



*Your Northwest renewables utility*

November 1, 2012

**VIA ELECTRONIC FILING**

Kimberly D. Bose, Secretary  
Federal Energy Regulatory Commission (FERC)  
888 First Street NE  
Washington, DC 20426

**Re: Jackson Hydroelectric Project, FERC No. P-2157  
Marsh Creek Slide Modification Report  
License Article 402**

Dear Secretary Bose:

Enclosed is the Public Utility District No. 1 of Snohomish County's Marsh Creek Slide Modification Report per License Article 402 for the Jackson Hydroelectric Project. The draft report was provided to the Aquatic Resource Committee prior to this filing; consultation and responses to comments are included in the report's Appendices 2 and 3.

If you have any questions on the report, please contact Keith Binkley, Natural Resources Manager, at (425) 783-1769 or [KMBinkley@snopud.com](mailto:KMBinkley@snopud.com).

Sincerely,

A handwritten signature in purple ink, appearing to read "Kim D. Moore", is placed below the word "Sincerely,".

Kim D. Moore, P.E.  
Assistant General Manager of Generation, Water, and Corporate Services  
[KDMoore@snopud.com](mailto:KDMoore@snopud.com)  
(425) 783-8606

Enclosed: MCS Modification Report

# Henry M. Jackson Hydroelectric Project (FERC No. 2157)



## Marsh Creek Slide Modification Report (License Article 402)



Everett, WA

November 2012

# TABLE OF CONTENTS

<b>1. INTRODUCTION.....</b>	<b>1</b>
1.1. Background .....	1
1.2. Purpose .....	1
1.3. Consultation .....	1
<b>2. PRE-MODIFICATION METHODS.....</b>	<b>1</b>
2.1. Topographic Survey .....	1
2.2. Modeling .....	2
2.3. Fish Salvage Operations .....	2
<b>3. MODIFICATION METHODS.....</b>	<b>2</b>
3.1. Methodology .....	2
3.2. Before and After Photos .....	3
<b>4. FUTURE REPORTING.....</b>	<b>3</b>
<b>5. REFERENCES.....</b>	<b>4</b>
 <b>APPENDIX 1</b>	 <b>Modification Contract Drawings</b>
<b>APPENDIX 2</b>	<b>Consultation Documentation on Draft Report</b>
<b>APPENDIX 3</b>	<b>Response to Comments on Draft Report</b>

# LIST OF FIGURES

---

Figure 1. Marsh Creek Slide before modification, July 16, 2012.....	3
Figure 2. Marsh Creek Slide after modification, July 30, 2012.....	3

# ACRONYMS & ABBREVIATIONS

---

A-LA	Aquatic License Article
ARC	Aquatic Resource Committee
District	Public Utility District No. 1 of Snohomish County
FERC	Federal Energy Regulatory Commission
HEA	Habitat Enhancement Account
MCS	Marsh Creek Slide
PM&E	Protection, mitigation and enhancement
RM	River mile
RSP	Revised Study Plan

## **1. INTRODUCTION**

### **1.1. Background**

Public Utility District No. 1 of Snohomish County (District) received from the Federal Energy Regulatory Commission (FERC) a license for the existing 111.8-megawatt (MW) Henry M. Jackson Hydroelectric Project (FERC No. 2157) (Project) on September 2, 2011 (License). Included in the License is License Article 402, Marsh Creek Slide Monitoring and Modification Plan (MCS Plan).

On December 11, 2004, a natural landslide occurred in the Sultan River near Marsh Creek at River Mile (RM) 7.6. The Marsh Creek Slide (MCS) blocked or reduced the upstream passage of adult anadromous salmonids upstream of River Mile 7.6. Since then, the characteristics and geometry of the landslide have changed and currently allow some fish passage in part due to high flows. During the relicensing process, the District conducted the Revised Study Plan No. 20 Phase 1: Fish Passage Assessment, Evaluation of Salmon and Steelhead Migration after a Landslide on the Sultan River (Ruggerone 2008) and the Revised Study Plan No. 24: Feasibility of Marsh Creek Slide Modification to Improve Fish Passage (CH2M Hill 2009). These plans analyzed whether the Marsh Creek Slide is a hindrance to fish passage in the Sultan River and if so, whether modifications to the slide could improve passage.

During meetings with the Aquatic Resource Committee (ARC), modification of the slide was deemed necessary to provide safe, timely, and effective access to 2.1 miles of salmon and steelhead habitat up to the Diversion Dam, and an additional 6.6 miles of historically available habitat upstream of the Diversion Dam after passage is provided at that structure. The ARC anticipated that this measure would increase salmon and steelhead production in the Sultan River by allowing these species to fully utilize available habitat and production capacity upstream of the Marsh Creek Slide.

