United States Department of the Interior

FISH AND WILDLIFE SERVICE
911 NE. 11th Avenue
Portland, Oregon 97232-4181

IN REPLY REFER TO:
MBSP/MBHP

Meyer

OHB 2002-0065-IEC
1/NWR/2002/00163

Mr. Michael Crouse
National Marine Fisheries Service
Habitat Conservation Branch
525 NE Oregon Street, Suite 500
Portland, Oregon 97232

Dear Mr. Crouse:

I have enclosed a request for concurrence for a project funded by the U. S. Fish and Wildlife Service through a North American Wetlands Conservation Act grant. The project is the restoration of Smith and Bybee lakes along the North Columbia Slough, in Portland, Oregon. This project will restore more than 1,600 acres of seasonal wetlands for the benefit of migratory birds, anadromous fish and other wildlife.

Ducks Unlimited biologists have worked through the informal stages of consultation with participation from Pat Oman of your staff. The restoration has been designed to mimic the site's natural hydrology, while providing water management capabilities that maximize fish and wildlife benefits. They have determined the project to be beneficial to listed species.

Informal consultation and a letter of concurrence are requested under Section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.) For a "May Affect, Not Likely to Adversely Affect" determination for chinook salmon (Upper Willamette River ESU).

Thank you for your timely assistance with this project. If you have questions or comments please contact Chuck Lobdell, Ducks Unlimited Inc. at (360) 885-2011 ext. 18.

Sincerely,

Carey S. Smith

Carey S. Smith
Pacific Coast Joint Venture Coordinator

Enclosure

Biological Assessment

Agency: USDI – U. S. Fish and Wildlife Service

Project: Smith & Bybee Lakes

Basin: Willamette River

Prepared By: Charles M. Lobdell, DU Title: Regional Fisheries Biologist
Reviewed By: Title: _____

Date: January 28, 2002

Length of BA Coverage 04/2002 – 12/2005

I. INTRODUCTION

Federally funded activities that may affect listed species, or their habitats require a Biological Assessment (BA) to be completed as part of the Endangered Species Act consultation and Magnuson-Stevens Act (for adverse affects only) processes to determine their potential effects on those listed species. The Biological Assessment process is intended to conduct and document activities necessary to ensure that proposed management actions will not jeopardize the continued existence or cause adverse modification of critical habitat for chinook salmon (Upper Willamette River ESU) (*Oncorhynchus tshawytscha*). The following describes the proposed action and substantiates our determination of May Affect, Not Likely to Adversely Affect. We request the National Marine Fisheries Service concur with this determination.

II. PROJECT DESCRIPTION, LOCATION AND ACTIONS

The U.S. Fish and Wildlife Service (Service) has provided funding from the North American Wetlands Conservation Fund through a grant to the Columbia Land Trust. The restoration of Smith and Bybee Lakes Wildlife Area is a part of that grant. The project occurs on land owned by Metro (Regional Parks and Greenspaces Department). Restoration design and construction will be delivered by Ducks Unlimited, Inc. (DU).

The proposed action includes the removal of an existing dam and flap gate, and the installation of a large, multi-celled water control structure to accommodate fish passage and habitat management. The primary objective of the project is to restore to the maximum extent possible the natural hydrology to these large wetlands, with the understanding that during some periods of the year water will need to be physically retained within the wetlands for vegetation management. The project is located in Multnomah County, and drains into Columbia Slough, before entering the Willamette River. The Smith & Bybee Lakes Wildlife Area encompasses over 1600 acres of wetlands within: T 2N, R 1W, S 25; T 2N, R 1W, S 36; T 2N, R 1E, S 32; T 2N, R 1E, S 31; T 2N, R 1E, S 30; T 1N, R 1E, S 5; T 1N, R 1E, S 6. The project is planned for installation during August of 2002 to avoid disturbance to any rearing salmonids. A location map and plans are attached.

The project will restore approximately 1,600 acres of seasonal emergent and forested wetland habitat to the two wetlands (Smith Lake and Bybee Lake). These water bodies are connected, and drain via the existing flap gate into the North Slough arm of the Columbia Slough. At present, the wetlands are

physically disconnected from the North Slough except during catastrophic flood events. Water can flow out through the flap gate when the weir is open, but no water can flow into the wetlands from the slough. Historically, the entire wetland complex was seasonally and tidally inundated, and featured a mosaic of forested and emergent floodplain wetlands.

The historic hydrologic regime was characterized by winter flooding that receded in late winter and early spring. Late spring rains and snowmelt caused water to rise again in the spring freshet. Water levels would drop dramatically in summer with the dry weather. Modifications to this hydrologic regime over the past 70 years, such as construction of dams and dikes and filling with dredge spoils, have dramatically changed the frequency and duration of flooding in the region's wetlands. The first significant alteration was the construction of major dams on the Columbia River. The use of these dams to produce hydroelectric power, store water and reduce flooding drastically altered the natural hydrological cycles in the lower Columbia River ecoregion, including Smith and Bybee lakes. Although the lakes drain into the Willamette system, the confluence of Columbia Slough and Willamette River is adjacent to the Willamette's confluence with the Columbia River. Thus the lakes are influenced by the Willamette and Columbia rivers' hydrology.

The most recent significant alteration of the Smith and Bybee lakes system occurred with the construction of a dam in 1982 that separated the lakes from the North Slough arm of the Columbia Slough, and thus the Willamette River. The dam has been modified or replaced twice, but has always been used to retain water in the lakes. Since 1982, the lakes have essentially functioned as reservoirs, held at a static water level. These hydrologic alterations have significantly limited waterfowl nesting success, while optimizing conditions for the spread of exotic plants such as reed canarygrass. The constant inundation also destroyed more than 120 ha of bottomland forest.

Through our partnership with Metro and DU, we have designed this restoration proposal to allow free and open seasonal and tidal connectivity throughout much of the year, while providing a mechanism to improve wetland habitat by controlling water levels from winter into summer. This will be accomplished by placing stop logs into the water control structure during those periods when floodwaters recede prematurely. This strategy has proven successful in controlling reed canarygrass, encouraging native emergent vegetation (smartweed, wapato, etc) and reducing waterfowl nest flooding.

The restoration design has also accounted for the presence of chinook salmon during winter and spring months, and addresses both their need for off-channel refugia and over-wintering habitats. During the months when the structure is completely open, juvenile salmonids will have free ingress/egress opportunity. At any time when the structure is operating (stop logs in place to retain water within the wetlands), the fishway will be flowing, maintaining free ingress and egress. Metro staff will be responsible for operations and maintenance, and initially will be monitoring the structure on a weekly basis.

The primary purpose for water management is to allow Metro to mimic the historic water regime, particularly the spring freshet, by prolonging the recession of floodwaters out of the wetlands. The long drawdown period simulates historic conditions by slowly exposing the shallow areas as mudflats late in the spring, during the warming period that favors native plant communities. This is crucial to restoring native vegetation and in controlling reed canarygrass because the latter is a cool-season plant that starts growing earlier in the year than the desired native emergent plants. An unmanaged wetland would drain in February, and the subsequent reed canarygrass invasion would effectively outcompete native wetland species, resulting in a monoculture.

We believe that this management strategy will improve wetland habitat and water quality while allowing out-migrating smolts to get into the wetlands throughout the winter and spring. Downstream passage at this structure will be provided at all times.

III. PROJECT OBJECTIVES

- Restore wetland vegetation communities while reducing or eliminating exotic plants that have taken over the area.
- Improve wetland habitat and water quality by restoring wetland function.
- Provide overwintering and refugia habitat to salmonid species within the wetlands.

IV. DESCRIPTION OF ESA / MSA SPECIES

This proposed restoration project would occur in an area known to have been used as over-wintering and off-channel refugia habitat by anadromous chinook salmon, specifically the Upper Willamette River ESU. Chinook salmon typical rear in large streams, migrating to the ocean where they live for an average of 3 to 4 years before returning to their natal streams to spawn. Timing of the return to their natal streams varies depending upon the run. In this area, the spring/summer chinook return beginning in February through late spring and spawn beginning in August through winter. Juveniles remain in freshwater from 1 to 18 months before migrating to the ocean (Bjornn and Reiser 1991).

Fishman (1987) documented chinook presence throughout Smith & Bybee Lakes in spring 1986. They noted that fish caught in the lakes were larger than those in the adjacent slough, possibly indicating high rates of growth over a short period of residence in the wetlands. The chinook had entered the lakes when floodwaters overtopped the levee between North Slough and Bybee Lake. The juveniles were able to leave the lakes through the structure in place at the time.

Habitat conditions preferred by chinook salmon involve cool water temperatures of 39 to 57 degree Fahrenheit (Emmett et al. 1991), low turbidity, high levels of dissolved oxygen, gravel sizes between 1.3 and 10.2 cm in size for spawning (Bjornn and Reiser 1991), and stream side vegetation for cover from predators. Environmental factors can affect the distribution and abundance of juvenile salmonids throughout a stream or drainage. Factors to which fish respond at specific locations in a stream are velocity, depth, substrate, cover, predators, and competitors (Bjornn and Reiser 1991).

V. DESCRIPTION OF ACTION AREA

The USDA Natural Resources Conservation Service evaluated whether there could be effects from Federal actions on the above species and their habitat, based on the 1988 Oregon Department of Water Quality 303(d) list, and Making Endangered Species Act Determinations of Effect for Individual or Grouped Actions at the Watershed Scale (NMFS, 1996).

Columbia Slough Watershed Conditions

Water Quality

Stream Temperature –The Oregon 1998 303(d) identified temperature as limiting within Columbia Slough: Temperatures above the Oregon State Standard of 16°C are above the temperature ranges for proper salmonid incubation, rearing and spawning (Bjornn and Reiser 1991). Stream temperatures are considered **Not Properly Functioning.**

Sediment The Oregon 1998 303(d) list identified Columbia Slough as having concerns regarding sediment. Due to the amount of development and degradation along the slough, this element is identified as **Not Properly Functioning.**

Chemical Contaminants/Nutrients: The Oregon 1998 303(d) list identified Columbia Slough as having concerns with chemical contaminants and/or nutrients. Due to the concerns around the area of the project, this function is considered to be **Not Properly Functioning.**

Fish Habitat Elements

Fish Distribution and Habitat Access – Upper Willamette River ESU chinook salmon over winter in this area (C. Baker, pers.obs.). Biologists from DU and the City of Portland conducted presence/absence surveys in December of 2001 and found chinook in the project area. The existing structure and tidegate constitute a passage barrier, blocking access to the wetlands; therefore; this element is considered **At Risk**.

Substrate – No data was available for this element and it was not listed as a concern on DEQ's 303(d) list. However, due to the amount of development in the area it is suspected that the substrate is fairly embedded. Therefore it is considered **Not Properly Functioning**.

Large Woody Debris and Pool Quality and Frequency – While some riparian still exists along lower Columbia Slough, the channel is confined between steep, armored banks with almost no variation in habitat. This element is considered **Not Properly Functioning.**

Off-Channel Habitat and Refugia - Currently there is a lack of refugia in the area due to the land alterations that have occurred throughout the basin. The area has been channelized, wetlands filled, and the wetlands physically disconnected from the slough. Banks have been hardened to control bank erosion and stream channel movement. Therefore, this element is **Not Properly Functioning.**

Channel Conditions and Dynamics

Width to Depth Ratio – Excessive channelization in the area that has altered channel conditions, narrowing the stream. This element is considered **Not Properly Functioning.**

Streambank Condition - The banks of Columbia Slough are steep, and mostly armored with riprap. This element is considered **Not Properly Functioning.**

Floodplain Connectivity - The area has historically been altered for industrial development. Channels were straightened, wetlands filled, and streambanks diked, reducing the connection the river had to the floodplain. Backwater areas that provide critical habitat for many species are limited. This element is considered **Not Properly Functioning.**

Flow/Hydrology

Peak Flow/Vegetation - Significant alterations in hydrology have occurred over the past 75 years, which have drastically changed local biota affecting beneficial uses, such as wildlife and. This element is considered **Not Properly Functioning.**

Drainage Network Increase - The area has been highly developed for industrial purposes. The number of roads has increased within the watershed creating more "streams" running down ditches along side the road. These "streams" have the potential to carry road sediment and chemicals to watercourses.

