US Army Corps of Engineers
Seattle District

WASHINGTON STATE DEPARTMENT OF ECOLOGY

Joint Public Notice

Application for a Department of the Army Permit and a Washington Department of Ecology Water Quality Certification and/or Coastal Zone Management Consistency Concurrence

US Army Corps of Engineers
Regulatory Branch
Post Office Box 3755
Seattle, WA 98124-3755
Telephone: (206) 316-3049
ATTN: Kristen Hafer,
Project Manager

WA Department of Ecology
SEA Program
Post Office Box 47600
Olympia, WA 98504-7600
Telephone: (360) 407-6068
ATTN: SEA Program,
Federal Permit Coordinator

Public Notice Date: December 17, 2015
Expiration Date: January 16, 2016

Reference No.: NWS-2015-796
Name: US Fish and Wildlife Service (Quinault National Fish Hatchery)

Interested parties are hereby notified that the U.S. Army Corps of Engineers (Corps) and the Washington Department of Ecology (Ecology) have received an application to perform work in waters of the U.S. as described below and shown on the enclosed drawings dated November 9, 2015.

The Corps will review the work in accordance with Section 404 of the Clean Water Act (CWA). Ecology will review the work pursuant to Section 401 of the CWA, with applicable provisions of State water pollution control laws and the Coastal Zone Management Act.

APPLICANT: U.S. Fish and Wildlife Service
Attention: Mr. Benjamin Gilles
3 Sockeye Road
Humptulips, Washington 98552
Telephone: (360) 288-2508

AGENT: U.S. Fish and Wildlife Service
Attention: Ms. Yvonne Dettlaff
510 Desmond Drive Southeast
Olympia, Washington 98516
Telephone: (360) 753-9582

LOCATION: The proposed project is located at the Quinault National Fish Hatchery, in Cook Creek, near Humptulips, Grays Harbor County, Washington.

WORK: The proposed project involves removing an existing 104-foot-long and 23-foot-wide electric fish barrier and associated wing walls and replacing the structure with a 24-foot-wide, and 80-foot-long concrete weir with an adjustable, up to 4-foot high Obermeyer gate weir system and a 20-foot-wide concrete apron. The weir would increase the level of upstream impoundment by 6.8 feet, and from 1.87 acres of inundated area to 4.31 acres, as measured from the ordinary high water mark (OHWM). The new pool area would extend 1,514 linear feet from the weir upstream and inundate 194 linear feet of Hatchery Creek, a tributary to Cook Creek. Work would also include placing no more than 162 cubic yards of riprap to protect the structure from scour; constructing an 8-foot-wide and 100-foot-long fish ladder; discharging no more than 446 cubic yards of material to construct a 1,275 linear foot, up

to 8-foot high concrete floodwall along Cook Creek to prevent permanent inundation of adjacent wetlands; and, discharging up to 26 cubic yards of material below the OHWM of Cook Creek to construct an access road. The proposed project would result in 456 cubic yards of concrete and gravel base material placed below ordinary high water, 188 cubic yards of riprap and quarry spalls, and would result the fill of 0.07 of an acre of wetlands and result in the conversion of 0.35 of an acre of wetlands due to inundation, and 594 cubic yards will be below the OHWM when the pool forms as a result of impounding.

PURPOSE (per applicant): To improve functionality of the Quinault National Fish Hatchery and improve human safety.

The wetland boundaries and location of the ordinary high water mark shown on the project drawings have not yet been verified by the Corps. If the Corps determines the boundaries of the wetlands and waters are substantially inaccurate a new public notice may be published.

MITIGATION: The proposed project is not within the service area of an existing bank. The applicant understands the need to provide mitigation and is evaluating opportunities to implement onsite mitigation. A mitigation proposal will be provided to the Corps and Ecology during the course of the permit process evaluation. The mitigation proposal will comply with the 2008 Mitigation Rule.

ENDANGERED SPECIES: The Endangered Species Act (ESA) requires federal agencies to consult with the National Marine Fisheries Service (NMFS) and/or U.S. Fish and Wildlife Service (USFWS) pursuant to Section 7 of the ESA on all actions that may affect a species listed (or proposed for listing) under the ESA as threatened or endangered or any designated critical habitat. The USFWS, as the lead agency for ESA consultation, will consult with the NMFS and/or the USFWS as required under Section 7 of the ESA.

ESSENTIAL FISH HABITAT: The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996, requires all Federal agencies to consult with the NMFS on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH). The USFWS, as the lead agency for a determination regarding EFH, will consult with the National Marine Fisheries Services if necessary.

CULTURAL RESOURCES: The USFWS, as the lead agency for determining compliance with Section 106 of the National Historic Preservation Act, will consult with the State Historic Preservation Officer and Native American Tribes as appropriate.

PUBLIC HEARING: Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing.

EVALUATION – CORPS: The decision whether to issue a permit will be based on an evaluation of the probable impacts, 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, which 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.

NWS-2015-796, U.S. Fish and Wildlife Service (Quinault National Fish Hatchery)

The Corps is soliciting comments from the public; Native American Nations or tribal governments; Federal, State, and local agencies and officials; and other interested parties in order to consider and evaluate the impacts of this activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition or deny a permit for the 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 used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the activity.

The described discharge will be evaluated for compliance with guidelines promulgated by the Environmental Protection Agency under authority of Section 404(b)(1) of the CWA. These guidelines require an alternatives analysis for any proposed discharge of dredged or fill material into waters of the United States.

SOURCE OF FILL MATERIAL: The applicant has not yet identified the source of the fill material. Should a permit be issued, the Corps will evaluate the fill material source prior to the start of construction.

EVALUATION – ECOLOGY: Ecology is soliciting comments from the public; Federal, Native American Nations or tribal governments, State, and local agencies and officials; and other interested parties in order to consider and evaluate the impacts of this activity. Ecology will be considering all comments to determine whether to certify or deny certification for the proposed project.

COMMENT AND REVIEW PERIOD: Conventional mail or e-mail comments on this public notice will be accepted and made part of the record and will be considered in determining whether authorizing the work would not be contrary to the public interest. In order to be accepted, e-mail comments must originate from the author's e-mail account and must include on the subject line of the e-mail message the permit applicant's name and reference number as shown below. Either conventional mail or e-mail comments must include the permit applicant's name and reference number, as shown below, and the commenter's name, address, and phone number. All comments whether conventional mail or e-mail must reach this office, no later than the expiration date of this public notice to ensure consideration.

CORPS COMMENTS: All e-mail comments should be sent to kristen.a.hafer@usace.army.mil. Conventional mail comments should be sent to: U.S. Army Corps of Engineers, Regulatory Branch, Attention: Kristen Hafer, P.O. Box 3755, Seattle, Washington 98124-3755. All comments received will become part of the administrative record and are subject to public release under the Freedom of Information Act including any personally identifiable information such as names, phone numbers, and addresses.

ECOLOGY COMMENTS: Any person desiring to present views on the project pertaining to a request for water quality certification under Section 401 of the CWA and/or Coastal Zone Management consistency concurrence, may do so by submitting written comments to the following address: Washington State Department of Ecology, Attention: Federal Permit Coordinator, Post Office Box 47600, Olympia, Washington 98504-7600, or e-mail to ecyrefedpermits@ecy.wa.gov.

To ensure proper consideration of all comments, responders must include the following name and reference number in the text of their comments: U.S. Fish and Wildlife Service (Quinault National Fish Hatchery), NWS-2015-796.

