schedule for apportionment and disbursement of these monies are specified in the following paragraphs.

### **3.2 LAND ACQUISITION AND HABITAT ENHANCEMENT**

The City shall make a total of \$17,000,000 of the \$19,940,000 (see Section 3.1 above; see also Table 3-3 in the Wildlife Plan) available for the purposes of securing and preserving valuable wildlife habitat ("wildlife lands") in the upper Skagit River and South Fork Nooksack River valleys, and the enhancement and manipulation of wildlife habitat (especially elk forage areas in the South Fork Nooksack River valley). The exact apportionment of monies between land acquisition and habitat enhancement shall be made by consensus of the Parties, as provided in the Wildlife Plan. All of these monies shall be spent. The City shall own and manage the wildlife lands according to the direction provided in this Agreement and in the Wildlife Plan. The monies included within the sum of \$17,000,000 shall be spent as lump sum payments. In no event shall any of the total amount of \$17,000,000 be subject to Section 3.7 including its provision for continuation of annual or periodic payments.

#### **3.2.1 Land Acquisition**

The City shall make approximately \$15,262,000-\$16,554,000 of the \$17,000,000 (see Section 3.2 above; see also Table 3-3 in the Wildlife Plan) available for the purpose of securing in fee (or,

as necessary, easements or other property interests) and preserving wildlife lands in the upper Skagit River and South Fork Nooksack River basins. The exact amount available for land acquisition (relative to habitat enhancement—see Section 3.2.2), and the specific areas to be acquired, shall be determined through a consensus decision of the Parties, as provided in Section 5.0 below (see also Sections 3.2 and 3.3 in the Wildlife Plan). Payment of the amounts shall be upon the acceptance of deeds or property agreements by the Seattle City Council. In no event shall any amount set aside for land acquisition be subject to Section 3.7.

The Parties have agreed on an initial list of wildlife lands to be sought for acquisition which is presented in Table 3-1 in the Wildlife Plan. The Parties hereby authorize the City to use best efforts to purchase these lands in fee simple without further approval by the Parties if such lands are available within the costs previously estimated by the City.

The land-acquisition monies shall be split between the Skagit and South Fork Nooksack River basins. The Parties have agreed that the list in Table 3-1 of the Wildlife Plan and the estimates referenced above establish the initial apportionment of land-acquisition monies between the Skagit and South Fork Nooksack River basins (see also Section 5.3 below and Section 3.3.1 in the Wildlife Plan). Should the costs of acquisition of some lands be less than was estimated, the surplus monies shall be placed in a pool for the acquisition of additional wildlife lands, and shall be allocated equally between the Skagit and Nooksack basins. Changes to the allocations shall be made by consensus of the Parties (see Section 5.1).

Notwithstanding Section 2.3.1, the City shall begin to secure some wildlife lands in 1991-92 and continue the process until the new license is accepted by the City. Subject to compliance with the requirements of the consensus process (see Section 5.0; see also Sections 3.2 and 3.3 in the Wildlife Plan), the City shall use its best efforts to acquire or otherwise secure all of the wildlife lands no later than by the end of the second license year.

### **3.2.2 Habitat Enhancement**

The City shall make approximately \$446,000-\$1,738,000 of the \$17,000,000 (see Section 3.2 above; see also Tables 3-3 and 5-3 in the Wildlife Plan) available for the purpose of enhancing and manipulating wildlife habitat (especially elk forage areas in the South Fork Nooksack River valley). The exact amount available (relative to land acquisition—see Section 3.2.1) shall be determined through a consensus decision of the Parties, as further provided in Section 5.0 below and the Wildlife Plan. The City shall expend these monies (see Section 3.2.1) according to parcel-specific management plans that shall be developed by the City (with the guidance and direction of the Wildlife Management Review Committee—see Section 6.2.1) after the closing of purchase/easement agreements, as provided in Section 4.8 of the Wildlife Plan.

Monies set aside for habitat enhancement shall not be subject to Section 3.7. In the event the City receives subsequent annual licenses, the City shall provide an additional maximum amount of \$25,000 during each fourth annual license year solely for the purposes of habitat enhancement as described in this Section.



### 3.3 CULTURAL RESOURCE EVALUATIONS

The City shall make \$20,000 of the \$19,940,000 (see Section 3.1 above; see also Table 10-1 and Section 4.2.3 in the Wildlife Plan) available for the purpose of conducting cultural resource reconnaissance surveys as part of the environmental review process for any of the wildlife lands (see Section 3.2.1) on which ground-disturbing activities are proposed. If no such activities occur, the \$20,000 shall not be spent. This is a lump sum payment which is not subject to Section 3.7.

### 3.4 RESEARCH

The City shall make a projected \$2,320,000 of the \$19,940,000 (see Section 3.1 above; see also Table 7-1 in the Wildlife Plan) available during the term of the license for the purposes of providing on-going funding and administrative support for research studies and grants, development of new and better management approaches and information, long-term monitoring of wildlife and environmental resources, bald eagle inventory and monitoring efforts, and a research facility and equipment in the Project Area. Disbursement of monies by individual program components is described in Sections 3.4.1 to 3.4.4. Annual payments shall be made for the various components of the research program as described in Table 7-1 of the Wildlife Plan. This amount is subject to Section 3.7.

#### 3.4.1 Research Building and Equipment

The City shall make \$130,000 of the \$2,320,000 (see Section 3.4 above; see also Table 7-1 in the Wildlife Plan) available for the purpose of renovating and equipping a building in Newha'em as a research facility. Of this \$130,000, the City shall make available up to \$50,000 for the purchase and installation of equipment. The City shall make available \$80,000 of the \$130,000 to refurbish the building structure and utilities to meet current code requirements and to facilitate the research purposes. The City shall consult with the National Park Service in designing the refurbishing and selecting the equipment. The procedures of the Historic Resources Mitigation and Management Plan (which forms a section of the Skagit Project Cultural Resources Mitigation and Management Plan) shall be followed when the alterations are made to the National Register-listed building.

Ownership of the building shall be retained by the City, but the building shall be leased to the National Park Service for the term of the license and any subsequent annual license(s). The City shall bear the costs of the electricity, water use, and lease of the building for the term of the license and any subsequent annual license(s). In consideration of this lease and of the electricity and water use of the building, the National Park Service shall, for the term of the new license, waive any land occupancy fees and costs for the Babcock Creek microwave site (part of the Skagit Microwave Backup System) which is described in the February 15, 1991 Babcock Creek Microwave Tower Environmental Assessment prepared by the National Park Service. The City shall provide upkeep and maintenance to the exterior of the building and grounds, and shall provide repair service for the internal and external electrical wiring and plumbing. The National Park Service shall be responsible for all other internal maintenance and upkeep.

### **3.4.2 Research Study Funding**

The City shall make available annual payments of \$50,000 for the term of the license and any subsequent annual license(s) available for the purpose of providing funding for wildlife and environmental research, development of new and improved wildlife management and information, and monitoring of wildlife and environmental resources in the Project Area, the Ross Lake National Recreation Area, and the North Cascades National Park Service Complex (for a projected total of \$1,500,000 over a 30-year period; see also Table 7-1 in the Wildlife Plan). These annual payments shall be subject to Section 3.7. The City shall expend these monies with the guidance and direction of the Wildlife Research Advisory Committee, as provided in the Wildlife Plan.

### **3.4.3 Long-term Monitoring in the Ross Lake National Recreation Area**

The City shall make available annual payments of \$20,000 for the term of the license and for any subsequent annual license(s) to the National Park Service for the purpose of supporting long-term monitoring of wildlife and environmental resources in the Project Area, the Ross Lake National Recreation Area, and the North Cascades National Park Complex (for a projected total of \$600,000 over a 30-year period; see also Table 7-1 in the Wildlife Plan). These annual payments shall be subject to Section 3.7.

### **3.4.4 Bald Eagle Inventory and Planning**

The City shall make available payments for a projected total of \$90,000 to the U.S. Forest Service for the purpose of inventory and monitoring of bald eagle and other wildlife habitat in the Skagit National Recreation River corridor, and the Sauk, Suiattle, and Cascade National Scenic River corridors. The City shall provide these monies according to the following schedule:

- 1) The City shall make payments of \$20,000 in each of license years one and two, to be used for developing the inventory and a plan for monitoring and meeting the needs of bald eagles. These are lump sum payments which are not subject to Section 3.7.
- 2) Beginning in license year seven, the City shall make periodic payments of \$10,000 every five years for the term of the license (thus, such periodic payments shall be made in each of license years 7, 12, 17, 22, and 27), and in any subsequent annual license year which completes the next 5-year period in this progression, to be used for updating the bald eagle plan and monitoring its performance. These periodic payments shall be subject to Section 3.7.

## **3.5 EDUCATION**

The City shall make annual payments of \$20,000 for the term of the license (for a projected total of \$600,000 over a 30-year period; see Section 3.1 above; see also Table 7-1 in the Wildlife Plan) and any subsequent annual license(s) available to the North Cascades Environmental Learning Center (ELC) (see the Skagit Project Settlement Agreement on Recreation and Aesthetics) for the purpose of providing greater public knowledge and understanding of the values and issues in wildlife and ecosystems management and protection in the Project Area and the North Cascades area. The

expenditure of these monies shall be governed by the procedures established for the ELC. These annual payments are subject to Section 3.7.

### **3.6 PLANT PROPAGATION**

In Section 6.0 of the Wildlife Plan a plant propagation program is described and developed. The budgeting and scheduling of this program shall be part of the Skagit Project Erosion Control Plan. The Settlement Agreement for Erosion Control shall include the City's commitments for the scheduling and budgeting of this plant propagation program.

### **3.7 CONTINUATION OF ANNUAL AND PERIODIC PAYMENTS**

In the event the City receives subsequent annual licenses, the annual payments identified in Sections 3.4.2, 3.4.3, and 3.5 in this Agreement shall be continued through any subsequent annual license periods at the same amounts set forth in this Agreement, and the periodic payments identified in Section 3.4.4 in this Agreement shall also be continued through any subsequent annual license periods at the same amounts and time intervals set forth in this Agreement, resulting in an increase in the total expenditures for the particular category.

## **4.0 DISPUTE RESOLUTION**

### **4.1 DISPUTE RESOLUTION PROCEDURE**

#### **4.1.1 Referral of Disputes**

Any dispute between the Parties solely concerning asserted non-compliance with the terms of this Agreement shall be referred for consideration to the Wildlife Management Review Committee (WMRC) established under Section 6.2.1. The WMRC shall convene as soon as practicable following issuance of a written request by any Party. All decisions of the WMRC relating to asserted non-compliance shall be unanimous. In the event that the WMRC cannot resolve the dispute within thirty (30) days after its first meeting on a dispute, it shall give notice of its failure to resolve the dispute to all Parties.

#### **4.1.2 Optional Policy Review**

The Parties may, at their option prior to elevating an issue to the FERC, convene an in-person or telephone conference of policy-level administrators should committee-level dispute resolution fail. Any Party through its designated contact in Section 2.7 may invoke optional policy review by contacting the other Parties' designated contacts and arranging a suitable conference. Decisions by unanimous consent shall bind all Parties. In the event that the policy representatives cannot resolve the dispute within 15 days, the matter may be taken to the next level.

#### **4.1.3 Referral to the FERC**

Following failure of resolution of issues solely concerning non-compliance with the terms of this Agreement by the WMRC, and the optional policy review, any Party may request the FERC to refer the dispute to (1) the Chief Administrative Law Judge of the FERC; or (2) the Division of Project Compliance and Administration within the Office of Hydropower Licensing, or its successor, in the order listed above (unless otherwise agreed by the Parties or directed by FERC), for review and resolution pursuant to the FERC's Rules of Practice and Procedure.

#### **4.2 NON-COMPLIANCE**

Notwithstanding any other provision of this Agreement, any Party may seek relief arising solely from non-compliance with this Agreement by any Party.

### **5.0 PROCEDURES FOR ACQUISITION OF LANDS**

#### **5.1 INITIAL LAND ACQUISITION PROCESS**

The term "initial acquisition" shall be defined as the use of the land-acquisition portion of the \$17,000,000 (see Section 3.2) to select, secure, and purchase wildlife lands. This initial acquisition process shall end with the complete disbursement of the portion of the \$17,000,000 that is allocated to land acquisition. Any subsequent alteration to the composition of the wildlife lands, including disposal and new acquisition, shall be handled as provided in Section 5.4.2 below.

Each Party shall designate a representative and alternate representative to represent it for consensus decision-making. These representatives may be collectively referred to as the "Land Acquisition Group." A Party may also designate another Party to represent its interest.

The City shall, as appropriate, convene meetings or communicate with the Parties for the purpose of sharing information, receiving guidance, and arriving at consensus decisions. Decisions may be made at meetings of the Land Acquisition Group, by telephone conference call, polling by telephone, by written authorization, or by any other means as approved by the Land Acquisition Group. The failure of a representative to participate in a decision meeting or call in which the representative had previously agreed to participate shall be considered as that Party's agreement with any consensus reached in the meeting or call.

In the event that the properties listed in Table 3-1 in the Wildlife Plan are substantially reconfigured, the purchase of such properties cannot be made in fee simple (e.g., an easement is all that can be acquired), the cost of securing such lands will exceed initial estimates referenced in Section 3.2.1, fair market value will exceed said initial estimates, or the properties are not available, the City shall inform the other Parties of the difficulties and shall seek guidance (see Section 5.6) from them on how to proceed. The Parties shall approve by consensus the purchase



or optioning of: properties which have been substantially reconfigured; the acquisition of interests in properties that are not available in fee simple; properties available only at higher total cost (purchase plus option) than initial estimates; or properties which are substituted for lands identified in Table 3-1 in the Wildlife Plan. Any change in the apportionment of monies between the Skagit River and South Fork Nooksack River basins shall also be made by consensus of the Parties.

If consensus cannot be reached, the decision shall be submitted to the contact persons (see Section 2.7) for resolution. Should consensus still not be reached, the decision shall be referred to the WMRC for final decision. Upon the referral of an initial land acquisition decision, the WMRC shall reach a final decision under the process described in Section 6.2.1. The Parties may establish additional procedures to govern the acquisition process.

## 5.2 CONSENSUS PROCESS

"Consensus" shall be defined as collective and unanimous agreement of the Parties on each decision or course of action. Subject to the limitations in Section 5.6 below, all decisions or actions regarding initial land acquisition shall be made by consensus of the Parties. Such decisions include the selection and initial acquisition of lands (see Section 3.2); the apportionment of monies between land acquisition and habitat enhancement; the apportionment of monies or lands between the basins of the Skagit River and South Fork of the Nooksack River; the selection of particular lands or parcels; and all decisions regarding disbursement of the monies apportioned to initial land acquisition. The consensus process of decision-making applies only to the initial acquisition of wildlife habitat lands and shall not be applicable after the completion of the initial land acquisition process and the expenditure of that portion of the \$17,000,000 which is allocated to land acquisition.

Decisions regarding disbursement of monies apportioned to habitat enhancement shall be made by the WMRC; see Section 3.2.2; see Section 6.2.2. See also Section 3.2.2 in the Wildlife Plan.

## 5.3 INITIAL LANDS TO BE ACQUIRED

The City Light Department's Property Management Division will be the City's agent for acquisitions, easements, and any other arrangements regarding real property and interests therein. The Seattle City Council retains the authority to accept the deeds/easements and thus to complete the real property transactions.

The City shall bear the primary responsibility for identifying properties available for purchase. Nothing herein shall restrict another Party from identifying properties for purchase.

The Parties have agreed on a list of lands to be sought for acquisition which is set forth in Table 3-1 in the Wildlife Plan. The Parties have also agreed that the City has authority to purchase these lands as provided in Section 3.2.1 above and in Sections 3.2.1 and 3.3 of the Wildlife Plan. Further, the Parties have agreed that the list and estimates referenced in Section 3.2.1 establish the



initial apportionment of land-acquisition monies between the Skagit and South Fork Nooksack River basins.

## **5.4 SUBSTITUTIONS**

### **5.4.1 Substitutions during the Initial Acquisition Process**

In the event that some of the lands referenced in Table 3-1 of the Wildlife Plan are not available for acquisition or are found unsuitable (see Section 5.6), substitute lands shall be selected by consensus of the Parties and be sought for acquisition by the City. An initial list (which is not intended to be exhaustive or to preclude the selection of parcels that are not listed) of substitute lands is included in Table 3-2 of the Wildlife Plan.

### **5.4.2 Replacement Procedure for Wildlife Lands Should Wildlife Values be Adversely Affected Subsequent to Acquisition**

During the term of the new license, should the wildlife habitat values of some of the acquired lands be unacceptably harmed or lost (e.g., become isolated or affected by development, or suffer wind or fire damage), and the City and the WMRC (see Section 6.2.1) agree that the interests of the wildlife would be better served by the sale of the affected parcel and the purchase of a substitute parcel, the City may proceed to dispose of the affected area, and select and seek to acquire another area. Acquisition of any such replacement properties shall be approved by the WMRC.