There are several roads adjacent to the stream as well as in the uplands. This element is considered **Not Properly Functioning.**

Watershed Conditions

Road Density & Location - The area has been highly developed for industrial uses. The number of roads has increased within the watershed well beyond 2.5 mi/mi^2. There are several roads adjacent to streams as well as in the uplands. This element is considered **Not Properly Functioning.**

Disturbance History & Regime - The lower Willamette River has been highly modified to accommodate agricultural needs historically. Recreation has become a more recent disturbance in the basin. The system has been simplified and is lacking riparian habitat, instream channel complexity and off-channel habitat. Therefore, this element is considered **Not Properly Functioning.**

Riparian Reserves - The riparian area adjacent to a stream or wetland is important in providing wildlife habitat, as well as bank and channel stability (the roots of riparian plants and trees hold soil in place). In many cases, this vegetation also shades the stream and regulates water temperatures. In valleys with steep channel gradients, this vegetation can provide upper bank stability. The riparian areas were historically cleared and filled for industrial uses. This element is considered **Not Properly Functioning.**

Expected Changes Due to Project Implementation:

Water Quality

Stream Temperature – Water temperatures will not change as a result of this project; this element will be **maintained.**

Sediment – This project will increase water exchange between the slough and the wetlands, however this is not expected to noticeably affect sediment characteristics in the slough; this element will be **maintained.**

Chemical Contaminants/Nutrients – This project will not add any additional chemicals or nutrients to the area; therefore, this element will be **maintained.**

Fish Habitat Elements

Fish Distribution and Habitat Access – The project has been designed to allow free and open connection between the slough and the wetlands during portions of the winter and spring. The structure has a pool-chute style fishway designed into it that will maintain fish passage while water is being retained within the wetlands. This project will **restore** fish distribution and habitat access.

Substrate – As with sediment, this project will not affect the substrate; this element will be **maintained.**

Large Woody Debris and Pool Quality and Frequency – This project will be restoring access to a huge wetland complex with forested areas and large woody debris, increasing the potential habitat for rearing chinook salmon. This habitat element will be **maintained** with the implementation of this project.

Off-Channel Habitat and Refugia - This project will restore access to 1800 acres of off-channel refugia for juvenile chinook and other aquatic and terrestrial species. The wetland will remain with water for longer

periods of time, providing shelter and protection from higher flows found in larger river systems. Because of the large size of this project, these elements will be **restored** as a result.

Channel Conditions and Dynamics

Width to Depth Ratio – This project will maintain current width to depth ratios. There is not instream channel work to be implemented that would change these ratios; therefore, the element will be **maintained.**

Streambank Condition - This project may help to improve channel conditions through the increase in native wetland vegetation communities. This element will be **maintained.**

Floodplain Connectivity - This project will help to improve floodplain connectivity through the 35 foot wide opening, and given the significant scale of this project this element will be **restored.**

Flow/Hydrology

Peak Flow/Vegetation – Peak flows will be maintained through the implementation of this project. Vegetation will be changed with the decrease of Reed's canary grass and the establishment of native vegetation. This element will be **maintained** through implementation of this project.

Drainage Network Increase - This project will not change the drainage network in the area; therefore, this element will be **maintained.**

Watershed Conditions

Road Density & Location - This project will not change the drainage network in the area; therefore, this element will be **maintained.**

Disturbance History and Regime - This project will help to connect the floodplain to the river and help to re-establish wetland functions. This will help to reverse some of the past disturbance that has taken place in the area and watershed. However, this element, at the basin scale, will be **maintained.**

Riparian Reserves – This project will improve the riparian areas by decreasing reed canarygrass and allowing for the establishment of native vegetation. This element will be **maintained.**

Table 1. Checklist for documenting environmental baseline and effect of proposed action(s) on relevant indicators for the Lower Willamette River area.

	Environmental Baseline for Lower Willamette River			Effects of Conservation Practice		
INDICATORS	Functioning Appropriately	Functioning at Risk	Functioning at Unacceptable Risk	Restore[1]	Maintain[2]	Degrade[3]
Water Quality: Temperature			X		X	
Sediment			X		X	
Chem. Contam./ Nutrients			X		X	
Habitat Access: Physical Barriers		X		X		
Habitat Elements: Substrate			X		X	
Large Woody Debris			X		X	
Pool Frequency and Quality			X		X	
Large Pools			X		X	
Off-channel Habitat			X	X		
Refugia			X	X		
Channel Cond. &Dynam: Width/Depth ratio			X		X	
Stream bank Condition			X		X	
Floodplain Connectivity			X	X		
Flow/Hydrology: Peak/base flows			X		X	
Drainage Network Increase			X		X	

	Environmental Baseline for Lower Willamette River			Effects of Conservation Practice		
INDICATORS	Functioning Appropriately	Functioning at Risk	Functioning at Unacceptable Risk	Restore[1]	Maintain[2]	Degrade[3]
Watershed Conditions: Road Density & Location			X		X	
Disturbance History			X		X	
Riparian Conservation Areas			X		X	
Disturbance Regime			X		X	

[1]"Restore" means the action(s) will result in acceleration of the recovery rate of that indicator.
[2]"Maintain" means that the function of an indicator does not change by implementing the action(s) or recovery will continue at its current rate.

[3]"Degrade" means to change the function of an indicator for the worse.

VI. EFFECTS OF THE PROPOSED ACTON ON PROPOSED/LISTED SPECIES OR PROPOSED/LISTED DESIGNATED CRITICAL HABITAT

This proposed restoration project would occur in an area known to be used as over-wintering and off-channel refugia habitat by anadromous chinook salmon, specifically the Upper Willamette River ESU. This area has also been determined to be Essential Fish Habitat for chinook salmon and is protected under the Magnuson-Stevens Act. DU and the City of Portland conducted some remedial presence/absence surveys, and documented chinook presence in North Slough in December 2001, which was a normal winter. The timing of construction will be in August, when conditions will be lethal to salmonids, and thus none will be present. The project, once completed will have beneficial effects to chinook salmon in the form of enhanced rearing habitat and access. We conclude that the proposed restoration plan **May Affect, but is Not Likely to Adversely Affect** the Upper Willamette River spring/summer chinook salmon ESU.

Sources and References

Bjornn, T.C. and D.W. Reiser. 1991. Habitat requirements of salmonids in streams. American Fisheries Society Special Publication 19:83-138.

Fishman Environmental Services. 1987. Smith and Bybee Lakes Environmental Studies. Port of Portland and City of Portland, Portland, Oregon.

National Marine Fisheries Service. 1996. Making Endangered Species Act Determinations of Effect for Individual or Grouped Actions at the Watershed Scale. NMFS, Portland, OR.

National Marine Fisheries Service 1999. Biological Opinion of the Oregon Conservation Reserve Enhancement Program. June, 1999. pp. 96.

Oregon Department of Environmental Quality. 1998. Oregon's Approved 1998 Section 303(d) List of Water Quality Limited Waterbodies.

DICHOTOMOUS KEY FOR MAKING ESA DETERMINATION OF EFFECTS FOR NMFS SPECIES

1. Are there any proposed/listed anadromous salmonids and/or proposed/designated critical habitat in the watershed or downstream from the watershed?

   NO ..... No effect

   (YES) ..... May affect, go to 2

2. Does the proposed action(s) have the potential to hinder attainment of relevant properly functioning indicators (from table 2)?

   YES ..... Likely to adversely affect

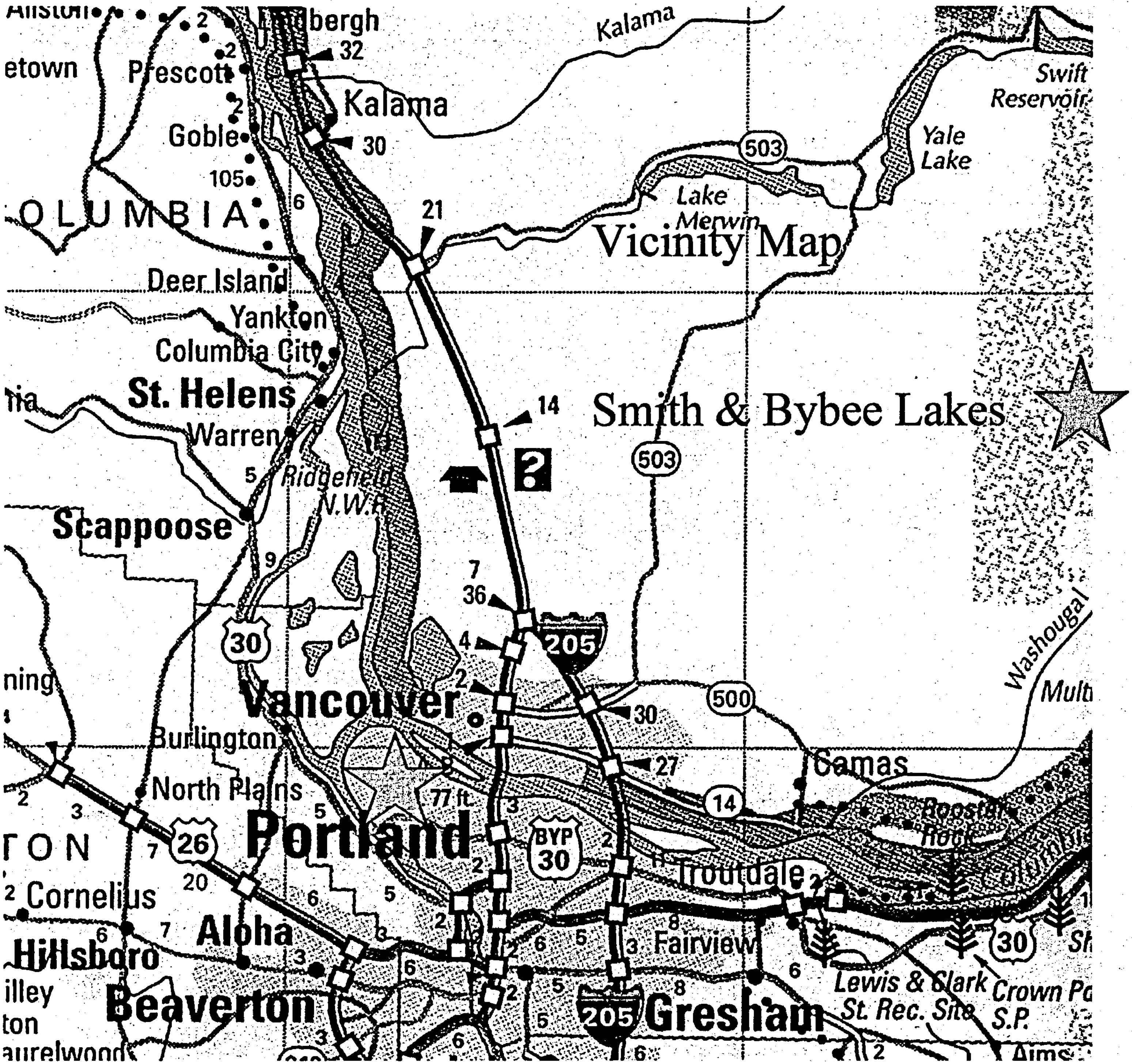
   (NO) ..... Go to 3

3. Does the proposed action(s) have the potential to result in "take"[1] of proposed/listed anadromous salmonids or destruction/adverse modification of proposed/designated critical habitat?

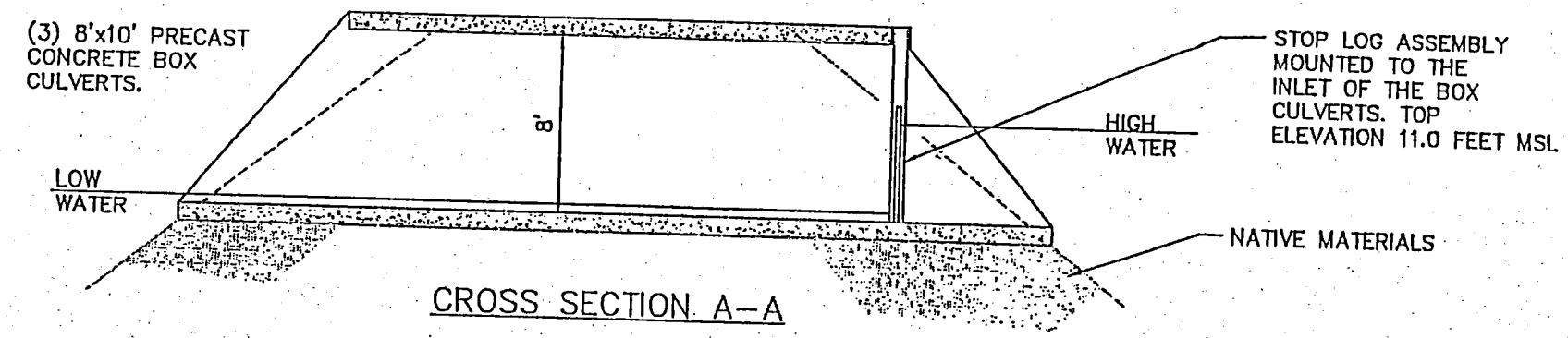
   A. There is a negligible (extremely low) probability of take of proposed/listed anadromous salmonids or destruction/adverse modification of habitat ..... (Not likely to adversely affect)

   B. There is more than a negligible probability of take of proposed/listed anadromous salmonids or destruction/adverse modification of habitat. ..... Likely to adversely affect

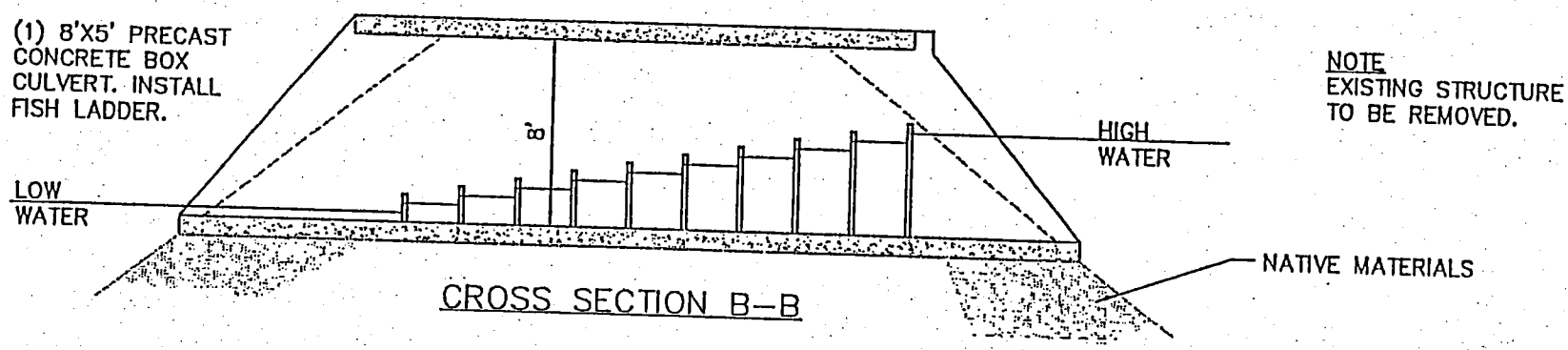
[1] "Take" - The ESA (Section 3) defines take as "to harass, harm, pursue, hunt, shoot, wound, trap, capture, collect or attempt to engage in any such conduct". The USFWS (USFWS, 1994) further defines "harm" as "significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or sheltering", and "harass" as "actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering".