Encl: Figures (13)

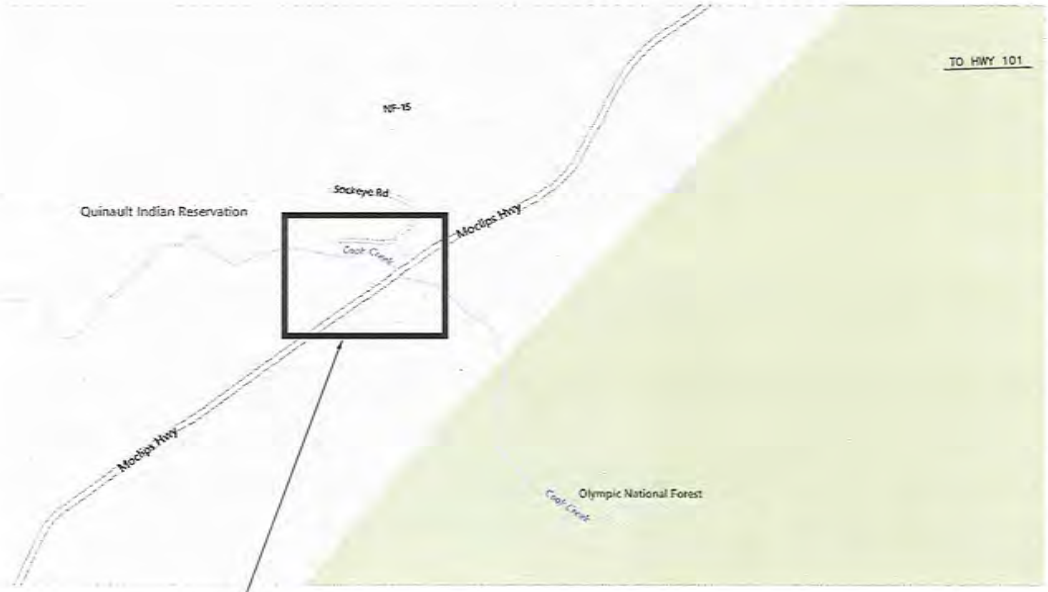
U.S. FISH & WILDLIFE SERVICE

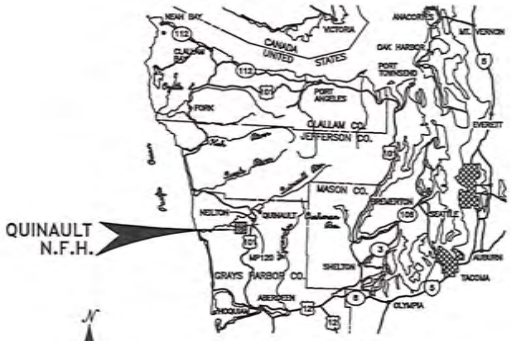
EXCLUSION FISH BARRIER PROJECT

QUINAULT NATIONAL FISH HATCHERY

GRAYS HARBOR COUNTY, WASHINGTON

LOCATION MAP
SCALE: NTS





VICINITY MAP
SCALE: NTS

SITE PLAN
SCALE: NTS

PROJECT LIMITS
SECTION 30, TOWNSHIP
22N, RANGE 10W
GRAYS HARBOR COUNTY

Reference: NWS-2015-796
Appl By: US Fish and Wildlife Service
Proposed: Fish exclusion barrier
Purpose: Hatchery maintenance and human safety
Date: 9 November 2015

In: Cook Creek and wetlands
Near: Humptulips
County: Grays Harbor
State: WA

VERIFY SCALE
THIS BAR IS ONE INCH ON ORIGINAL DRAWING
0" — 1"
ADJUST SCALES ACCORDINGLY, IF NOT ONE INCH ON THIS SHEET

PRELIMINARY
NOT FOR CONSTRUCTION

REV.	DATE	DESCRIPTION	BY
B	01/16/15	65% DESIGN SUBMITTAL	TF
A	10/12/12	35% DESIGN SUBMITTAL	PL

UNITED STATES DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
REGION 1, OFFICE OF ENGINEERING
PORTLAND, OREGON

SUBMITTED BY PROJECT MANAGER: TOM FINNEGAN

REVIEWED FOR SAFETY COMPLIANCE

REVIEWED FOR ENVIRONMENTAL COMPLIANCE

REVIEWED FOR ADA COMPLIANCE

CERTIFIED TO EFR 420 COMPLIANCE (ENGINEER)

SUBMITTED BY REGIONAL ENGINEER

PROGRAMMATIC REVIEW

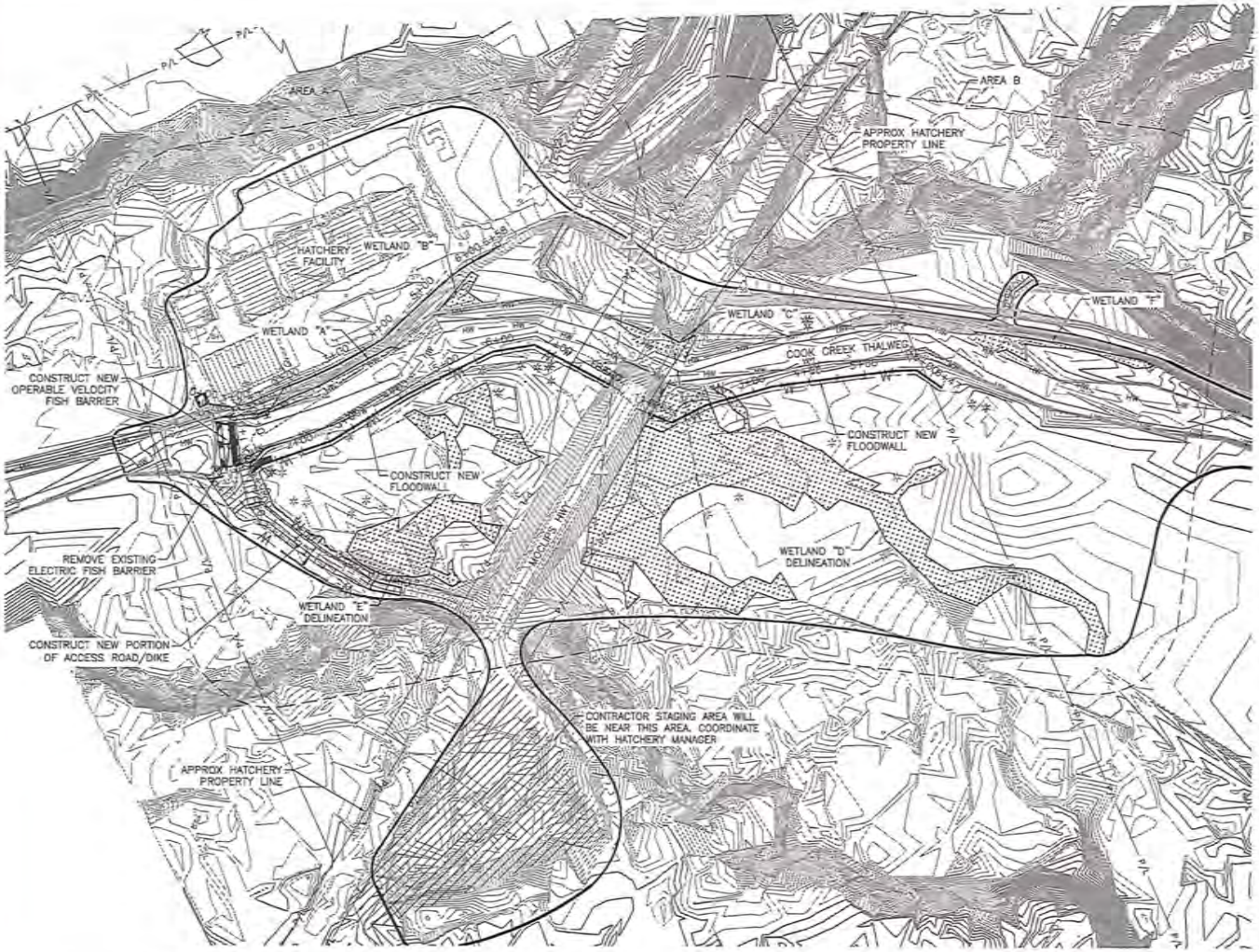
QUINAULT
NATIONAL FISH HATCHERY
EXCLUSION FISH BARRIER
LOCATION MAP
AND VICINITY MAP
G001
GRAYS HARBOR COUNTY WASHINGTON