## **5.5 OWNERSHIP OF WILDLIFE HABITAT LANDS AND LONG-TERM INTENT**

The City shall hold title to, and retain full control (subject to recommendations of the WMRC), of the acquired properties for the term of the new license and any subsequent annual license(s). Furthermore, for the foreseeable future the City intends to own and operate the Project. The City intends that the lands currently being acquired for the Wildlife Plan for the new license also contribute to meeting the needs of wildlife in future license periods. If the City does not renew the license in the future, the City shall offer to the appropriate public agencies a first right of refusal for purchase of the properties at market rates for continued conservation purposes.

## **5.6 LIMITATIONS**

The City retains the right to refuse to acquire title or interest in land or property if such acquisition would pose a threat of unacceptable liability (e.g., an old hazardous waste dump is present on site) to the City; if the titles of the lands or easements to be acquired are not clear or capable of being cleared without undue difficulties; if there are unacceptable problems with the title, covenants, or deed restrictions; if the costs would exceed fair market value; if the landowners seek to impose unacceptable conditions; if adverse modifications have occurred which make the lands no longer desirable; or for other such causes. If such problems are identified, the City shall confer with the

other Parties to the Settlement Agreement to identify alternative approaches or responses, and/or to select substitute lands.

## **6.0 ISSUES OF GENERAL CONCERN**

### **6.1 ROSS LAKE OPERATIONS**

#### **6.1.1 Refill After April 15**

The City shall fill Ross Lake as early and as full as possible after April 15 each year, subject to adequate runoff, anadromous fisheries protection flows (specified in the Anadromous Fish Flow Plan), flood protection, minimized spill, and firm power generation needs. Subject to the above constraints and hydrologic conditions permitting, the City shall achieve full pool by July 31 each year.

#### **6.1.2 Full Pool Through Labor Day**

The City shall hold Ross Lake as close to full pool as possible through Labor Day weekend, subject to adequate runoff, anadromous fisheries protection flows (specified in the Anadromous Fish Flow Plan), flood protection, minimized spill, and firm power generation needs.

#### **6.1.3 Overdraft Years**

In any overdraft year (i.e., in those years in which Ross Lake is drafted below the energy content curve), the City shall bring the Ross Lake level up to the variable energy content curve (VECC) no later than March 31, subject to adequate runoff, anadromous fisheries protection flows (specified in the Anadromous Fish Flow Plan), flood protection, minimized spill, and firm power generation needs.

### **6.2 CONTINUING REVIEW OF THE WILDLIFE PLAN AND SETTLEMENT AGREEMENT**

#### **6.2.1 Wildlife Management Review Committee (WMRC)**

A Wildlife Management Review Committee (WMRC) shall be convened which shall review the implementation of the Wildlife Plan, assess its progress and the results of management activities and programs, and review and comment on the City's reports on the Wildlife Plan and its components and measures. As provided in Section 5.2 of this Agreement, the WMRC shall make the final decision in questions concerning land acquisition which have been referred to it by the Land Acquisition Group. The decisions of the WMRC concerning land acquisition shall be by majority vote (as provided below).

The WMRC may direct that minor changes be made in the measures and activities of the Wildlife Plan in response to problems or to best meet the needs of the wildlife. Any decisions of the WMRC (except as provided below) shall be by majority vote of the six voting members (i.e., four or more must be in favor).

As provided in Section 4.1.1 of this Agreement, an additional function of the WMRC shall be to serve as the initial step for the review of any dispute between the Parties solely concerning asserted non-compliance with the terms of this Agreement. All decisions of the WMRC relating to asserted non-compliance shall be unanimous.

### **6.2.2 Composition of the WMRC**

The WMRC shall consist of six voting members and one non-voting member. The voting members are the City of Seattle, City Light Department (represented by the Environmental Affairs Division), which shall also act as committee chair; Washington Department of Wildlife; National Park Service; U.S. Fish and Wildlife Service; U.S. Forest Service; and a representative of the three Skagit tribes. The non-voting member shall be the North Cascades Conservation Council. Members of the WMRC must have a background in wildlife, ecosystems, or biology.

### **6.2.3 Meetings**

The WMRC shall meet as often as is necessary to complete its tasks, but in any case the WMRC shall meet no less than once a year for the first four years of the new license period, no less than once every two years for the next six years, and no less than once every five years for the remainder of the license period. The City (chair) may call a meeting at its own initiative or at the request of any of the members. The City of Seattle, City Light Department, shall provide administrative support for the WMRC (such as providing notice and mailings).

## **6.3 WILDLIFE PLAN REPORTING AND REVIEW**

The City shall prepare a report of the implementation of the Wildlife Plan annually during the first five years of the new license and at least every five years thereafter. This report shall summarize land management activities during the period since the last report. A draft of this report shall be submitted by the City to the WMRC for their review and comment (at least 30 days shall be provided for review and comment), and the final report shall be submitted to the WMRC and the FERC.

#### **6.4 MEMORANDUM OF UNDERSTANDING CONCERNING MANAGEMENT ACTIVITIES ON NON-RESIDENTIAL FEE TITLE LAND; AND GUIDANCE FOR CITY RESPONSE TO WILDLIFE-HUMAN CONFLICTS**

The City shall enter into a Memorandum of Understanding with the National Park Service as provided in the Wildlife Plan to provide consultation regarding management activities on nonresidential nonproject fee title lands of the City in the Ross Lake National Recreation Area (RLNRA).

Provisions have also been developed to provide guidance to the City in responding to human-wildlife conflicts in the Project Area, and for taking anticipatory action in order to avoid or minimize such conflicts in the future. The provisions are:

- 1) The City shall reduce or eliminate wildlife attractants on nonfederal lands within the RLNRA which result in problem wildlife species habituation, including, but not limited to, the storage of garbage.
- 2) The City shall prohibit wildlife feeding by City residents.
- 3) The City may be authorized to take specific actions to control an animal that presents a threat to human safety. Authorizations determined to be appropriate shall be given on a case-by-case basis and only after prior consultation and approval of the Washington Department of Wildlife (WDW) and the National Park Service (NPS). Authorized actions may include lethal or non-lethal measures.
- 4) Except in cases of immediate threat to public safety, the City shall not take unilateral action in dealing with problem wildlife on non-federal lands without first consulting the NPS and the WDW.

#### **6.5 WILD AND SCENIC RIVER**

Management of the acquired wildlife lands within the designated corridors of the Skagit Wild and Scenic River System shall be consistent with the maintenance or enhancement of the free-flowing character of each component river, and of the outstandingly remarkable values for which the rivers were placed in the federal Wild and Scenic River System. Such values are wildlife, fish, recreation, and scenic values.

### **7.0 SIGNATURES**

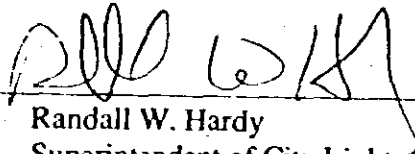
IN WITNESS WHEREOF, the City has caused this Settlement Agreement to be executed by its Superintendent of Light pursuant to Ordinance No. 106741 and the Intervenor has executed same pursuant to applicable legal authority.

Respectfully submitted.

Dated: April 24, 1991

THE CITY OF SEATTLE

By:

  
Randall W. Hardy  
Superintendent of City Light

ORIGINAL

Address for Notice:

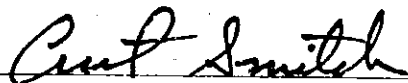
Seattle City Light  
1015 Third Avenue  
Seattle, WA 98101



Dated: April 22, 1991

STATE OF WASHINGTON,  
acting by and through the Washington Department of Wildlife

By: \_\_\_\_\_



Curt Smith  
Director, Department of Wildlife

ORIGINAL

Address for Notice:

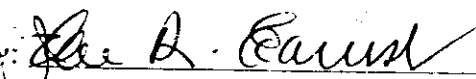
R. Gary Engman  
Department of Wildlife  
Region 4  
16018 Mill Creek Blvd.  
Mill Creek, WA 98012

William C. Frymire  
Office of Attorney General  
7th Floor  
Highway Licenses Bldg.  
Olympia, WA 98504

Dated: April 25, 1991

**U.S. DEPARTMENT OF THE INTERIOR, NATIONAL PARK SERVICE**

By:



John Earnst  
Superintendent

ORIGINAL

**Address for Notice:**

North Cascades Park Service Complex  
Pacific Northwest Region, National Park Service  
U.S. Department of the Interior  
North Cascades National Park Service Complex  
2105 Highway 20  
Sedro Woolley, WA 98284

Dated: April 26, 1991

**UPPER SKAGIT TRIBE**

ORIGINAL

By: Floyd Williams

Floyd Williams  
Tribal Chairperson

**Address for Notice:**

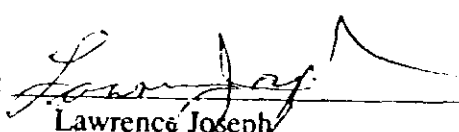
Upper Skagit Tribe  
2284 Community Plaza  
Sedro Woolley, WA 98284

19910502-0032 FERC PDF (Unofficial) 04/30/1991

Dated: April 27, 1991

**SAUK-SUIATTLE TRIBE**

By:

  
Lawrence Joseph  
Tribal Chairperson

ORIGINAL

**Address for Notice:**

Sauk-Suiattle Tribe  
5318 Chief Brown Lane  
Darrington, WA 98241

Dated: April 24<sup>th</sup>, 1991

**SWINOMISH INDIAN TRIBAL COMMUNITY**

By: Robert Joe  
Robert Joe  
Tribal Chairperson

ORIGINAL

**Address for Notice:**

Swinomish Indian Tribal Community  
P.O. Box 817  
LaConner, WA 98257

Steve Fransen  
Skagit System Cooperative  
P.O. Box 338



Dated: April 22, 1991

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

By: Marvin L. Plenert  
Marvin L. Plenert  
Regional Director, U.S. Fish and Wildlife Service

ORIGINAL

**Address for Notice:**

United States Fish and Wildlife Service  
Eastside Federal Complex  
911 N.E. 11th Avenue  
Portland, OR 97232-4181

Field Supervisor  
U.S. Fish and Wildlife Service  
Fish and Wildlife Enhancement  
3704 Griffin Lane, S.E.  
Suite 102  
Olympia, WA 98501-2192

Dated: April 24, 1991

**NORTH CASCADES CONSERVATION COUNCIL**

By: David Fluharty  
David Fluharty  
President

ORIGINAL

Address for Notice:

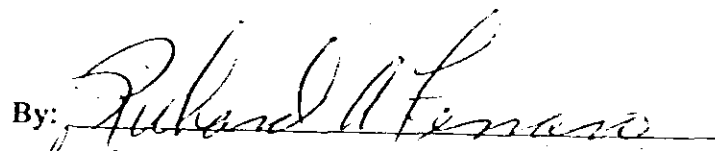
NCCC  
P.O. Box 95980  
University Station  
Seattle, WA 98145-1980

Dated: April 17, 1991

ORIGINAL

U.S. DEPARTMENT OF AGRICULTURE, FOREST SERVICE

By:

  
for John F. Butruille  
Regional Forester, Pacific Northwest Region

Address for Notice:

Sam Nagel  
U. S. Forest Service  
21905 64th Avenue West  
Mountlake Terrace, WA 98043

ORIGINAL

Dated: April 32, 1991

**U.S. DEPARTMENT OF THE INTERIOR, BUREAU OF INDIAN AFFAIRS**

By:

  
Wilford G. Bowker  
Acting Area Director

**Address for Notice:**

U.S. Bureau of Indian Affairs  
Portland Area Office  
Attention: Branch of Land Services  
911 N.E. 11th Avenue  
Portland, OR 97232-4169

## **APPENDIX**

### **Wildlife Habitat Protection and Management Plan**



**ORIGINAL**

---

**SKAGIT RIVER HYDROELECTRIC PROJECT**  
**FERC No. 553**

---

**FISHERIES SETTLEMENT AGREEMENT**  
**INCORPORATING**  
**ANADROMOUS FISH FLOW PLAN (FLOW PLAN)**  
**AND**  
**ANADROMOUS AND RESIDENT FISH NON-FLOW PLAN**  
**(NON-FLOW PLAN)**

---

**APRIL 1991**

---

**SKAGIT RIVER HYDROELECTRIC PROJECT**

**FERC No. 553**

---

**FISHERIES SETTLEMENT AGREEMENT**

**INCORPORATING  
ANADROMOUS FISH FLOW PLAN (FLOW PLAN)  
AND  
ANADROMOUS AND RESIDENT FISH NON-FLOW PLAN  
(NON-FLOW PLAN)**

---

**APRIL 1991**

## TABLE OF CONTENTS

	<u>Page</u>
1.0 PARTIES .....	1
2.0 GENERAL PROVISIONS .....	1
2.1 PURPOSE AND INTENT.....	1
2.1.1 Resolution of Issues .....	2
2.1.2 Stipulation of Adequacy .....	2
2.1.3 Release and Waiver of Claims.....	2
2.1.4 Compliance with Laws and Effect on Rights.....	2
2.1.5 Integrated Agreement .....	2
2.1.6 Assignment.....	3
2.1.7 Authority.....	3
2.2 OBLIGATIONS OF THE PARTIES.....	3
2.2.1 The City's Obligations.....	3
2.2.2 The Intervenor's Obligations.....	3
2.2.3 The Parties' Obligations .....	4
2.3 EFFECTIVE DATE AND DURATION.....	5
2.3.1 Execution and Effective Date.....	5
2.3.2 Duration.....	5
2.4 COORDINATED IMPLEMENTATION .....	5
2.4.1 Across Forum Coordination .....	5
2.4.2 Annual Meeting .....	6
2.5 MONETARY FIGURES.....	6
2.5.1 Adjustments For Inflation/Deflation .....	6
2.5.2 Time Basis For Payments and Obligations.....	6
2.6 FORCE MAJEURE.....	7
2.7 DESIGNATED CONTACTS.....	7
2.7.1 Contact Persons.....	7
2.7.2 Notices .....	10
2.8 REOPENER AND MODIFICATION.....	10
2.8.1 Use of Reopener Clause in License .....	10
2.8.2 Modification .....	10
2.8.3 Burden of Proof .....	11
2.8.4 Effect of Reopener Proceedings.....	11
2.9 PROJECT MODIFICATIONS (HIGH RCSS) .....	11
2.9.1 Project Modifications .....	11
2.9.2 Notice.....	11
2.9.3 Consultation.....	11
2.9.4 Resolution .....	11
2.9.5 Mitigation Criteria.....	11
2.9.6 Preservation Of Rights .....	12

## TABLE OF CONTENTS (continued)

	Page
3.0 DISPUTE RESOLUTION .....	12
3.1 REFERRAL OF DISPUTES.....	12
3.1.1 Optional Policy Review .....	12
3.2 SCOPE.....	13
3.3 PROCEDURES.....	13
3.4 EFFECTIVENESS .....	13
3.5 ALTERNATIVE DECISIONMAKER.....	13
3.6 NON-COMPLIANCE.....	13
4.0 ISSUES OF GENERAL CONCERN.....	14
4.1 ROSS LAKE OPERATIONS.....	14
4.1.1 Refill After April 15.....	14
4.1.2 Full Pool Through Labor Day .....	14
4.1.3 Overdraft Years .....	14
4.1.4 Conflict .....	14
5.0 SKAGIT FISHERIES COORDINATING COMMITTEES.....	14
5.1 FUNCTIONS.....	15
5.1.1 Flow Plan Coordinating Committee (FCC).....	15
5.1.2 Field Monitoring Representatives.....	15
5.1.3 Non-Flow Plan Coordinating Committee (NCC).....	15
5.2 MEMBERSHIP .....	16
5.2.1 General .....	16
5.2.2 Voting.....	16
5.3 MEETINGS.....	17
5.4 DOCUMENTATION.....	18
6.0 ANADROMOUS FISH FLOW PLAN.....	18
6.1 DEFINITIONS .....	18
6.2 GENERAL .....	21
6.3 FLOW REGULATION.....	22
6.3.1 General .....	22
6.3.2 Flow Regulation For Salmon.....	22
6.3.3 Steelhead.....	24
6.3.4 Measures Beyond The Required Operation Constraints.....	26
6.4 FLOW INSUFFICIENCY .....	28
6.4.1 General .....	28
6.4.2 Definition.....	28
6.4.3 Determination Of Flow Insufficiency .....	28
6.4.4 Response To Flow Insufficiency.....	29
6.4.5 Flow Forecasting .....	30

