

MEMORANDUM FOR: RECORD

March 21, 2017

SUBJECT: TIER 1 DETERMINATION REGARDING THE SUITABILITY OF PROPOSED DREDGED MATERIAL FROM RAINBOW LAKE, COLUMBIA COUNTY, WASHINGTON (PERMIT # NWS-2016-0947).

1. **Introduction.** This memorandum reflects the consensus determination of the Dredged Material Management Program (DMMP) agencies (U.S. Army Corps of Engineers, Washington State Department of Ecology, Washington State Department of Natural Resources, and the Environmental Protection Agency) regarding the testing status and suitability of up to 76,500 cubic yards (cy) of dredged material from Rainbow Lake.
2. **Site History.** Rainbow Lake is a man-made lake located within the Wooten Wildlife Area (WWA) in southwestern Washington State (**Figure 1**). Rainbow Lake is a recreation destination with activities like hiking, camping and wildlife viewing. A long-standing put and take trout fishery in the lake has declined in recent years due to increasingly poor water quality

Rainbow Lake was constructed, along with the other man-made Tucannon Lakes, between 1953 and 1955. A dam impounds the lake along the north and west sides, and the lake is fed through a diversion on the right bank on the Tucannon River south of the lake. The lake experiences increased sediment load from Tucannon River when turbid river water enters the lake, especially during winter storm events and spring snowmelt. The retained sediment contributes to a loss of carrying capacity for the lake, as well as a reduction in water quality and quantity.

3. **Project.** The proposed project is part of the W.T. Wooten Floodplain Management Plan (WDFW, 2014) which identified initiatives to improve ecological functions and recreational opportunities and address facilities deficiencies for the man-made lakes and the Tucannon River floodplain within the WWA. The project includes 76,500 cy of maintenance dredging within the lake to remove sedimentation, increase lake depth and restore storage capacity (**Figures 2-4**). Dredging will occur in the dry, after draining the lake. Dredged material will be disposed upland in an area approximately 0.7 miles upriver near Deer Lake, see **Figures 5 and 6**.

In addition, 58,000 cy of upland material will be excavated to expand the lake to the south. A new concrete settling basin pond will be constructed south of the lake and the open lake inflow ditch will be replaced with a new lake inflow pipe from the settling basin to the new southeastern corner of the lake. Excavation and backfill of the new lake inflow pipe will involve approximately 230 and 270 cy of material, respectively. Backfill material will be sourced from the on-site excavation material.

- 4. Evaluation.** Under DMMP guidelines, projects for which upland disposal is planned do not ordinarily require testing of the dredged material if they are ranked moderate or less, but they do require evaluation under the Department of Ecology's antidegradation standard (DMMP, 2016)

Rainbow Lake is located in a remote portion of southwestern Washington State, there is no development in the area aside from the campground. All agriculture is located downstream of the project area. There are no known or suspected sources in the area. An EIM query showed that no sediment data had previously been collected from within or near the project area, which is usually an indication that there are no sediment contaminant issues in the vicinity of the project. A review of Ecology's What's in my Neighborhood database did not reveal any state cleanups near the project area.

Due to the lack of available data to confirm a low rank, this project is ranked low-moderate.

4. Tier 1 Determination.

This project is located in an area of low-moderate concern, with proposed upland disposal. The DMMP agencies have determined that the sediment exposed by dredging is likely to meet the State of Washington antidegradation standard. Therefore, no DMMP testing is required for this project.

A determination regarding the suitability of the material for upland disposal must be coordinated with the local Health Department.

This determination does **not** constitute final agency approval of the project. During the public comment period that follows a public notice, resource agencies will provide input on the overall project. A final decision will be made after full consideration of agency input, and after an alternatives analysis is done under section 404(b)(1) of the Clean Water Act.

5. References.

DMMP, 2016. *Dredged Material Evaluation and Disposal Procedures (Users Manual)*. Prepared by the Seattle District Dredged Material Management Office for the Dredged Material Management Program, August 2016.

WDFW, 2014. *W.T. Wooten Floodplain Management Plan*. Authored by the Wooten FMP Team. Updated December 2014.