SURVEYED	DESIGNED	DRAWN	CHECKED
	TF	DJ	MR

DATE: APRIL 30, 2015
DRAWING NO.: 1F-WA-690-1-244-

SHEET __ OF __

McMILLEN, LLC
1401 SHORELINE DR.
BOISE, ID 83702
OFFICE: 208.342.4214
FAX: 208.342.4216



Reference: NWS-2015-796
Appl By: US Fish and Wildlife Service
Proposed: Fish exclusion barrier
Purpose: Hatchery maintenance and human safety
Date: 9 November 2015

In: Cook Creek and wetlands
Near: Humptulips
County: Grays Harbor
State: WA

PROJECT GENERAL PLAN

50 25 0 100 200
Scale in Meters | Scale in Feet

SHEET NOTES:

1. BASIS OF CONTROL DERIVED FROM TOPOGRAPHIC SURVEY COMPLETED BY DSE SURVEYING AND ENGINEERING, AUGUST 2012. THE BUILDINGS, BRIDGES, AND OTHER RELATED INFORMATION AS ILLUSTRATED ON THIS PLAN ARE BASED ON THIS SURVEY.
2. SEE SHEET G101 FOR ALIGNMENT INFORMATION AND ADDITIONAL POINT COORDINATES.
3. HORIZONTAL DATUM: NAD83(CORS96).
4. VERTICAL DATUM: NAVD88. TO OBTAIN NGVD29 DATUM LOWER SITE 3.35 FEET. PREVIOUS SURVEY BLOCKS ARE ROTATED TO THIS SURVEY. POINT VERTICAL ELEVATIONS ON THESE PREVIOUS SURVEYS ARE STILL ON NGVD29 DATUM AND ARE POINT BLOCKS ONLY.
5. CONTRACTOR SHALL PROVIDE A UTILITY LOCATE SURVEY WITHIN PROJECT AREA PRIOR TO CONSTRUCTION. ALL ILLUSTRATED EXISTING UTILITIES ARE BASED UPON EXISTING DRAWINGS.
6. REFERENCE SHEETS C100 AND C101 FOR PROJECT PLANS OF AREAS A AND B RESPECTIVELY.
7. CONTRACTOR TO TAKE PRECAUTIONS NOT TO DISTURB SURVEY CONTROL POINTS.
8. CONTRACTOR TO KEEP SITE NEAT AND ORDERLY.
9. ADDITIONAL STORAGE AREA MAY BE MADE AVAILABLE ADJACENT TO SOCKEYE RD, CONTINGENT UPON APPROVAL BY USFWS.

HORIZONTAL AND VERTICAL CONTROL HELD OR VERIFIED

	NAD83		NAVD88	
PT#	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	757266.43	775307.21	177.01	SET 60D
50	757734.56	775490.85	185.79	FND PK WASHER
52	757124.55	775001.57	185.79	FND PK WASHER
53	757545.79	774700.54	185.79	SET ⅝ RB YPC
54	757794.54	774800.63	163.39	FND PK WASHER
55	757447.22	775678.58	179.73	SET PK WASHER
56	757439.03	775503.81	185.79	WSDOT COCO
57	757724.31	775167.54	185.79	SET PK WASHER
105	757798.15	775466.03	185.79	SET 60D
107	757607.16	775536.03	185.79	SET PK WASHER
109	756133.34	776483.71	185.79	SET 60D

△ = CONTROL POINT

ALL COORDINATES ARE REPORTED IN U.S. SURVEY FEET.

FIELD SURVEY CONDUCTED JUNE, 2011 AND AUGUST, 2012 BY:
DSE
35668 MONTGOMERY DRIVE
SOLO, OREGON 97374
541-951-8658.

