



US Army Corps
of Engineers
Seattle District

Public Notice

Planning Branch
P.O. Box 3755
Seattle, WA 98124-3755
ATTN: Alicia Austin (PM-PL)

Public Notice Date: December 1, 2003
Expiration Date: December 30, 2003
Reference: CENWS-PL-04-03
Name: Issaquah Creek Section 206
Restoration

30-DAY PUBLIC NOTICE

Interested parties are hereby notified that the U.S. Army Corps of Engineers, Seattle District (Corps) plans to replace a diversion dam that severely restricts fish passage with a structure that meets or exceeds current fish passage criteria in Issaquah, Washington. The Washington Department of Fish and Wildlife (WDFW) is the non-Federal sponsor for the Corps project. The proposed project is described below and shown on the enclosed drawings. The purpose of this Public Notice is to solicit comments from interested persons, groups, and agencies.

LOCATION

The project area is located at river mile (RM) 3.5 on Issaquah Creek about ½ mile upstream of the Issaquah Fish Hatchery in Section 33, T24 N, R6E, City of Issaquah, King County, Washington.

PROJECT BACKGROUND

In 1936, in response to growing demands of fish resources and diminishing returns, the Washington State Department of Fish and Wildlife (WDFW) began supplementing salmon production through operation of the Issaquah creek Fish Hatchery as a salmon production facility in the City of Issaquah. Two dams were constructed to support the hatchery, the lower dam or "barrier dam" located at the hatchery site and an upper dam, "diversion dam". This project focuses on the upper dam and its associated fish passage problems.

The intake structure or diversion dam located ½ mile upstream of the hatchery has supplied water to the hatchery since 1960 through diverting creek flow and creating the elevation head necessary to deliver a gravity flow water supply. In 1972 the gravity intake was reconstructed, the walls at the intake were raised one foot, two additional pools were added to the fish ladder, and a new screen structure incorporated. Since then, the hatchery has become a historical and cultural feature as well as a fish production facility.

The existing dam has passage problems with the ladder, the water supply intake, the spillway, and the accompanying apron. At present, adult fish passage is only possible at a narrow range of flows and the projects causes unacceptable mortality to both adult and juvenile salmonids.

PURPOSE AND PROJECT OBJECTIVE

The proposed project will provide low mortality passage at least 90% of the time for both upstream and downstream passage including juvenile upstream passage, while maintaining an existing water supply to the Issaquah Hatchery.

AUTHORITY

The proposed project is submitted under Section 206 authority of the Water Resources Development Act of 1996, P.L. 104-303. This authority authorizes the Secretary of the Army to carry out aquatic ecosystem restoration and protection projects if the Secretary determines that the project will improve the quality of the environment, is in the public interest, and is cost-effective.

PROPOSED PROJECT

The proposed project will correct the current problems of upstream adult and juvenile salmon migration and downstream juvenile passage at the upper water intake of the Issaquah Salmon Hatchery on Issaquah Creek. The design guidelines include a 50-year project life, 100-year flood levels, and fish passage for flows ranging from 5-95% of the daily averaged values, 16cfs-320cfs.

The project will replace the existing dam and fish ladder with new configurations, modify the existing intake structure and replace the intake screens, provide a juvenile fish bypass return and alarm system, and install 7 downstream grade control weirs. Specifics include:

- The spillway will be moved downstream coincident with the entrance of the fishway to prevent fish from being attracted beyond the fishway entrance by spill flows. The right abutment will also be extended at least 17 feet downstream to the crest of the new spillway.
- The spillway will be founded on the existing apron, removing it as a potential location for stranding of adults at lower tailwater levels
- A new ten-foot apron will be placed below the new spillway to prevent scour, and two feet below the minimum water elevation.
- A new fish ladder consisting of five pool and chute weirs will provide upstream and downstream fish passage past the dam. The four pools will each be twenty feet wide, ten feet long, and three feet deep from crest to floor. The weirs will each have a low flow notch and sloping sides. A sluice opening will be provided on each side of each fishway weir to allow flushing of accumulated sediment and debris.
- Seven grade control weirs spaced at 25 foot intervals with .8 foot drops will be constructed downstream of the dam. The weir spans range from 70 to 120 feet in length
- Streambed and bank protection will be placed for each weir to prevent scour and weir failure. Riprap will be placed at the depth of expected scour and covered with gravel having a range of sizes that replicate existing substrate
- The inlet and trashrack of the screen will be extended upstream, approximately 10 feet, so that debris will sweep past the trashrack and continue down the fishway rather than accumulate in front of the intake. The extension of the structure will require fill along the left bank and excavation along the right bank.
- The intake structure will be modified into a V-shaped configuration to meet the screen sweeping and approaching velocity criterion
- A collection trough and outfall conduit will transport juvenile fish from the intake structure to below the fishway

- The existing sluiceway and walls will remain but be extended upstream parallel to the intake and fishway
- The bank will be planted with native plant species following construction
- An alarm system, using water level sensors, will be installed to alert the hatchery when the intake system needs to be cleaned.

MITIGATION

The project is considered self-mitigating.

ENDANGERED SPECIES

The Endangered Species Act of 1973, as amended, requires assessment of potential impacts to listed and proposed species. Listed and proposed species that may occur in the project vicinity include:

Bald Eagle (*Haliaeetus leucocephalus*)—threatened;

Coastal/Puget Sound Bull Trout (*Salvelinus confluentus*)—threatened;

Puget Sound Chinook Salmon (*Oncorhynchus tshawytscha*)—threatened;

The Corps will prepare a biological evaluation to discuss potential impacts to listed and proposed species and initiate consultation with the National Marine Fisheries Service and the U.S. Fish and Wildlife Service, according to Section 7 of the ESA, for species under jurisdiction of each respective agency.

CULTURAL AND HISTORIC RESOURCES

The District Engineer has reviewed the latest published version of the National Register of Historic Places, lists of properties determined eligible, and other sources of information. The following is current knowledge of the presence or absence of historic properties and the effects of the undertaking upon these properties:

Section 106 compliance studies completed to date include an examination of the electronic database containing the archaeological and historic site records of the Washington State Office of Archaeology and Historic Preservation (OAHP) and other background research. The records search indicated that no properties listed on the National Register of Historic Places (NRHP) and no sites or structures listed on the state inventory are located within the proposed project area. During the next phase of studies a professional cultural resources reconnaissance survey will be being conducted for the proposed project by a Corps archaeologist.

The District Engineer invites responses to this Public Notice from Federal, State and local agencies, historical and archeological societies, Indian tribes and other parties likely to have knowledge of or concerns with historic properties in the area.

PUBLIC HEARING

Any person may request, in writing and within the comment period specified in this notice, that a public hearing be held to consider this proposal. Requests for public hearings shall state, with particularity, the reason for holding a public hearing.

EVALUATION

The decision whether to perform the proposed work will be based on an evaluation of the probable impact, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits that reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people.

The U.S. Army Corps of Engineers, Seattle District is soliciting comments from the public; Federal, State, and local agencies and officials; Indian tribes; and other interested parties in order to consider and evaluate the impacts of this activity. Any comments received will be considered by the Corps of Engineers to determine whether to modify, condition, or not proceed with the proposed work. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the activity.

The evaluation of the activity on the public interest will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act. This evaluation will include an alternatives analysis.

ADDITIONAL EVALUATION

The State of Washington will review this work for consistency with the approved Washington Coastal Zone Management Program. A coastal zone consistency statement will be prepared and submitted to the Department of Ecology. A preliminary determination has been made that the proposed maintenance work is consistent to the maximum extent practicable with the enforceable policies of the City of Issaquah Shoreline Management Program.

A Section 401 water quality certification is requested from the State of Washington.

Pursuant to the National Environmental Policy Act, a final Environmental Assessment will be prepared based on responses to this Public Notice. Once complete, the Environment Assessment (EA) will be posted and available on the Seattle District web site at: <<http://www.nws.usace.army.mil/ers/envirdocs.html>>. A preliminary determination has been made that the proposed maintenance work will not significantly affect the quality of the human environment and, therefore, an Environmental Impact Statement is not required.