6. Signatures.

The signed copy is on file in the Dredged Material Management Office.

Date Kelsey van der Elst - Seattle District Corps of Engineers

Date Erika Hoffman - Environmental Protection Agency

Date Laura Inouye, Ph.D. - Washington Department of Ecology

Date Celia Barton - Washington Department of Natural Resources

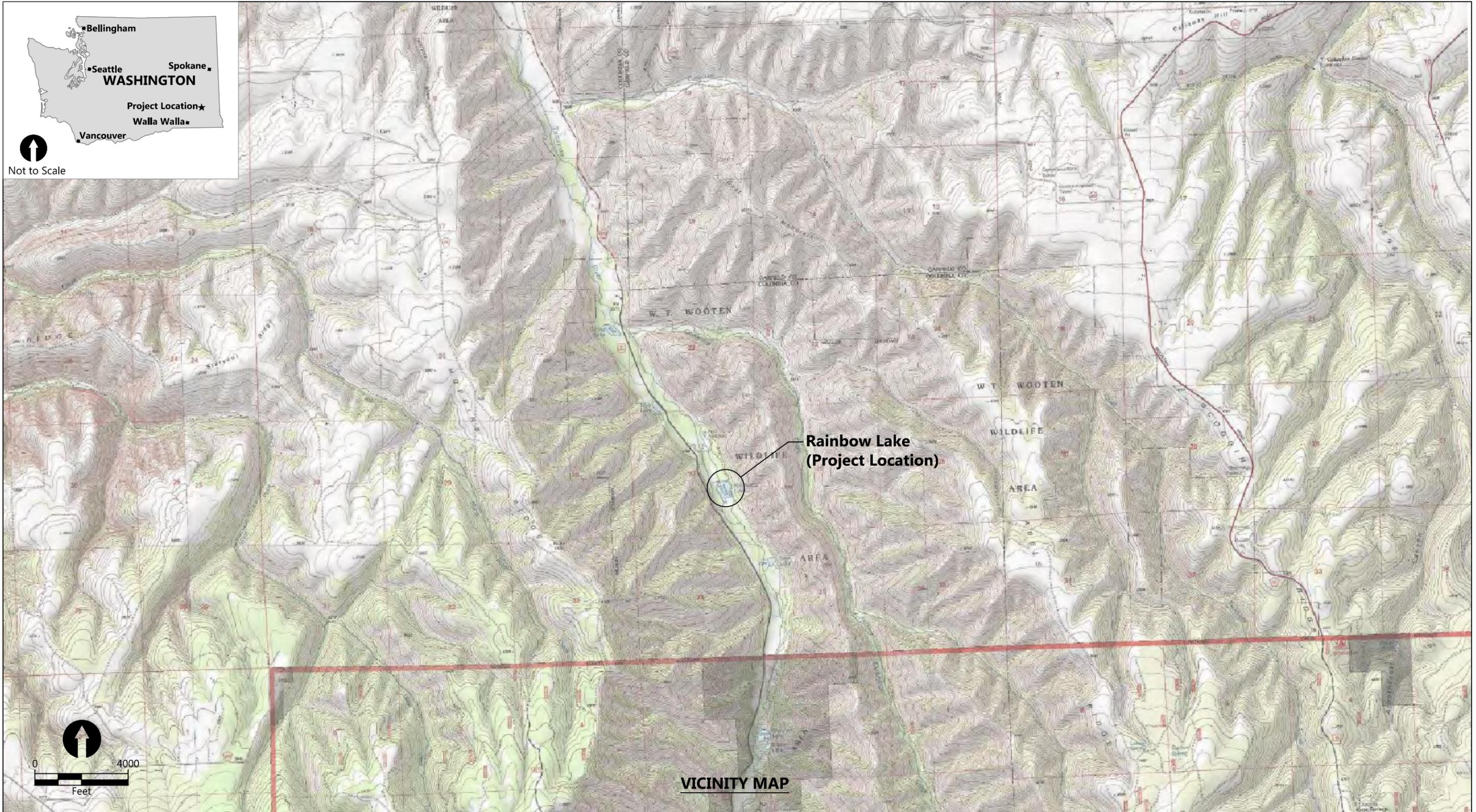
Copies furnished:

DMMP signatories

David Moore – Seattle District Regulatory

Mark Grandstaff - WDFW

Tracy Drury – Anchor QEA



VICINITY MAP

Publish Date: 2016/12/09 2:20 PM | User: epipkin
Filepath: B:\Projects\WDFW\Wooten_Wildlife_Area\CAD\0337-JA-01-VICINITY MAP.dwg Vicinity Map

PURPOSE: WATER QUALITY IMPROVEMENT

NAME: RAINBOW LAKE MAINTENANCE DREDGING

PROPOSED: MAINTENANCE DREDGING

DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988
LATITUDE: 48°18'49.6"N
LONGITUDE: 117°39'34.9"W
S-T-R: 27-10N-41E

- ADJACENT PROPERTY OWNERS:**
1. WASHINGTON DEPARTMENT OF FISH AND WILDLIFE
 2. U.S. FISH AND WILDLIFE SERVICE

IN: RAINBOW LAKE
NEAR/AT: POMEROY
COUNTY OF: COLUMBIA
STATE: WASHINGTON

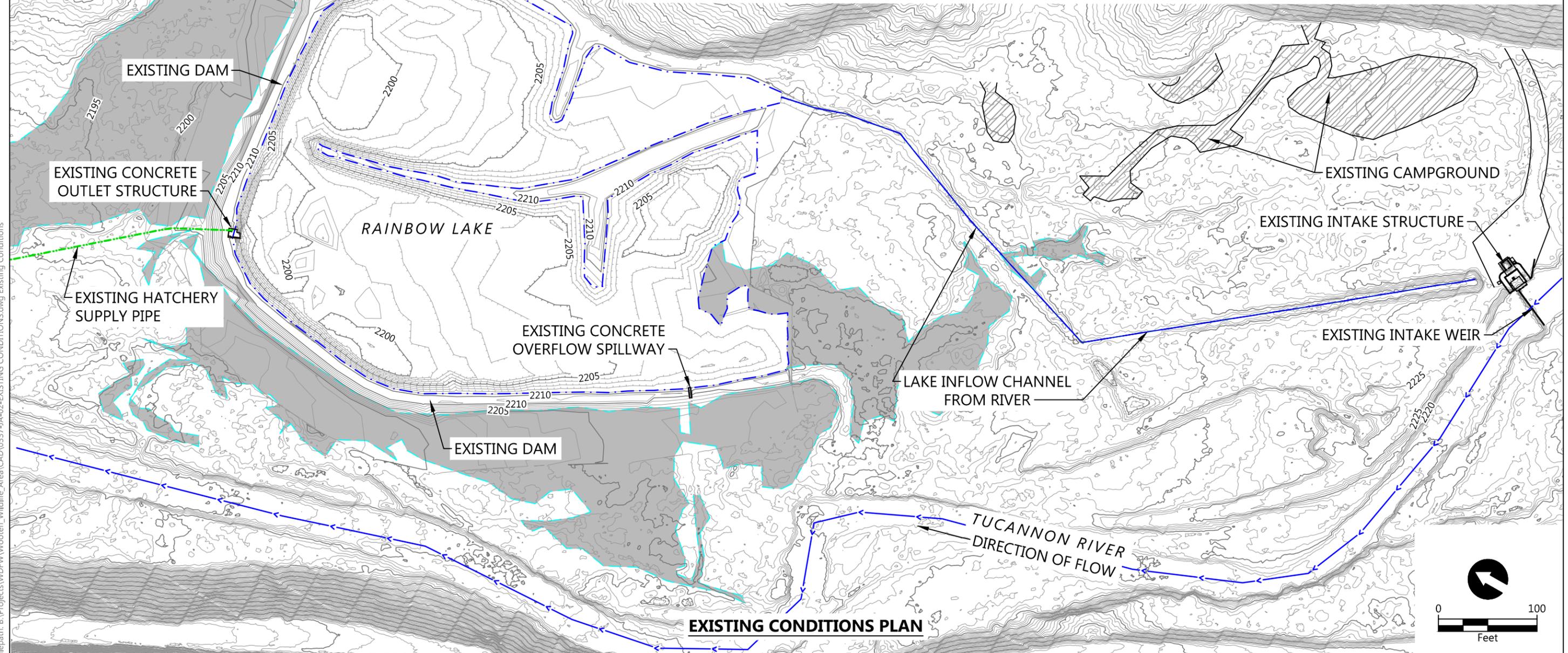


Figure 1.

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LEGEND:

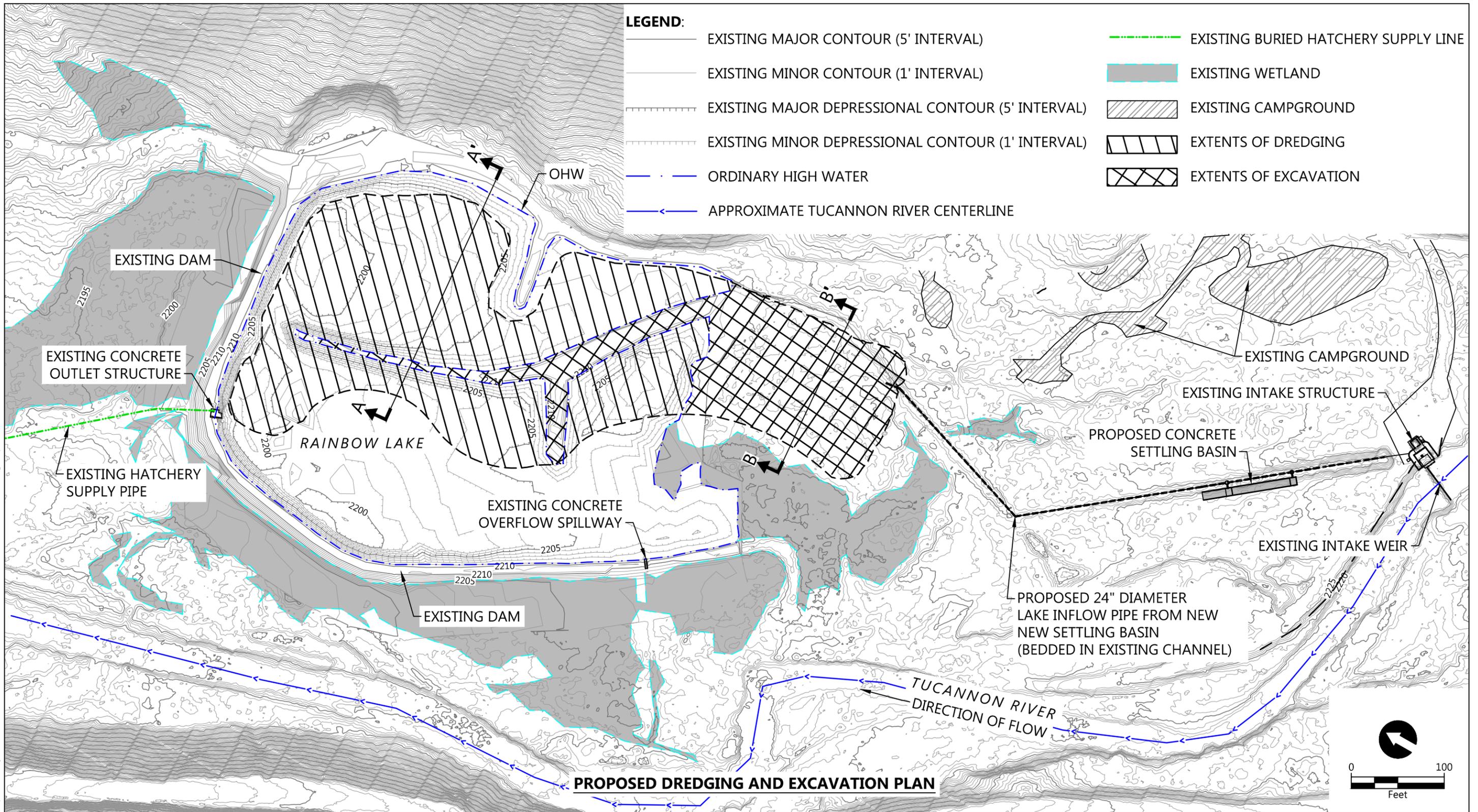
	EXISTING MAJOR CONTOUR (5' INTERVAL)		APPROXIMATE TUCANNON RIVER CENTERLINE
	EXISTING MINOR CONTOUR (1' INTERVAL)		EXISTING BURIED HATCHERY SUPPLY LINE
	EXISTING MAJOR DEPRESSIONAL CONTOUR (5' INTERVAL)		EXISTING WETLAND
	EXISTING MINOR DEPRESSIONAL CONTOUR (1' INTERVAL)		EXISTING CAMPGROUND
	ORDINARY HIGH WATER		