Vicinity Map
Smith & Bybee Lakes
Kalama
Kalama
Prescott
Goble
Swift Reservoir
Yale Lake
Lake Merwin
Deer Island
Yankton
Columbia City
St. Helens
Warren
Ridgefield N.W.R.
Scappoose
Vancouver
Burlington
North Plains
Portland
Camas
Troutdale
Fairview
Gresham
Cornelius
Aloha
Hillsboro
Beaverton
Washougal
Lewis & Clark St. Rec. Site
Crown Pt. S.P.
Rooster Rock
503
500
14
205
26
30

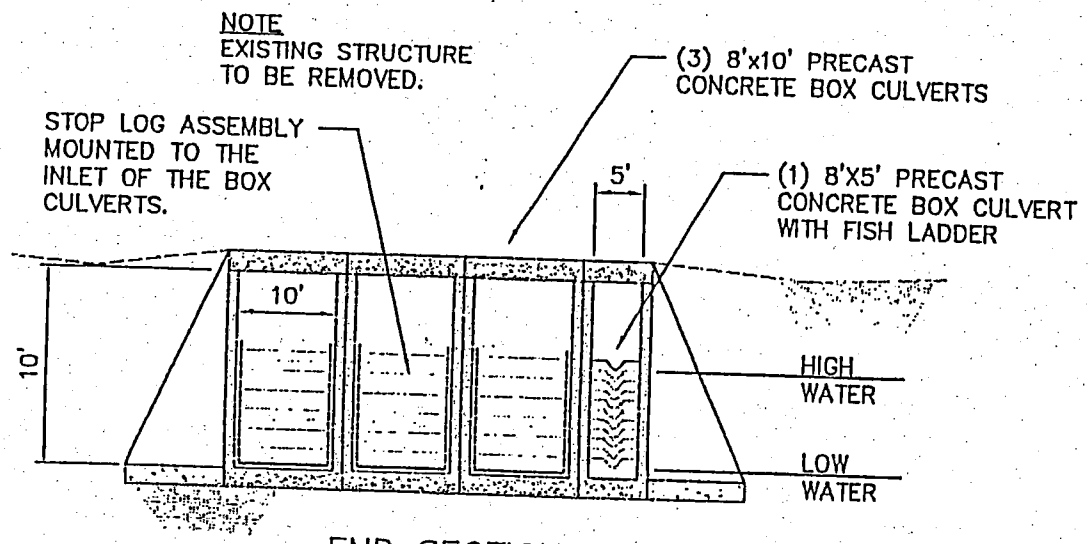
Smith and Bybee Lakes Restoration, Aerial Photo



CROSS SECTION A–A

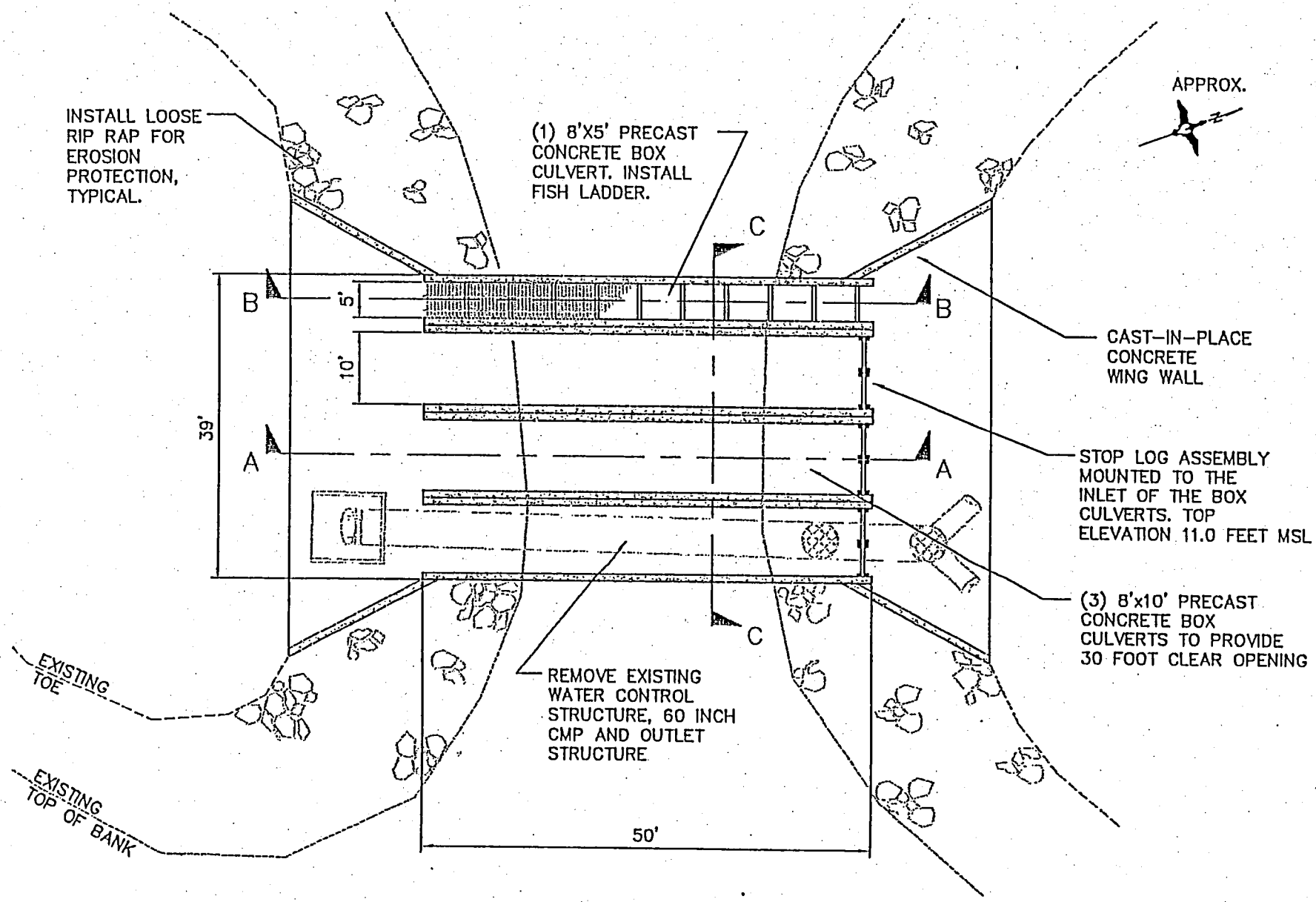


CROSS SECTION B–B



END SECTION C–C

DUCKS UNLIMITED INC.
PROJECT NO. OR-032-001
OWEB Propos
Smith/Bybee



DUCKS UNLIMITED INC. WRO- PNW FIELD OFFICE	PROJECT NO. OR-032-001	DESIGNED BY: KMD	
	OWEB Proposal Smith/Bybee Lakes	DRAWN BY: kmd	
		SURVEYED BY:	
		CHECKED BY: DPG	
DATE 01/29/02	SHEET NO. 1 of 2	APPROVED BY:	APPROVED BY:

From: "Pat Oman" <Pat.Oman@noaa.gov>
To: Elaine Stewart <stewarte@metro.dst.or.us>
Date: 10/28/03 8:59AM
Subject: Re: Fwd: RE: Smith-Bybee project

Thanks for the information, NOAA Fisheries approves this extension. I'll put a copy of this e-mail in the admin file, and you may want to print out a copy and give it to the contractor in case there are any questions about working outside of the in-water "window."

The next couple of weeks I could go out on a site visit on Nov. 5, 13, or 14, preferably in the morning - any of those days work for you?

Elaine Stewart wrote:

> Hi Pat,
>
> I nearly forgot to include you in this - I'm requesting an additional 2-week extension to the in-water work window for the SMith-Bybee project, primarily because the tidegates are not going to arrive in time for us to complete the project on schedule. Please let me know if you need more information from me, or if there is something else I should be doing.
>
> Thanks.
>
> -Elaine
>
> p.s. This is a good time for a site visit. Let me know your availability for the next couple of weeks and I'll show you the project.
>
> ---
>
> Subject: RE: Smith-Bybee project
> Date: Thu, 23 Oct 2003 08:17:47 -0700
> From: JARVIE Kirk <kirk.jarvie@dsl.state.or.us>
> To: 'Elaine Stewart' <stewarte@metro.dst.or.us>,
> GRIMES Jim T <Jim.T.Grimes@state.or.us>
> CC: JARVIE Kirk <Kirk.Jarvie@state.or.us>, gwilliams@ducks.org,
> Mary.J.Headley@nwp01.usace.army.mil
>
> Hi Elaine:
> This e-mail will suffice as an extension request. Jim and will need to
> touch base regarding any modifications to the State permit. Will be in
> touch,
>
> Kirk D. Jarvie
> Division of State Lands
> 775 Summer Street NE, Suite 100
> Salem, OR 97301
> ph: 503.378.3805 x-320
> fx: 503.378.4844
> em: kirk.jarvie@dsl.state.or.us
> www.oregonstatelands.us
>
> -----Original Message-----
> From: Elaine Stewart [mailto:stewarte@metro.dst.or.us]

> Sent: Tuesday, October 21, 2003 10:36 AM
> To: jim.t.grimes@STATE.OR.US
> Cc: JARVIE Kirk; gwilliams@ducks.org;
> Mary.J.Headley@nwp01.usace.army.mil
> Subject: Smith-Bybee project
>
> Hi Jim,
>
> I want to check in with you about the Smith-Bybee water control structure
> project. Work is proceeding smoothly. We isolated the work area very
> effectively with the coffer dams, excavated the old earth dam, installed the
> box culverts, and are now working on the cast in place concrete work.
> Unfortunately, it appears we are not going to finish by October 31st, the
> end date for the in-water-work window extension that was granted for this
> project. My biggest concern is the tide gates. After the contractor
> ordered them, the supplier added 2 weeks to his availability estimate. Our
> contractor has not been able to get them to budge from the revised date, and
> I'm afraid we won't have them in time.
>
> Would it be possible to extend the work window an additional 2 weeks, to
> November 15th? I apologize for asking for another extension, Jim. The good
> news is that the work area is effectively isolated from the adjacent slough
> (see attached photo). The bad news is that salmonids will not be able to
> access the site as early in the fall as I had hoped. I think we can all
> agree that we want to finish this project this fall, and not table the work
> (I don't even know if that's feasible).
>
> Please call me if you want to talk about this; my contact information is
> below. Also, I need to know whether this email is sufficient for an
> extension request, or do I need to write a letter to you and Kirk?
>
> Thanks for your patience and understanding. Again, I apologize for not
> completing the project within our original timeframe.
>
> -Elaine
>
> ---
> Elaine Stewart
> Smith and Bybee Lakes Wildlife Area Manager
> Metro
> 600 NE Grand Avenue
> Portland, OR 97232-2736
>
> Tel 503.797.1515
> Fax 503.797.1849
> stewarte@metro.dst.or.us
> ---

9-16-04
voice mail

Judy Linton – re 2-way fish trap

May need to modify permit, if sxn 10 water will need to include as part of permitted design.

Talk w/ Don Borda 808-4380
John Barko is detailed to Florida to help out w/ hurricane relief (reg. Mult. Cty. person).