As such, the District and ARC developed the MCS Plan and filed it with the FERC, which was approved in License Article 402 with minor modifications.

Modifications to the Marsh Creek Slide were conducted by the District's contractor in July 2012 as specified in the contract drawings (see Appendix 1).

### **1.2. Purpose**

The purpose of this report, as identified in Section 5 of the MCS Plan, is to detail the methods used to modify the Marsh Creek Slide.

### **1.3. Consultation**

The ARC was provided a 30-day comment period on the draft report. Consultation documentation is included in Appendix 2, with responses to comments included in Appendix 3.

## **2. PRE-MODIFICATION METHODS**

### **2.1. Topographic Survey**

The District engaged with a licensed surveyor (Harmsen & Associates) to document the existing topographic conditions of the landslide during 2010. Survey control marks (rebar with caps) were left in the field and have survived to act as permanent markers/benchmarks.

A geotechnical engineering firm (Terracon) sampled boulders within the slide area and made recommendations on techniques which could be used for alteration.

## **2.2.Modeling**

The District retained a consulting firm (R2 Resource Consultants) to hydraulically model the existing flow through the slide area based upon the topographic data collected and to create a model of a flow channel to allow anadromous passage. Fish passage criteria from Powers and Orsborn were applied to establish an effective passage route. These model results were converted to a public works contract which was advertised in 2011.

## **2.3.Fish Salvage Operations**

Fish biologists from the District and R2 Resource Consultants used electrofishing techniques to remove and relocate fish from the modification project site, as required by License Article 402.

# **3. MODIFICATION METHODS**

## **3.1. Methodology**

The work area was isolated by a contractor (Santana) using gravel filled bags, and de-fished by District and consultant staff. The work was done via a combination of hand-labor, electric jack-hammer, and drilling and setting of .22-calibre size charges to fracture rock.

Isolation work began the week of July 16. Modification of rock took place between July 19 and July 26 utilizing a 4-man crew working with hand-tools and an electric powered drill and jack-hammer to conduct work as specified in the contract drawings (see Appendix C).



### **3.2. Before and After Photos**



**Figure 1. Marsh Creek Slide before modification, July 16, 2012.**



**Figure 2. Marsh Creek Slide after modification, July 30, 2012.**

### **4. FUTURE REPORTING**

To provide the broader context of fish use of the Sultan River, escapement survey data within the index area around the Marsh Creek Slide will be provided in the annual reports for the Fisheries and Habitat Monitoring Plan per License Article 410.

As indicated in Section 5 of the MCS Plan, the District will submit a report within six months of the sixth-year anniversary of the filing of this report (i.e. by May 2019). The report will document the results of the effectiveness of the initial rockslide modifications at improving fish passage, and include any proposals and anticipated costs for additional modifications to improve fish passage at the Marsh Creek rockslide. Any required future modifications will be funded by the Habitat Enhancement Account per the Fish Habitat Enhancement Plan. The report will be prepared after consultation with the ARC and include responses, based on Project-specific information, to any comments received.

## **5. REFERENCES**

CH2M Hill. 2009. Fish Passage Feasibility at the Sultan River Diversion Dam. Phase 2 Assessment.

Powers, P. D., and J. F. Orsborn. 1985. Analysis of Barriers to Upstream Fish Migration. An Investigation of the Physical and Biological Conditions Affecting Fish Passage Success at Culverts and Waterfalls. Final Project Report. Part 4 of 4. Submitted to the Bonneville Power Administration, Portland, Oregon. Project No. 82-14. August 1985.