EXISTING CONDITIONS PLAN

<p>PURPOSE: WATER QUALITY IMPROVEMENT</p>	<p>NAME: RAINBOW LAKE MAINTENANCE DREDGING</p>	<p>PROPOSED: MAINTENANCE DREDGING</p>
<p>DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 LATITUDE: 48°18'49.6"N LONGITUDE: 117°39'34.9"W S-T-R: 27-10N-41E SITE LOCATION ADDRESS: TUCANNON ROAD, POMEROY WA, 99347</p>	<p>ADJACENT PROPERTY OWNERS: 1. WASHINGTON DEPARTMENT OF FISH AND WILDLIFE 2. U.S. FISH AND WILDLIFE SERVICE</p>	<p>IN: RAINBOW LAKE NEAR/AT: POMEROY COUNTY OF: COLUMBIA STATE: WASHINGTON DATE: DECEMBER, 2016 SHEET: 2 OF 4</p>

1605 Cornwall Avenue
 Bellingham, WA 98225
 360-733-4311
Figure 2.



Publish Date: 2016/12/09 2:57 PM | User: epipkin
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PURPOSE: WATER QUALITY IMPROVEMENT

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PROPOSED: MAINTENANCE DREDGING

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S-T-R: 27-10N-41E

ADJACENT PROPERTY OWNERS:
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 2. U.S. FISH AND WILDLIFE SERVICE

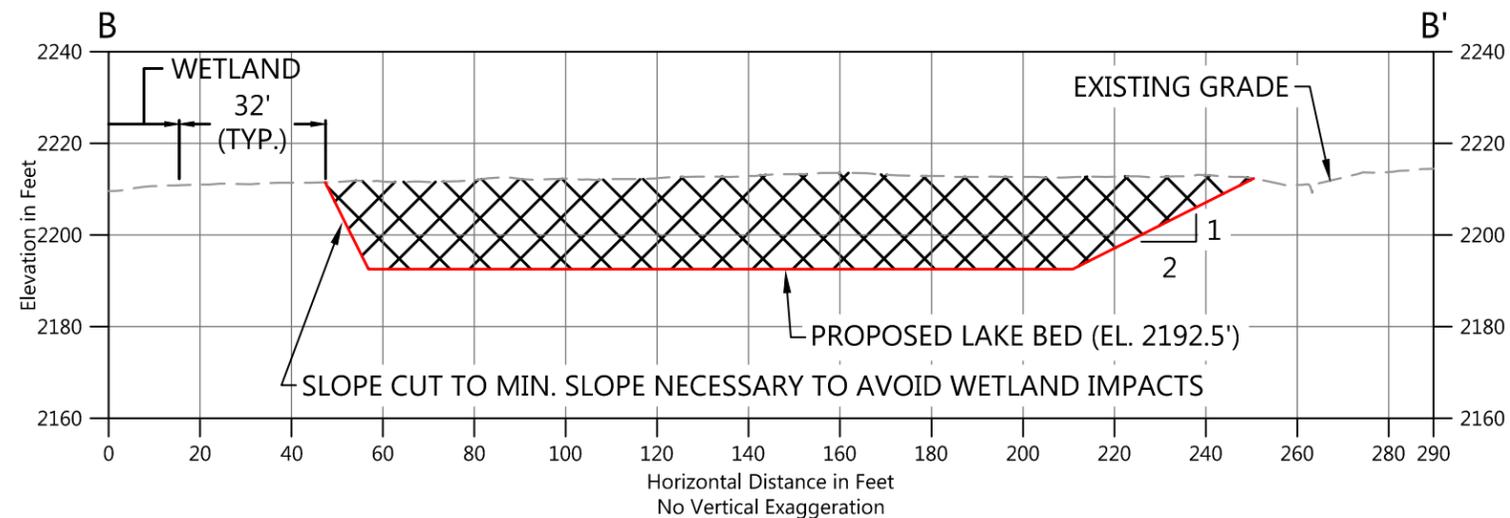
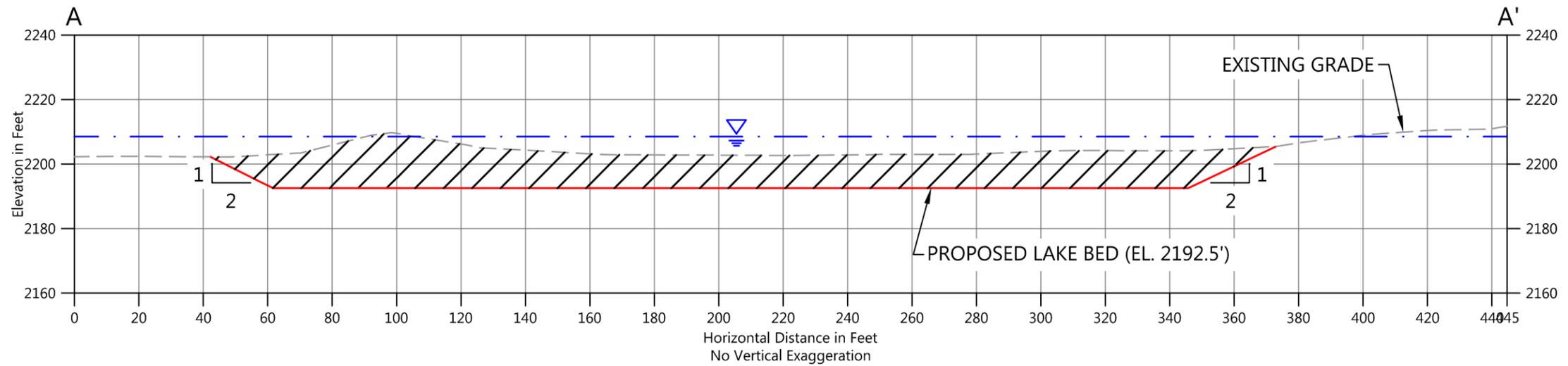
IN: RAINBOW LAKE
NEAR/AT: POMEROY
COUNTY OF: COLUMBIA
STATE: WASHINGTON

SITE LOCATION ADDRESS:
 TUCANNON ROAD, POMEROY WA, 99347

DATE: DECEMBER, 2016 **SHEET:** 3 OF 4

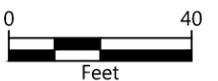

 1605 Cornwall Avenue
 Bellingham, WA 98225
 360-733-4311
Figure 3.

Publish Date: 2016/12/09 2:09 PM | User: epipkin
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- LEGEND:**
- EXISTING GRADE
 - PROPOSED GRADE
 - . - ORDINARY HIGH WATER
 - ▨ EXTENTS OF DREDGING
 - ▩ EXTENTS OF EXCAVATION