LVM 9-23-04 Look @ permit & call Don w/ this question – will need a drawing.

9-23-04

Don Borda

Don thinks they did authorize that work under sxn 10 & sxn 404. If so, the permit needs to be modified.

Minor modification - no advertising, just send letter to Metro.

ems send:
Diagrams - plan + x-sectional view
Attn: Don Borda
These will be attached to letter that they send back.

REGIONAL SERVICES

600 NORTHEAST GRAND AVENUE | PORTLAND, OREGON 97232 2736
TEL 503 797 1700 | FAX 503 797 1797

ems file

METRO

November 17, 2004

Donald Borda
Corps of Engineers
P.O. Box 2946
Portland, OR 97208-2946

Re: Corps No. 200200175

Dear Don,

Metro is requesting a minor modification to our permit no. 200200175 for work that was authorized under Section 10 of the Rivers and Harbors Act. We plan to make two modifications to the water control structure at Smith and Bybee Lakes Wildlife Area that became operational in December 2003:

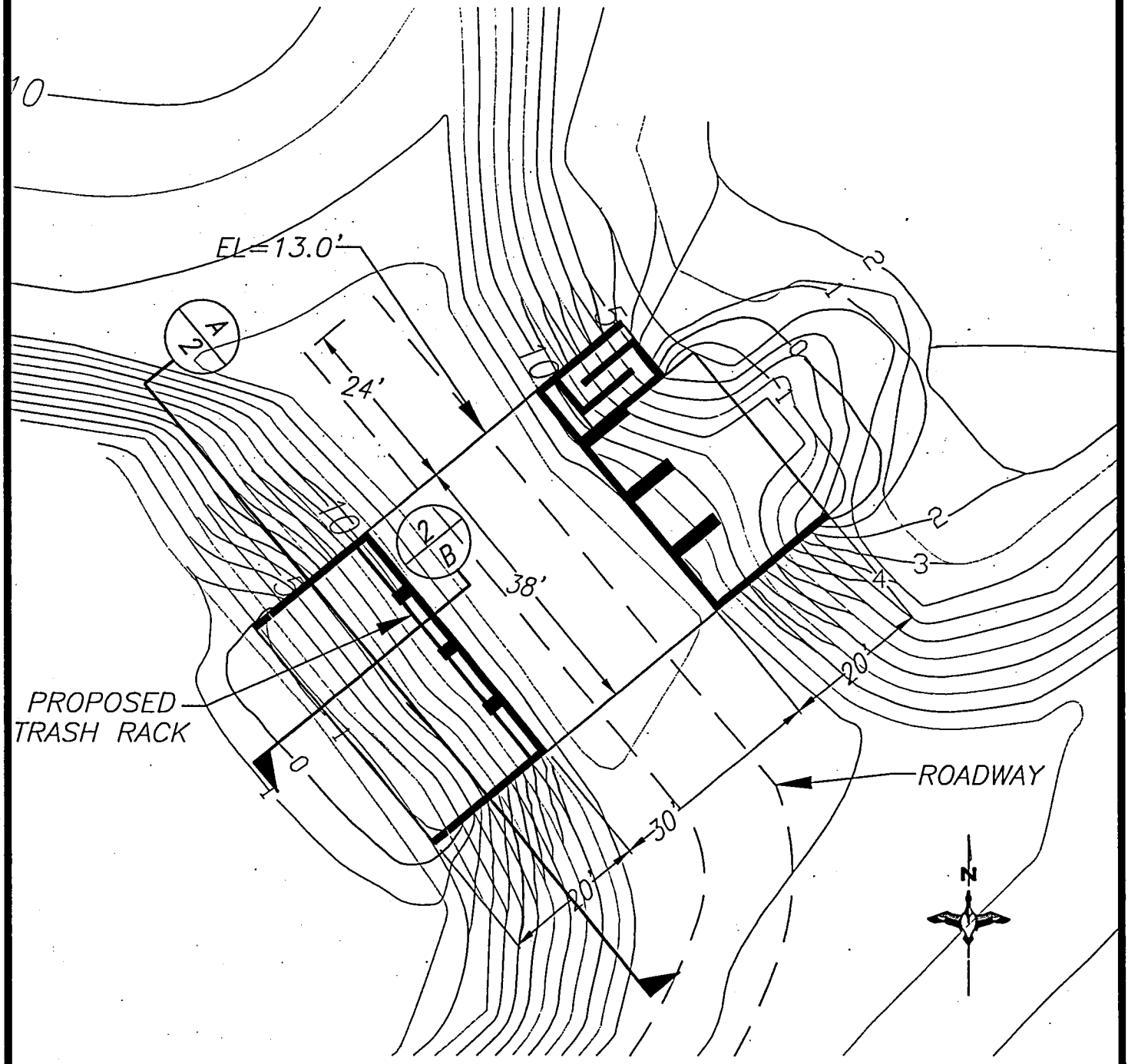
1. Installation of a set of four trash racks on the North Slough side of the structure to protect Metro's investment. The trash racks will serve to deflect large woody debris that can damage the structure or become lodged in the tidegates and interfere with operations. Trash racks will be removable; they will be placed in late fall each year and at least one of the racks will be removed in summer to provide passage through the structure for paddlers.
2. A pair of fish traps will be installed in the fishway seasonally to support monitoring of juvenile salmonids using the Smith-Bybee wetlands. One trap will be positioned to intercept fish entering the wetlands, and the other trap will intercept fish leaving the wetlands. Traps will be checked every three days while they are being fished; they will be used generally from November through June. Ducks Unlimited, Metro's partner in this work, has secured the appropriate permits from NOAA Fisheries for the salmon monitoring work.

Diagrams of the trash rack and fish trap design are attached. Please contact me if you have any questions or require more information. I can be reached via telephone at 503-797-1515 or via email at stewarte@metro.dst.or.us.

Sincerely,

Elaine

Elaine M. Stewart
Smith and Bybee Lakes Wildlife Area Manager



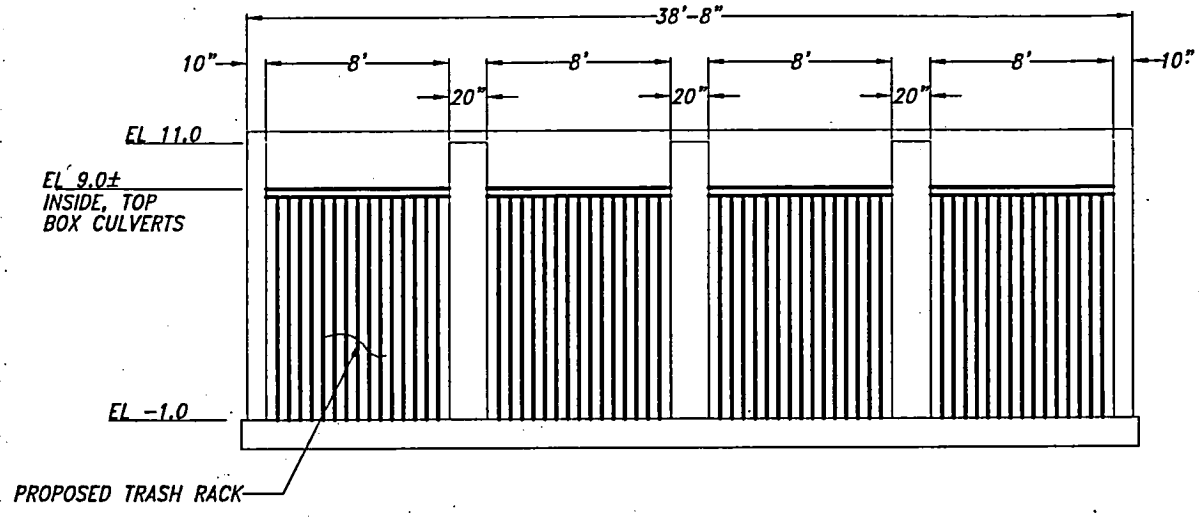
1

DUCKS UNLIMITED INC.
PacNW Field Office (360)885-2011

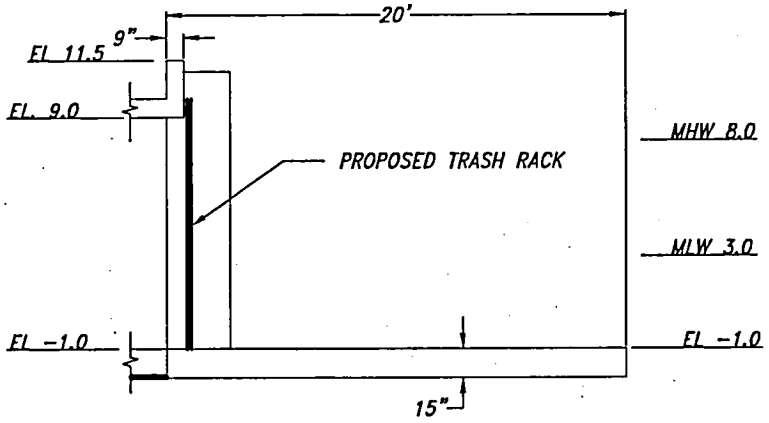
PROJECT NO. OR-32-1

SMITH AND BYBEE WETLANDS
TRASH RACK PLAN VIEW

DESIGNED BY:	GW
DRAWN BY:	DMC
SURVEYED BY:	DU
CHECKED BY:	