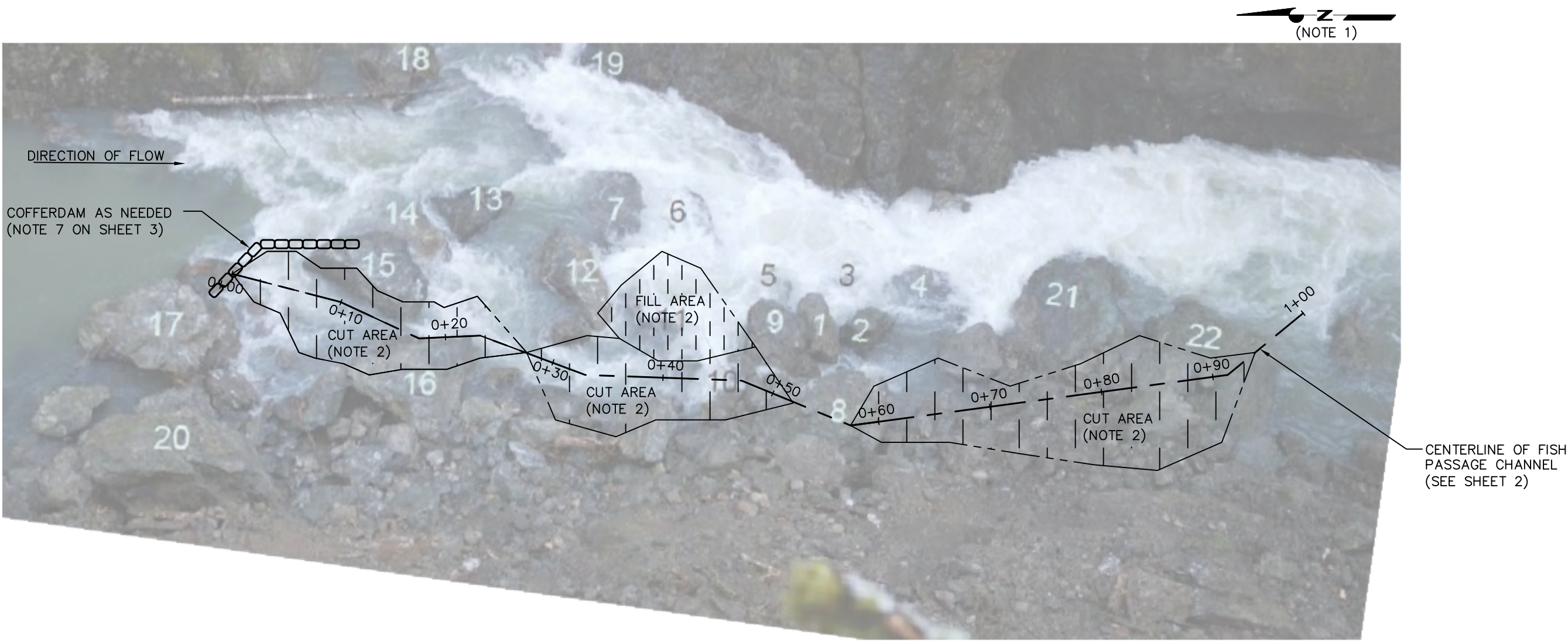
Ruggerone, G. 2008. Phase 1 Fish Passage Assessment. Evaluation of Salmon and Steelhead Migration after a Landslide on the Sultan River. Natural Resource Consultants, Inc.