COMMENT AND REVIEW PERIOD

Comments on these factors will be accepted, made part of the record, and will be considered in determining whether it would be in the best public interest to proceed with the proposed project. Comments should reach this office, Attn: Civil Projects Branch, not later than the expiration date of this public notice to ensure consideration.

Requests for additional information should be directed to Alicia Austin, Project Manager, at (206) 764-5522 or Chuck Ebel, Environmental Coordinator, at (206) 764-3626.

Encl
Drawings (4)



STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

P.O. Box 47600 • Olympia, Washington 98504-7600
(360) 407-6000 • TDD Only (Hearing Impaired) (360) 407-6006

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Notice of Application for
Water Quality Certification
and for
Certification of Consistency with the
Washington Coastal Zone Management Program

Date: December 1, 2003

Notice is hereby given that a request has been filed with the Department of Ecology, pursuant to the requirements of Section 401 of the federal Clean Water Act of 1977 (PL 95-217), to certify that the project described in the U.S. Army Corps of Engineers Public Notice No. 04-03 will comply with the Sections 301, 302, 303, 306, and 307 of the Act, and with applicable provisions of State and Federal water pollution control laws.

Notice is hereby given that a request has been filed with the Department of Ecology, pursuant to the requirements of Section 307© of the Federal Coastal Zone Management Act of 1972 (16 U.S.C. 1451), to certify that the above referenced project will comply with the Washington State Coastal Zone Management Program and that the project will be conducted in a manner consistent with that program.

Any person desiring to present views on the project pertaining to the project on either or both (1) compliance with water pollution control laws or (2) the project's compliance or consistency with the Washington State Coastal Zone Management Program may do so by providing written comments within 30 days of the above publication date to:

Federal Permit Coordinator
Department of Ecology
SEA Program
Post Office Box 47600
Olympia, Washington 98504-7600