## TABLE OF CONTENTS (continued)

	<u>Page</u>
6.5 FLOW LIMITATIONS.....	30
6.5.1 Purpose .....	30
6.5.2 Spill.....	30
6.5.3 Emergency Conditions.....	30
6.5.4 Uncontrolled Flow Measures.....	30
6.6 OPERATING CONSIDERATIONS.....	31
6.6.1 Power Planning.....	31
6.6.2 Scheduling Procedures.....	32
6.6.3 Operating To Meet The Schedule .....	33
6.7 MONITORING AND COMPLIANCE.....	33
6.7.1 Model Verification Studies.....	33
6.7.2 Field Monitoring.....	34
6.7.3 Compliance Monitoring.....	35
7.0 ANADROMOUS AND RESIDENT FISH NON-FLOW PLAN.....	36
7.1 GENERAL .....	36
7.2 PROGRAM MANAGER(S).....	38
7.3 ANADROMOUS FISH PROGRAMS.....	38
7.3.1 General.....	38
7.3.2 Steelhead Smolt Production Program.....	39
7.3.3 Chinook Research Program.....	40
7.3.4 Off-Channel Chum Habitat Development and Improvement Program .....	41
7.4 COUNTY LINE AND NEWHALEM PONDS.....	42
7.5 INSTREAM OR OFF-CHANNEL HABITAT IMPROVEMENT AND SEDIMENT REDUCTION PROGRAM.....	42
7.6 RESIDENT TROUT PROTECTION AND PRODUCTION PROGRAMS.....	43
7.6.1 General.....	43
7.6.2 Annual Inspection Of Drawdown Zone and Removal of Transitory Tributary Barriers In the Drawdown Zone .....	43
7.6.3 Ross Lake Resident Trout Working Group .....	44
7.6.4 Diablo And Gorge Lake Fisheries .....	44
8.0 SIGNATURES.....	45



## LIST OF APPENDICES

	<u>Page</u>
APPENDIX A – Calculation of Daily and Seasonal Spawning Flows or Salmon and Steelhead.....	59
APPENDIX B – Salmon Spawning Flows for Salmon and Steelhead.....	69
APPENDIX C – Salmon Spawning/Incubation Flow Tables.....	73
APPENDIX D – Salmon Fry Protection Examples.....	80
APPENDIX E – Shaping of Flows During Steelhead Spawning.....	85
APPENDIX F – Steelhead Incubation Flow Examples.....	95
APPENDIX G – Steelhead Spawning/Incubation Flow Tables.....	100
APPENDIX H – Steelhead Fry Protection Examples.....	105
APPENDIX I – Fry Protection Flows at Newhalem Gage.....	110
APPENDIX J – Alternative Salmon Spawning Periods.....	111
APPENDIX K – Alternative Steelhead Fry Periods.....	113
APPENDIX L -- Miscellaneous Calculations.....	115
APPENDIX M – Tributary Percent Exceedance Flow Between Newhalem and Marblemount.....	124

## LIST OF APPENDICES

	<u>Page</u>
APPENDIX A – Calculation of Daily and Seasonal Spawning Flows or Salmon and Steelhead .....	59
APPENDIX B – Salmon Spawning Flows for Salmon and Steelhead .....	69
APPENDIX C – Salmon Spawning/Incubation Flow Tables .....	73
APPENDIX D – Salmon Fry Protection Examples .....	80
APPENDIX E – Shaping of Flows During Steelhead Spawning .....	85
APPENDIX F – Steelhead Incubation Flow Examples .....	95
APPENDIX G – Steelhead Spawning/Incubation Flow Tables .....	100
APPENDIX H – Steelhead Fry Protection Examples .....	105
APPENDIX I – Fry Protection Flows at Newhalem Gage .....	110
APPENDIX J – Alternative Salmon Spawning Periods .....	111
APPENDIX K – Alternative Steelhead Fry Periods .....	113
APPENDIX L – Miscellaneous Calculations .....	115
APPENDIX M – Tributary Percent Exceedance Flow Between Newhalem and Marblemount .....	124

## LIST OF TABLES

	<u>Page</u>
Table 1 Downramp amplitude in cfs allowed during steelhead fry protection period.....	27
Table 2 Anadromous and resident fish Non-Flow Plan summary .....	37

**UNITED STATES OF AMERICA**  
**FEDERAL ENERGY REGULATORY COMMISSION**

**FISHERIES SETTLEMENT AGREEMENT**  
**INCORPORATING**  
**ANADROMOUS FISH FLOW PLAN (FLOW PLAN)**  
**AND**  
**ANADROMOUS AND RESIDENT FISH NON-FLOW PLAN (NON-FLOW PLAN)**

**1.0 PARTIES**

This Fisheries Settlement Agreement (Agreement) is entered into this 24th day of April, 1991, by and between the City of Seattle, City Light Department (the City) and the U.S. Department of the Interior, National Park Service (NPS); U.S. Department of the Interior, Fish and Wildlife Service (FWS); U.S. Department of the Interior, Bureau of Indian Affairs (BIA); U.S. Department of Agriculture, Forest Service (USFS); U.S. Department of Commerce, National Marine Fisheries Service (NMFS); Upper Skagit Tribe, Sauk-Suiattle Tribe, and Swinomish Indian Tribal Community (the Tribes); Washington Department of Fisheries (WDF); Washington Department of Wildlife (WDW); and the North Cascades Conservation Council (NCCC); (collectively referred to as the Intervenor). Together the City and the Intervenor are referred to as the "Parties". The Skagit River Hydroelectric Project is referred to as the "Project".

**2.0 GENERAL PROVISIONS**

**2.1 PURPOSE AND INTENT**

This Agreement establishes the City's obligations relating to the Skagit River fishery resources (including related spawning grounds and habitat) affected by the Skagit Project, as currently constructed. It also establishes the Intervenor's obligations to support this Agreement and to submit it to the Federal Energy Regulatory Commission (FERC) as their recommendations relating to said fisheries resources under any applicable provisions of the Federal Power Act (including without limitation Sections 10(a), 10(j), and 4(e) thereof) and the Fish and Wildlife Coordination Act. The U.S. Forest Service agrees that this Agreement constitutes its preferred recommendation under Section 7(a) of the Wild and Scenic Rivers Act.

### **2.1.1 Resolution of Issues**

This Agreement resolves all issues related to the effects on fisheries resources of the Project, as currently constructed, for the period May 12, 1981 through the duration of this Agreement. This includes resolution of the effects of the absence of flows in the Gorge bypass reach. It shall be submitted to the FERC for incorporation into the new license for the Project and shall be enforceable as an article thereof. The Parties agree that incorporation and enforcement as a license condition is a material provision of this Agreement. It is also the intent of the Parties that this Agreement shall be the basis for the dismissal of the Flow Proceeding, Docket No. EL 78-36.

### **2.1.2 Stipulation of Adequacy**

The Parties stipulate that this Agreement constitutes adequate fish protection and compensation for fishery losses caused by the Project, as currently constructed, for the period May 12, 1981 through the duration of this Agreement.

### **2.1.3 Release and Waiver of Claims**

For the period May 12, 1981 through the duration of this Agreement, the Intervenor and their successors and assigns, hereby release, waive, and discharge the City, its successors and assigns, from any and all claims, demands, actions, and causes of action of any kind (claims) arising during that period from the effects of the Project, as currently constructed, on fisheries, so long as the City performs its obligations under this Agreement. This release does not waive claims that may arise from the negligent or intentional misconduct of the City in the operation of the Project.

### **2.1.4 Compliance with Laws and Effect on Rights**

Nothing in this Agreement precludes the City or the Intervenor from complying with their obligations under the National Environmental Policy Act (NEPA), the Endangered Species Act, the Federal Power Act, the Wild and Scenic Rivers Act, the Fish and Wildlife Coordination Act, or any other laws applicable to the Project. This Agreement shall not affect the rights of any Party except as expressly covered in this Agreement.

Nothing in this Agreement or in the plans, memoranda, procedures or other actions taken to further the purposes of this Agreement shall reduce or otherwise impair access to and exercise of implied or explicit Indian rights, including hunting, fishing and gathering rights; nor shall anything in this Agreement be construed as limiting, waiving or otherwise impairing whatever money damages claims the Tribes may have arising out of the construction and operation of the current Project outside the term of this Agreement.

### **2.1.5 Integrated Agreement**

All previous communications between the Parties, either verbal or written, with reference to the subject matter of this Agreement are superseded by the terms and provisions of this Agreement,



and, once executed, this Agreement and its companion documents constitute the entire agreement between the Parties.

### **2.1.6 Assignment**

This Agreement shall be binding on and inure to the benefit of the Parties and their successors and assigns.

### **2.1.7 Authority**

Each Party to this Agreement represents and acknowledges that it has the full legal authority to execute this Agreement and shall be fully bound by its terms.

## **2.2 OBLIGATIONS OF THE PARTIES**

### **2.2.1 The City's Obligations**

#### **2.2.1.1 Compliance and Submittal**

By entering into this Agreement, the City agrees to comply with all of the terms of this Agreement, including the payment of monies and the funding of activities specified herein. The City further agrees to submit this Agreement including the Anadromous Fish Flow Plan and the Anadromous And Resident Fish Non-Flow Plan to the FERC as its proposed measures relating to the fisheries resources affected by the Project, as currently constructed, as required by applicable provisions of federal and state law, including without limitation the Federal Power Act.

#### **2.2.1.2 Additional Staffing**

The City shall assign adequate professional environmental staff to implement this Agreement. This shall include establishment of two new environmental staff positions with expertise in fisheries, wildlife, recreation, visual quality, cultural resources, and erosion control. One staff position shall be dedicated primarily to implementation of the Anadromous Fish Flow Plan and the Anadromous And Resident Fish Non-Flow Plan. The second staff position shall be dedicated primarily to implementation of the wildlife, recreation/visual quality, and cultural resource agreements.

### **2.2.2 The Intervenor's Obligations**

#### **2.2.2.1 Support For Project Relicense**

The Intervenor agrees to support the expeditious issuance of a new license to the City for the Project, as currently constructed, which is consistent with the provisions of this Agreement and which includes the Agreement as an article. This support shall include reasonable effort to expedite the NEPA process. The Parties shall file comments on any draft EA or EIS developed by the FERC in the relicensing proceedings for this Project and shall support the measures defined by this

Agreement as the preferred action. The Parties shall exchange drafts of their respective comments prior to submission to the FERC and consult with each other to ensure that the comments are consistent with this Agreement.

#### 2.2.2.2 Fisheries Resources Recommendations

The Intervenor shall submit this Agreement to the FERC as their recommendations related to the fisheries resources (including spawning grounds and related habitat) affected by the Skagit Project under any applicable provision of the Federal Power Act (including without limitation Sections 10(a), 10(j), and 4(e) thereof) and the Fish and Wildlife Coordination Act. The U.S. Forest Service agrees that this Agreement constitutes its preferred recommendation under Section 7(a) of the Wild and Scenic Rivers Act.

#### 2.2.2.3 Gorge Bypass Reach

The Intervenor agree that this Agreement obviates any need for flow releases in the Gorge bypass reach. The Intervenor shall support all efforts by the City to either retain its existing water quality certificate issued by the State of Washington, Department of Ecology (WDOE) on October 27, 1977 or, in the alternative, to obtain a new water quality certificate consistent with the terms and conditions of this Agreement, including the absence of flows in the Gorge bypass reach. In the event efforts are made to reclassify the Gorge bypass reach from a Class AA water to another Class water under WDOE regulations, the intervenors shall not oppose this action, and shall, at a minimum, provide written comments not opposing this action to the WDOE. Should the City be required to release flows in the Gorge bypass reach at any time before the issuance of a new FERC license and for any reason, this Agreement shall be voidable at the option of the City. Should the City be required to release flows in the Gorge bypass reach at any time after the issuance of a new FERC license and for any reason, this Agreement shall give rise to an immediate right of the City to petition the FERC to reconsider or reopen applicable license provisions to reconsider all fisheries resource provisions in light of such requirement. Under such circumstances, the City's efforts to initiate a proceeding before the FERC to reconsider or reopen shall not be opposed by the Intervenor; the Parties may, however, differ in their respective positions in such a proceeding.

### 2.2.3 The Parties' Obligations

#### 2.2.3.1 Cooperation Among Parties

The Parties shall cooperate in conducting and participating in studies and other actions provided for in this Agreement and shall provide assistance in obtaining any approvals or permits which may be required for implementation of this Agreement.

#### 2.2.3.2 Support Of Agreement

The Parties agree to join in the filing of an Offer of Settlement with the FERC based upon this Agreement and to request that the FERC issue appropriate orders approving this Agreement. All Parties shall refrain from seeking judicial review of FERC's approval of this Agreement. It is expressly agreed by the Parties that this Agreement shall be submitted to FERC as a unit and that

any material modification of its terms, approval of less than the entire Agreement, or addition of material terms by the FERC shall make the Agreement voidable at the option of any Party.

## **2.3 EFFECTIVE DATE AND DURATION**

### **2.3.1 Execution and Effective Date**

This Agreement shall take effect upon the effective date of a license issued by the FERC consistent with this Agreement. If the FERC issues a new license inconsistent with this Agreement and if a Party appeals, the Agreement shall not go into effect. The Parties retain the right to appeal the issuance of a license in whole or in part if unacceptable provisions are added, including stay of any provision.

### **2.3.2 Duration**

This Agreement, together with any subsequent modifications, shall remain in effect for the term of the new FERC license period for the Project, which includes the term(s) of any annual license(s) which may be issued after the foregoing new license has expired. This includes ongoing operations and maintenance expenses which shall continue to be funded for the duration of this Agreement.

## **2.4 COORDINATED IMPLEMENTATION**

### **2.4.1 Across Forum Coordination**

It is understood and agreed by the Parties that similar settlement agreements are being executed between the City and these Intervenor as well as other Intervenor (not party to this Agreement) in the Project relicensing proceedings concerning other resources affected by continuing Project operations. These other settlement agreements and mitigation and enhancement plans include:

**Wildlife**—Settlement Agreement Concerning Wildlife incorporating the Wildlife Habitat Protection and Management Plan

**Recreation and Aesthetics**—Settlement Agreement On Recreation and Aesthetics

**Erosion**—Settlement Agreement Concerning Erosion Control incorporating the Erosion Control Plan

**Cultural Resources**—Settlement Agreement Concerning Cultural Resources (Archaeological and Historic Resources) incorporating the Cultural Resources Mitigation and Management Plan, which includes the historic and archaeological resources mitigation and management plans

## **Traditional Cultural Resources—Settlement Agreement Concerning Traditional Cultural Properties incorporating the Traditional Cultural Properties Mitigation Plan**

### **2.4.2 Annual Meeting**

The City shall host an annual meeting of the Intervenor to facilitate coordination of implementation of the various settlement agreements. The Intervenor agree to cooperate in across forum coordination as necessary and appropriate to further effective program implementation.

## **2.5 MONETARY FIGURES**

### **2.5.1 Adjustments For Inflation/Deflation**

All dollar amounts listed in this Agreement are defined as 1990 dollars and shall be adjusted annually for inflation or deflation by using the revised Consumer Price Index (CPI-U) for All Urban Consumers as published by the United States Department of Labor for the Seattle Metropolitan area. The indices used shall be those published for the last half of 1990, and for succeeding years, the last half of the calendar year preceding that in which a payment or expenditure is to be made. Indexing of items in this Agreement shall continue until the year of actual payment, unless otherwise provided in this Agreement. The percentage of change from the earlier index to the later index shall be multiplied by the amount specified in this Agreement and the result added to or subtracted from that amount to arrive at the total payment or expenditure. Should the CPI-U index not be available, the Parties agree to negotiate another statistical basis for determining annual changes in the City's monetary commitments.

### **2.5.2 Time Basis For Payments and Obligations**

Payments and obligations by the City for this Agreement shall be made and met on a license-year basis. License years are based on the date of the FERC order issuing a new license for the Project; however, unless specifically provided otherwise in the plans, the City's monetary obligations do not become payable until the license becomes effective (Section 2.3). The City shall make Project specific monies due in license year one available at the time they are needed as soon as possible after the license becomes effective. In subsequent license years, the City shall make payments to the Intervenor for the implementation of specific Anadromous Fish Flow Plan and the Anadromous And Resident Fish Non-Flow Plan projects at the time they are needed. Moneys required to be paid to or on behalf of the Intervenor for non-project specific purposes shall be paid on the last day of each license year. If the license is issued and accepted during a season critical for implementation, it may be impossible to implement a particular program element that year. Therefore, the Parties agree that implementation of such elements may not occur until the license year following its stated schedule in the plans. Agreed upon re-scheduling of projects solely as a result of seasonal considerations shall not be considered a license compliance violation.

## 2.6 FORCE MAJEURE

The City shall not be liable or responsible for failure to perform or for delay in performance due to any cause or event or circumstance of Force Majeure. For purposes of this Agreement, Force Majeure is any cause or event beyond the City's reasonable control. This may include but is not limited to, fire, flood, mechanical failure or accidents that could not reasonably have been avoided by the City, strike or other labor disruption, act of God, act of any governmental authority or of the Parties, embargo, fuel or energy unavailability (ancillary to, but not including, basic power generation), wrecks or unavoidable delays in transportation, and inability to obtain necessary labor, materials or manufacturing facilities from generally recognized sources in the applicable industry, or communications systems breakdowns, or for any other reason beyond the City's control. The City shall make all reasonable efforts to resume performance promptly once the Force Majeure is eliminated.