PROPOSED DREDGING AND EXCAVATION SECTIONS



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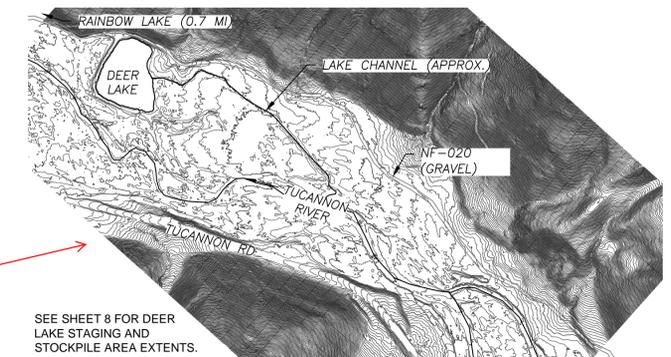
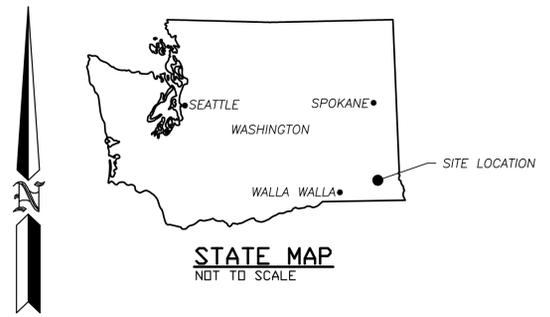
PROPOSED: MAINTENANCE DREDGING

IN: RAINBOW LAKE
 NEAR/AT: POMEROY
 COUNTY OF: COLUMBIA
 STATE: WASHINGTON

DATE: DECEMBER, 2016 SHEET: 4 OF 4



Figure 4.



Inset showing Deer Lake stockpile and disposal site map

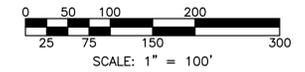
SEE SHEET 8 FOR DEER LAKE STAGING AND STOCKPILE AREA EXTENTS.

DEER LAKE INSET
1"=500'

Note referencing Deer Lake site location



EXISTING SITE MAP
1"=100'



WASHINGTON STATE
DEPARTMENT OF FISH AND WILDLIFE

SYM	DATE	REVISION DESCRIPTION	BY
APPROVED AND RELEASED FOR CONSTRUCTION			
CHIEF ENGINEER		DATE:	
PROGRAM		DATE:	