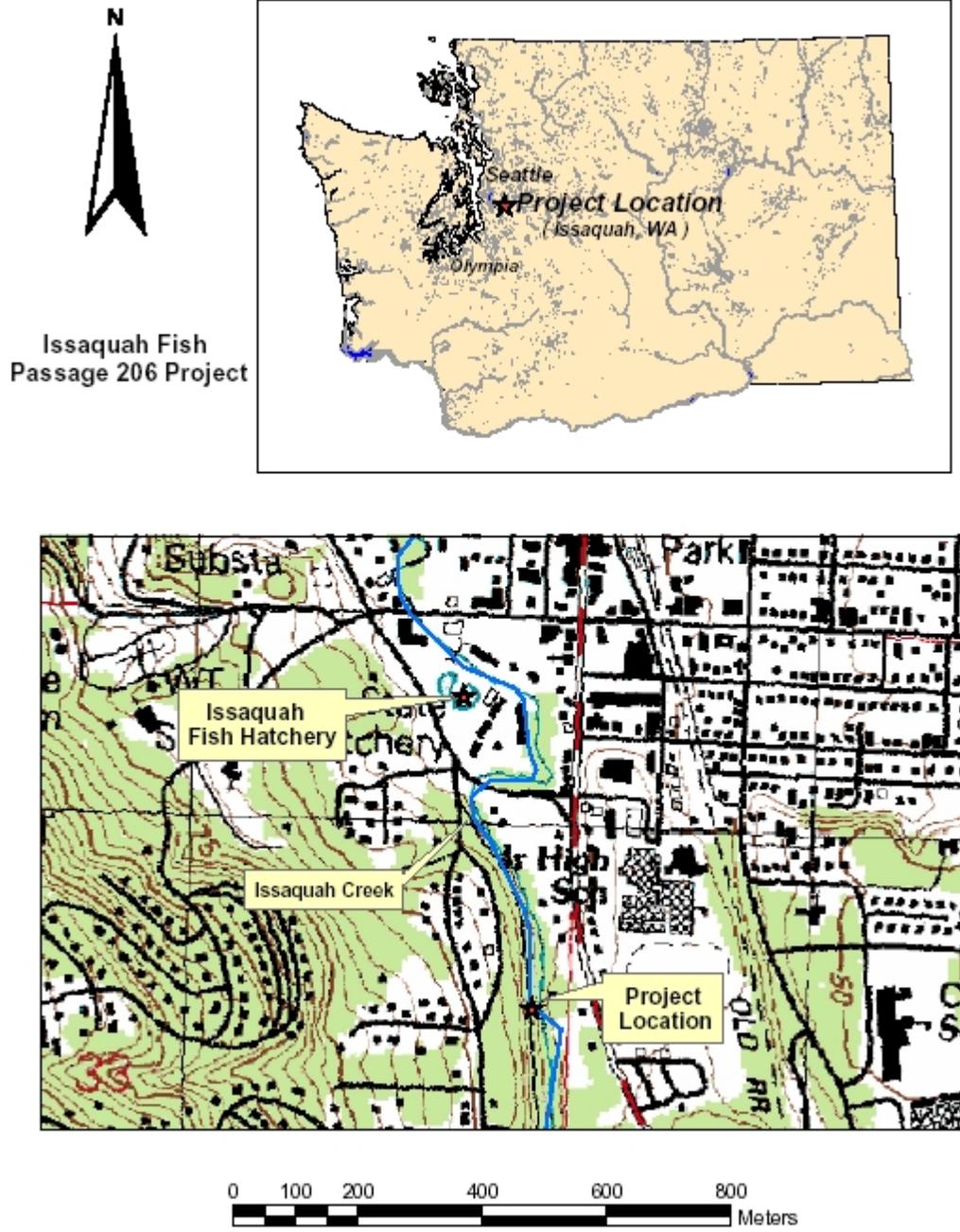
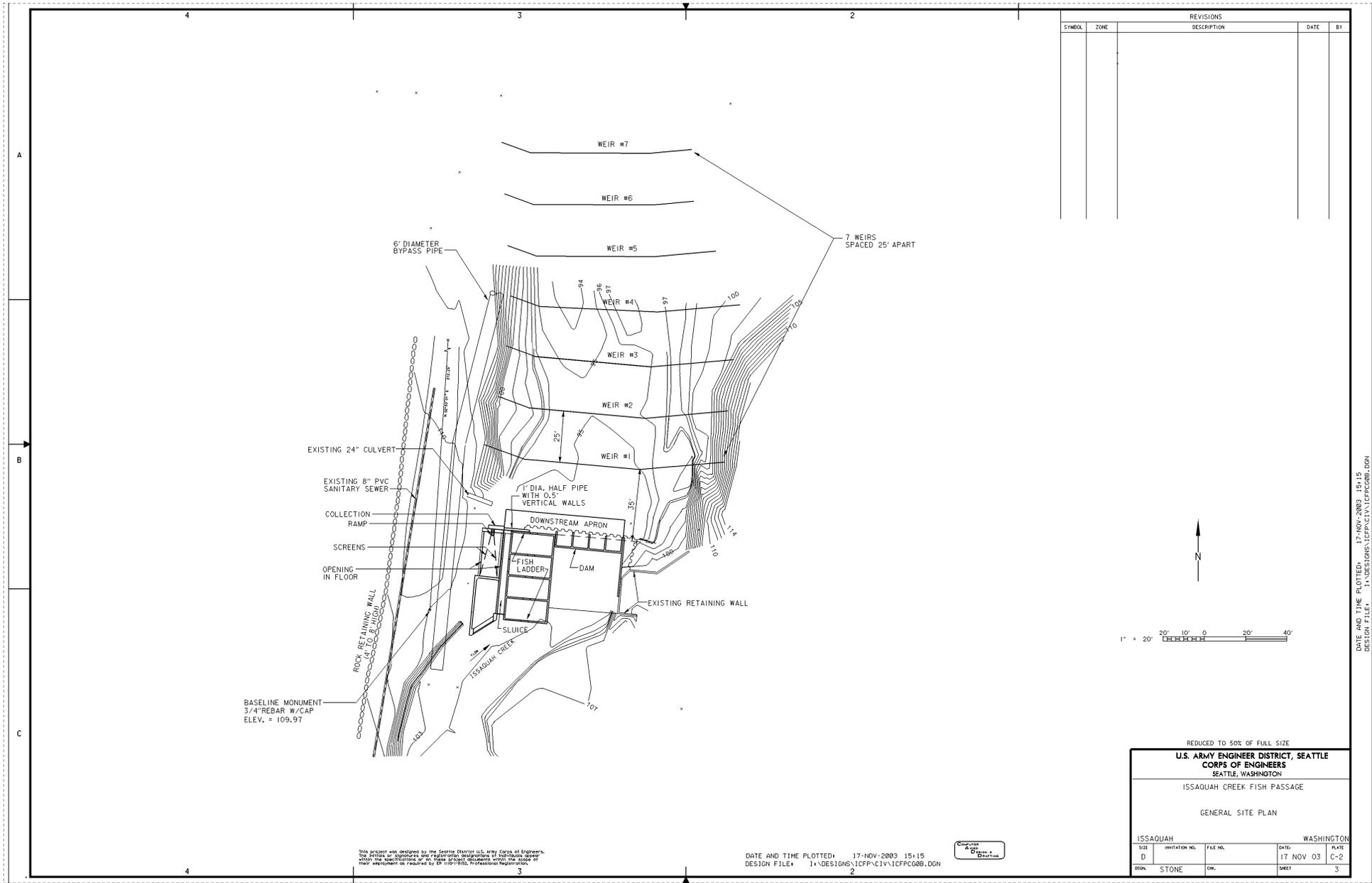
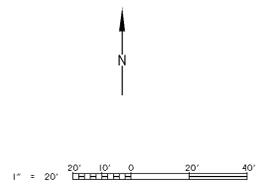