PRELIMINARY
NOT FOR CONSTRUCTION

REV.	DATE	DESCRIPTION	BY
3	4/30/15	95% DESIGN SUBMITTAL	TF
2	01/15/15	01/15/15	TF
1	10/12/12	35% DESIGN SUBMITTAL	PL

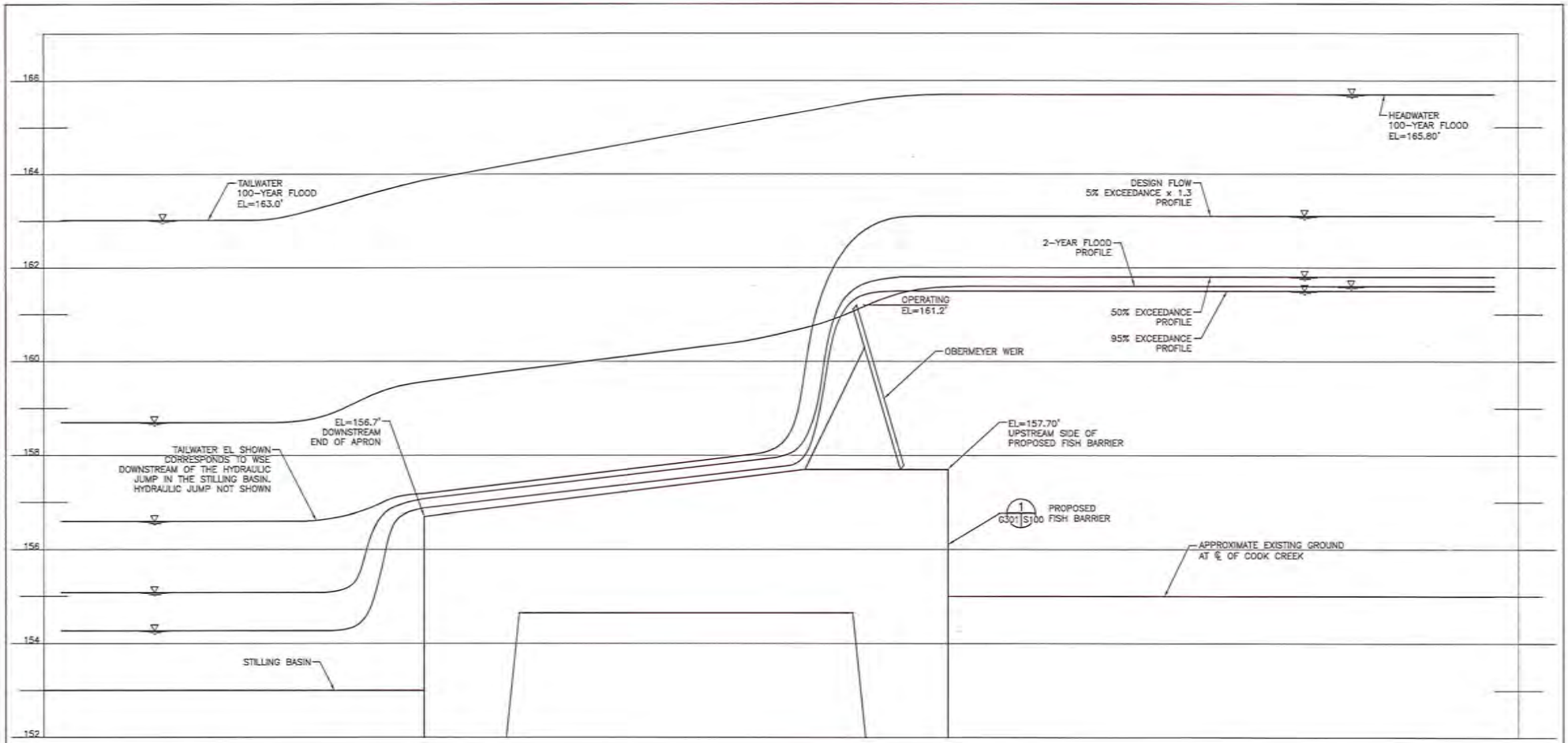
QUINAULT NATIONAL FISH HATCHERY

PROJECT KEY MAP AND GENERAL PLAN G100

DESIGNED	DRAWN	CHECKED	DATE	DRAWING NO.
TF	TF	MR	04/30/15	1F-WA-590-1-244-

McMILLEN, LLC
1401 SHORELINE DR.
BOISE, ID 83702
OFFICE: 208.343.4214
FAX: 208.343.4216

SHEET __ OF __



Reference: NWS-2015-796
Appl By: US Fish and Wildlife Service
Proposed: Fish exclusion barrier
Purpose: Hatchery maintenance and human safety
Date: 9 November 2015

In: Cook Creek and wetlands
Near: Humptulips
County: Grays Harbor
State: WA

BARRIER HYDRAULIC PROFILE

1 .5 0 2 4 .5 .25 0 1 2
Scale in Meters | Scale in Feet . Scale in Meters | Scale in Feet
HORIZONTAL VERTICAL

PRELIMINARY
NOT FOR CONSTRUCTION

REV.	DATE	DESCRIPTION	BY
3	04/30/15	95% DESIGN SUBMITTAL	TF
2	01/15/15	65% DESIGN SUBMITTAL	TF
1	10/12/12	35% DESIGN SUBMITTAL	PL

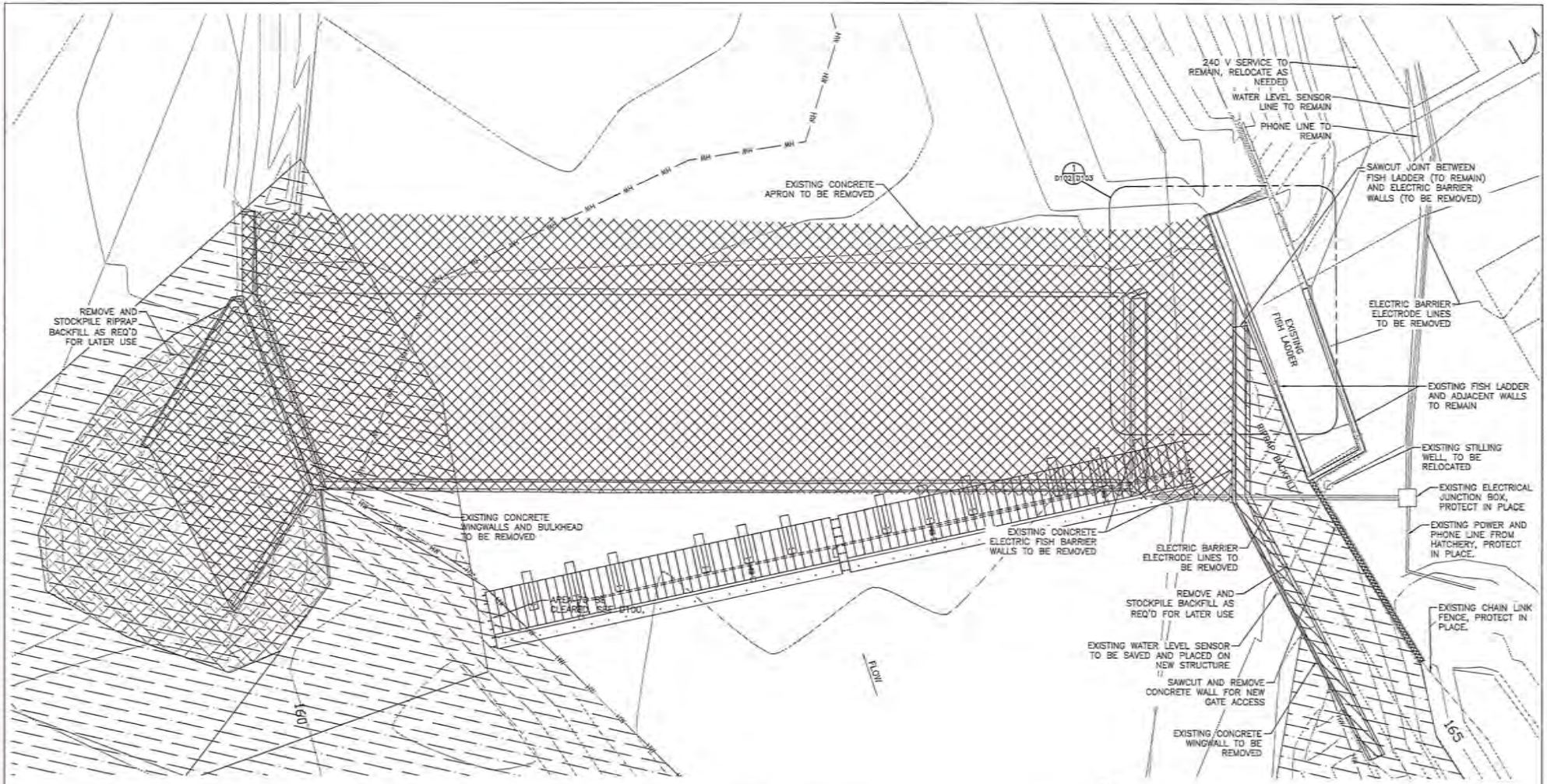
QUINAULT NATIONAL FISH HATCHERY

BARRIER HYDRAULIC PROFILE G301

DESIGNED	DRAWN	CHECKED	DATE	DRAWING NO.
TF	TF	MR	04/30/15	1F-WA-690-1-244-

McMILLEN, LLC
1401 SHORELINE DR.
BOISE, ID 83702
OFFICE: 208.342.4214
FAX: 208.342.4216

SHEET __ OF __



SHEET NOTES:

1. SEE ELECTRIC WEIR DRAWINGS BY SMITH-ROOT, INC. DATED 5/22/2002 FOR DETAILS OF EXISTING WEIR.

1 D100 D102 EXISTING ELECTRIC WEIR PLAN

2000 1000 0 5 10
Scale in mm | Scale in Feet

PRELIMINARY NOT FOR CONSTRUCTION

Reference: NWS-2015-796 In: Cook Creek and wetlands
Appl By: US Fish and Wildlife Service Near: Humptulips
Proposed: Fish exclusion barrier County: Grays Harbor
Purpose: Hatchery maintenance and human safety State: WA
Date: 9 November 2015

REV.	DATE	DESCRIPTION	BY
4	4/30/15	95% DESIGN SUBMITTAL	TF
3	01/15/15	65% DESIGN SUBMITTAL	TF
2	10/12/12	35% DESIGN SUBMITTAL	PL