## 2.7 DESIGNATED CONTACTS

### 2.7.1 Contact Persons

For purposes of implementing this Agreement, the Parties agree that the following individuals shall be designated by each to be the primary contact persons. The initial contact person for the City is:

Superintendent  
Seattle City Light  
1015 Third Avenue  
Seattle, WA 98104

and the initial contact persons for each of the Intervenor are:

Superintendent, North Cascades National Park Service Complex  
Pacific Northwest Region, National Park Service  
U.S. Department of the Interior  
North Cascades National Park Service Complex  
2105 Highway 20  
Sedro Woolley, WA 98284  
(206)856-5700

Regional Director, Region 1  
Fish and Wildlife Service  
U.S. Department of the Interior  
Eastside Federal Complex  
911 N.E. 11th Avenue  
Portland, OR 97232-4181  
(503)230-5967



File 101 (Unofficial) 04/30/1991

Field Supervisor  
U.S. Fish and Wildlife Service  
Fish and Wildlife Enhancement  
3704 Griffin Lane, S.E.  
Suite 102  
Olympia, WA 98501-2192

Area Director, Portland Area Office  
Bureau of Indian Affairs  
Attn. Branch of Fisheries  
911 N.E. 11th Avenue  
Portland, OR 97232

Forest Supervisor  
U.S. Department of the Agriculture, Forest Service  
Mount Baker - Snoqualmie National Forest  
21905 - 64th Avenue West  
Montlake Terrace, WA 98043  
(206)744-3393

Regional Director, Northwest Region  
U.S. Department of Commerce  
National Marine Fisheries Service  
7600 Sand Point Way, N.E., Building No. 1  
Seattle, WA 98115  
(206)526-6426  
Attn: Skagit Project Biologist

Tribal Chairperson  
Upper Skagit Tribe  
2284 Community Plaza  
Sedro Woolley, WA 98284  
(206)856-5501

Fisheries Manager  
Upper Skagit Tribe  
2284 Community Plaza  
Sedro Woolley, WA 98284  
(206)856-5501

Tribal Chairperson  
Sauk-Suiattle Tribe  
5318 Chief Brown Lane  
Darrington, WA 98241  
(206)436-0131

Fisheries Manager  
Sauk-Suiattle Tribe  
5318 Chief Brown Lane  
Darrington, WA 98241  
(206)436-0131

Tribal Chairperson  
Swinomish Indian Tribal Community  
P.O. Box 817  
LaConner, WA 98257  
(206)466-4047

Fisheries Manager  
Swinomish Indian Tribal Community  
P.O. Box 817  
LaConner, WA 98257  
(206)466-4047

Director  
Washington Department of Fisheries  
115 General Administration Building, MS: AX-11  
Olympia, WA 98504  
(206)753-3624

Director  
Washington Department of Wildlife  
600 North Capital Way  
MS: GJ-11  
Olympia, WA 98504  
(206)753-3318

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

President  
North Cascades Conservation Council  
P.O. Box 95930  
University Station  
Seattle, WA 98145

Notification of changes in the contact persons must be made in writing and delivered to all other contact persons.

## **2.7.2 Notices**

All written notices to be given pursuant to this Agreement shall be mailed by first class mail or overnight express service postage prepaid to each Party at the addresses listed above or such subsequent address as a Party shall identify by written notice to all Parties. Notices shall be deemed to be given five (5) working days after the date of mailing.

## **2.8 REOPENER AND MODIFICATION**

### **2.8.1 Use of Reopener Clause in License**

Notwithstanding any other provision of this Agreement, any Party may at any time invoke or rely on any reopener clause(s) in the license for the Project in order to request the imposition by the FERC of different or modified measures for fisheries. Any provision of this Agreement that might be read to limit or preclude a Party from raising any relevant material issue of fact or law in reopening or to otherwise conflict with reopening (e.g., Sections 2.1, 2.1.1, 2.1.2, 2.1.3, 2.1.4, and 2.2.2.2) shall be inoperative to the extent of any such limitation, preclusion or conflict.

### **2.8.2 Modification**

Before invoking any reopener clause under Section 2.8.1, a Party shall request all other Parties to commence negotiations for a period of up to 90 days to modify the terms and conditions of this Agreement in whole or in part. Any such modification shall be subject to FERC approval, except that the Parties may agree to implement on an interim basis, pending FERC approval, any measure not requiring prior FERC approval.

### **2.8.3 Burden of Proof**

In any action under Section 2.8, the petitioning Party shall have the burden of proof.

### **2.8.4 Effect of Reopener Proceedings**

The Parties shall continue to implement this Agreement pending final resolution of any modification sought from the FERC, or until the relief sought becomes effective by operation of law, or unless otherwise agreed. At the time of petitioning the FERC under Section 2.8.1, nothing shall prevent any Party from requesting the imposition of different or modified measures or from bringing any cause of action in any appropriate forum, or from taking other actions relating to any issue or matter addressed by this Agreement.

## **2.9 PROJECT MODIFICATIONS (HIGH ROSS)**

### **2.9.1 Project Modifications**

This Agreement applies to the Project excluding High Ross or any modified High Ross construction. It does not address mitigation for the effects of raising Ross Dam. In the event the City decides to consider raising Ross Dam, separate provisions will be made for additional mitigation. The Parties shall initiate discussion regarding fish mitigation according to the following procedures.

### **2.9.2 Notice**

The City shall notify the Intervenor of its decision to consider raising Ross Dam at least thirty (30) months before construction would commence.

### **2.9.3 Consultation**

At the same time, the City shall commence consultation on necessary fish studies and possible mitigation measures using the Skagit Fisheries Coordinating Committees.

### **2.9.4 Resolution**

At least 180 days before construction would commence, the City shall either agree with the Intervenor on modifications to this Agreement or remaining disputes over fisheries measures may proceed as described in Section 3.0 at the option of any Party.

### **2.9.5 Mitigation Criteria**

Mitigation for the effects on fisheries, if any, of raising Ross Dam shall be based on criteria developed through any necessary fisheries studies that are conducted at the time that the City decides to consider raising Ross Dam.

### 2.9.6 Preservation Of Rights

Nothing in this Agreement shall preclude any Party from challenging the construction and operation of High Ross or modified High Ross, including disputed mitigation, in any proceeding. The mitigation procedures set out in this Section are not exclusive and need not be commenced or exhausted prior to such challenges.

## 3.0 DISPUTE RESOLUTION

### 3.1 REFERRAL OF DISPUTES

Any dispute between the Parties solely concerning asserted non-compliance with the terms of this Agreement shall be referred for consideration to the Flow Coordinating Committee or the Non-Flow Coordinating Committee established under Section 5.0. The appropriate committee shall convene as soon as practicable following issuance of a written request by any Party. All decisions of the committee must be unanimous. In the event a committee cannot resolve the dispute within thirty (30) days after its first meeting on a dispute, it shall give notice of its failure to resolve the dispute to all Parties.

#### 3.1.1 Optional Policy Review

The Parties may, at their option prior to elevating an issue to the FERC, convene an in-person or telephone conference of policy-level administrators should committee-level dispute resolution fail. Any Party through its designated contact in Section 2.7 may invoke optional policy review by contacting the other Parties' designated contacts and arranging a suitable conference. Decisions by unanimous consent shall bind all Parties. In the event that the policy representatives cannot resolve the dispute within 15 days, the matter may be taken to the next level.

3.1.2 Following failure of resolution by the Flow Coordinating Committee or the Non-Flow Coordinating Committee and the optional policy review, any Party may request the FERC to refer the dispute to (1) the Chief Administrative Law Judge of the Commission; or (2) the Division of Project Compliance and Administration within the Office of Hydropower Licensing, or its successor (any one of which is hereinafter referred to as the Decisionmaker), in the order listed above (unless otherwise agreed by the Parties or directed by FERC), for expedited review in accordance with the procedures set forth in this Section 3.0.

3.1.3 Any issue in dispute that is not subject to the expedited review process may be referred to the FERC for resolution pursuant to the FERC's Rules of Practice and Procedure.



### **3.2 SCOPE**

The expedited review process specified in this section shall be utilized solely to resolve any issues in dispute between the Parties that arise under asserted non-compliance with the terms of this Agreement under the Anadromous Fish Flow Plan or the Anadromous And Resident Fish Non-Flow Plan where the amount in controversy is less than \$500,000 (1990 dollars). For the purpose of this section, the amount in controversy shall be determined by calculating the difference between the calculated annual cost of the Intervenor's proposal for resolution of the dispute and the calculated annual cost of the City's proposal for resolution of the dispute.

### **3.3 PROCEDURES**

Under the expedited review process, each Party that desires to present an initial position statement to the Decisionmaker shall file the statement with the Decisionmaker and all other Parties within twenty (20) days of mailing of notice by a Party that expedited review is requested. Responsive statements shall be filed and served within forty (40) days of the mailing of the notice. The Decisionmaker shall set a date for submission of any briefing, affidavits or other written evidence and a further date for hearing of oral evidence and argument. Except by agreement of all Parties involved in the dispute, the hearing shall be held not later than seventy (70) days after the date of mailing of the requesting Party's notice or as soon thereafter as the Decisionmaker shall be available. The hearing shall be held in Seattle, Portland, or any other location agreed upon by the Parties, or mandated, upon a finding of special circumstances, by the Decisionmaker. The Decisionmaker shall decide all matters presented within fifteen (15) days of the hearing or as soon thereafter as possible.

### **3.4 EFFECTIVENESS**

All decisions under the expedited review process shall be effective and binding upon issuance and pending appeal, if any. Nothing in this section shall limit or restrict the right of any Party to petition the FERC for de novo review of any decision under the expedited review process. All such appeals shall be in accordance with the FERC's Rules of Practice and Procedure.

### **3.5 ALTERNATIVE DECISIONMAKER**

The Parties may agree to refer any issue subject to expedited review, including those related to the Anadromous Fish Flow Plan, to a third party Decisionmaker other than someone within FERC for processing pursuant to this subsection or as otherwise agreed by the Parties.

### **3.6 NON-COMPLIANCE**

Notwithstanding any other provision of this Agreement, any Party may seek relief arising solely from non-compliance with this Agreement by any Party.

## **4.0 ISSUES OF GENERAL CONCERN**

### **4.1 ROSS LAKE OPERATIONS**

#### **4.1.1 Refill After April 15**

The City shall fill Ross Lake as early and as full as possible after April 15 each year, subject to adequate runoff, anadromous fisheries protection flows (specified in the Anadromous Fish Flow Plan, see Section 6.0), flood protection, minimized spill, and firm power generation needs. Subject to the above constraints and hydrologic conditions permitting, the City shall achieve full pool by July 31 each year.

#### **4.1.2 Full Pool Through Labor Day**

The City shall hold Ross Lake as close to full pool as possible through Labor Day weekend, subject to adequate runoff, anadromous fisheries protection flows (specified in the Anadromous Fish Flow Plan, see Section 6.0), flood protection, minimized spill, and firm power generation needs.

#### **4.1.3 Overdraft Years**

In any overdraft year (i.e., in those years in which Ross Lake is drafted below the energy content curve), the City shall bring the Ross Lake level up to the Variable Energy Content Curve (VECC) no later than March 31, subject to adequate runoff, anadromous fisheries protection flows (specified in the Anadromous Fish Flow Plan, see Section 6.0), flood protection, minimized spill, and firm power generation needs.

#### **4.1.4 Conflict**

In the event of conflict between the provisions of this Section 4.1.1 and other provisions of the Agreement, the other provisions shall control.

## **5.0 SKAGIT FISHERIES COORDINATING COMMITTEES**

General oversight, coordination, and direction regarding the implementation of this Agreement shall be provided by Flow Plan Coordinating Committee (FCC) and by a Non-Flow Plan Coordinating Committee (NCC)

## **5.1 FUNCTIONS**

### **5.1.1 Flow Plan Coordinating Committee (FCC)**

The functions of the FCC shall include but not be limited to the following:

- 1) addressing/resolving disputes regarding implementation of the Anadromous Fish Flow Plan;
- 2) providing technical assistance to the City on seasonal, monthly, and daily operations that could affect Skagit River fisheries downstream of the Gorge powerhouse;
- 3) developing and supervising model verification studies;
- 4) developing and supervising monitoring studies to identify start and end dates for salmon and steelhead spawning and fry protection periods;
- 5) developing and supervising annual salmon and steelhead redd tracking and fry stranding surveys;
- 6) developing and proposing modifications to the Anadromous Fish Flow Plan;
- 7) reviewing reports prepared by and in consultation with the City;
- 8) establishing, making assignments, and setting schedules and deadlines for Sub-Committees or Technical Working Groups;
- 9) providing technical expertise and assistance on matters of fish biology and ecology relative to the Flow Plan;
- 10) coordinating with Field Monitoring Representatives for actions under Section 6.7 Monitoring and Compliance;
- 11) maintaining coordination with the NCC; and
- 12) adopting rules and procedures for its proper functioning, consistent with the provisions of this Agreement.

### **5.1.2 Field Monitoring Representatives**

The Parties shall designate Field Monitoring Representatives for actions under Section 6.7. The City shall designate one Field Monitoring Representative and the Intervenor shall designate at least one additional Field Monitoring Representative.

### **5.1.3 Non-Flow Plan Coordinating Committee (NCC)**

The functions of the NCC shall include but not be limited to the following:

- 1) addressing/resolving disputes regarding implementation of the Non-Flow Plan;
- 2) reviewing and approving studies, program alternatives, facility designs, plans and proposed actions for all Non-Flow Programs, based upon documents provided by the Program Managers;
- 3) developing and proposing modifications to the Anadromous Fish and Resident Fish Non-Flow Plan;
- 4) providing technical expertise and assistance on matters of fish biology and ecology relative to the Non-Flow Plan;
- 5) maintaining coordination among all Non-Flow Programs and with the FCC;

- 6) reviewing reports prepared by Sub-Committees, Program Managers, or prepared by and in consultation with the City;
- 7) determining the allocation of unspent, under spent, and carry over funds pursuant to Section 7.0 of the Anadromous and Resident Fish Non-Flow Plan;
- 8) reviewing and approving an annual report prepared by the City accounting for expenditures and remaining funds;
- 9) establishing, making assignments, and setting schedules and deadlines for Sub-Committees or Technical Working Groups; and
- 10) adopting rules and procedures for its proper functioning, consistent with the provisions of this Agreement.

## 5.2 MEMBERSHIP

### 5.2.1 General

5.2.1.1 The following Parties shall be members of both the FCC and NCC: NPS, USFS, FWS, NMFS, Upper Skagit Tribe, Sauk-Suiattle Tribe, Swinomish Indian Tribal Community, WDF, WDW, and the City.

5.2.1.2 Each member shall appoint one representative and one alternate to act for it in matters pertaining to functions of the FCC and NCC. Each member shall provide written notice of its appointed representative to the other members, and may, by similar notice, at any time change its representative or alternate.

5.2.1.3 Any member may temporarily or permanently choose not to participate in either the FCC, the NCC, or both, by written notice to all Parties.

### 5.2.2 Voting

The members of the FCC and NCC will attempt to achieve consensus in decision making in both the FCC and the NCC. For the purposes of this Agreement, "consensus" is defined as a collective agreement of opinion, not requiring unanimous approval. Consensus is achieved when all members in a quorum (as defined in Section 5.3.2) agree, when a majority of the members in a quorum agree and the others choose not to dissent, or when a single dissenting member is overruled according to the provisions of Sections 5.2.2.3 or 5.2.2.4. Consensus is not achieved when more than one member dissents.

#### 5.2.2.1 FCC And NCC Chairpersons

The Chairperson for the FCC and NCC shall be on a rotating annual basis between the following member groups: Federal, State, and Tribal. It shall be the responsibility of the Chairperson to encourage cooperation and information exchange between members and to facilitate consensus decisions.

#### 5.2.2.2 Subcommittee Delegation

The FCC and NCC may delegate specific decision making authority to Subcommittees made up of selected members. The purpose of the delegation is to facilitate rapid decision making when delay will result in significant impact to fisheries or other resources or when required for expedient program implementation.

#### 5.2.2.3 FCC Decision Making

Decisions of the FCC shall be by consensus of the members constituting a quorum. If one member dissents from the decision and cannot demonstrate that the decision violates a legal authority, the FCC Chairperson may overrule the dissenting member to achieve a decision. The members, when addressing issues involving special expertise or authority, shall give deference to the members whose agencies possess such expertise or authority. Provided, however, the City shall have a veto on decisions before the FCC when those decisions directly affect Project operations or when those decisions require additional expenditures beyond those contemplated by this Agreement for the performance of the specific functions set forth in Section 5.1.1 (Items 1 through 12).

#### 5.2.2.4 NCC Decision Making

Decisions of the NCC shall be by consensus of the members constituting a quorum. If one member dissents from the decision and cannot demonstrate that the decision violates a legal authority, the NCC Chairperson may overrule the disagreeing party to achieve a decision. The members, when addressing issues involving special expertise or authority, shall give deference to the members whose agencies possess such expertise or authority.

### 5.3 MEETINGS

**5.3.1** During the first three (3) years of the license period, meetings shall be held quarterly or upon request of any two members. Thereafter, the FCC or NCC shall meet as mutually agreed or upon the request of any two members.

**5.3.2** When a meeting of the FCC or NCC is scheduled, as many of the member representatives as are available shall meet promptly to address the business at hand. A quorum shall be required to conduct business. The presence of a simple majority of members shall constitute a quorum, provided there is at least one representative from the tribes, the state, the federal government, and the City. Members may be represented by proxy if necessary.

**5.3.3** Information or data required for meetings may be transmitted by facsimile machine or by mail. Activities may be conducted by telephone conference.