# **Appendix 1**

---

## *Modification Contract Drawings*

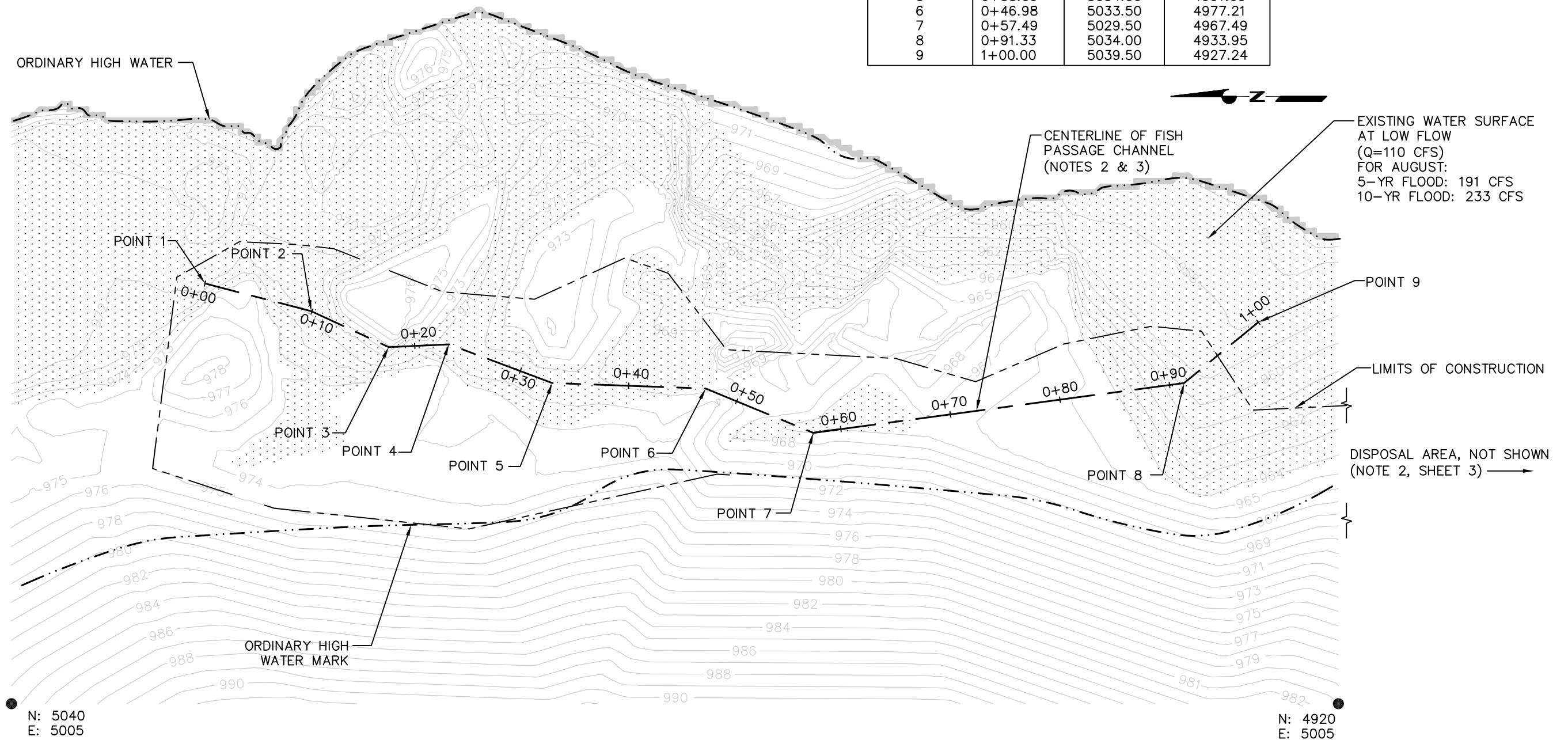


SITE OVERVIEW

- NOTES:
- 1. NORTH ORIENTATION APPROXIMATE. PROJECT BASED ON LOCAL CONTROL, SEE SHEET 8.
  - 2. SEE SHEET 3 FOR CUT AND FILL REQUIRED FOR CHANNEL.
  - 3. GEOTECHNICAL EVALUATION DID NOT EXAMINE STABILITY OF ADJACENT CANYON WALLS. CONTRACTOR MUST HAVE ONSITE LEAD RESPONSIBLE FOR RAPIDLY REMOVING CREW IN EVENT OF SUSPENDING WORK.

						<div><div><div>0</div><div>5</div><div>10</div></div><div>SCALE: 1" = 10'</div></div>	SNOHOMISH PUD		MARSH CREEK PASSAGE ENHANCEMENT PROJECT		
							DESIGNED BY: _____ DRAWN BY: _____ CHECKED BY: _____ PROJECT MGR: _____		FISH PASSAGE CHANNEL SITE OVERVIEW	DATE: FEB 15, 2011	
										SHEET: 1	REV: —
						<div><div><div>0</div><div>1"</div></div><div>BAR MEASURES ONE INCH ON ORIGINAL DRAWINGS</div></div>					
NO.	DATE	REVISION DESCRIPTION			BY	CHK					

CHANNEL CENTERLINE COORDINATES			
POINT	STATION	EASTING	NORTHING
1	0+00	5043.00	5022.50
2	0+09.93	5040.50	5012.89
3	0+17.65	5037.25	5005.88
4	0+23.10	5037.50	5000.44
5	0+33.09	5034.00	4991.09
6	0+46.98	5033.50	4977.21
7	0+57.49	5029.50	4967.49
8	0+91.33	5034.00	4933.95
9	1+00.00	5039.50	4927.24



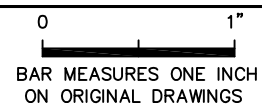
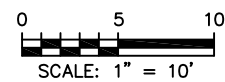
EXISTING CONDITIONS

VERTICAL DATUM AND HORIZONTAL DATUM WITH  
RESPECT TO LOCAL SITE CONTROL (NOTE 1)

NOTES:

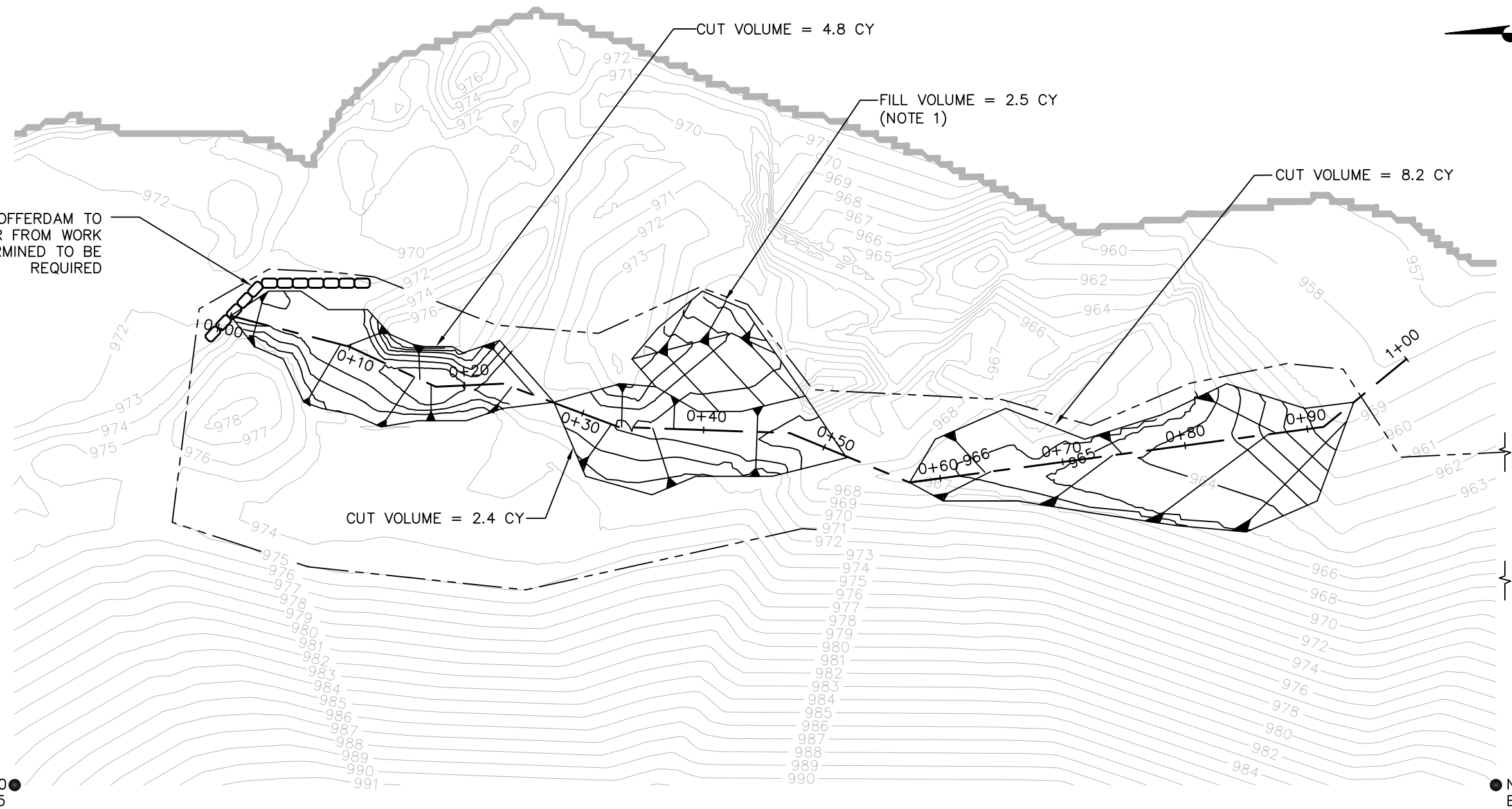
1. SEE SHEET 8 FOR LOCAL CONTROL POINTS.
2. CENTERLINE OF CHANNEL IS DEFINED BY START, END AND TURNING POINTS. SEE TABLE THIS SHEET.
3. CUT AND FILL ARE DEFINED BY SHEETS 3-7. SEE SHEETS 5-7 FOR CROSS SECTIONS ALONG CHANNEL LOCATED BY STATIONING AND SHOWN WITH A DOWNSTREAM VIEW.

NO.	DATE	REVISION	DESCRIPTION	BY	CHK



SNOHOMISH PUD		MARSH CREEK PASSAGE ENHANCEMENT PROJECT		
DESIGNED BY: _____ DRAWN BY: _____ CHECKED BY: _____ PROJECT MGR: _____		EXISTING CONDITIONS AND PROPOSED CHANNEL ALIGNMENT		DATE: FEB 15, 2011
				SHEET: 2 REV: —