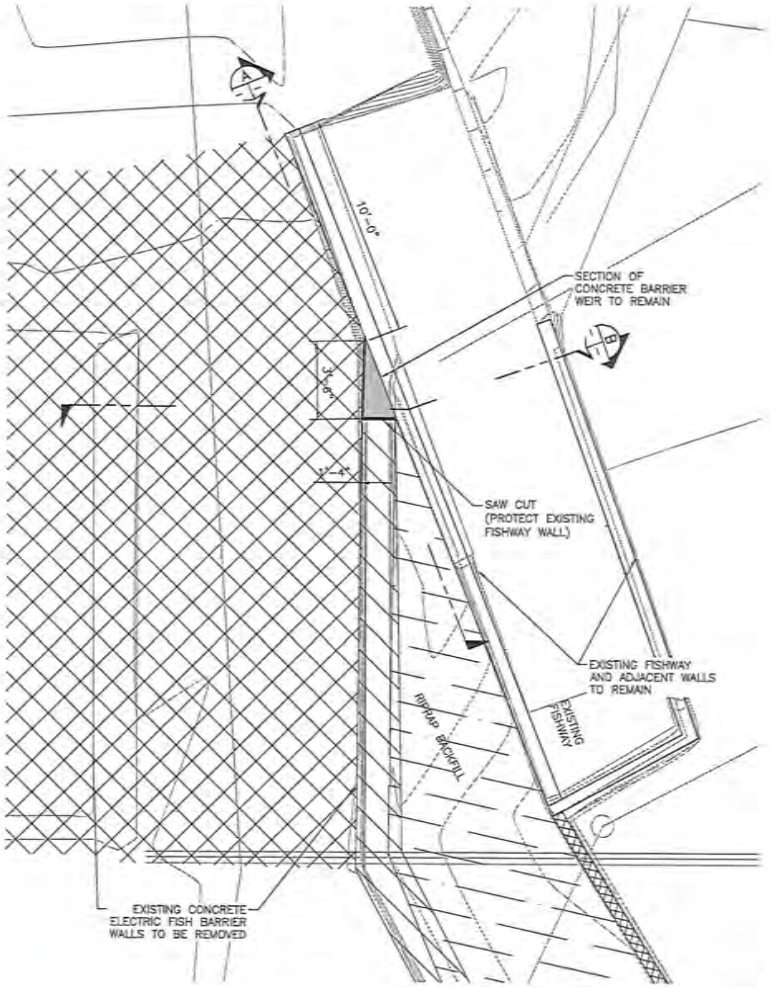
McMILLEN, LLC
1401 SHORELINE DR. BOISE, ID 83702 OFFICE: 208.342.6214 FAX: 208.343.4216

QUINAULT NATIONAL FISH HATCHERY

DEMOLITION PLAN – EXISTING WEIR D102

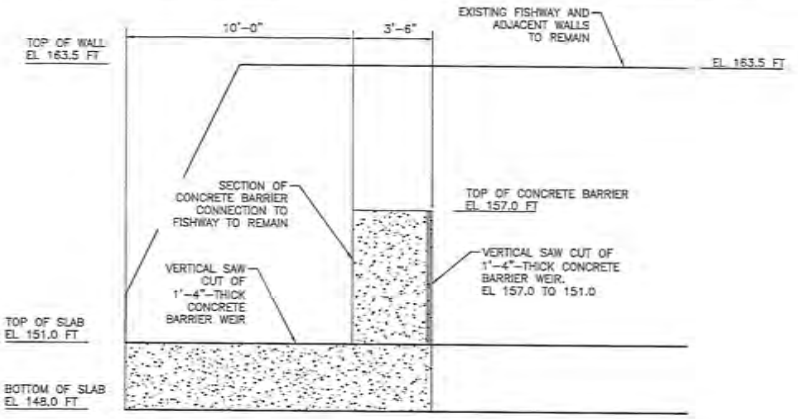
DESIGNED	DRAWN	CHECKED	DATE	DRAWING NO.
TF	TF	MR	04/30/15	1F-WA-690-1-244-

SHEET __ OF __

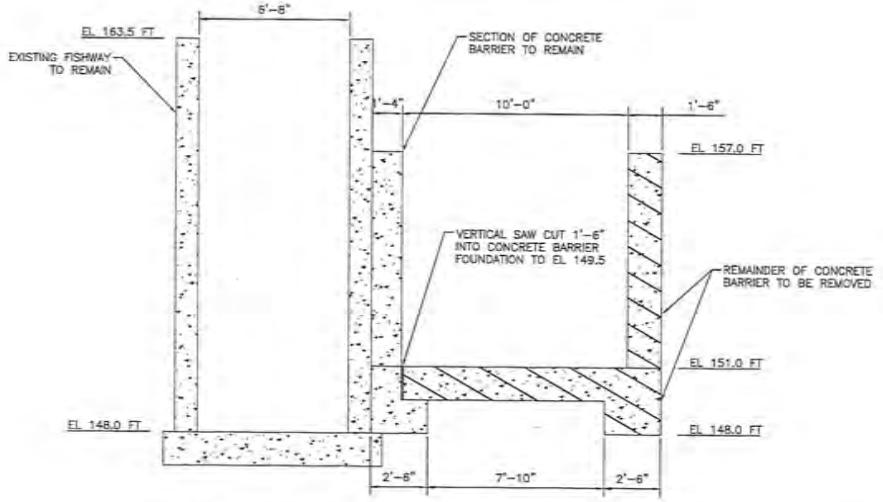


1 D102 D103 FISHWAY CONNECTION PLAN

2000 1000 0 5 10
Scale in mm Scale in Feet



A FISHWAY CONNECTION ELEVATION



B FISHWAY CONNECTION ELEVATION

PRELIMINARY NOT FOR CONSTRUCTION

SHEET NOTES:

1. SEE ELECTRIC WEIR DRAWINGS BY SMITH-ROOT, INC. DATED 5/22/2002 FOR DETAILS OF EXISTING WEIR.
2. CONFIRM EXISTING FISHWAY ELEVATIONS IN THE FIELD.

Reference: NWS-2015-796
Appl By: US Fish and Wildlife Service
Proposed: Fish exclusion barrier
Purpose: Hatchery maintenance and human safety
Date: 9 November 2015