Figure 1. Project Location



REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY



REDUCED TO 50% OF FULL SIZE				
U.S. ARMY ENGINEER DISTRICT, SEATTLE CORPS OF ENGINEERS SEATTLE, WASHINGTON				
ISSAQUAH CREEK FISH PASSAGE				
GENERAL SITE PLAN				
ISSAQUAH		WASHINGTON		
SIZE	ITERATION NO.	FILE NO.	DATE	PKT#
D			17 NOV 03	C-2
ISSN	STONE	CHK	SHEET	3

This project was designed by the Seattle District U.S. Army Corps of Engineers. The criteria, specifications and regulatory requirements, as indicated herein, shall be the responsibility of the design engineer. Questions with the scope of their employment or required by 49 CFR 115.1-1010, Professional Registration.

DATE AND TIME PLOTTED: 17-NOV-2003 15:15
 DESIGN FILE: I:\DESIGNS\ICFP\CIV\ICFP008.DGN



DATE AND TIME PLOTTED: 17-NOV-2003 15:15
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Figure 2. Site Plan



REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

CONSTRUCTION SEQUENCE:

1. BYPASS PIPE IS IN PLACE.
2. TO DIVERT WATER INTO THE BYPASS PIPES CONSTRUCT A TEMPORARY DAM CONSISTING OF ECOLOGY BLOCKS AND SANDBAGS OR AN INFLATABLE DAM ACROSS THE STREAM.
3. CONSTRUCT FISH LADDER FLOOR SLAB.
4. CONSTRUCT FISH LADDER EAST WALL.
5. CONSTRUCT FISH LADDER WIERS.
6. CONSTRUCT DAM
7. CONSTRUCT DOWNSTREAM APRON.
8. CONSTRUCT DOWNSTREAM WEIRS.
9. ONCE THE ABOVE CONSTRUCTION IS COMPLETE, MOVE THE COFFERDAM TO ALLOW WATER DOWN THE NEWLY CONSTRUCTED DAM ADD FISH LADDER. MAINTAIN INTAKE/AREA DRY.
10. CONSTRUCTION AND EXTEND THE INTAKE STRUCTURE WALLS AND FLOOR UPSTREAM.
11. INSTALL NEW WOOD DECKING.
12. FABRICATE AND INSTALL NEW SCREENS.
13. EXTEND EAST WALL AND FLOOR OF WATER BYPASS UPSTREAM.
14. ADD (RAISE) EAST WALL OF WATER BYPASS WHICH IS THE WEST WALL OF THE NEW FISH LADDER TO NEW DESIGN HEIGHT OF WALL.
15. FABRICATE AND INSTALL VERTICAL LOUVERED SCREEN AT FRONT ON INTAKE STRUCTURE.
16. INSTALL LOG BOOM UPSTREAM OF LOUVERED SCREEN.