TEMPORARY COFFERDAM TO  
DIVERT WATER FROM WORK  
AREA. IF DETERMINED TO BE  
REQUIRED



N: 5040  
E: 5005

N: 4920  
E: 5005

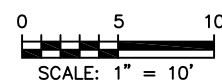
**NOTES:**

1. FILL MATERIAL SHALL BE MINIMUM 12" ANGULAR ROCK FROM CUT AREAS.
2. DISPOSE OF EXCESS CUT MATERIAL AS DIRECTED BY DISTRICT ON BANK APPROXIMATELY 50 FEET DOWNSTREAM OR IN AREA OF FILL CALLED OUT ON PLAN. PROVIDED BASE DOES NOT INCREASE IN WIDTH FROM THAT SHOWN.
3. STATIONING DEFINES THE THALWEG OF PROPOSED CHANNEL.
4. SHEETS 5 THRU 7 DEPICT CUT AND FILL SECTIONS ALONG STATIONING.
5. GRADE TOLERANCE SHALL BE WITHIN  $\pm 0.2$  FEET AT INVERT AND  $\pm 0.5$  FEET IN GENERAL.
6. WHERE A  $< 0.5'$  CUT IS SHOWN, CONTRACTOR MUST AT A MINIMUM REMOVE SOME ROCK USING MECHANICAL MEANS OR HAND TOOLS.
7. CONTRACTOR SHALL COMPLY WITH PERMITS. THIS MAY REQUIRE INSTALLATION OF SANDBAGS OR INFLATABLE COFFERDAM AND PUMPS TO DIVERT WATER AROUND WORK AREA. DESIGN OF WATER QUALITY CONTROL TO BE RESPONSIBILITY OF CONTRACTOR.
8. AS REQUIRED, FISH RESCUE SHALL BE PERFORMED BY DISTRICT. CONTRACTOR SHALL COORDINATE WITH OWNER WHEN DEWATERING WORK AREAS AND PROVIDE 7 DAYS ADVANCE NOTICE PRIOR TO STARTING WORK.

**PROPOSED GRADING PLAN**

VERTICAL DATUM AND HORIZONTAL DATUM WITH  
RESPECT TO LOCAL SITE CONTROL

NO.	DATE	REVISION DESCRIPTION	BY	CHK	



0 1"  
BAR MEASURES ONE INCH  
ON ORIGINAL DRAWINGS

SNOHOMISH PUD

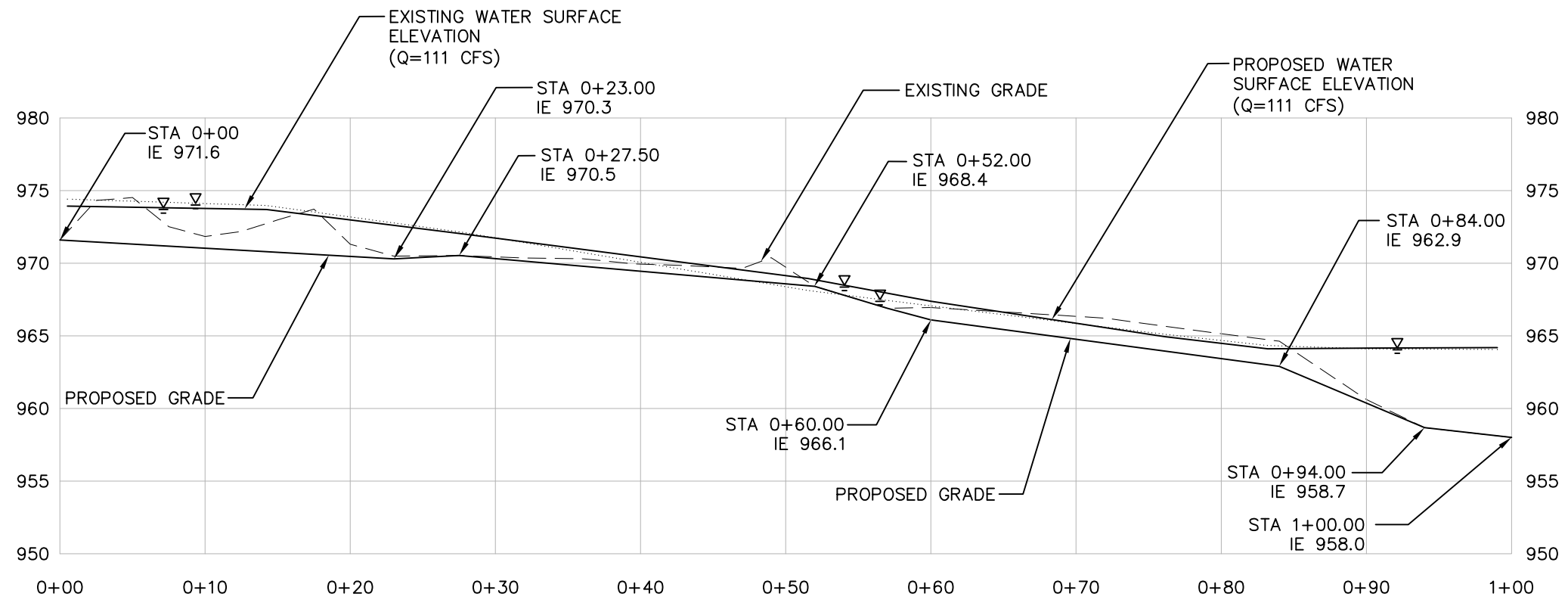
DESIGNED BY: \_\_\_\_\_  
DRAWN BY: \_\_\_\_\_  
CHECKED BY: \_\_\_\_\_  
PROJECT MGR: \_\_\_\_\_