In: Cook Creek and wetlands
Near: Humptulips
County: Grays Harbor
State: WA

McMILLEN, LLC
1401 SHORELINE DR. BOISE, ID 83702
OFFICE: 208.342.4214 FAX: 208.342.4216

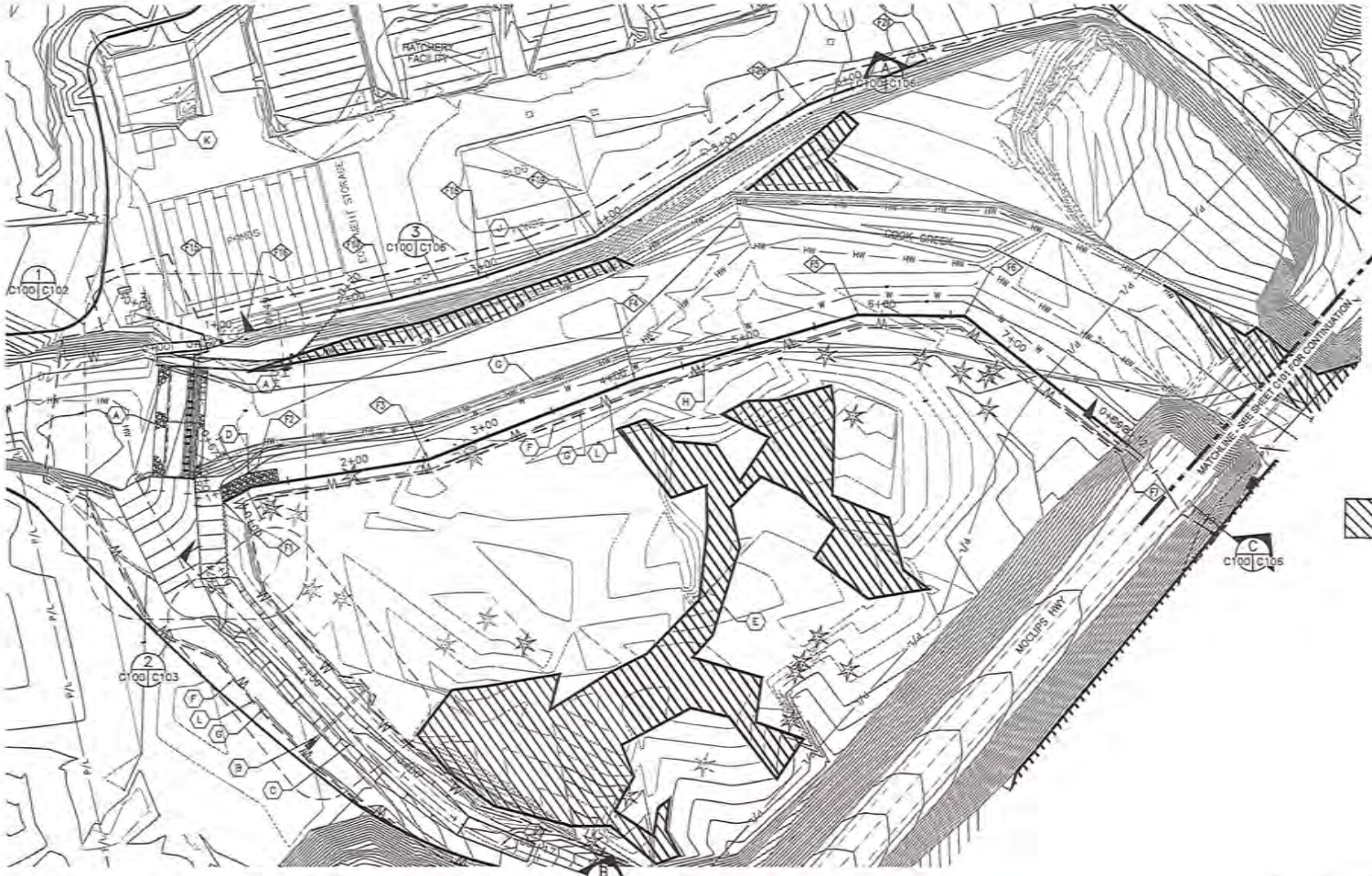
REV.	DATE	DESCRIPTION	BY
A	4/30/15	95% DESIGN SUBMITTAL	TF
B	01/15/15	65% DESIGN SUBMITTAL	TF
A	10/12/12	35% DESIGN SUBMITTAL	PL

QUINAULT NATIONAL FISH HATCHERY

DEMOLITION SECTIONS D103

DESIGNED	DRAWN	CHECKED	DATE	DRAWING NO.
TF	TF	MR	04/30/15	1F-WA-690-1-244-

SHEET __ OF __



SHEET NOTES:

1. SEE SHEETS G100 AND G101 FOR ADDITIONAL SITE AND LAYOUT INFORMATION.
2. SEE SHEETS G101 AND D100 FOR SIGNIFICANT TREE REMOVAL.

SHEET KEY NOTES:

- A 4'-6" THICK LAYER OF TYPE III RIPRAP WITH NON-WOVEN GEOTEXTILE FABRIC BELOW.
- B INSTALL 18" OVERFLOW PIPE WITH FLAP VALVE.
- C RAISE EXISTING ACCESS ROAD SURFACE TO 164.0'
- D 4'-0" THICK LAYER 10'-0" WIDE AND 40'-0" LONG OF TYPE II RIPRAP WITH NON-WOVEN GEOTEXTILE FABRIC BELOW.
- E EXTENT OF WETLAND AREA.
- F. LIMITS OF DISTURBANCE.
- G. STRAW WATTLES, SEE GC003.
- H. FLOODWALL, SEE C104.
- I. CONSTRUCTION ENTRANCE.
- J. NORTH FLOODWALL/CONCRETE CURB, TOP ELEVATION AT 167.6.
- K. EXISTING HATCHERY SETTLING POND TO BE USED AS TEMPORARY EROSION CONTROL SEDIMENT POND IF NEEDED. COORDINATE ROUTING OF PUMP LINES WITH HATCHERY MANAGER.
- L. LIMITS OF CONSTRUCTION FENCE, SEE GC002.

WETLAND

PRELIMINARY
NOT FOR CONSTRUCTION

Reference: NWS-2015-796
Appl By: US Fish and Wildlife Service
Proposed: Fish exclusion barrier
Purpose: Hatchery maintenance and human safety
Date: 9 November 2015

In: Cook Creek and wetlands
Near: Humptulips
County: Grays Harbor
State: WA

CIVIL PLAN – AREA A

20 10 0 40 80
Scale in Meters | Scale in Feet

REV.	DATE	DESCRIPTION	BY
3	4/30/15	95% DESIGN SUBMITTAL	TF
2	01/16/15	65% DESIGN SUBMITTAL	TF
1	10/12/12	35% DESIGN SUBMITTAL	FL

QUINAULT NATIONAL FISH HATCHERY

CIVIL PLAN – AREA A — C100

DESIGNED	DRAWN	CHECKED	DATE	DRAWING NO.
TF	TF	MR	04/30/15	1F-WA-690-1-244-

McMILLEN, LLC
1401 SHORELINE DR.
BOISE, ID 83702
OFFICE: 208.342.4214
FAX: 208.342.4215

SHEET __ OF __

SHEET NOTES:

1. SEE SHEET G100 FOR ADDITIONAL SITE AND LAYOUT INFORMATION.
2. SEE SHEETS G101 AND D101 FOR SIGNIFICANT TREE REMOVAL.

SHEET KEY NOTES:

A LIMITS OF DISTURBANCE

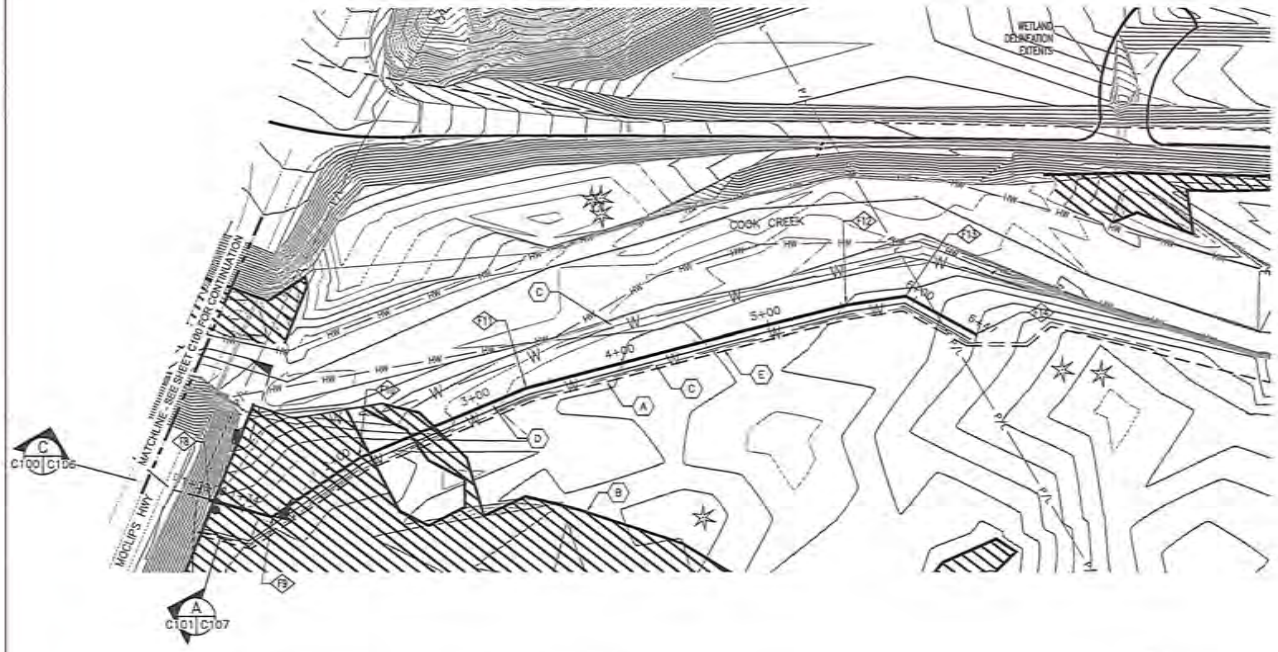
B EXTENT OF WETLAND AREA.