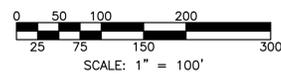
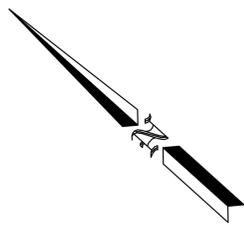
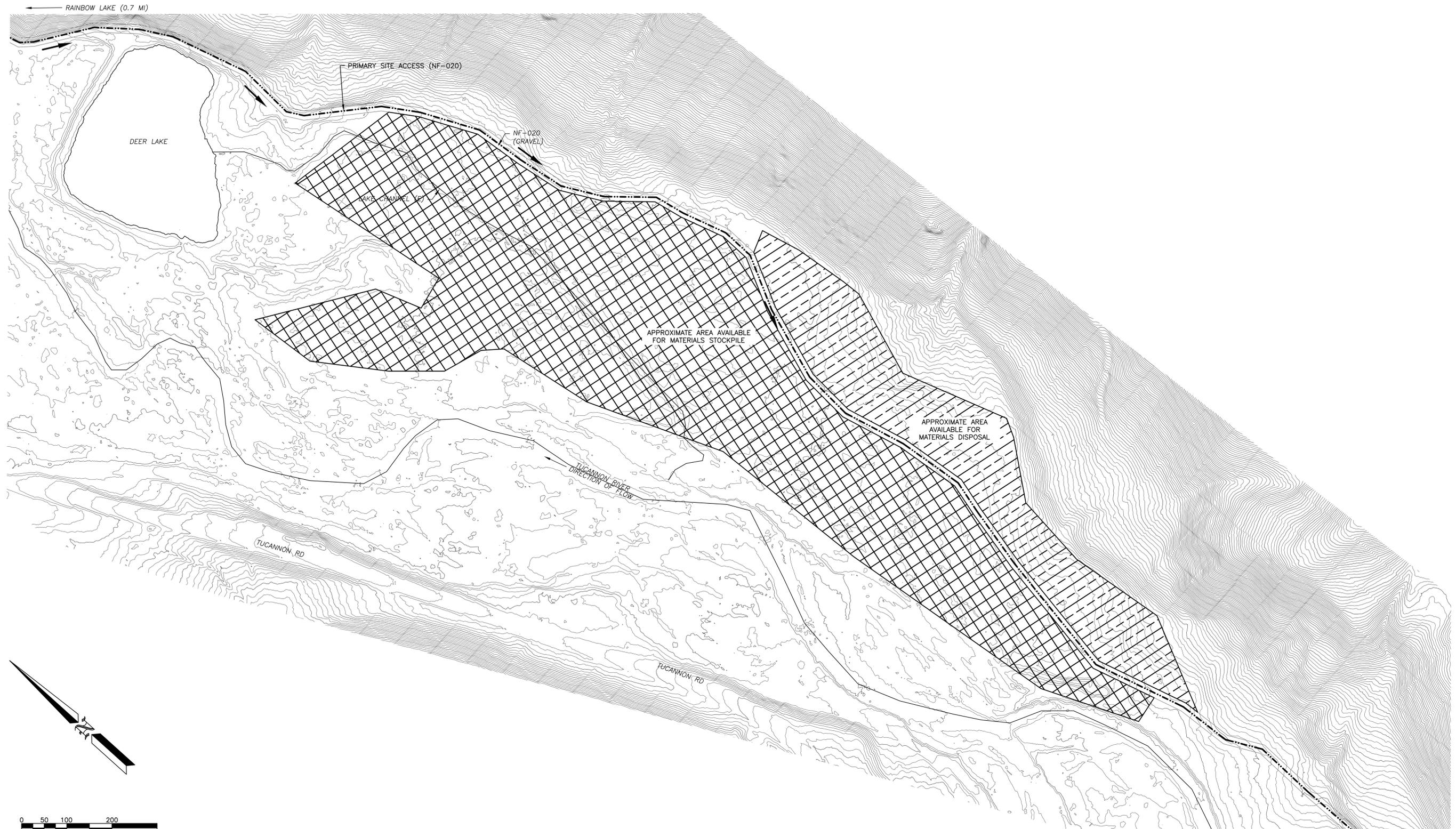
NOT FOR CONSTRUCTION

DESIGNED BY T.DRURY
CHECKED BY T.DRURY
DRAWN BY E.PIPKIN
DATE JANUARY 2017

W.T. WOOTEN WILDLIFE AREA
RAINBOW LAKE DEVELOPMENT DESIGN
EXISTING SITE MAP
Figure 5.

PROJECT NO. CA:R5:17-1
SHEET 3 OF 25

Mar 08, 2017 2:14pm eppikin \\ballingham\2\user2\Projects\WDFW\Wooten_Wildlife_Area\CAD\100_Percent\EXISTING SITE AND VICINITY MAP.dwg EXISTING SITE MAP



Mar 08, 2017 2:17pm eppikin
 \\ballingham\2\user\Projects\WDFW\Wooten_Wildlife_Area\CAD\100_Permit\ACCESS STAGING, TESC.dwg SITE ACCESS AND STAGING PLAN (2)



WASHINGTON STATE
DEPARTMENT OF FISH AND WILDLIFE

SYM		DATE	REVISION DESCRIPTION	BY
APPROVED AND RELEASED FOR CONSTRUCTION				
CHIEF ENGINEER	DATE:		DATE:	
PROGRAM	DATE:		DATE:	

NOT FOR
 CONSTRUCTION

0 ——— 1"
 BAR MEASURES
 ONE INCH ON
 ORIGINAL DRAWINGS

DESIGNED BY T.DRURY
 CHECKED BY T.DRURY
 DRAWN BY E.PIPKIN
 DATE JANUARY 2017

W.T. WOOTEN WILDLIFE AREA
RAINBOW LAKE DEVELOPMENT DESIGN
SITE ACCESS AND STAGING PLAN
 Figure 6

PROJECT NO. CA:R5:17-1	
SHEET 7	OF 25