MARSH CREEK  
PASSAGE ENHANCEMENT PROJECT

PROPOSED GRADING PLAN

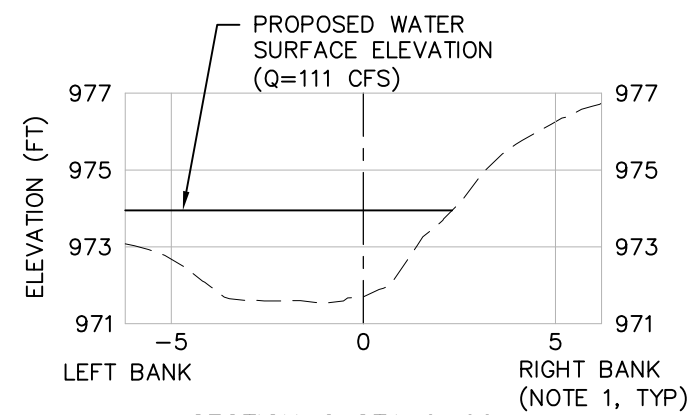
DATE: FEB 15, 2011

SHEET: 3 REV: —

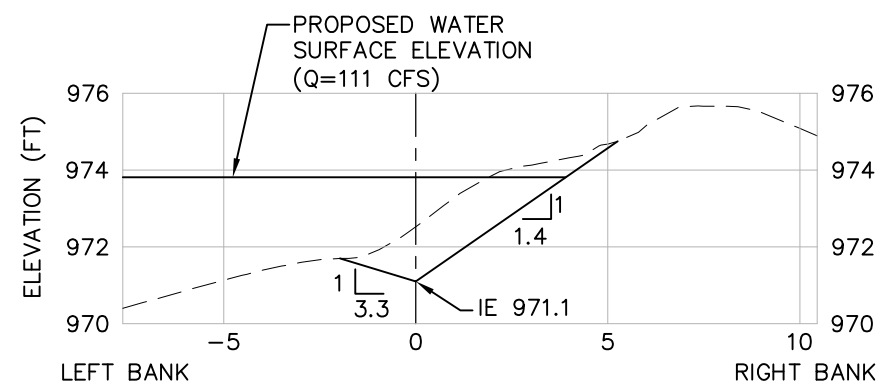


LONGITUDINAL PROFILE

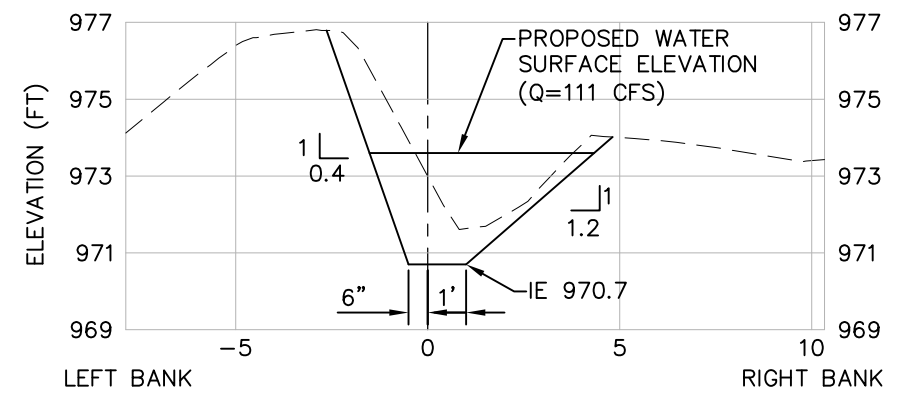
						<div><div>0510</div><div>SCALE: 1" = 10'</div></div>	SNOHOMISH PUD		MARSH CREEK PASSAGE ENHANCEMENT PROJECT			
						<div><div>01"</div><div>BAR MEASURES ONE INCH ON ORIGINAL DRAWINGS</div></div>	DESIGNED BY: _____ DRAWN BY: _____ CHECKED BY: _____ PROJECT MGR: _____		LONGITUDINAL PROFILE		DATE: FEB 15, 2011	
										SHEET: 4	REV: —	
NO.	DATE	REVISION DESCRIPTION			BY	CHK						