A/2 TRASH RACK ELEVATION
NOT TO SCALE



B/2 TRASH RACK SECTION
NOT TO SCALE

2

DUCKS UNLIMITED INC.
PacNW Field Office (360)885-2011

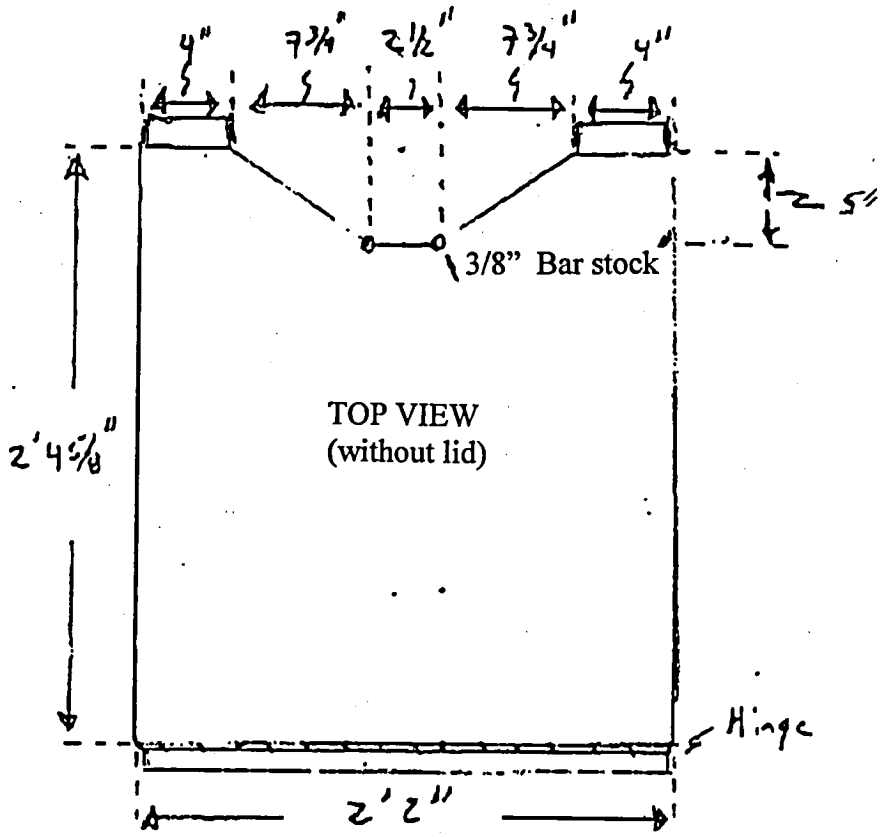
PROJECT NO. OR-32-1

SMITH AND BYBEE WETLANDS
TRASH RACK ELEVATION

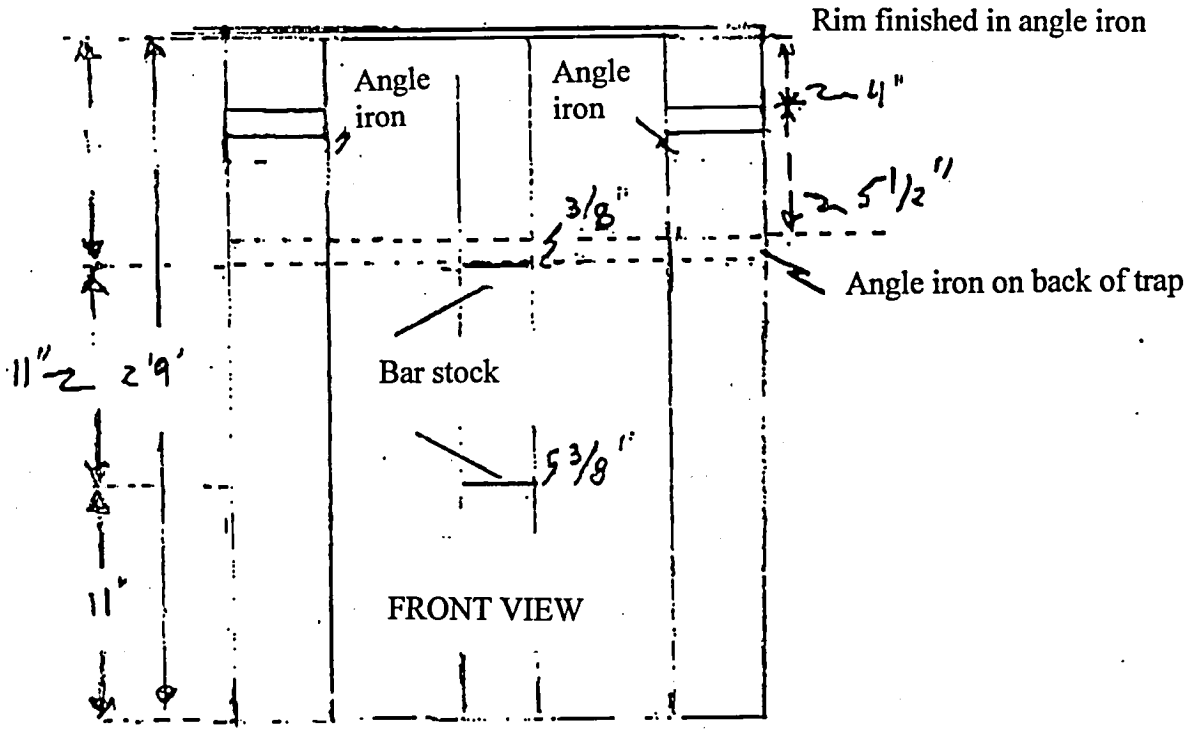
DESIGNED BY:	GW
DRAWN BY:	DMC
SURVEYED BY:	DU
CHECKED BY:	

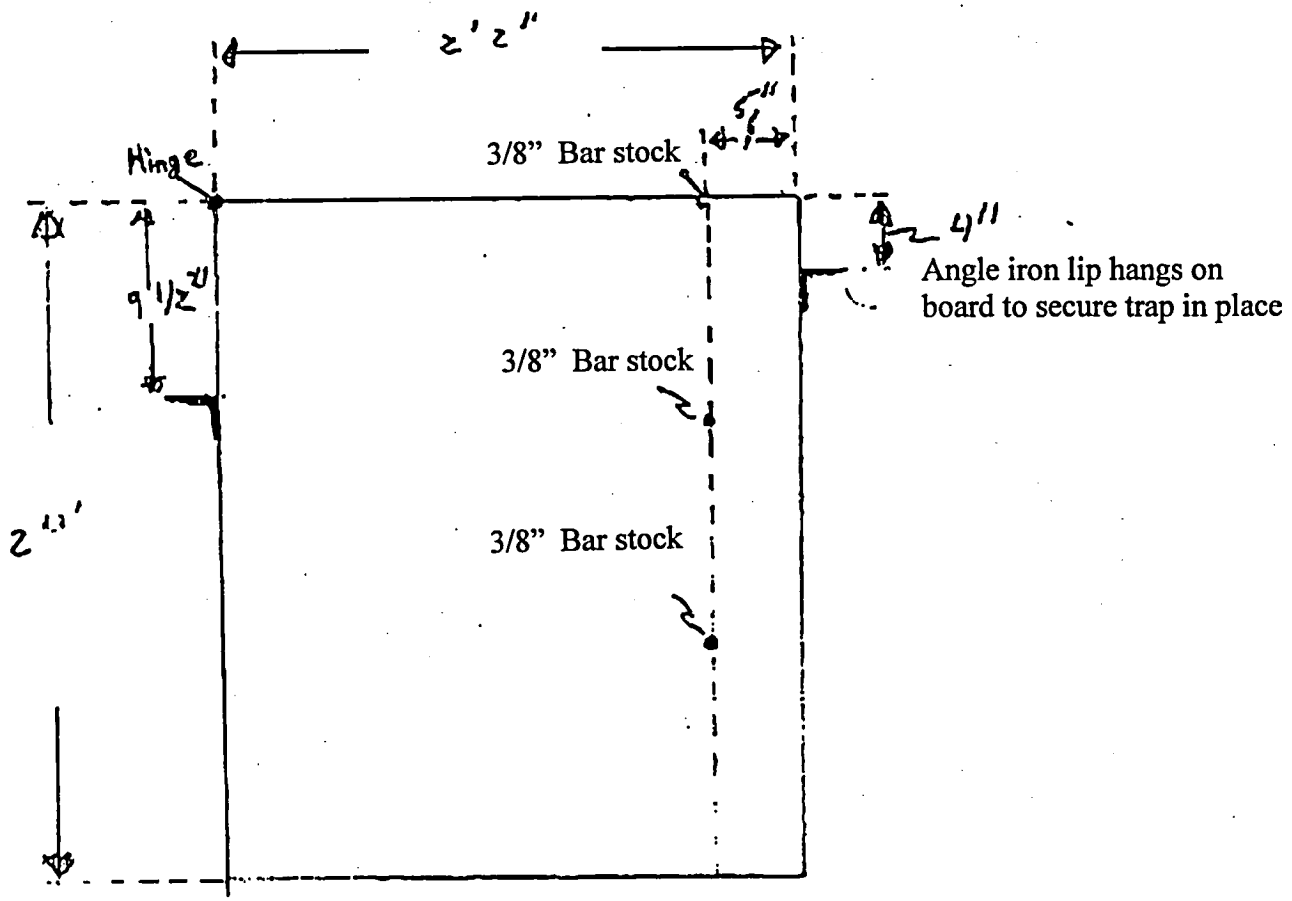
11/3/2004 4:07:25 PM, DMC

FISH TRAP FOR SMITH-BYBEE WATER CONTROL STRUCTURE



Body of trap constructed
of expanded metal


Rim finished in angle iron
Angle iron
Angle iron
4"
5 1/2"
3/8"
Angle iron on back of trap
11" 2'9"
Bar stock
5 3/8"
11"
FRONT VIEW


2'2"
5"
Hinge
3/8" Bar stock
4"
Angle iron lip hangs on board to secure trap in place
9 1/2"
3/8" Bar stock
2'4"
3/8" Bar stock

SIDE VIEW

John Barco - COE
808 - 4385

11-24-04

✓ Need documentation of NOAA Fisheries permits for sampling the fish.

✓ Need modified BiOp covering trash racks & fish traps - find lead agency

Letter - ① BiOp has not been amended & would like COE to amend if necessary
② Include funding sources (to help ID lead agency).

May be January before he can set up the meeting.

John wants to set up a mtg w/ NOAA Fisheries to discuss, answer questions - should streamline it.

REGIONAL SERVICES

600 NORTHEAST GRAND AVENUE | PORTLAND, OREGON 97232 2736
TEL 503 797 1700 | FAX 503 797 1797

ems file

METRO

November 26, 2004

John Barco
Corps of Engineers
P.O. Box 2946
Portland, OR 97208-2946

Re: Corps No. 200200175

Dear John,

Metro requested a minor modification to our permit no. 200200175 to cover two modifications to the water control structure at Smith and Bybee Lakes Wildlife Area: removable trash racks to protect the structure and temporary traps to facilitate salmonid monitoring efforts. In response to my letter of 11/17/04, you asked whether Metro has obtained an amended biological opinion. The biological opinion for the Smith-Bybee water control structure has not been amended, and Metro requests that the Corps of Engineers amend it if necessary.

The U.S. Fish and Wildlife Service was the lead agency on ESA consultation for this project, since a North American Wetlands Conservation Grant grant provided substantial funding for the structure. The trash rack and fish trap components are funded primarily by Metro and also by the Oregon Department of Fish and Wildlife. Please do not hesitate to contact me if you would like a more detailed breakout of funding for the entire project; major funders include USFWS, the Oregon Watershed Enhancement Board, the City of Portland, Metro, Ducks Unlimited, the U.S. Forest Service and ODFW.

As we discussed earlier this week, I will do anything I can to help expedite this process. Because we had not realized that the permit modification and amended biological opinion were needed, we did not allow time for this process when we were planning our modifications and fish sampling work. We had hoped to proceed with both by the end of the calendar year. I greatly appreciate your assistance in this matter. Please contact me at 503-797-1515 or via email at stewarte@metro.dst.or.us if there is anything that I can do to assist you. I will contact you by the end of next week if I have not heard from you first.

Sincerely,

Elaine Stewart

Elaine M. Stewart
Smith and Bybee Lakes Wildlife Area Manager

cc Ducks Unlimited – Cyndi Baker, Chuck Lobdell, Gus Williams
NOAA Fisheries – Pat Oman (OWEB), Ben Meyer
USFWS – Carey Smith

From: Ben Meyer <ben.meyer@noaa.gov>
To: <stewarte@metro.dst.or.us>, "NWP, Barco, John W" <John.W.Barco@nwp01.usace.army.mil>, cyndi <cbaker2@ducks.org>
Date: 11/30/2004 8:16:10 AM
Subject: Modification to Smith/Bybee water control structure

Elaine

I looked over your letter to John and have the following comments.

1. Since USFWS did the original consult, they will need to be the ones to request reinitiation for placement of the trash rack and juvenile samplers.

2. As far as I know, DU does not have a permit to sample at the structures. The original BiOp allows for net sampling at various sites within the lakes at the time of lowest drawdown. The new proposal will need to be evaluated and the take statement amended. USFWS should reinitiate the consultation asap if you want to be able to get in to work sometime in late January or early February.

Ben

DEPARTMENT OF THE ARMY
PORTLAND DISTRICT, CORPS OF ENGINEERS
P.O. BOX 2946
PORTLAND, OREGON 97208-2946

December 1, 2004

REPLY TO
ATTENTION OF:

Operations Division
Regulatory Branch
Corps No.: 200200175

Ms. Elane Stewart
Metro, Smith and Bybee Lakes Wildlife Area
600 NE Grand Avenue
Portland, Oregon 97232-2736

Dear Ms. Stewart:

The U.S. Army Corps of Engineers (Corps) received your request to modify your Department of Army (DA) authorization, Corps No. 200200175, to improve access roads, remove an existing dam and tidegate, and replace it with a large, multi-celled water control structure with a fish ladder. The project is located in Smith and Bybee Lakes Wildlife Area at the southeast corner of Bybee Lake and the east end of the North Slough, a tributary of the Columbia Slough, in Section 36, Township 2 North, Range 1 West, and Section 31, Township 2 North, Range 1 East, Portland, Multnomah County, Oregon. Your permit modification request is to install a set of four trash racks on the North Slough side of the authorized structure and to install a pair of fish traps to monitor juvenile salmonids entering and exiting the Smith-Bybee wetlands.

U.S. Fish and Wildlife Service (USFWS) was the lead federal agency responsible for consultation pursuant to Section 7 of the Endangered Species Act (ESA) and Magnuson-Stevens Act for Essential Fish Habitat for the previously authorized project. NOAA Fisheries issued a Biological Opinion (BO) to USFWS on August 4, 2003 for the previously authorized project. Your request to modify your DA authorization would also require that USFWS reinitiate consultation pursuant to Section 7 of the ESA and Magnuson-Stevens Act for Essential Fish Habitat, as NOAA Fisheries did not evaluate the proposed project modification and provide a take statement for the proposed modification (refer to the August 4, 2003 BO). Although the Corps does not believe the implementation of the proposed project modification would result in adverse impacts to the aquatic environment or be contrary to the public interest, the Corps will hold your DA authorization modification request in abeyance until USFWS has completed appropriate consultation with NOAA Fisheries and the Corps is provided with an amended BO.

Once the requested information is provided, we will continue to process and evaluate your application. If you have any questions regarding your application, please contact Mr. John W. Barco at the letterhead address or telephone (503) 808-4385.

Sincerely,

for Donald Borda
Acting Chief, Regulatory Branch

Copy Furnished:

Oregon Department of State Lands (Morrow)

Ducks Unlimited, Inc.