C. STRAW WATTLES, SEE GC003.

D. FLOODWALL/CURB, SEE C105

E. LIMITS OF CONSTRUCTION FENCE, SEE GC002.

WETLAND



Reference: NWS-2015-796
Appl By: US Fish and Wildlife Service
Proposed: Fish exclusion barrier
Purpose: Hatchery maintenance and human safety
Date: 9 November 2015

In: Cook Creek and wetlands
Near: Humptulips
County: Grays Harbor
State: WA

CIVIL PLAN – AREA B

20 10 0 40 80
Scale in Meters | Scale in Feet

PRELIMINARY
NOT FOR CONSTRUCTION

REV.	DATE	DESCRIPTION	BY
3	4/30/15	95% DESIGN SUBMITTAL	TF
2	01/16/15	65% DESIGN SUBMITTAL	TF
1	10/12/12	35% DESIGN SUBMITTAL	PL

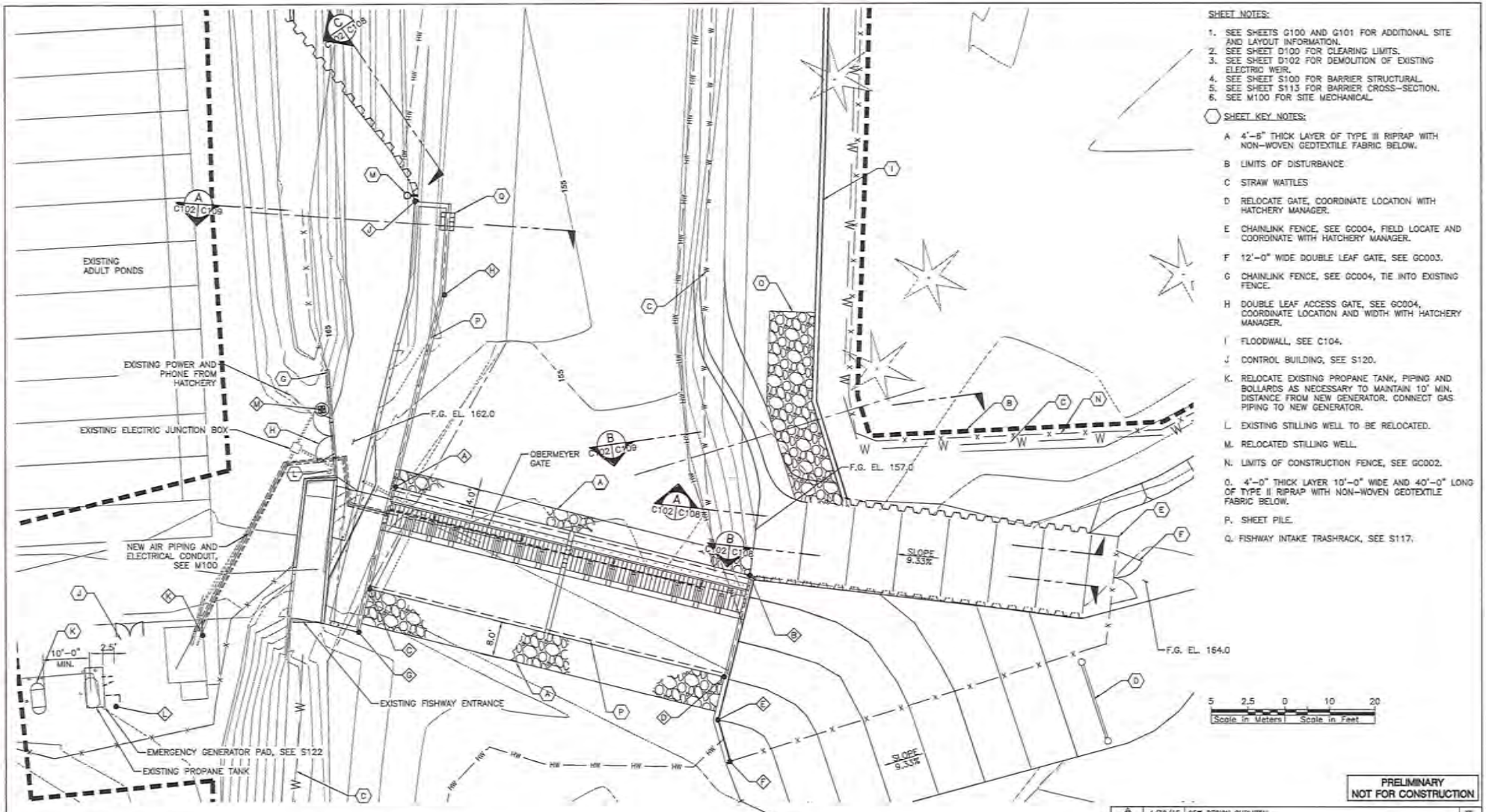
QUINAULT NATIONAL FISH HATCHERY

CIVIL PLAN – AREA B — C101

DESIGNED	DRAWN	CHECKED	DATE	DRAWING NO.
TF	TF	MR	04/30/15	1F-WA-690-1-244-

McMILLEN, LLC
1401 SHORELINE DR.
BOISE, ID 83702
OFFICE: 208.342.4214
FAX: 208.342.4216

SHEET __ OF __



SHEET NOTES:

1. SEE SHEETS G100 AND G101 FOR ADDITIONAL SITE AND LAYOUT INFORMATION.
2. SEE SHEET D100 FOR CLEARING LIMITS.
3. SEE SHEET D102 FOR DEMOLITION OF EXISTING ELECTRIC WEIR.
4. SEE SHEET S100 FOR BARRIER STRUCTURAL.
5. SEE SHEET S113 FOR BARRIER CROSS-SECTION.
6. SEE M100 FOR SITE MECHANICAL.

SHEET KEY NOTES:

A 4'-6" THICK LAYER OF TYPE III RIPRAP WITH NON-WOVEN GEOTEXTILE FABRIC BELOW.

B LIMITS OF DISTURBANCE

C STRAW WATTLES

D RELOCATE GATE, COORDINATE LOCATION WITH HATCHERY MANAGER.

E CHAINLINK FENCE, SEE GC004, FIELD LOCATE AND COORDINATE WITH HATCHERY MANAGER.

F 12'-0" WIDE DOUBLE LEAF GATE, SEE GC003.