NOTE:

1. ALL ELEVATIONS SHOWN ARE PER NGVD29 DATUM. TO OBTAIN NGVD 88 DATUM ADD 3.6 FEET TO ALL ELEVATIONS.

1" = 10'

REDUCED TO 50% OF FULL SIZE

U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
 SEATTLE, WASHINGTON

ISSAQUAH CREEK FISH PASSAGE

CONSTRUCTION PLAN

ISSAQUAH		WASHINGTON	
DATE	REVISION NO.	FILE NO.	PLATE
D			S-2
17 NOV 03			
DRAWN: RUS50		CHK:	SHEET 7

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Figure 3. Construction Plan

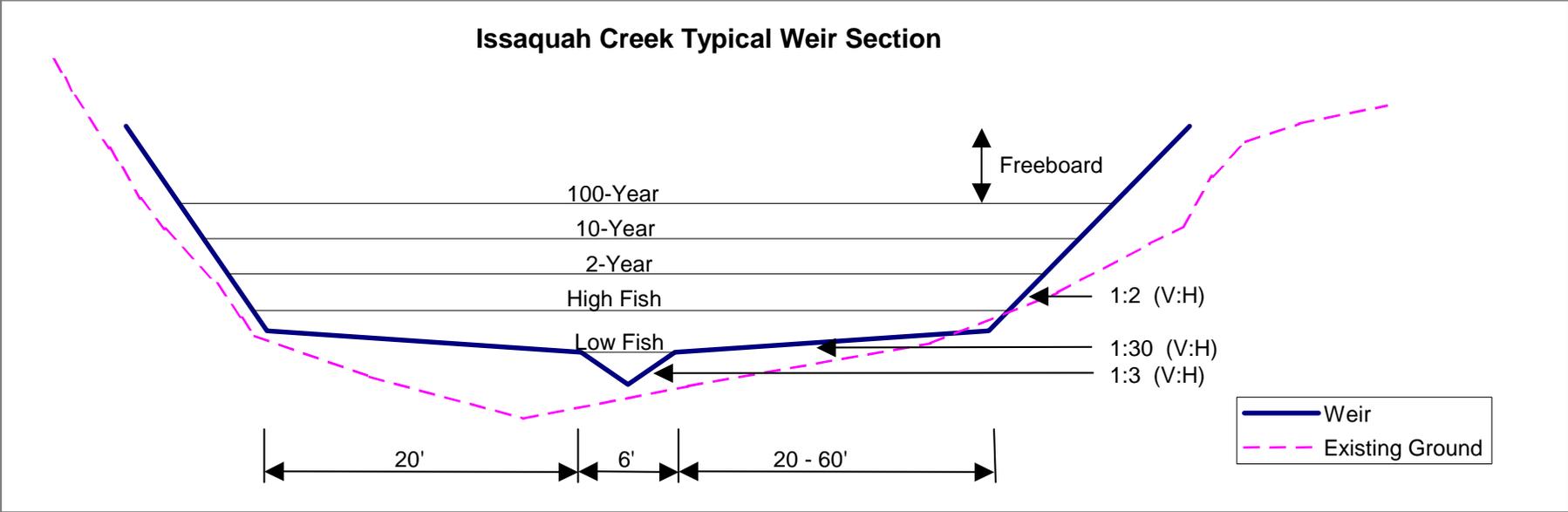


Figure 4. Example Weir Section