## **5.4 DOCUMENTATION**

**5.4.1** The City shall schedule and document the proceedings of all FCC and NCC meetings.

**5.4.2** The City shall notify all Parties of the time, location, and agenda for quarterly meetings at least thirty (30) days prior to the meeting date. For all other meetings, the City shall be responsible for notifying all Parties of the meeting time, location, and agenda at the earliest possible date, usually no less than seven (7) days prior to the meeting date.

**5.4.3** The City shall make audio recordings of all regular meetings and prepare a summary of decisions reached at these meetings for distribution to all Parties. The summary shall be deemed approved within sixty (60) days of distribution by the City unless a member objects. The audio recordings and summaries shall be held on file by the City for a ten (10) year period.

**5.4.4** The City, in consultation with the FCC and NCC, shall produce an annual report summarizing the activities of the FCC and NCC for the preceding calendar year, including an accounting summary for each program of the Non-Flow Plan. This annual report shall be submitted to all Parties and the FERC no later than June 30 of the following calendar year.

**5.4.5** All studies, reports, and other documents prepared under this Agreement shall be available to all Parties as soon as reasonably possible. Drafts shall be circulated through the FCC or NCC for review and comment, and comments shall be addressed and/or made an appendix to the final report. All studies shall be conducted following techniques and methodologies accepted by the FCC and NCC and shall be based on sound biological statistical design and analysis.

## **6.0 ANADROMOUS FISH FLOW PLAN**

### **6.1 DEFINITIONS**

#### **Daily Spawning Flow**

Shall mean the actual average daily flow at Newhalem gage minus the portion of flow due to flood control, spill, avoiding firm load curtailment, or high Sidestream Inflow as specified by Section 6.5.4.3. A sample calculation is shown in Appendix A (Calculation of Spawning Flow), Part 1.

#### **Downramp Amplitude**

Shall mean the difference between the highest Newhalem gage reading and the subsequent lowest Newhalem gage reading during any consecutive 24-hour period due to a flow reduction at Gorge Powerplant and/or at Gorge Dam, which is calculated as shown in Appendix L (Miscellaneous Calculations), Part 1.

**Downramp Event**

Shall mean a reduction in flow at Newhalem gage due to a controlled reduction in generation and/or spill at Gorge powerplant or dam at a rate exceeding 300 cubic feet per second (cfs) for one hour, or which exceeds a total reduction in flow of 300 cfs over two or more consecutive hours. Downramp rate is calculated in units of cfs per hour as the difference in average flow at Newhalem gage between one hour and the next

**Effective Spawning Habitat Model**

Shall mean the model or successor model, as approved by the Parties, which predicts the relationship between spawning and incubation flows in terms of fish habitat and which is documented in Section 6.7.1.1 (Effective Spawning Habitat Model).

**Firm Load**

Shall mean the minimum amount of power which the City is obligated to provide from a combination of generation and contract resources for the use of its customers.

**Inflow Day**

Shall mean the last calendar day preceding a Power Scheduling Day for which data are available to calculate inflow conditions.

**Insufficient Month**

Shall mean a month for which it is determined, pursuant to Section 6.4, that there is insufficient stream flow to meet both minimum flows and other constraints.

**Marblemount Gage**

Shall mean the United States Geological Survey (USGS) gaging station no. 12181000 located at the town of Marblemount, Skagit County in the State of Washington.

**Maximum Spawning Flow**

Shall mean an average daily flow measured at Newhalem gage of 4,500 cfs for chinook salmon, 4,000 cfs for pink salmon, 4,600 cfs for chum salmon, and the highest average daily flow that the City can release during the steelhead spawning season without exceeding the current Spawning Control Curve (refer to Appendix E).

**Natural Flow**

Shall mean the flow which represents the average daily flow which would occur without the Skagit Project in place, which is calculated as shown in Appendix L, Part 2.

**Newhalem Gage**

Shall mean the USGS gaging station No. 12178000 located at the town of Newhalem, Whatcom County in the State of Washington.

**Percent Exceedance Flow**

Shall mean the flow calculated from historical flow records that represents the flow which is exceeded with a specific probability frequency. For example, the "95 percent exceedance flow" is less than 95 percent of all flows. (Only 5 percent of flows are lower)

**Planned Spawning Flow**

Shall mean the average daily flow included in the monthly operating plan of the City as the target flow for spawning during a particular month.

**Power Scheduling Day**

Shall mean any day in which power schedulers at the City's Power Control Center prepare generation schedules for the following day or days.

**Predicted Marblemount Flow**

Shall mean the sum of the instantaneous flow at Newhalem gage for a given calendar day and the Tributary Inflow for the corresponding Inflow Day which is calculated shown in Appendix L, Part 3.

**Redd**

Shall mean the gravel nest in which salmon or steelhead lay their eggs.

**Season Spawning Flow**

Shall mean the flow at Newhalem gage that determines incubation flows based on spawning conditions over the entire spawning period of a salmon species or steelhead spawning group and which is calculated as described in Sections 6.3.2.1 and 6.3.3.1. Sample calculations are shown in Appendix A, Parts 2 and 3.

**Sidestream Inflow**

Shall mean the inflow from tributaries between Ross Dam and Newhalem gage.

**Spawning Control Flow**

Shall mean the planned spawning flow for steelhead based on forecasted conditions prior to and during the spawning period which is determined as shown in Appendix E (Shaping of Flows During Steelhead Spawning).

**Temperature Unit Model**

Shall mean the existing model or its successor model, as approved by the Parties, which predicts dates of hatch and emergence based on the relationship between temperature and rate of incubation of salmon and steelhead and which is documented in Section 6.7.1.3 (Temperature Unit Model).

**Threshold Sidestream Inflow**

Shall mean the inflow between Ross Dam and Newhalem gage which is beyond the City's reasonable means to control and shall be defined as 3,500 cfs during the chinook salmon spawning period, 2,500 cfs during the pink salmon spawning period, 3,000 cfs during the chum salmon spawning period, or the Spawning Control Flow minus 500 cfs during the steelhead spawning period.

**Tributary Inflow**

Shall mean the inflow from tributaries between the Newhalem gage and the Marblemount gage calculated as the mean daily flow at Marblemount gage minus the mean daily flow at Newhalem gage on the same calendar day. A sample calculation is included in Appendix L, Part 4.

**6.2 GENERAL**

This section of this Settlement Agreement establishes the City's obligations to (a) provide instantaneous minimum flows, (b) limit downramping to specific rates and times, (c) limit maximum average daily flows during spawning periods, (d) restrict downramp amplitude, (e) monitor and evaluate the performance of the Effective Spawning Habitat Model and Temperature Unit Model, and (f) conduct field monitoring of salmon and steelhead deemed necessary by the FCC.

**6.2.1** The Anadromous Fish Flow Plan addresses flows for the fishery resources in the mainstem Skagit River downstream of Gorge powerhouse. Its primary purpose is to address the effects of Project operations on salmon and steelhead. This objective requires specific measures for each species and life stage.

**6.2.2** For spawning salmon and subsequent protection of redds, the effects of operations are addressed by limiting maximum flow levels during spawning, and maintaining minimum flows throughout the incubation period that are adequate to keep most redds covered until the fry emerge.

**6.2.3** For newly emerged salmon fry, the effects of operations are addressed by limiting the daily downramp amplitude, maintaining minimum flows throughout the salmon fry protection period that are adequate to cover areas of gravel bar commonly inhabited by salmon fry, and limiting downramping to nighttime hours except in periods of high flow.

**6.2.4** For spawning steelhead and subsequent protection of redds, the effects of operations are addressed by limiting maximum flow levels during spawning, shaping daily flows for uniformity over the extended spawning period, and maintaining minimum flows through the incubation period that are adequate to keep most redds covered until fry emerge from the gravel.

**6.2.5** For newly emerged steelhead fry, the effects of operations are addressed by limiting daily downramp amplitude and maintaining minimum flows throughout the steelhead fry protection period that are adequate to cover areas of gravel bar commonly inhabited by steelhead fry. In addition, downramping will be limited to a very slow rate when Project discharge is moderately

low and limited to a moderate rate when Project discharge is relatively high to minimize or prevent fry stranding on gravel bars.

## **6.3 FLOW REGULATION**

### **6.3.1 General**

The Parties agree that continual provision of adequate instream flows and continued adherence to operating parameters and guidelines are essential for the protection and improvement of anadromous fish habitat and fish production in the Skagit River. Where minimum flows required for incubation and fry protection for the various species of anadromous salmon or steelhead spawning groups overlap in time, the City shall provide the highest minimum flow indicated on any particular day.

### **6.3.2 Flow Regulation For Salmon**

The City shall provide instream flow and limit operations to protect salmon as indicated below.

#### **6.3.2.1 Salmon Redd Protection**

Subject to the exception for Insufficient Months as determined pursuant to Section 6.4 (Flow Insufficiency), the City shall regulate spawning and incubation flows to provide protection of salmon redds and offspring as indicated below.

##### **(1) Salmon Spawning and Incubation Periods**

(a) **Salmon Spawning Periods**—The spawning periods for salmon are defined as follows unless these periods are optionally modified pursuant to Appendix J (Alternative Salmon Spawning Periods). The spawning period of chinook salmon shall start at 0001 hours on August 20 and shall end at 2400 hours on October 15 each year. The spawning period of pink salmon, which occurs only in odd numbered years, shall start at 0001 hours on September 12 and shall end at 2400 hours on October 31 each year. The spawning period of chum salmon shall start at 0001 hours on November 16 and shall end at 2400 hours on January 6 each year.

(b) **Salmon Incubation Periods**—Incubation periods shall start at 0001 hours on the first day of the spawning period and shall end at 2400 hours on April 30 for chinook and pink salmon and on May 31 for chum salmon.

##### **(2) Salmon Spawning Flow**

During the spawning period of each salmon species, Daily Spawning Flows shall not exceed 4,500 cfs for chinook salmon, 4,000 cfs for pink salmon, and 4,600 cfs for chum salmon unless (a) the flow forecast made by the City shows a sufficient volume of water will be available to sustain a higher incubation flow, thereby permitting a higher spawning flow (see Appendix C—Salmon Spawning/Incubation Flow Tables), or (b) uncontrollable flow conditions are present, as described in Sections 6.4 and 6.5.



The Season Spawning Flow for each species shall be defined as the average of the highest ten (10) Daily Spawning Flows at the Newhalem gage during the spawning period of that species. Daily Spawning Flows shall be calculated as shown in Appendix A, Part 1 (General Calculation of Daily Spawning Flow). A sample calculation of Season Spawning Flow is shown in Appendix A, Part 2.

**(3) Salmon Incubation Flow**

The City shall provide instantaneous minimum incubation flows for each day of the incubation period of each species, as follows, unless higher minimum flows are required as specified under Section 6.3.1 (General Provisions of Flow Regulation).

(a) **Salmon Incubation Flow During the Spawning Period**—Incubation flow during the first ten (10) days of the spawning period of each species shall be based on the Planned Spawning Flow. After the first ten days, incubation flow for each species shall be based on the average of the highest ten (10) Daily Spawning Flows that have occurred up to that day during the spawning period. For example, the incubation flow for the twentieth day of the spawning period is based on the average of the highest ten (10) Daily Spawning Flows during the preceding 19 days, and so on for the twenty-first, twenty-second, etc. days.

Appropriate incubation flows shall be determined for the spawning flows that are calculated as described above according to Appendix C (Salmon Spawning/Incubation Flow Tables). Sample calculations are shown in Appendix B, Parts 1 and 2.

(b) **Salmon Incubation Flow Following the Spawning Period**—Incubation flow during days following the spawning period of each species shall be based on the Season Spawning Flow which is calculated as the average of the highest ten (10) Daily Spawning Flows at the Newhalem gage during the spawning period of that species. Appropriate incubation flows shall be determined for the Season Spawning Flow according to Appendix C (Salmon Spawning/Incubation Flow Tables). A sample calculation is shown in Appendix B, Part 3.

**6.3.2.2 Salmon Fry Protection**

During the period from 0001 hours on February 1 through 2400 hours on May 31 when salmon fry are emerging from redds, which shall be known as the Salmon Fry Protection Period, the City shall implement the following restrictions of downramp conditions and minimum flow for the purpose of protecting salmon fry.

(1) **Downramp Amplitude During Salmon Fry Protection Period**—The City shall limit the Downramp Amplitude to no more than 4,000 cfs.

(2) **Downramping During Salmon Fry Protection Period**—The City shall restrict its maximum downramping rate, as measured at Newhalem gage, to protect salmon fry as follows:

(a) **Daytime Downramping During the Salmon Fry Protection Period**—During the period of time beginning six and one-half hours prior to official sunrise and ending at official sunset (Pacific Standard or Pacific Daylight Time), no downramping is allowed from the moment

when Predicted Marblemount Flow is less than or equal to 4,700 cfs. Downramping may proceed at a rate of up to 1,500 cfs per hour as long as Predicted Marblemount Flow is greater than 4,700 cfs

(b) Nighttime Downramping During the Salmon Fry Protection Period—Downramping is allowed at a rate up to 3,000 cfs per hour during all periods other than daytime.

(3) Salmon Fry Protection Flow—Subject to the exception for Insufficient Months as determined in Section 6.4 (Flow Insufficiency), the City shall maintain a minimum flow at the Newhalem gage that is the higher of either the flow that results in a Predicted Marblemount Flow of at least 3,000 cfs or the monthly flows as set forth in Appendix I (Fry Protection Flows At Newhalem gage). For the purpose of salmon fry protection, the City shall not be required to release flows (as measured at Newhalem gage) greater than 2,600 cfs. Sample calculations are included in Appendix D, Parts 1, 2, and 3.

### 6.3.3 Steelhead

The City shall provide instream flows and limit operations to protect steelhead as indicated below:

#### 6.3.3.1 Steelhead Redd Protection

Subject to the exception for Insufficient Months as determined pursuant to Section 6.4 (Flow Insufficiency), the City shall regulate spawning and incubation flows to protect steelhead redds and offspring as indicated below.

##### (1) Steelhead Spawning and Incubation Periods

(a) Steelhead Spawning Periods—The steelhead spawning period shall be March 15 through June 15 each year. This total spawning period shall be divided into three subperiods which correspond to the months, or portions thereof: March 15 - 31, April 1 - 30, and May 1 through June 15 which shall be treated as separate spawning groups for the purpose of determining succeeding steelhead incubation flows.

The spawning subperiod of March steelhead shall start at 0001 hours on March 15 and shall end at 2400 hours on March 31. The spawning subperiod of April steelhead shall start at 0001 hours on April 1 and shall end at 2400 hours on April 30. The spawning subperiod of May and June steelhead shall start at 0001 hours on May 1 and shall end at 2400 hours on June 15.

(b) Steelhead Incubation Periods—The incubation periods for each spawning group shall start at 0001 hours on the first day of the spawning subperiods and shall end at 2400 on June 30 for March steelhead, and July 31 for both April steelhead and May through June 15 steelhead. During the month of August minimum flows of 2,000 cfs will be maintained for fry protection purposes as described in Section 6.3.3.1.(3)(b).

## (2) Steelhead Planned Spawning Flow

During the steelhead spawning period, Planned Spawning Flows shall not exceed the flows indicated by the most current Spawning Control Curve, which is determined as shown in Appendix E (Shaping of Flows During Steelhead Spawning). Further, to the extent Ross Lake has sufficient storage volume to contain and shape the forecast runoff without causing spill, Planned Spawning Flows shall be less than the following amounts: 5,000 cfs for March steelhead, 5,000 cfs for April steelhead, and 4,000 for May through June 15 steelhead, unless the forecasted inflow and storage is great enough to provide incubation flows for higher Season Spawning Flows. Any Planned Spawning Flows greater than the flow ranges above shall not be implemented prior to discussion in the FCC. Spawning flows shall be shaped such that they result in reservoir elevations greater than or equal to the Spawning Control Curve and less than the Spill Control Curve as described in Appendix E. The City shall endeavor to provide uniform Season Spawning Flows over the entire spawning period as described in Appendix E.

The actual Season Spawning Flow for each subperiod shall be defined as the average of the highest ten (10) Daily Spawning Flows at the Newhalem gage during each spawning subperiod. Daily Spawning Flow shall be calculated as shown in Appendix A, Part 1 (Calculation of Spawning Flow).

## (3) Steelhead Incubation Flow

The City shall provide instantaneous minimum incubation flow for each day of the incubation period of steelhead, as follows, unless higher minimum flows are required as specified under Section 6.3.1:

(a) Steelhead Incubation Flow During the Spawning Subperiods—Incubation flow during the first ten (10) days of each spawning subperiod shall be based on the Planned Spawning Flow. Thereafter, daily incubation flows shall be based on the average of the highest ten (10) Daily Spawning Flows that have occurred up to that day. Appropriate incubation flows for any given day shall be determined for the spawning flows that are calculated as described above and the Season Spawning Flows according to Appendix G (Steelhead Spawning/Incubation Flow Tables). Sample calculations are shown in Appendix F, Parts 1 and 2.