1101 SE Tech Center Drive, Suite 115
Vancouver, WA 98683
Phone: 360-885-2011
Fax: 360-885-2088

FAX

To: Elaine Stewart From: Cyndi

Fax: _____ Date: 12-1-04

Phone: _____ Pages: (Including this one) 3

Re: permit CC: _____

Urgent For Review Please Comment Please Reply Please Recycle

Comments:

Oregon

Theodore R. Kulongoski, Governor

Department of Fish and Wildlife
Fish Division
3604 Cherry Avenue NE
Salem, OR 97303
(503) 947-6200
FAX (503) 947-6202
TTY (503) 947-6339
www.dfw.state.or.us

SCIENTIFIC TAKING PERMIT - FISH

PERMITTEE: **Cyndi Baker**
ORGANIZATION: **Ducks Unlimited**

ADDRESS: **1101 SE Tech Center Drive, #115**
Vancouver, WA 98683

PHONE: **(360) 885-2011 ext. 27**
E-MAIL: **cbaker2@ducks.org**

PERMIT NUMBER: **2004-1573**
PROJECT TITLE: **Assessment of Fish Use in Lower Columbia Basin Floodplains**

DATES: **1/1/2004 to 12/31/2004**

FEDERAL AUTHORIZATION: **NOAA Fisheries 4(d) authorization letter dated 2/11/2004**

NAME OF PROJECT LEADER:
Cyndi Baker

NAME OF COLLECTORS:
Cyndi Baker, Rose Miranda, Jalynda McKay, Julie Cates

SIGNATURE _____ SIGNATURE _____

TYPE OF PERMIT: **Individual** RENEWABLE? **YES** MAY COPY? **YES**

LOCATION WHERE COLLECTION ACTIVITY IS AUTHORIZED:
Lower Willamette (Scapoose): Willamette River at Sauvie Island; Smith and Bybee lakes; and Portland Metro wetlands

CONDITIONS AND AUTHORIZATION OF THIS PERMIT:

1. General conditions of Oregon revised statutes and Oregon administrative rules apply to this permit that cannot be used in lieu of any permit required by federal law or regulation. Permission to sample in areas where federally protected fish may occur is contingent upon the permittee obtaining necessary authorization from the appropriate federal agency and acting in accordance with the conditions established by the federal government.
2. This permit is not transferable from one company or person to another and must be carried on person while collecting.
3. Access to private property is contingent on the permission of the landowner. This permit does not authorize trespassing.
4. Is not valid in any refuge, park, city, wildlife area or other area closed to collection without written approval of manager or administrator.
5. Local officials of the Department of Fish and Wildlife and Oregon State Police must be notified prior to each sampling effort.
6. An annual activity/collection report associated with this permit must be submitted to ODFW by 31 December, 2004, using the on line application process available at **http://fishresearch.nwr.noaa.gov/**. Renewal of this permit is subject to receipt by ODFW of the annual activity/collection report either prior to or in conjunction with the renewal application.

7. No protected species may be taken unless specifically listed below and any other necessary federal authorizations have been granted. See ODFW Sport Fishing Regulations for listing of species, or contact ODFW directly.
8. All numbers of fish authorized in this permit are annual totals.
9. Persons named above as "Collectors" must sign their own copy of the permit and carry the signed copy while engaged in the activities authorized in this permit.
10. Persons not named above may assist in collecting only while accompanied by project leaders(s) or authorized collector(s) listed above.
11. Additional conditions and authorization:

a) **May capture, examine, tag (PIT) and release (take) up to a total of 280 juvenile chinook salmon in the Lower Columbia Chinook Salmon ESU; 60 juvenile chinook salmon of hatchery origin; 30 chum salmon in the Columbia River Chum Salmon ESU; 212 juvenile coho salmon in the Lower Columbia Coho Salmon ESU; 54 juvenile coho salmon of hatchery origin; 37 juvenile steelhead in the Lower Columbia River Steelhead ESU; and 14 juvenile steelhead salmon of hatchery origin. All fish should be released near the capture site, as soon after surgery and recovery from anesthesia as possible. Fish over 200mm (8 inches) that may be harvested in a legal fishery can only be anesthetized using FDA approved substances and protocols.**

b) **May capture, examine and release (take) up to a total of 2,030 juvenile chinook salmon in the Lower Columbia Chinook Salmon ESU; 30 juvenile chinook salmon of natural origin; 500 juvenile coho salmon in the Lower Columbia River Coho Salmon ESU; 25 juvenile coho salmon of hatchery origin; 3 juvenile steelhead in the Lower Columbia River Steelhead ESU; 6 steelhead of hatchery origin; 20 juvenile cutthroat trout; and unlimited numbers of other species. After examination and recovery, all fish should be immediately released, unharmed, at the capture site.**

c) **Fish may be taken by gill net, fyke net, and minnow trap. Traps must be checked every 24 hours.**

d) **Activities must be coordinated with local ODFW Fish Biologist Tom Stahl *prior to any sampling.***

e) **Indirect mortality may not exceed 5% for gill netting and 1% for other methods of the total take for any species at any site. In the event that mortality for any species exceeds this rate, the permittee should contact the Endangered Species Act Coordinator, ODFW, (503/947-6253) prior to any further activity.**

f) **Unless otherwise stated in this permit, all authorized take is only for the species, purposes and by the protocols described in the permit application. If you approach or meet your permitted take and still have sampling to do, please contact the ODFW ESA Coordinator as soon as possible.**

g) **This permit only grants authority to conduct this activity under state law. Obtaining appropriate federal clearance under the Endangered Species Act is the permittee's responsibility. Terms and conditions in Attachment 1 must be adhered to for species covered under NMFS 4(d) authorization. If a condition on this permit conflicts with a condition on the federal permit or authorization, then the permittee must comply with the more restrictive condition. Unless otherwise stated in this permit, all authorized take is only for the species, purposes and by the protocols described in the permit application.**

ISSUED BY: Mary L. Hanson DATE: 2/17/2004

Mary L. Hanson
Endangered Species Act Coordinator

Distribution: Leslie Schaeffer, NOAA Fisheries; Tom Stahl, ODFW

From: Leslie Schaeffer <leslie.schaeffer@noaa.gov>
To: Elaine Stewart <stewarte@metro.dst.or.us>
Date: 12/15/2004 4:28:23 PM
Subject: Re: permit status update?

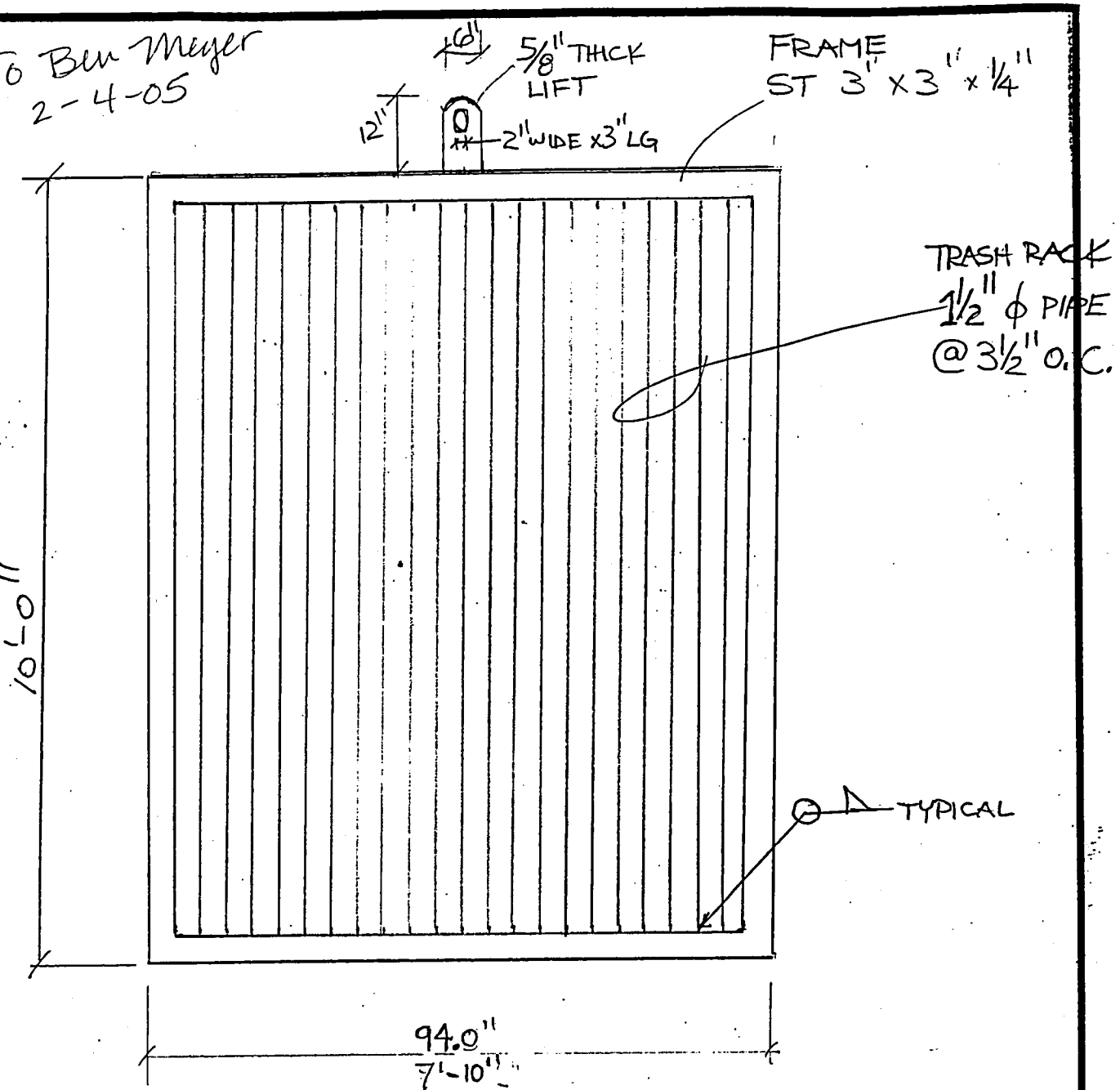
Elaine and Cyndi,
Cyndi Baker's 4(d) approval can go forward as is. She doesn't need a section 10 permit. Let me know if you need the details.
Leslie

Elaine Stewart wrote:

> Hi Leslie,
>
> Do you have any word yet on whether Cyndi Baker/Ducks Unlimited's
> sampling permit includes the two-way fish traps in the Smith-Bybee
> structure? I'm moving forward with USFWS to re-initiate the
> consultation on the structure for the trash racks, and it would be
> helpful to know the scope of that consultation (whether the fish traps
> need to be part of it too). Please give me a ring if that's easier than
> email.
>
> Thanks,
> Elaine
>
> ---
> Elaine Stewart
> Smith and Bybee Lakes Wildlife Area Manager
> Metro
> 600 NE Grand Avenue
> Portland, OR 97232-2736
>
> Tel 503.797.1515
> Fax 503.797.1849
> stewarte@metro.dst.or.us
> ---

CC: <cbaker2@ducks.org>, Ben Meyer <Ben.Meyer@noaa.gov>

To Ben Meyer
2-4-05



MATERIAL

1) A53 STEEL

2) SAND BLAST + EPOXY COAT ALL (BLACK COLOR)

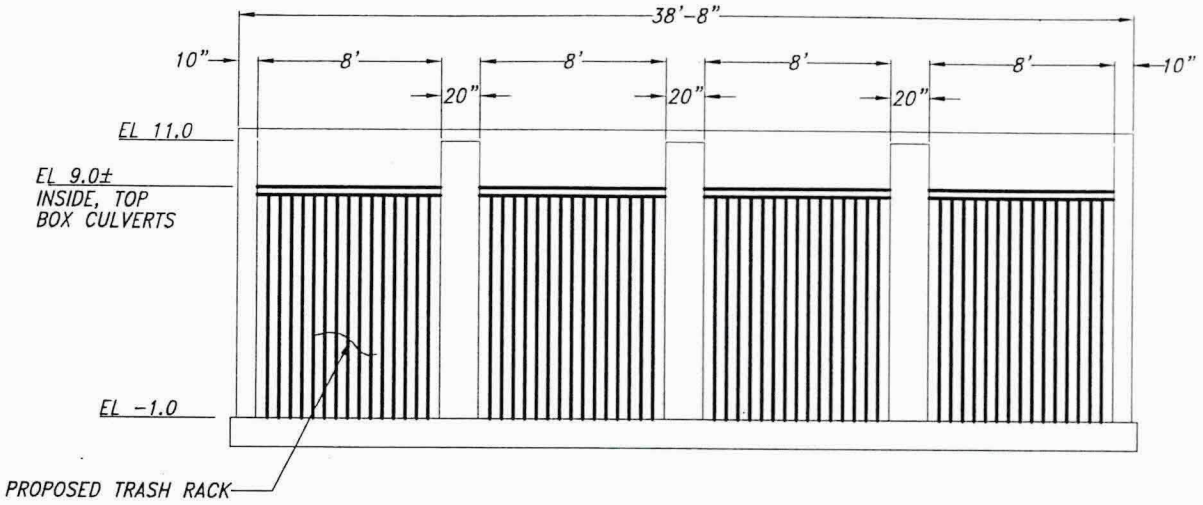
TOTAL WT. 975#

TRASH RACK (4 REQ'D)