G CHAINLINK FENCE, SEE GC004, TIE INTO EXISTING FENCE.

H DOUBLE LEAF ACCESS GATE, SEE GC004, COORDINATE LOCATION AND WIDTH WITH HATCHERY MANAGER.

I FLOODWALL, SEE C104.

J CONTROL BUILDING, SEE S120.

K. RELOCATE EXISTING PROPANE TANK, PIPING AND BOLLARDS AS NECESSARY TO MAINTAIN 10' MIN. DISTANCE FROM NEW GENERATOR. CONNECT GAS PIPING TO NEW GENERATOR.

L. EXISTING STILLING WELL TO BE RELOCATED.

M. RELOCATED STILLING WELL.

N. LIMITS OF CONSTRUCTION FENCE, SEE GC002.

O. 4'-0" THICK LAYER 10'-0" WIDE AND 40'-0" LONG OF TYPE II RIPRAP WITH NON-WOVEN GEOTEXTILE FABRIC BELOW.

P. SHEET PILE.

Q. FISHWAY INTAKE TRASHRACK, SEE S117.

PRELIMINARY
NOT FOR CONSTRUCTION

Reference: NWS-2015-796
Appl By: US Fish and Wildlife Service
Proposed: Fish exclusion barrier
Purpose: Hatchery maintenance and human safety
Date: 9 November 2015

In: Cook Creek and wetlands
Near: Humptulips
County: Grays Harbor
State: WA

1 ENLARGED FISH BARRIER SITE PLAN
C102

REV.	DATE	DESCRIPTION	BY
3	4/30/15	95% DESIGN SUBMITTAL	TF
2	01/16/15	65% DESIGN SUBMITTAL	TF
1	10/12/12	35% DESIGN SUBMITTAL	PL

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BOISE, ID 83702
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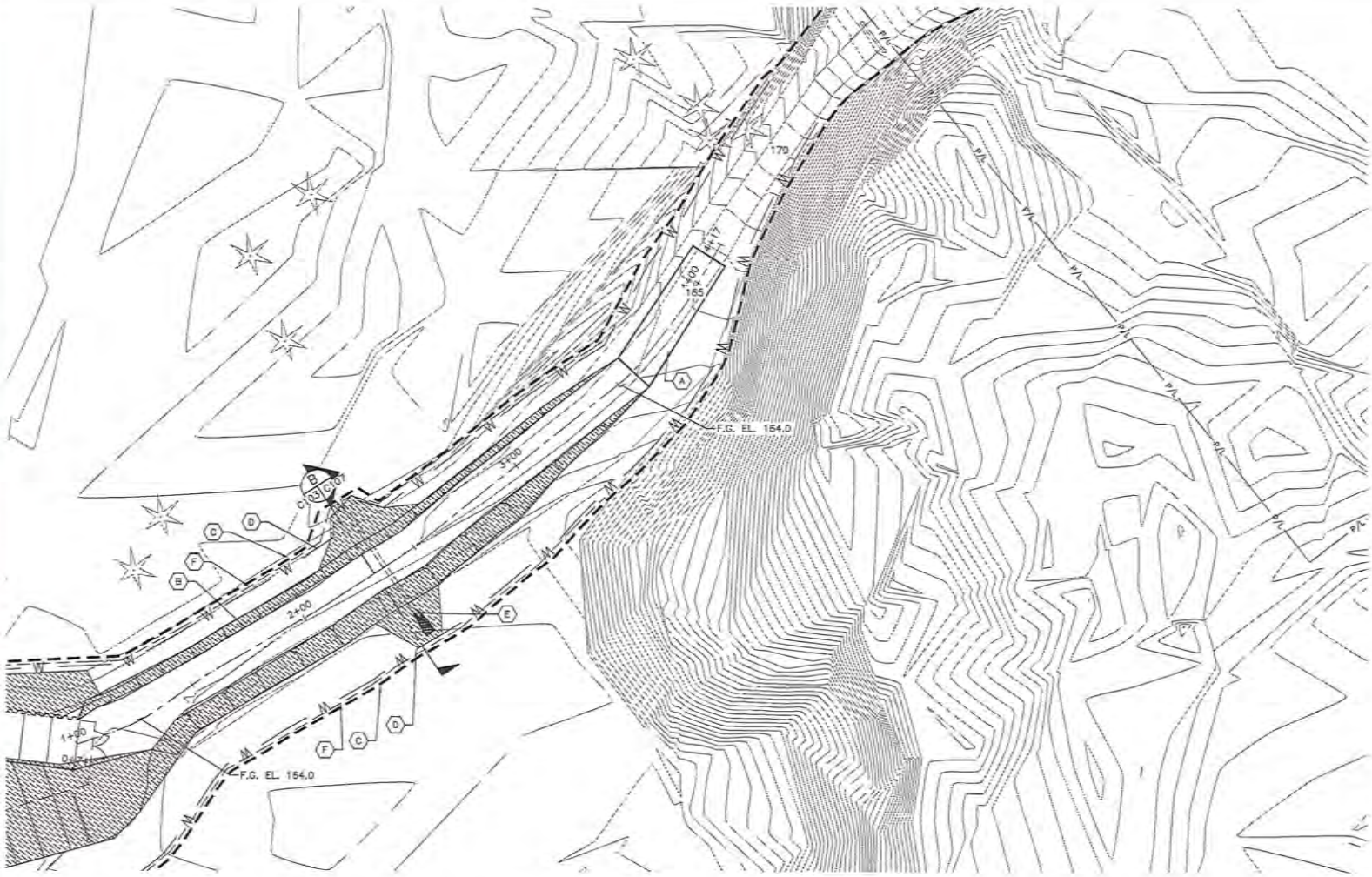
QUINAULT NATIONAL FISH HATCHERY

ENLARGED FISH BARRIER SITE PLAN C102

DESIGNED	DRAWN	CHECKED	DATE	DRAWING NO.
TF	TF	MR	04/30/15	1F-WA-690-1-244-

SHEET __ OF __



SHEET NOTES:

1. SEE SHEETS G100 AND G101 FOR ADDITIONAL SITE AND LAYOUT INFORMATION.

SHEET KEY NOTES:

A CONSTRUCTION ENTRANCE, SEE GC002.
B RAISE EXISTING ACCESS ROAD SURFACE TO 154.0'.
C LIMITS OF DISTURBANCE.
D STRAW WATTLES, SEE GC003.
E INSTALL NEW CULVERT WITH DUCKBILL FLAP GATE. SEE C107.
F CONSTRUCTION LIMITS FENCE, SEE GC002.

5 2.5 0 10 20
Scale in Meters | Scale in Feet

ACCESS ROAD SITE PLAN

Reference: NWS-2015-796
Appl By: US Fish and Wildlife Service
Proposed: Fish exclusion barrier
Purpose: Hatchery maintenance and human safety
Date: 9 November 2015

In: Cook Creek and wetlands
Near: Humptulips
County: Grays Harbor
State: WA

PRELIMINARY
NOT FOR CONSTRUCTION

REV.	DATE	DESCRIPTION	BY
4	4/30/15	95% DESIGN SUBMITTAL	TF
3	01/16/15	65% DESIGN SUBMITTAL	TF
2	10/12/12	35% DESIGN SUBMITTAL	PL

QUINAULT NATIONAL FISH HATCHERY

ENLARGED ACCRESS ROAD SITE PLAN C103

DESIGNED	DRAWN	CHECKED	DATE	DRAWING NO.
TF	TF	MR	04/30/15	1F-WA-690-1-244-

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SHEET __ OF __