(b) Steelhead Incubation Flow Following the Spawning Subperiods—Incubation flow during days following each spawning subperiod shall be based on the Season Spawning Flow which shall be calculated as the average of the highest ten (10) Daily Spawning Flows during that subperiod. Appropriate incubation flows for any given day shall be determined by the Season Spawning Flows according to Appendix G. A sample calculation is shown in Appendix F, Part 3.

During the months of June and July, the City shall maintain daily incubation flows at Newhalem gage, at least as great as the monthly minimum fry protection flows set forth in Appendix I, that result in Predicted Marblemount Flows no less than the flows listed in Appendix G which correspond to the appropriate Season Spawning Flows. A sample calculation is shown in Appendix F, Part 3. For the purposes of incubation, the City shall not be required to release flows (as measured at Newhalem gage) greater than 2,600 cfs. During the month of August, the City shall maintain instantaneous daily incubation flows at Newhalem gage of 2,000 cfs, except that when Natural Flow on the Inflow Day is less than 2,300 cfs, the minimum incubation flow may be reduced to 1,500 cfs until the Natural Flow exceeds 2,300 cfs.

### 6.3.3.2 Steelhead Fry Protection

During the Steelhead Fry Protection Period from 0001 hours on June 1 through 2400 hours on October 15, unless modified pursuant to Appendix K (Alternative Steelhead Fry Protection Period), the City shall implement the following restrictions on downramp conditions and minimum flow for the purpose of protecting steelhead fry.

(1) Downramp Amplitude During the Steelhead Fry Protection Period—Maximum 24 hour Downramp Amplitude shall be limited to 3,000 cfs, except that when Section 6.4 (Flow Insufficiency) flow reductions are in effect, the maximum 24 hour Downramp Amplitude for August shall be limited to 500 cfs. From the point that flow at Newhalem gage is 4,000 cfs or less, the Downramp Amplitude is further limited as shown in Table 1 below, regardless of whether the maximum 24 hour amplitude can be attained. A sample calculation is shown in Appendix H, Parts 1, 2, and 3.

(2) Downramping During the Steelhead Fry Protection Period—The City shall restrict its maximum downramping rate, as measured at Newhalem gage, to protect steelhead fry as follows:

(a) Newhalem Instantaneous Flow 4,000 cfs or Less—Downramping is allowed up to 500 cfs per hour.

(b) Newhalem Instantaneous Flow Above 4,000 cfs—Downramping is allowed up to 1,000 cfs per hour.

(3) Steelhead Fry Protection Flow—Subject to the exception for Insufficient Months as determined in Section 6.4 (Flow Insufficiency), the City shall maintain minimum flows at Newhalem gage which are the higher of flows specified in Appendix I (Fry Protection Flows at Newhalem Gage) or determined by Section 6.3.3.1 (Incubation Flows). During the portions of June and October excluded from the Steelhead Fry Protection Period pursuant to Appendix K (Alternative Steelhead Fry Protection Period), minimum flows shall be determined by Section 6.3.3.1 (Incubation Flow). Further, the minimum flow for August may be reduced to 1,500 cfs when Natural Flow at Newhalem gage on the Inflow Day is less than 2,300 cfs.

### 6.3.4 Measures Beyond The Required Operation Constraints

6.3.4.1 The Parties recognize that the operational requirements in this section for the protection of anadromous fish spawning, incubation, and rearing may not provide full and complete protection, particularly when uncontrollable flow events occur. However, it is the goal of the City and Intervenor to provide full and complete protection each year. Achieving this goal will require continuing cooperation among all Parties.

6.3.4.2 Certain actions beyond the Project operational requirements may be available to the City which will help achieve this goal. Such actions could include augmenting minimum flows or reducing daily average flows at the Gorge powerplant to reduce the effects of controlled and uncontrolled flow events which may be detrimental to anadromous fish spawning, incubation, and

**Table 1.** Downramp amplitude in cfs allowed during steelhead fry protection period.

Month	Maximum Daily 24 hour Amplitude (cfs)	Portion of Amplitude When Newhalem Gage < 4,000 cfs (cfs)
June 1 or Alternative Start Date to June 30	3,000	2,000
July	3,000	2,000
August	3,000*	2,000*
September	3,000	2,500
October 1 to 15 or Alternative End Date	3,000	2,500

\* Limited to 500 cfs per day when Section 6.4 (Flow Insufficiency) provisions are in effect.



rearing. The specific actions to be taken shall be cooperatively developed through the FCC taking into account system flexibility, economic considerations, and potential impacts upon all anadromous species and life stages. Critical data to be considered shall include but not be limited to actual Newhalem to Marblemount Tributary Inflow and field monitoring of actual redd locations.

6.3.4.3 The City will initially develop proposed actions at the end of the spawning season for each species (or spawning group in the case of steelhead) or whenever uncontrollable flow events occur during the spawning, incubation, and rearing periods. The City will present the proposal to the FCC for review and discussion in an effort to reach consensus on a plan of action.

## 6.4 FLOW INSUFFICIENCY

### 6.4.1 General

This chapter establishes the conditions under which the City may have reduced requirements for minimum instream flows. During Insufficient Months, the City will be allowed to reduce flows set out in Sections 6.4.3 and 6.4.4 as specified in this Section 6.4. Insufficient Monthly flow conditions could adversely affect the City's ability to provide sustained minimum flows for fish. Prior to taking action, the City shall discuss with the FCC the need to take action and possible options for resolution of the insufficiency.

### 6.4.2 Definition

Flow Insufficiency shall mean water conditions during a month or months characterized by abnormally low precipitation and sidestream runoff that has the potential to result in a failure to refill Ross Lake by July 31 or empty Ross Lake if operations continue to draft at the rate determined by minimum required flows. Months which are characterized by any of the flow insufficiency criteria in Section 6.4.3 (Determination of Flow Insufficiency), shall be considered Insufficient Months.

### 6.4.3 Determination Of Flow Insufficiency

An Insufficient Month shall be deemed to occur when any one of the following criteria are met:

#### 6.4.3.1 Criterion 1

When discharge of the required minimum flows at the Newhalem gage, plus 300 cfs, combined with the forecasted inflow to Ross Lake which is exceeded with 95 percent confidence and the current reservoir volume results in Ross Lake drafting to empty. A sample calculation is shown in Appendix L, Part 5.

rearing. The specific actions to be taken shall be cooperatively developed through the FCC taking into account system flexibility, economic considerations, and potential impacts upon all anadromous species and life stages. Critical data to be considered shall include but not be limited to actual Newhalem to Marblemount Tributary Inflow and field monitoring of actual redd locations.

6.3.4.3 The City will initially develop proposed actions at the end of the spawning season for each species (or spawning group in the case of steelhead) or whenever uncontrollable flow events occur during the spawning, incubation, and rearing periods. The City will present the proposal to the FCC for review and discussion in an effort to reach consensus on a plan of action.

## **6.4 FLOW INSUFFICIENCY**

### **6.4.1 General**

This chapter establishes the conditions under which the City may have reduced requirements for minimum instream flows. During Insufficient Months, the City will be allowed to reduce flows set out in Sections 6.4.3 and 6.4.4 as specified in this Section 6.4. Insufficient Monthly flow conditions could adversely affect the City's ability to provide sustained minimum flows for fish. Prior to taking action, the City shall discuss with the FCC the need to take action and possible options for resolution of the insufficiency.

### **6.4.2 Definition**

Flow Insufficiency shall mean water conditions during a month or months characterized by abnormally low precipitation and sidestream runoff that has the potential to result in a failure to refill Ross Lake by July 31 or empty Ross Lake if operations continue to draft at the rate determined by minimum required flows. Months which are characterized by any of the flow insufficiency criteria in Section 6.4.3 (Determination of Flow Insufficiency), shall be considered Insufficient Months.

### **6.4.3 Determination Of Flow Insufficiency**

An Insufficient Month shall be deemed to occur when any one of the following criteria are met:

#### **6.4.3.1 Criterion 1**

When discharge of the required minimum flows at the Newhalem gage, plus 300 cfs, combined with the forecasted inflow to Ross Lake which is exceeded with 95 percent confidence and the current reservoir volume results in Ross Lake drafting to empty. A sample calculation is shown in Appendix L, Part 5.

#### 6.4.3.2 Criterion 2

When discharge of the required minimum flows at the Newhalem gage, plus 300 cfs, combined with the forecasted inflow to Ross Lake which is exceeded with 95 percent confidence, and the current reservoir volume results in a Ross Lake volume that does not meet the applicable Energy Content Curve. An example is shown in Appendix L, Part 6.

#### 6.4.3.2 Criterion 3

When Natural Flow at Newhalem gage on any Inflow Day in the month of August is less than 2,300 cfs. An example is shown in Appendix L, Part 7.

### 6.4.4 Response To Flow Insufficiency

6.4.4.1 At the earliest possible time after flow insufficiency has been determined, the City shall notify the FCC of the need to meet to discuss the flow insufficiency problem and action alternatives. The Parties shall mutually agree on the best course of action. Alternatives for action which shall be considered shall include but not be limited to the following: (1) reduced requirements for minimum instream flows for some or all succeeding months in which the condition of flow insufficiency persists, and (2) no action, which could potentially lead either to Newhalem gage flows reduced to a level equal to Natural Flow or to load curtailment.

6.4.4.2 When no consensus on a course of action is achieved within two weeks of the date the City notifies the Parties of a condition of Flow Insufficiency, then the City may take the following actions: for Criteria 1 or 2, the City may reduce each month's minimum flow proportionally to the extent necessary to remove Flow Insufficiency provided, however, that the result of such reductions will be flows no less than the lesser of Natural Flow or 1000 cfs.

6.4.4.3 Proportional reduction of minimum flows shall be implemented as follows:

The City shall:

- 1) notify FCC representatives of its intent to implement proportional flow reductions;
- 2) calculate the total volume of flow (flow deficit) that is required to remove Flow Insufficiency (i.e., or to keep Ross Lake from drafting to empty or to keep Ross Lake elevation above the VECC);
- 3) divide that total flow deficit among the months during the entire period from the current date to the date when the City predicts that Ross Lake will be empty or Ross Lake elevation will fall below the VECC—flows are divided proportionally according to each month's normal minimum flow; and
- 4) either reduce monthly minimum flows according to each month's proportion of the flow deficit or preferably reduce monthly minimum flows according to an alternative schedule recommended by the FCC which will accomplish the same result (i.e., remove Flow Insufficiency within the same time frame).

For Criterion 3, the City may reduce minimum flows in August in conformance with Section 6.3.3.2 (Steelhead Fry Protection).

6.4.4.4 During the months when minimum flows are reduced due to Flow Insufficiency, the Flow Insufficiency conditions will be reassessed weekly for Criteria 1 and 2 and reassessed daily for Criterion 3. When reassessment confirms that Flow Insufficiency criteria are no longer met, the City will resume sufficient month minimum flows.

#### **6.4.5 Flow Forecasting**

At any time of the year, several flow forecasting techniques may be available or appropriate. Also, better forecasting methods are expected to be developed in the future. Accordingly, the City will make the assumptions and methods of each particular forecast available to the Parties at the time the flow forecast is made.

### **6.5 FLOW LIMITATIONS**

#### **6.5.1 Purpose**

There are some circumstances for which the effect of this Agreement shall be limited due to the City's inability to react to or control the flows or operating factors that affect fish.

#### **6.5.2 Spill**

The City is not obligated to spill on a planning basis for the purposes of maintaining minimum flows; however, the City will spill to the extent possible during generator outages that would otherwise violate minimum flow requirements.

#### **6.5.3 Emergency Conditions**

Nothing in this agreement shall constrain the City from taking appropriate action to respond to an emergency condition which includes but is not limited to a cause or event of Force Majeure. An emergency condition may include mechanical or electrical failure or deficiencies of power necessary to serve firm load where there are no options available, including power purchases from any source. As soon as possible after the end of an emergency condition, the City will return to an operation schedule in compliance with the terms of this Agreement. The City may be liable and responsible for certain emergency conditions that do not constitute Force Majeure.

#### **6.5.4 Uncontrolled Flow Measures**

The limitations on storage capacity in Gorge and Diablo Lakes mean that Ross Dam is the only effective point of control of downstream flows. Nevertheless, there are conditions under which control of downstream flows is not possible even at Ross Dam. The City is responsible for protecting fish only so far as it can control the downstream flows. Therefore, the portion of the

total daily flow which occurs under the conditions of flood control or spill avoidance, load curtailment avoidance, and high Sidestream Inflow shall be considered uncontrolled flow and shall be excluded from the calculation of Season Spawning Flow pursuant to this Section 6.5.4.

#### 6.5.4.1 Flood Control Measures or Spill Avoidance

The City shall not be responsible for flow which is released due to actions of the Corps of Engineers or due to reasonable actions taken to avoid exceeding the flood control curve or full pool. The City in its semi-annual compliance report will provide information upon which a decision to exercise this clause was made. A sample calculation is shown in Appendix A, Part 1.b (Calculation of Spawning Flow).

#### 6.5.4.2 Load Curtailment Avoidance

The City shall not be responsible for flow which is released when there are no options available other than Firm Load Curtailment, including purchase of power from any source. This section is not intended to permit flow releases to meet the generation requirements resulting from any increase in Firm Load growth after the execution of this Agreement. For the purpose of this Agreement, Firm Load shall mean the minimum amount of power which the City is obligated to provide from a combination of generation and contract resources for the use of its customers. A sample calculation is shown in Appendix A, Part 1.d.

#### 6.5.4.3 High Sidestream Inflow

The City shall not be responsible for that portion of flow which is released due to Sidestream Inflow greater than 3,500 cfs during the chinook salmon spawning period, 2,500 cfs during the pink salmon spawning period, 3,000 cfs during the chum salmon spawning period, or due to Sidestream Inflow which is greater than the current Spawning Control Flow for steelhead minus 500 cfs. The Sidestream Inflow values shall be considered Threshold Sidestream Inflows for the purpose of calculating Daily Spawning Flows. Sample calculations are shown in Appendix A.

### 6.6 OPERATING CONSIDERATIONS

#### 6.6.1 Power Planning

The City shall submit the provisions of the Anadromous Fish Flow Plan as non-power constraints for Project operations in annual planning under the Pacific Northwest Coordination Agreement, as it may be amended. The City shall provide the FCC with a copy of this submittal. Further, in all power planning the City will use these provisions for purposes of determining firm capabilities for the Skagit Project.



## 6.6.2 Scheduling Procedures

### 6.6.2.1 General Principles

Schedules of hourly generation during each calendar day are prepared in advance on the preceding Power Scheduling Day. Actual generation may deviate from the scheduled generation due to power system and stream flow conditions that were not anticipated when schedules were prepared on the Power Scheduling Day. Whenever an instrument reading affecting fish flow requirements appears to be erroneous, the power scheduler shall use the last reliable instrument reading available for the purpose of preparing the next generation schedule. Malfunctions of instruments affecting fish flow requirements for a period longer than 24 hours will be promptly reported to FCC to make a determination of appropriate action.

When changes in operating constraints occur from one day to the next (such as from the end of one month to the beginning of another), the changes must not occur prior to 0001 hours on the day such changes are supposed to be in effect.

### 6.6.2.2 Scheduling Generation for the Succeeding Calendar Day

When scheduling power generation for the succeeding calendar day, power schedulers shall assume that Tributary Inflow is the same as on the Inflow Day. Further, they shall calculate the Predicted Marblemount Flow as the planned flow at Newhalem gage plus the Tributary Inflow that occurred on the Inflow Day and shall plan Gorge powerplant releases accordingly.

### 6.6.2.3 Scheduling over Holidays and Weekends

When scheduling power generation for a period greater than one day during the Salmon Fry Protection Period, power schedulers shall calculate an appropriate Newhalem gage flow for each day as 3,000 cfs minus the receded Tributary Inflow. Receded Tributary Inflow shall be calculated as the Tributary Inflow on the Inflow Day minus the difference between the Tributary Inflow on the Inflow Day and the 90 percent exceedance flow for the month, multiplied by the number of days from the current Power Scheduling Day to the day being scheduled, divided by the total number of days being scheduled. The 90 percent exceedance flows which are calculated from historical flow records and which may be periodically updated as additional years of data become available, are as shown in Appendix M. A sample calculation is shown in Appendix D, Parts 2 and 3.

### 6.6.2.4 Scheduling During Conditions of Extremely Low Natural Inflows

When the Tributary Inflow on the Inflow Day is less than or equal to the 90 percent exceedance flow, then power schedulers shall assume that the Tributary Inflow remains the same on each day until the next Power Scheduling Day.

### **6.6.3 Operating To Meet The Schedule**

#### **6.6.3.1 Normal Conditions**

Ramp rates, which are expressed in cfs per hour, shall be treated as instantaneous constraints and ramping shall be accomplished in as uniform a rate as practical over the hour.

## **6.7 MONITORING AND COMPLIANCE**

### **6.7.1 Model Verification Studies**

Field monitoring studies will be required to verify the accuracy of the Effective Spawning Habitat Model and the Temperature Unit Model. Model verification studies shall be developed by consensus of the FCC.