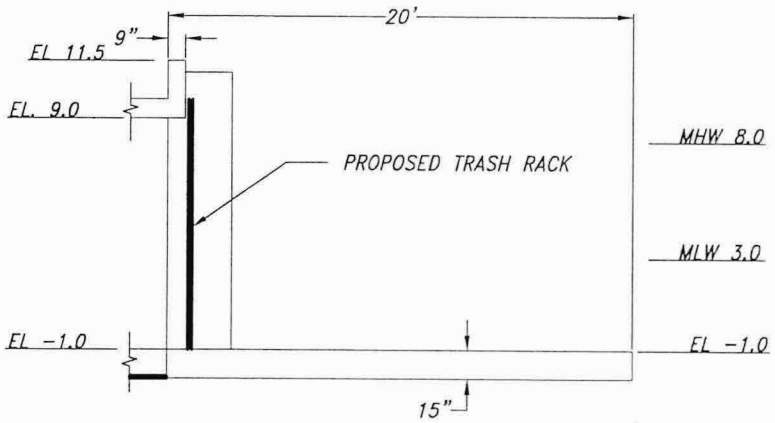
Sheet___

DUCKS UNLIMITED INC. PacNW Field Office (360)885-2011	PROJECT NO. OR-32-1 TRASH RACK SMITH-BYBEE	DESIGNED BY: GW DRAWN BY: GW SURVEYED BY: CHECKED BY:

To Ben Meyer
2-4-05



A/2 TRASH RACK ELEVATION
NOT TO SCALE



B/2 TRASH RACK SECTION
NOT TO SCALE

2

DUCKS UNLIMITED INC.
PacNW Field Office (360)885-2011

PROJECT NO. OR-32-1

SMITH AND BYBEE WETLANDS
TRASH RACK ELEVATION

DESIGNED BY:	GW
DRAWN BY:	DMC
SURVEYED BY:	DU
CHECKED BY:	

11/3/2004 4:07:25 PM, DMC

DEPARTMENT OF THE ARMY
PORTLAND DISTRICT, CORPS OF ENGINEERS
P.O. BOX 2946
PORTLAND, OREGON 97208-2946

REPLY TO
ATTENTION OF:

April 4, 2005

LVM 05
Barco 4/5/05

Operations Division
Regulatory Branch
Corps No.: 200200175

Ms. Elane Stewart
Metro, Smith and Bybee Lakes Wildlife Area
600 NE Grand Avenue
Portland, Oregon 97232-2736

Dear Ms. Stewart:

The U.S. Army Corps of Engineers (Corps) received your request to modify your Department of Army (DA) authorization, Corps No. 200200175, to improve access roads, remove an existing dam and tidegate, and replace it with a large, multi-celled water control structure with a fish ladder. The project is located in Smith and Bybee Lakes Wildlife Area at the southeast corner of Bybee Lake and the east end of the North Slough, a tributary of the Columbia Slough, in Section 36, Township 2 North, Range 1 West, and Section 31, Township 2 North, Range 1 East, Portland, Multnomah County, Oregon. Your permit modification request is to install a set of four trash racks on the North Slough side of the authorized structure and to install a pair of fish traps to monitor juvenile salmonids entering and exiting the Smith-Bybee wetlands.

The Corps has had no response to the enclosed letter, dated December 1, 2004. The requested information must be submitted in order to complete the review and evaluation of your proposed project. Please provide the requested information within 30 days of the date of this letter. If the Corps does not receive the requested information within the 30 days, we will assume you have no further intention of obtaining DA authorization for the proposed project and will withdraw your authorization request. Once the requested information is provided, we will continue to process and evaluate your application.

If you have any questions regarding your application, please contact Mr. John W. Barco at the letterhead address or telephone (503) 808-4385.

Sincerely,

for Donald Borda
Acting Chief, Regulatory Branch

Copy Furnished:
Oregon Department of State Lands (Wood)

John.w.Barco@usace.army.mil

From: Elaine Stewart
To: John.w.barco@usace.army.mil
Date: 4/14/2005 2:41:29 PM
Subject: Smith-Bybee permit 200200175

John,

I received your letter dated April 4, 2005 inquiring on the status of our response to your December 2004 letter. We (Metro, Ducks Unlimited & USFWS) have reinitiated consultation with NOAA Fisheries for this project. The consultation is not complete, and I will follow up with USFWS/Ducks Unlimited and NOAA Fisheries to see where we are in the process now. Please do not withdraw my authorization request for modification to permit #200200175 for enhancements to the Smith-Bybee water control structure.

Thank you for your help, John. Please do not hesitate to contact me if you need more information. In the meantime, I'll let you know as soon as I have any news regarding the BiOp for this modification.

-Elaine

Elaine Stewart
Natural Resource Scientist
Metro
600 NE Grand Avenue
Portland, OR 97232-2736

Tel 503.797.1515
Fax 503.797.1849
stewarte@metro.dst.or.us

CC: Chuck Lobdell

METRO
Regional Parks and Greenspaces
600 NE Grand Ave.
Portland, OR 97232-2736

To: Pat Oman **Phone:** 503-231-2313
Company: NOAA Fisheries **Fax:** 503-230-5441

Date: 5-12-05
 # Pages: 8

From: Elaine Stewart
Natural Resources Scientist
Phone: (503) 797-1515
Fax: (503) 797-~~1588~~ 1849

Comments: Pat, this is more than you asked for, but I thought the additional correspondence would be helpful.

Please call if fax is not received properly.

From: pat oman <pat.oman@noaa.gov>
To: Elaine Stewart <stewarte@metro.dst.or.us>, <brad_bortner@r1.fws.gov>
Date: 5/18/2005 11:01:57 AM
Subject: COE permit 200200175, Smith/Bybee

This is in reference to letters dated December 1, 2004 and April 4, 2005 from
USACE Regulatory Branch Chief Don Borda, regarding modifications to the USFWS habitat restoration project at Smith and Bybee Lakes.

NOAA Fisheries' OK of trash racks

Pursuant to your request for a modification to COE permit 200200175, this is approval of the installation of four trash racks on the North Slough side of the water control structure, and installation of two seasonal fish traps in the fishway.

The trash racks will be placed in late fall to deflect large woody debris that may become lodged in the tidegates or otherwise impair the function of the water control structure. One or more of the tidegates will be removed in the summer to allow for waterfowl passage. The trash racks will be inspected periodically to ensure that they are functioning as intended and will be cleaned out as needed.

The fish traps will allow monitoring of egress and ingress of juvenile salmonids in the wetland. Traps will be checked every 3 days during the period they are operational (generally November through June) and all fish will be handled following the terms and conditions of the NOAA biological opinion issued August 4, 2003 (NOAA 2002/00163).

The effects of the above actions are encompassed in the existing biological opinion and as long as the terms and conditions of the Opinion are followed in the installation, operation, and maintenance of the trash racks and fish traps, no additional take of listed salmonids is expected.

Should take during the construction phase of these proposed modifications result in an exceedance of the already approved amount of take authorized for construction generally (non-lethal take of 30 individuals and lethal take of up to 3 individuals) then NOAA should be notified.

The maintenance and fish monitoring aspects of the proposed modifications may result in an unquantifiable amount of take, which is part of the approved amount of take in the biological opinion.

CC: <john.w.barco@usace.army.mil>, <clobdell@ducks.org>, <ben.meyer@noaa.gov>

DEPARTMENT OF THE ARMY
PORTLAND DISTRICT, CORPS OF ENGINEERS
P.O. BOX 2946
PORTLAND, OREGON 97208-2946

REPLY TO
ATTENTION OF:

June 8, 2005

Operations Division
Regulatory Branch
Corps No.: 200200175

Ms. Elane Stewart
Metro, Smith and Bybee Lakes Wildlife Area
600 NE Grand Avenue
Portland, Oregon 97232-2736

Dear Ms. Stewart:

The U.S. Army Corps of Engineers (Corps) has received your request to modify your Department of Army (DA) permit (Corps No. 200200175). The project is located in Smith and Bybee Lakes Wildlife Area at the southeast corner of Bybee Lake and the east end of the North Slough, a tributary of the Columbia Slough, in Section 36, Township 2 North, Range 1 West, and Section 31, Township 2 North, Range 1 East, Portland, Multnomah County, Oregon.

Modification is needed to install a set of four trash racks on the North Slough side of the authorized structure and to install a pair of fish traps to monitor juvenile salmonids entering and exiting the Smith-Bybee wetlands. The modification will be conducted in accordance with the Enclosed Drawings (Enclosure 1).

The Corps has determined that the proposed modification will not result in additional impacts to waters of the United States, will not significantly affect the quality of the human environment, or be contrary to the Public Interest. We are hereby granting Metro modification to the original DA authorization.

Please be aware that all other terms and conditions of the original permit remain in full force and effect. This letter must be attached to the original permit.

If you have any questions about this modification, please contact Mr. John W. Barco at the above address or telephone (503) 808-4385.

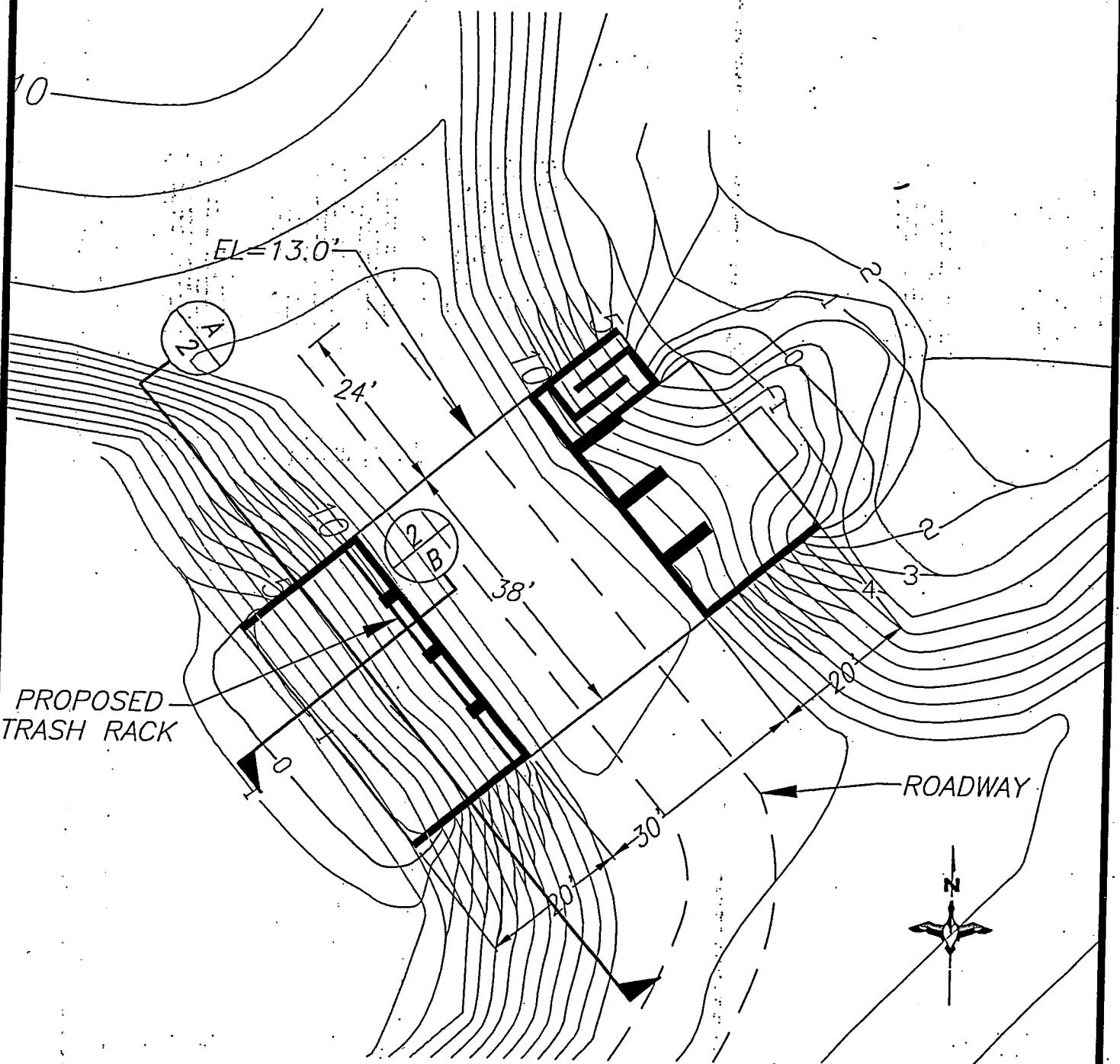
BY THE AUTHORITY OF THE SECRETARY OF THE ARMY:

Richard W. Hobernicht
Colonel, Corps of Engineers
District Engineer

Enclosures

Copy Furnished:

Oregon Department of State Lands (Wood)
Oregon Department of Environmental Quality (Svetkovich)



Corps No. 200200175 (modification)