#### **6.7.1.1 Effective Spawning Habitat Model**

The Effective Spawning Habitat Models (ESH) were developed based on instream flow studies performed on the Skagit River between Gorge Powerplant and Marblemount by the Fisheries Research Institute during the term of the Interim Flow Agreement. The models show the relationship between spawning flows and succeeding incubation flows in terms of percentage of spawned habitat protected. There are two models based on different assumptions about the incubation requirements of salmon and steelhead.

The below gravel model is based on the reduced flow requirements of unhatched eggs while the above gravel model is based on the higher flow required for developing and emerging alevins. The output of the Effective Spawning Habitat Model formed the basis of the Spawning/Incubation Flow Appendices C and G that are incorporated as part of this Settlement Agreement.

6.7.1.2 Field monitoring surveys will be conducted annually by the City, unless termination is agreed to by the FCC, to confirm the accuracy of the Effective Spawning Habitat Model output for salmon and steelhead spawning and incubation flows. These surveys will be conducted monthly for each species during each complete spawning month and incubation month beginning in the year following acceptance of the new license by the City. Each survey will be conducted between Newhalem and Rockport at predetermined index locations on the Skagit River. Observation locations will be developed and/or modified by the FCC.

Surveys will be coordinated with the City's operations to ensure that observations are made during periods of flow conditions consistent with the design of the study. These surveys may also be coordinated with spawning surveys being conducted by the Parties.

In the event that field survey observations are not consistent with the ESH Model spawning and incubation flow outputs, FCC will review the circumstances and determine the nature of the problem. If the nature of the problem cannot be determined (such as occurrence of flows beyond the City's control), then it may be necessary to re-calibrate the ESH Model. The necessity of re-

calibration will be determined by the FCC and the process of re-calibration will be developed by that body.

#### 6.7.1.3 Temperature Unit Model

The Temperature Unit Model (TU Model) was developed to predict the incubation timing of salmon and steelhead in the Skagit River. It is based primarily on temperature unit data collected in studies performed by the Fisheries Research Institute during the early term of the Interim Agreement and historical water temperature data collected by the USGS at the Alma Creek gage site on the Skagit River.

The TU Model can predict the calendar date of hatching and emergence for each of the pink, chum, and chinook salmon and steelhead. The data upon which the temperature and incubation timing is based may be altered in the future as more reliable data is collected under the direction of the FCC.

6.7.1.4 If the FCC deems that the accuracy and usefulness of the TU Model can be improved for steelhead or one or more of the species of salmon by verification studies, then the City shall develop a draft work plan for that purpose. The City shall submit the work plan for verifying the TU Model to the FCC for review and approval. The development and implementation of the verification work plan shall be completed within two years of the determination to proceed, unless the FCC agrees otherwise. Any modification of the TU Model will be based on the outcome of these verification studies.

#### 6.7.2 Field Monitoring

Several field monitoring procedures will be conducted throughout the term of this Agreement. In particular, the starting and ending dates of salmon spawning may be monitored each year as described in Appendix J. Annual monitoring may also be used to identify when the Steelhead Fry Protection Period begins and/or ends. Fry stranding surveys may be conducted during the peak fry vulnerability periods to monitor fry stranding levels. All field monitoring studies shall be developed by consensus of the FCC and shall be conducted by a monitoring team composed of at least one representative of the City and at least one representative of another Party.

6.7.2.1 Whenever disputes arise regarding the data collected in field studies or the interpretation of that data within or between the FCC or the Field Monitoring team, the default start and end dates established in Sections 6.3.2.1 and 6.3.3.1 of this Agreement shall prevail.

#### 6.7.2.2 Salmon Spawning Start and End Dates

This Agreement specifies default start and end dates for salmon spawning. The City may elect to conduct annual surveys that will provide site specific data required to either delay the start or advance the end dates according to criteria listed in Appendix J. Surveys will be conducted as needed at index locations and/or reaches predetermined by the FCC. These surveys will be conducted at the direction of the FCC, acting through a Field Monitoring team as described in Appendix J.

Redd protection measures as described in Sections 6.3.2.1 and 6.3.3.1 will be implemented in the case of start date or maintained in the case of end date on the default dates unless the surveys indicate that spawning activity (according to evidence described in Appendix J) has begun or ceased, respectively. If survey observations are determined to be unreliable, the default dates shall determine the start or end of redd protection measures.

#### **6.7.2.3 Steelhead Fry Protection Period Start and End Dates**

This Agreement specifies that the default start and end dates for the Steelhead Fry Protection Period shall be June 1 and October 15, respectively. However, annual monitoring efforts may be used to identify alternate Steelhead Fry Protection Period start and end dates. This monitoring procedure is described in Appendix K.

#### **6.7.2.4 Fry Stranding Surveys**

Following execution of this Agreement, fry stranding surveys will be conducted annually for a period of no less than three years to monitor the effectiveness of the fry protection measures implemented in Sections 6.3.2.2 and 6.3.3.2. These surveys will be conducted during the peak vulnerability periods of both the salmon and steelhead fry. Steelhead fry surveys will be conducted between August 1 to 31, and salmon fry surveys will be conducted between March 15 and April 15, unless the FCC agrees otherwise.

Three separate surveys will be completed during the steelhead survey period by the Field Monitoring team. Five separate surveys will be completed during the salmon survey period by the Field Monitoring team. The surveys, which will record species, locations, and numbers of stranded fry, will be conducted on 300-foot sections of exposed Rockport and Marblemount river bars between the high and low water lines of a downramp event. The results of surveys will be presented at FCC meetings for review and discussion. After three years of annual surveys, the FCC may agree to continue surveys at annual intervals or otherwise.

#### **6.7.3 Compliance Monitoring**

**6.7.3.1** The flow levels specified in this Agreement will be measured at USGS gages, which have certain inherent ranges of accuracy. For example, the current gage at Newhalem gives a real time reading that is within 5 percent of the true discharge; the current gage at Marblemount gives a real time reading that is within 10 percent of the true discharge (USGS Water-Data Report, WA-8601). The Parties recognize that ranges of accuracy exist and are an operational aspect the USGS gages. For the purposes of this Agreement, operations will be determined based on real time gage readings, which will be recorded by the City.

**6.7.3.2** The City shall record and make available to all Intervenor complete records of the real-time flow data at both the Newhalem and Marblemount gages.

**6.7.3.3** The City shall prepare semi-annual reports to demonstrate compliance with the instream flows and operating restrictions embodied in this Agreement. The reporting periods shall be January 1 through June 30 and July 1 through December 31. The reports shall be sent to the



Intervenors and to the FERC within 120 days of the end of each reporting period. Due to the complexity of this Agreement and the comprehensive nature of the reporting requirements it is agreed by all Parties that the City may require an additional 30 days to complete this report during the first 5 years of the new license. The reports shall contain but may not be limited to the following:

- 1) Minimum flows recorded at Newhalem gage;
- 2) Hourly ramping rates during Salmon and Steelhead Fry Protection Periods;
- 3) Daily Predicted Marblemount Flows during the Salmon Fry Protection Period;
- 4) Mean Daily Tributary Inflow;
- 5) Daily total Downramp Amplitude and portion of amplitude that occurred at Newhalem gage flows less than 4,000 cfs during Salmon and Steelhead Fry Protection Periods;
- 6) Daily required instantaneous incubation flows based on Appendices C and G;
- 7) The Season Spawning Flow or spawning flows calculated to date for each salmon species or steelhead spawning group;
- 8) Documentation and explanation of any flow violations;
- 9) Calculated Daily Spawning Flows;
- 10) Planned Spawning Flow for each species spawning or incubating during the reporting period;
- 11) List of daily flows calculated from the Spawning Control Curve for steelhead;
- 12) Documentation of any decision to exercise a limitations clause (per Section 6.5), including consultations with Intervenors;
- 13) Documentation of any emergencies that caused deviation from this Agreement;
- 14) Summary list of the FCC actions during the reporting period;
- 15) Daily fry protection flows as listed in Appendix I; and
- 16) Applicable Minimum Flows for the reporting period.

## 7.0 ANADROMOUS AND RESIDENT FISH NON-FLOW PLAN

### 7.1 GENERAL

**7.1.1** This Section of the Agreement establishes the City's commitment to provide \$6,320,000 for support and implementation of Non-Flow measures described in this Section (Table 2). The cost limitations set out in this section do not include the costs of staff, support, or administration provided by the City.

**7.1.2** The Anadromous Fish Flow Plan contained in this Agreement (Section 6.0) is intended to mitigate the impacts of daily and seasonal downstream flow fluctuations. However, even with complete implementation of the Anadromous Fish Flow Plan, some level of these impacts will continue to occur. Fish will still be exposed to daily flow changes that would not commonly be seen in the natural environment, and this will result in the continuation of chronic fry stranding at a reduced yet unknown level. In addition, the configuration and operation of the Project has



Table 2. Anadromous and resident fish Non-Flow Plan summary.

Program	Dollar Allocation*	License Years	Program Manager(s)	Comments
<b>ANADROMOUS FISH PROGRAM</b>				
<b>Steelhead Smolt Production</b>				
Engineering	175,000	1-2	WDW and/or SSC and/or WDF	
Capital improvements/construction	1,250,000	3-5		
Operation and maintenance	1,275,000	6-30		O&M total based on maximum of \$51,000 per year
<b>Sub-Total</b>	<b>2,700,000</b>	<b>1-30</b>		
<b>Chinook Research</b>				
Startup, tagging, rearing	250,000	1-4	WDF	
Rearing, tagging, recovery	450,000	5-7		Maximum of \$150,000 / year
Recovery, evaluation	600,000	8-13		Maximum of \$100,000 / year
<b>Sub-Total</b>	<b>1,300,000</b>	<b>1-13</b>		
<b>Chum Habitat</b>				
Site Inventory, evaluation, ranking, habitat development, maintenance	50,000	1	WDF / SSC	
	1,450,000	2-30		Max \$150,000 / year till funds exhausted
<b>Sub-Total</b>	<b>1,500,000</b>	<b>1-30</b>		
<b>County Line and Newhalem Ponds</b>				
	<b>220,000</b>		WDF	City to repay WDF for development. If funds left over, used for O & M
<b>Instream &amp; off-channel habitat improvement and sediment reduction</b>				
	150,000	1-4	USFS	
	150,000	5-30		
<b>Sub-Total</b>	<b>300,000</b>	<b>1-30</b>		
<b>Anadromous Fish Program Total</b>				
	<b>6,020,000</b>			
<b>RESIDENT TROUT PROTECTION AND PRODUCTION PROGRAM</b>				
Ross Tributary Transitory Barrier Removal	see comments	1-30	SCL	SCL performs each year as necessary
Diablo and Gorge Fisheries	300,000	1-30	WDW / NPS	Additional funds may be drawn from Steelhead Smolt Production Program
<b>Resident Trout Program Total</b>	<b>300,000</b>	<b>1-30</b>		Total does not include SCL barrier removal costs or money reallocated from Steelhead Smolt Production Program
<b>NON-FLOW PLAN TOTAL</b>	<b>6,320,000</b>	<b>1-30</b>		

\* Amounts in 1990 dollars

rendered some formerly productive fish habitat inaccessible. The Anadromous and Resident Fish Non-Flow Plan (Non-Flow Plan) is specifically intended to address these residual impacts and habitat losses and, possibly, to provide a measure of improvement.

**7.1.3** The Non-Flow Plan contains measures for steelhead production, chinook research, off-channel chum habitat development and improvement, instream or off-channel fish habitat development and sediment reduction, and provisions for a resident trout protection and production program. It establishes the intent, cost, and implementation procedures and schedules for each measure of the plan, including designation of a Program Manager(s).

## **7.2 PROGRAM MANAGER(S)**

**7.2.1** The specific programs authorized under this Section 7.0 shall be implemented by Program Manager(s) designated by the NCC or within this Agreement. For this Agreement, Program Manager(s) shall be the designated agency or Tribe or the City, as the case may be, acting by and through their appropriate representatives (Table 2). The Program Managers shall have complete responsibility for program implementation, including the conduct of studies, expenditure of funds, construction of capital facilities within budget, and operation and maintenance within budget. For each program administered, a Program Manager shall develop the following information, as appropriate, for NCC review and approval:

- 1) detailed study plans;
- 2) site evaluation criteria;
- 3) production and/or site alternatives;
- 4) conceptual design;
- 5) final design and construction plans; and
- 6) monitoring and evaluation of programs and facility performance.

**7.2.2** Each Program Manager shall prepare an annual report in consultation with and for submission to the NCC. Each report shall include a budget report and a prospective work plan for the next reporting period and budget plan for the next two reporting periods. The individual program annual reports shall include requirements specific to that program as described in the appropriate program sub-section.

## **7.3 ANADROMOUS FISH PROGRAMS**

### **7.3.1 General**

**7.3.1.1** The City will make available a maximum of \$6,020,000 to the WDF, WDW, and the Tribes to implement the measures identified in Sections 7.3, 7.4, and 7.5 and summarized in Table 2. The specific measures, schedule for implementation, and cost scheduling will be as identified below unless modified by the NCC.

7.3.1.2 The NCC can delay the implementation schedule of the programs described in this Section 7.0 without losing the dollars allocated for the specific program (e.g. design of steelhead facilities or start of chinook research could be delayed without penalty). It is not the intent of any Party to advance Program cost schedules. Cost schedules cannot be advanced without City approval. Dollars allocated to a specific program are not lost if under-spent but may be shifted to another program or species within this plan. Dollars not spent within a scheduled period may also be carried forward into succeeding periods, provided that they will be adjusted for inflation or deflation under Section 2.5.1. Under-spent dollar shifts and carryovers will be subject to NCC approval.

7.3.1.3 It is agreed by all Parties that the protection measures described in the Anadromous Fish Flow Plan of this Agreement will protect anadromous fish produced under the terms of the Non-Flow Plan.

### 7.3.2 Steelhead Smolt Production Program

7.3.2.1 The purpose of the Steelhead Program is to increase steelhead production in the upper Skagit River, upstream of Marblemount, in order to offset any residual Project related impacts on the steelhead fishery resource. The Intervenor intend to accomplish this using low cost, small scale methods consistent with sound management practices and using existing facilities where appropriate. Possible steelhead augmentation alternatives are:

- 1) Expansion of the Clark Creek salmon hatchery or other compatible facility to provide space and water for steelhead smolts, with steelhead smolt production as the primary function of the expanded capacity and increased production in other stocks or species as a secondary function.
- 2) Production divided between existing facilities and new or expanded satellite stations, including development of net pen rearing at appropriate and feasible site(s) or a new stand-alone satellite rearing station.
- 3) Development of a new stand-alone facility incorporating all phases of production.

7.3.2.2 The Program Manager for the Steelhead Smolt Production Program shall be WDW, WDF, or the Tribes or some combination. In the event the program selected for funding is implemented at more than one site, the NCC may identify separate Managers for each site.

7.3.2.3 In addition to the reporting provisions of Section 7.2.2, annual progress reports shall include the following specific details: source and number of broodstock utilized, number of eggs incubated, fish growth and feed records, number and pounds of fish reared and their disposition, disease and mortality records, egg to fry, fry to smolt, and the results of any marking or other experiments.

7.3.2.4 Expenditures for the Steelhead Smolt Production Program shall be evenly divided between winter- and summer-run steelhead, except that any funds re-allocated from this program to the Resident Fish Program shall be drawn from the summer-run share.

**7.3.2.5** The City shall fund the Steelhead Smolt Production Program according to the following costs and schedule; and subject to the provisions of Section 7.3.1:

- Years 1-2: \$175,000 for engineering.
- Years 3-5: Up to \$1,250,000 for capital improvements/construction.
- Years 6 (or year program begins production) – remainder of license period: O&M up to \$51,000/year.
- Total steelhead production program not to exceed \$2,700,000 (Table 2).

### **7.3.3 Chinook Research Program**

**7.3.3.1** The purpose of this program is to support the investigation of the declining trend in recruitment of the Skagit chinook stocks. The decline in recruitment has occurred for both natural and hatchery components of the chinook population. The Parties desire to reverse the decline in chinook recruitment (juvenile release to adult survival). The chinook recruitment issue will be investigated prior to developing any new program so that the program implemented will have a reasonable chance of success.

**7.3.3.2** The City shall fund the Skagit Chinook Research Program according to the following costs and schedule, subject to the provisions of Section 7.3.1:

- Years 1-4: Up to \$250,000 for program start-up, rearing, tagging, and related studies.
- Years 5-7: Up to \$150,000/year for rearing, tagging, recovery, and related studies.
- Years 8-13: Up to \$100,000/year recovery, evaluation, and related studies.
- Total Chinook Research Program not to exceed \$1,300,000 (Table 2).

**7.3.3.3** The final funding schedule, consistent with Section 7.3.1, and the experimental design shall be more fully developed and/or approved by NCC. At some point in this program, the NCC may determine that no satisfactory solution exists to reverse the decline in chinook recruitment and terminate the research program. In this event, the NCC may reallocate funds to other Anadromous Fish Programs identified in this Agreement.

**7.3.3.4** The Chinook Research Program Manager shall be WDF, which shall (1) coordinate the development of the experimental design with the NCC, (2) prepare workplans, budget plans, and perform the research, (3) provide annual progress reports to the NCC, and (4) provide a program completion report to the NCC.