1

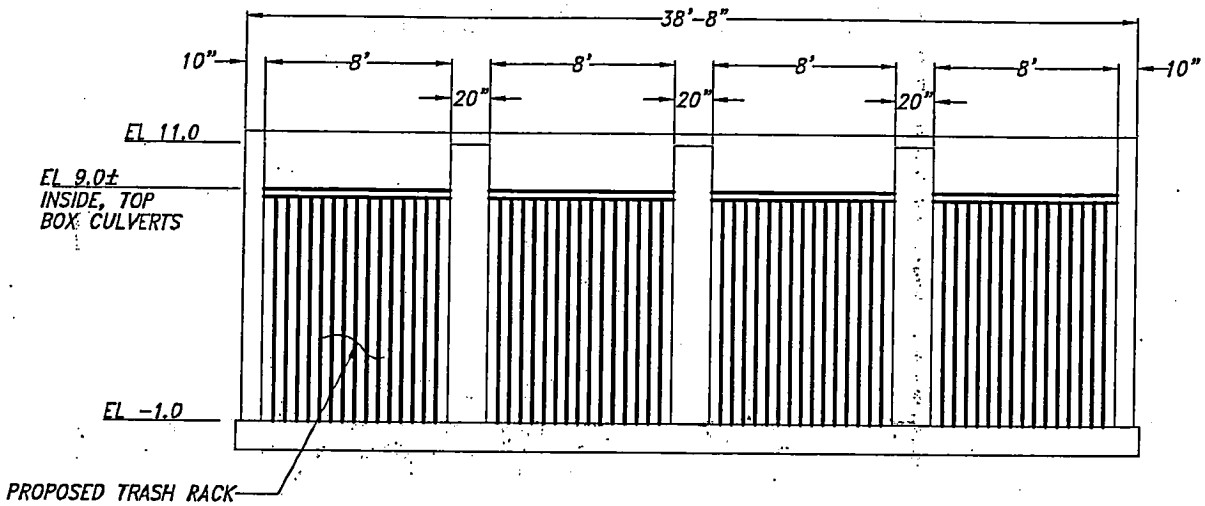
DUCKS UNLIMITED INC.
PacNW Field Office (360)885-2011

PROJECT NO. OR-32-1

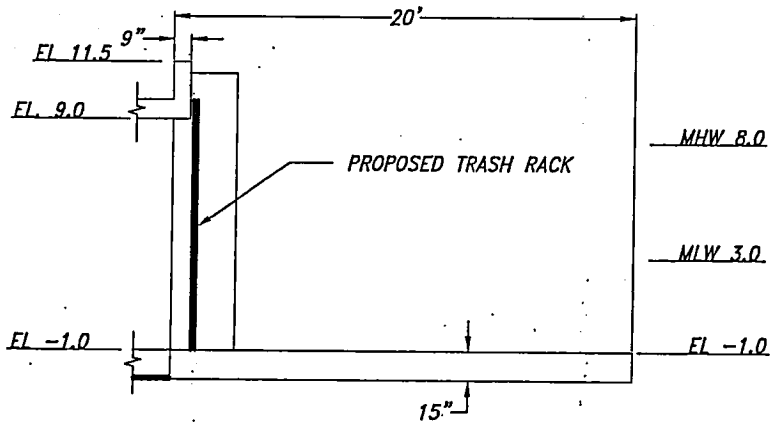
SMITH AND BYBEE WETLANDS
TRASH RACK PLAN VIEW

DESIGNED BY:	GW
DRAWN BY:	DMC
SURVEYED BY:	DU
CHECKED BY:	

Enclosure 1



A/2 TRASH RACK ELEVATION
NOT TO SCALE



B/2 TRASH RACK SECTION
NOT TO SCALE

Corps No. 200200175 (modification)

2

DUCKS UNLIMITED INC.
PacNW Field Office (360)885-2011

PROJECT NO. OR-32-1

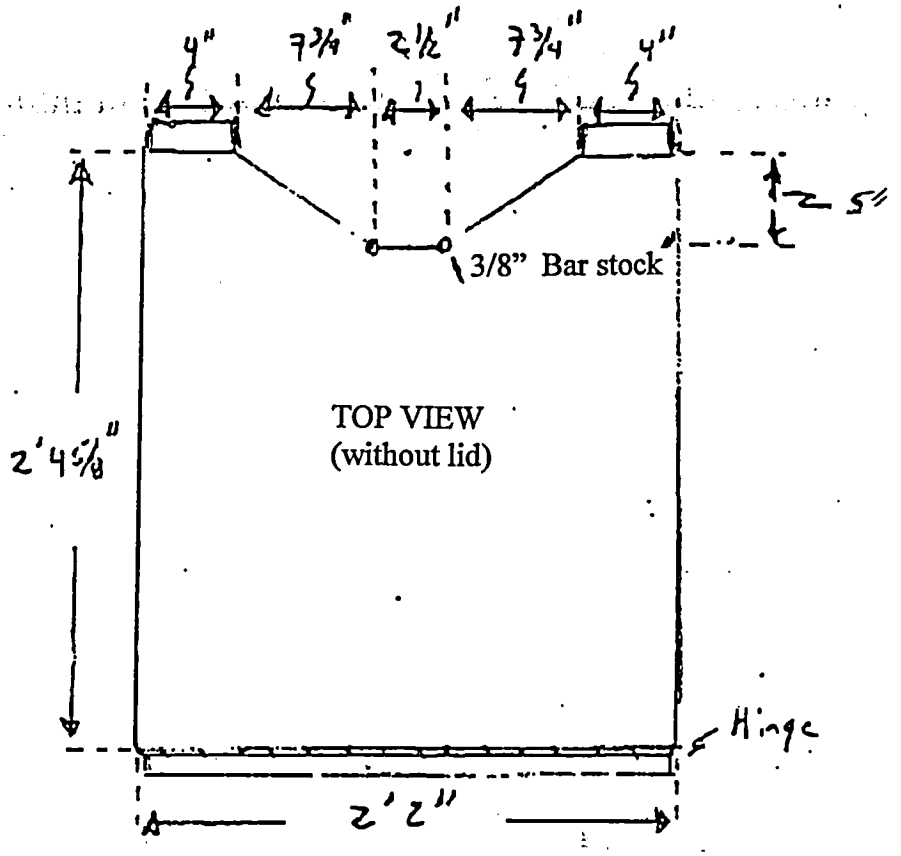
SMITH AND BYBEE WETLANDS
TRASH RACK ELEVATION

DESIGNED BY:	GW
DRAWN BY:	DMC
SURVEYED BY:	DU
CHECKED BY:	

11/3/2004 4:07:25 PM, DMC

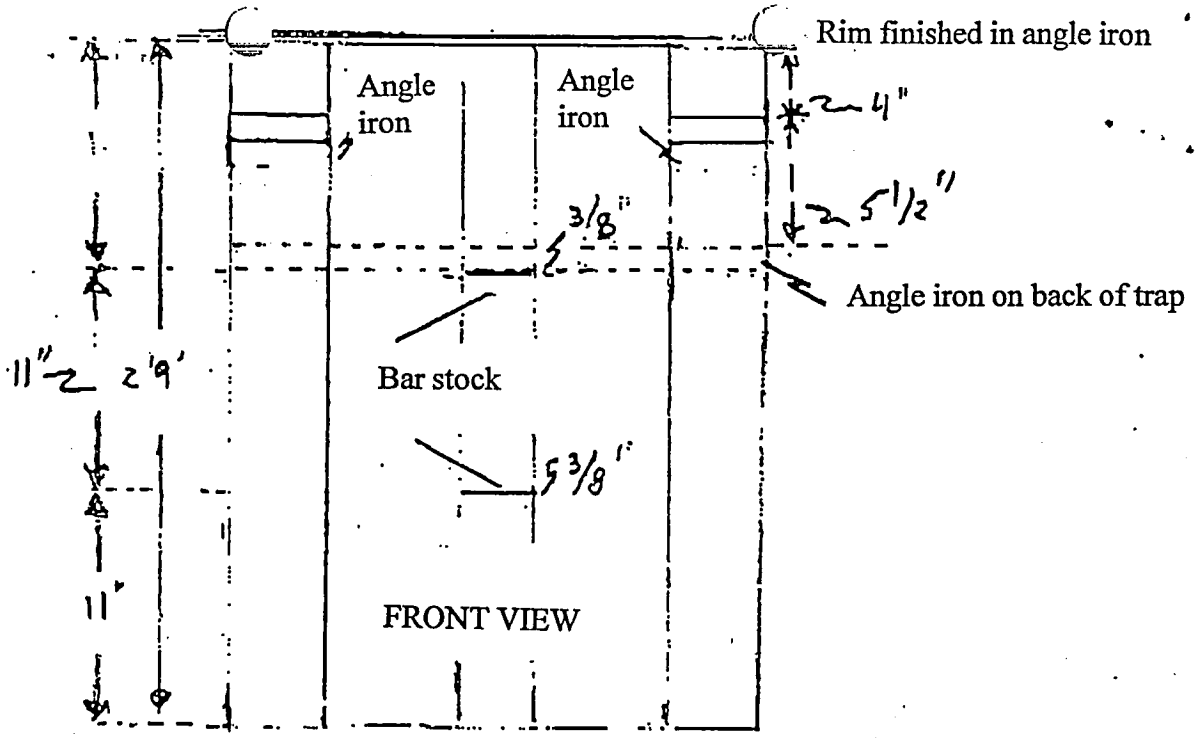
Enclosure 1

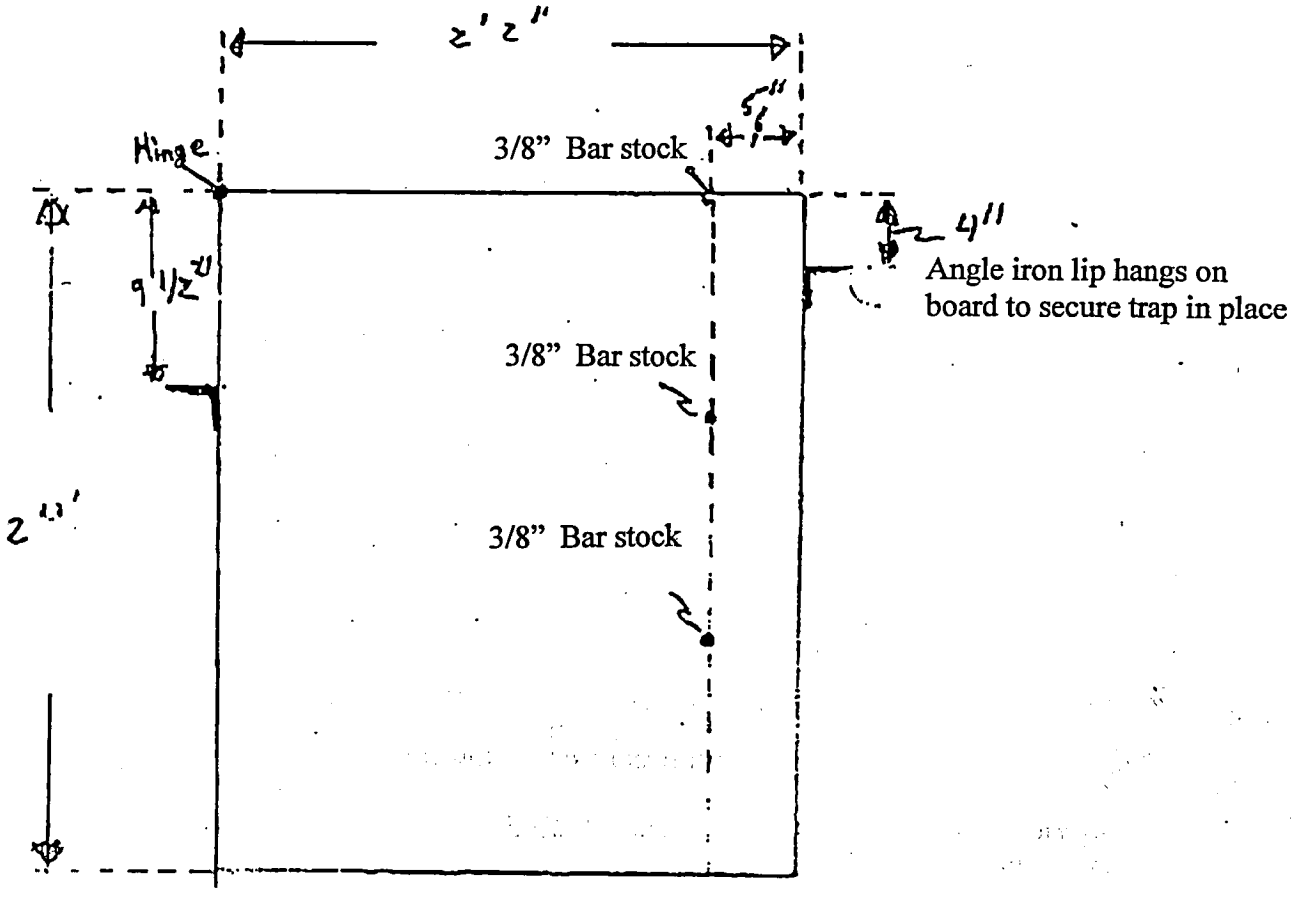
FISH TRAP FOR SMITH-BYBEE WATER CONTROL STRUCTURE



Body of trap constructed
of expanded metal

Corps No. 200200175 (modification)
Enclosure 1





SIDE VIEW

Corps No. 200200175 (modification)
Enclosure 1