**7.3.3.5** In addition to the reporting provisions of Section 7.2.2, annual progress reports shall include the following specific details: source and number of broodstock utilized, number of eggs



incubated, fish growth and feed records, number and pounds of fish reared and their disposition, disease and mortality records, egg to fry, fry to smolt, smolt to adult survival and recruitment rates, and the tag codes of each experimental group. The prospective workplan shall note and justify any deviation from the experimental design.

7.3.3.6 The Program Manager shall produce a Program Completion Report within one year of finishing the study. The report shall satisfy all contracting requirements and be produced in a form and format suitable for publication. The draft of the report shall address the feasibility of hatchery chinook production and be submitted to the NCC for review. The final report shall include any comments and recommendations from the Parties.

### **7.3.4 Off-Channel Chum Habitat Development and Improvement Program**

7.3.4.1 The Parties agree to a phased approach to examine off-channel chum habitat development and improvement. WDF and the Tribes shall be the Program Co-Managers. The first phase of this process will be a site inventory, evaluation and ranking. The inventory will include review of existing information such as inventory lists compiled by the City, SSC, WDF, WDW, NPS, and the USFS. Additional field inventory may be necessary. The inventory study of potential site improvements or developments will not be limited to new spawning channels (e.g., Park Slough). Consideration will also be given to improving access to off-channel or tributary habitat that is presently inaccessible or under-utilized. Sites will be ranked based on an evaluation of cost effectiveness, species utilization, engineering, and other feasibility factors. Prior to implementation of the inventory and evaluation phase, the NCC will approve the site ranking criteria to be used. Once the site inventory and evaluation phase has been completed, the NCC shall be responsible for ranking candidate sites and for any refinement of the ranking list.

7.3.4.2 The second phase of this program will be the implementation of habitat development and improvement measures. During the implementation phase, the site improvements shall be monitored by the Program Managers to measure performance and durability. The NCC shall have the authority to depart from or alter the list of ranked projects if the performance of certain site improvement methods fail to provide the expected outcome.

7.3.4.3 The City agrees to fund the Off-Channel Chum Habitat Development And Improvement Program according to the following costs and schedule subject to the provisions of Section 7.3.1:

- Year 1: up to \$50,000 for site inventory, evaluation, and ranking phase.
- Year 2—until funds are exhausted: up to \$150,000/year for implementation of habitat development, and improvement measures as determined by the NCC.
- Post-Construction Maintenance as needed and agreed upon by the NCC.
- Total Off-Channel Chum Habitat Development And Improvement Program expenditures not to exceed \$1,500,000 (Table 2).



- 7.3.4.4 The Program Manager is responsible for the annual report. In addition to the reporting provisions of Section 7.2.2, annual progress reports shall include the following specific details: inventory lists, project development criteria, site ranking criteria, site rankings, development, and monitoring reports for projects completed.

## **7.4 COUNTY LINE AND NEWHALEM PONDS**

**7.4.1** The Parties agree that County Line and Newhalem ponds be developed for additional off-channel spawning and rearing habitat. The modifications shall follow those outlined by the conceptual designs of WDF and the City, as set out in a WDF letter dated August 23, 1990. The final design, construction timing, and coordination methods shall be determined through the Skagit Standing Committee or its successor, the NCC. The Skagit Standing Committee was established by Section 6.0 of the Offer of Settlement approved by FERC on May 12, 1981. This committee was established for consultations and meetings among the parties as may be appropriate under the Offer of Settlement Agreement. The Skagit Standing Committee remains in full effect until such time as the City accepts a new license from the FERC.

**7.4.2** The Skagit Standing Committee or NCC shall approve the design of the County Line and Newhalem Pond program. The WDF shall be Program Manager. Using WDF funds, WDF shall develop the sites according to the approved design. The City agrees to repay WDF's costs to develop such sites, up to a maximum of \$220,000. This repayment shall be made within one year of the date of issuance of a new FERC license or within one year of program completion, if not completed until after the new license is issued. Should WDF's program development costs be less than \$220,000, the City shall fund operation and maintenance (O&M) expenses until the \$220,000 maximum is reached.

**7.4.3** The City shall provide access to both sites for program construction, operation, and maintenance purposes. The construction required at each site shall not interfere with any City uses unless coordinated with and agreed to by the City in advance.

**7.4.4** The City shall leave undisturbed the existing riparian zone around all pond and channel habitat unless such disturbances are approved in advance by the Skagit Standing Committee or NCC. The City shall retain ownership of both sites. The City's existing uses shall not be reduced as a result of this Agreement.

## **7.5 INSTREAM OR OFF-CHANNEL HABITAT IMPROVEMENT AND SEDIMENT REDUCTION PROGRAM**

**7.5.1** The City shall provide a total of \$300,000 for instream or off-channel habitat improvement and sediment reduction measures on the Skagit Wild and Scenic River or its tributaries (Table 2). For the purposes of this Agreement, sediment reduction measures shall be considered measures used to reduce sediment load in tributaries which impact spawning grounds by such actions as instream check-dams and bank stabilization by revegetation. During the first year of the new license, \$150,000 shall be provided to the USFS by the City and shall remain

available for habitat and sediment reduction measures until expended. In the fifth year of the new license, the City shall provide to the USFS the remaining \$150,000 for Program activities.

**7.5.2** The USFS shall be Program Manager. Prior to the expenditure of these funds, a comprehensive site list shall be developed by the Program Manager for evaluation and ranking by the NCC. Substitutions may be made with the approval of the NCC. Projects will include but are not limited to instream fish habitat improvement and sedimentation reduction measures.

**7.5.3** In the fifth year of the new license, the Program Manager shall evaluate progress made on any projects that have been initiated and propose initiation or continuation of projects based on potential for success in increasing salmon and/or steelhead production.

**7.5.4** The Program Manager is responsible for the annual report. In addition to the reporting provisions of Section 7.2.2, annual progress reports shall include the following specific details: inventory lists, project development criteria, site ranking criteria, site rankings, and development reports for sites completed.

## **7.6 RESIDENT TROUT PROTECTION AND PRODUCTION PROGRAMS**

### **7.6.1 General**

**7.6.1.1** The City shall provide \$300,000 specifically for implementation of the measures identified in Section 7.6.4 Diablo And Gorge Lake Fisheries (Table 2). Beyond the funding limits specified in this section, the City will be responsible for additional activities specified in Sections 7.6.2 (Annual Inspection Of Drawdown Zone and Removal of Transitory Tributary Barriers In the Drawdown Zone), and 7.6.3 (Ross Lake Resident Trout Working Group) and 7.6.4 (Diablo And Gorge Lake Fisheries).

### **7.6.2 Annual Inspection Of Drawdown Zone and Removal of Transitory Tributary Barriers In the Drawdown Zone**

**7.6.2.1** Before April 1 of each year, the City shall conduct inspections within the United States portion of the Ross Lake tributary drawdown zones and at the mouths of Diablo and Gorge tributaries. The following Ross Lake tributaries shall be surveyed annually: Lightning, Roland, Little Beaver, Big Beaver, Devils, Silver, Ruby, Arctic, Dry, Hozomeen, and Pierce creeks. This list may be modified at the discretion of the NCC.

**7.6.2.2** The annual inspections will identify any transitory barriers that might obstruct or delay the upstream migration of resident trout during the spawning season. Transitory barriers include drift logs, drift boom logs, and accumulations of sediment or debris caused by Project operations that may potentially block migration of trout between minimum and maximum reservoir elevations.

7.6.2.3 The NPS and WDW shall be given 14 days notice and must participate in these surveys.

7.6.2.4 Any transitory barriers identified and determined by WDW and NPS to be detrimental to trout migration shall be removed by City crews. The City shall remove the detrimental barriers as soon as possible after identification and confirmation. Surveys shall be conducted by the City to monitor the effectiveness of barrier removal. These surveys will be made when rainbow trout spawners are expected to be present in the tributaries. Timing of surveys described in Section 7.6.2.1 and of barrier removal may be altered with WDW and NPS concurrence, based on the results of effectiveness monitoring.

7.6.2.5 The City shall be the Program Manager. The City shall submit annual reports to the NCC regarding barrier identification, removal, and effectiveness monitoring.

### **7.6.3 Ross Lake Resident Trout Working Group**

The City agrees to become a participating member of the proposed cooperative Ross Lake Resident Trout Working Group. This proposed Working Group shall consist of the City, WDW, SSC, NCCC, and NPS. Other organizations or individuals may attend as desired or appropriate. The Working Group will consider, discuss, or address any issues that may affect the continued success of the Ross Lake resident trout fishery resource as a self-sustaining, native population and as a viable recreational resource. The Working Group may make management recommendations to NPS and WDW.

### **7.6.4 Diablo And Gorge Lake Fisheries**

7.6.4.1 Native broodstock from Ross Lake or Gorge and/or Diablo lakes will be used to develop a captive broodstock supplementation program designated for Skagit River and tributaries above Gorge Dam, with specific emphasis on Gorge and Diablo lakes. Native brood stock will be collected when necessary by WDW, and the remainder of the program will be carried out at facilities developed under Section 7.3.2 or at other facilities. The goal will be to produce 400,000 fingerlings each year.

7.6.4.2 The WDW and NPS will cooperatively develop a program plan that shall include but not be limited to management considerations, facility requirements, and program costs and schedule. This plan should be completed within two years of issuance of a new license. The program plan and costs shall require NCC review and approval prior to implementation.

7.6.4.3 The City shall provide \$300,000 specifically for implementation of this program. Up to \$200,000 may be drawn from the summer steelhead program described in Section 7.3.2 if needed. Additional funding may be provided to this program subject to the unanimous approval of WDW, NPS, Upper Skagit Tribe, Sauk-Suiattle Tribe, and Swinomish Indian Tribal Community. Monies not used for this program will be used for the summer steelhead program, as described in Section 7.3.2.4.

7.6.4.4 WDW and NPS shall be Co-Program Managers and are responsible for the annual report. In addition to the reporting provisions of Section 7.2.2, annual progress reports shall include the following specific details: source and number of broodstock utilized, number of eggs incubated, fish growth and feed records, number and pounds of fish reared and their disposition, disease and mortality records, egg to fry, fry to release stage survival, and the results of any marking programs or other studies/experiments.

7.6.4.5 The fish produced and monies spent for this program are designated for the Skagit River and tributaries above Gorge Dam, with specific emphasis on Gorge and Diablo lakes for the length of the License term. The Parties agree to replace fish taken from the brood source to ensure continued viability of that stock and to minimize the impacts on the donor stock's and the captive brood stock's genetic integrity (e.g., age when stock becomes sexually mature, date of spawning, migration timing, and specific spawning stream origin). Numbers of fry required for this purpose depends on many variables including egg take and expected survival. The priority for use of fry produced by this program will be brood source and captive brood stock replacement, with outplants to meet supplementation objectives coming from the balance of fry production. Brood stock source replacement with fingerlings shall not be mandatory but shall be done to the extent it remains biologically necessary to maintain natural carrying capacity. Initial fry planting goal for Diablo and Gorge lakes is 300,000 wild origin rainbow trout. Long-term planting levels for Gorge and Diablo lakes will be based on observed performance and WDW and NPS management objectives for these waters. The goal of this program for Ross Lake is to reach carrying capacity through utilization of naturally occurring available habitat.

## 8.0 SIGNATURES

IN WITNESS WHEREOF, the City has caused this Settlement Agreement to be executed by its Superintendent of Light pursuant to Ordinance No. 106741 and the Intervenor has executed same pursuant to applicable legal authority.

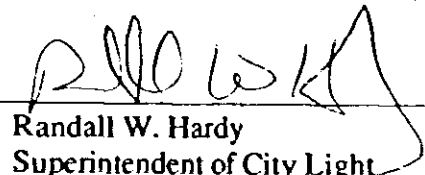
Respectfully submitted.

ORIGINAL

Dated: April 24, 1991

**THE CITY OF SEATTLE**

By: \_\_\_\_\_

  
Randall W. Hardy  
Superintendent of City Light

Address for Notice:

Seattle City Light  
1015 Third Avenue  
Seattle, WA 98104




Dated: April 23, 1991

ORIGINAL

U.S. DEPARTMENT OF THE INTERIOR, NATIONAL PARK SERVICE

By:



John Earnst  
Superintendent

Address for Notice:

North Cascades Park Service Complex  
Pacific Northwest Region, National Park Service  
U.S. Department of the Interior  
North Cascades National Park Service Complex  
2105 Highway 20  
Sedro Woolley, WA 98284

Dated: April 22, 1991

ORIGINAL

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

By: Marvin L. Plenert  
Marvin L. Plenert  
Regional Director, U.S. Fish and Wildlife Service

Addresses for Notice:

United States Fish and Wildlife Service  
Eastside Federal Complex  
911 N.E. 11th Avenue  
Portland, OR 97232-4181

Field Supervisor  
U.S. Fish and Wildlife Service  
Fish and Wildlife Enhancement  
3704 Griffin Lane, S.E.  
Suite 102  
Olympia, WA 98501-2192

ORIGINAL

Dated: April 22, 1991

**U.S. DEPARTMENT OF THE INTERIOR, BUREAU OF INDIAN AFFAIRS**

By: 

Wilford G. Bowker  
Acting Area Director

**Address for Notice:**

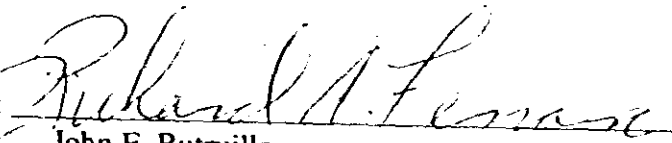
U.S. Bureau of Indian Affairs  
Portland Area Office  
Attention: Branch of Land Services  
911 N.E. 11th Avenue  
Portland, OR 97232-4169

Dated: April 17, 1991

ORIGINAL

U.S. DEPARTMENT OF AGRICULTURE, FOREST SERVICE

By:

  
John F. Butruille  
Regional Forester, Pacific Northwest Region

Address for Notice:

Sam Nagel  
U. S. Forest Service  
21905 64th Avenue West  
Montlake Terrace, WA 98043

Dated: April 16, 1991

ORIGINAL

**U.S. DEPARTMENT OF COMMERCE,  
NATIONAL MARINE FISHERIES SERVICE**

By:   
Rolland Schmitter  
Regional Director Northwest Region

Addresses for Notice:

F. Lorraine Bodi  
NOAA, Office of General Council (GCNW)  
National Marine Fisheries Service  
7600 Sand Point Way, N.E., Building No. 1  
Seattle, WA 98115

Jon R. Linvog  
National Marine Fisheries Service  
7600 Sandpoint Way N.E. BIN C-15700  
Seattle, WA 98115



19910502-0032 FERC PDF (Unofficial) 04/30/1991

Dated: April 21, 1991

UPPER SKAGIT TRIBE

ORIGINAL

By: Floyd Williams  
Floyd Williams  
Tribal Chairperson

Address for Notice:

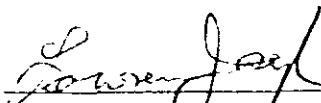
Upper Skagit Tribe  
2284 Community Plaza  
Sedro Woolley, WA 98284

Dated: April 17, 1991

**SAUK-SUIATTLE TRIBE**

ORIGINAL

By:

  
Lawrence Joseph  
Tribal Chairperson

Address for Notice:

Sauk-Suiattle Tribe  
5318 Chief Brown Lane  
Darrington, WA 98241

Dated: April 24<sup>th</sup>, 1991

**SWINOMISH INDIAN TRIBAL COMMUNITY**

ORIGINAL

By: Robert Joe  
Robert Joe  
Tribal Chairperson

**Addresses for Notice:**

Swinomish Indian Tribal Community  
P.O. Box 817  
LaConner, WA 98257

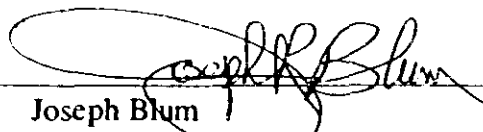
Steve Fransen  
Skagit System Cooperative  
P.O. Box 338

Dated: April 19, 1991

ORIGINAL

**STATE OF WASHINGTON,**  
acting by and through the Washington Department of Fisheries

By: \_\_\_\_\_

  
Joseph Blum  
Director, Department of Fisheries

Addresses for Notice:

Rod Woodin  
Department of Fisheries  
115 General Administration Building, AX-11  
Olympia, WA 98504

William C. Frymire  
Office of Attorney General  
7th Floor  
Highway Licenses Bldg.  
Olympia, WA 98504

Dated: April 22, 1991

ORIGINAL

STATE OF WASHINGTON,  
acting by and through the Washington Department of Wildlife

By: \_\_\_\_\_

*Curt Smitch*

Curt Smitch  
Director, Department of Wildlife

Addresses for Notice:

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

William C. Frymire  
Office of Attorney General  
7th Floor  
Highway Licenses Bldg.  
Olympia, WA 98504



9910502-0032 FERC PDF (Unofficial) 04/30/1991

Dated: April 24, 1991

NORTH CASCADES CONSERVATION COUNCIL

ORIGINAL

By: David Fluharty  
David Fluharty  
President

Address for Notice:

NCCC  
P.O. Box 95980  
University Station  
Seattle, WA 98145-1980