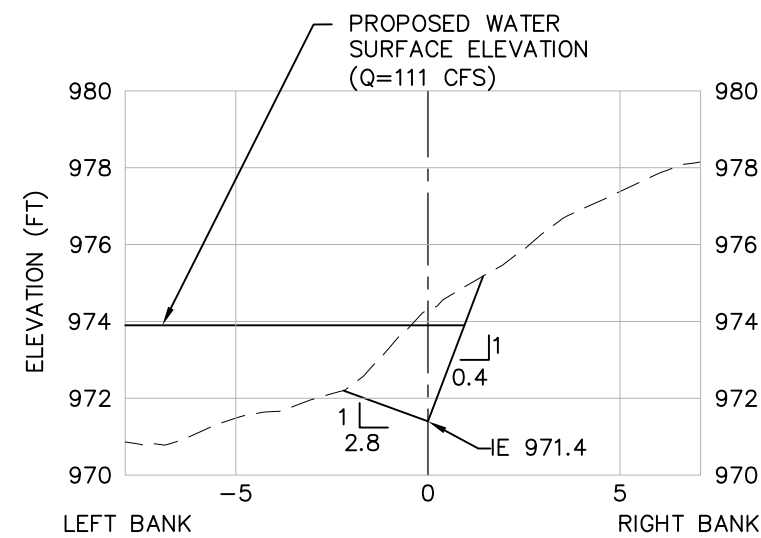
SECTION @ STA 0+00



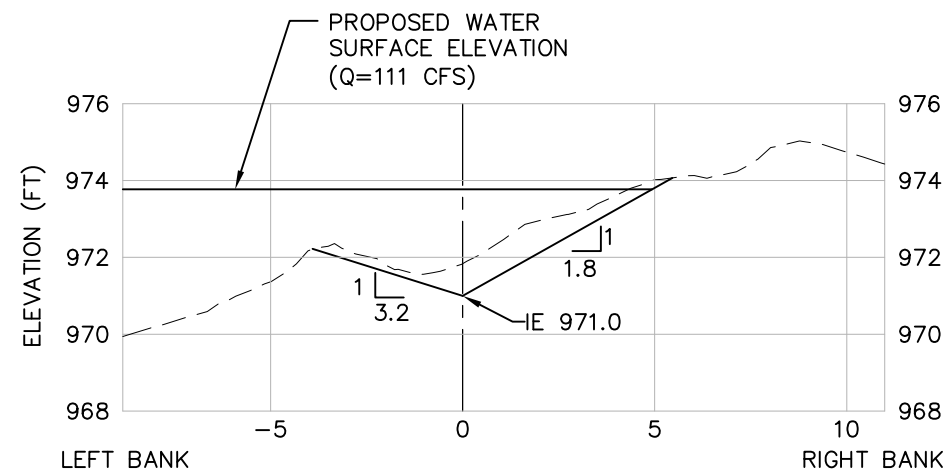
SECTION @ STA 0+07.5



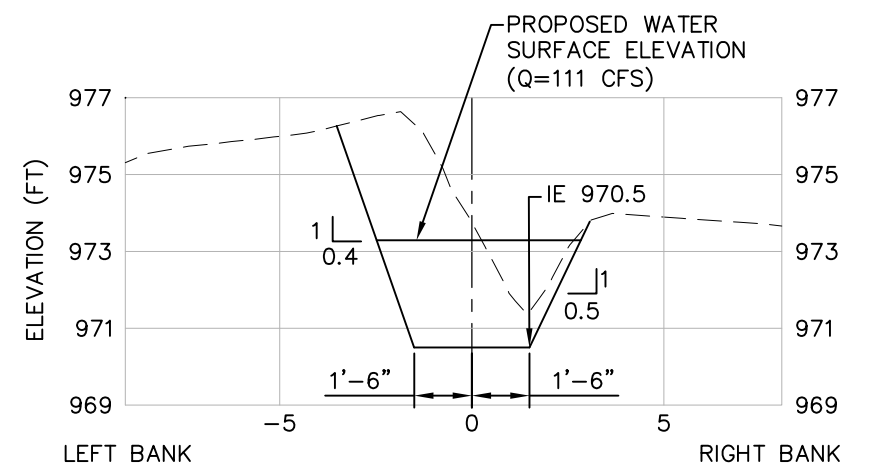
SECTION @ STA 0+15.0



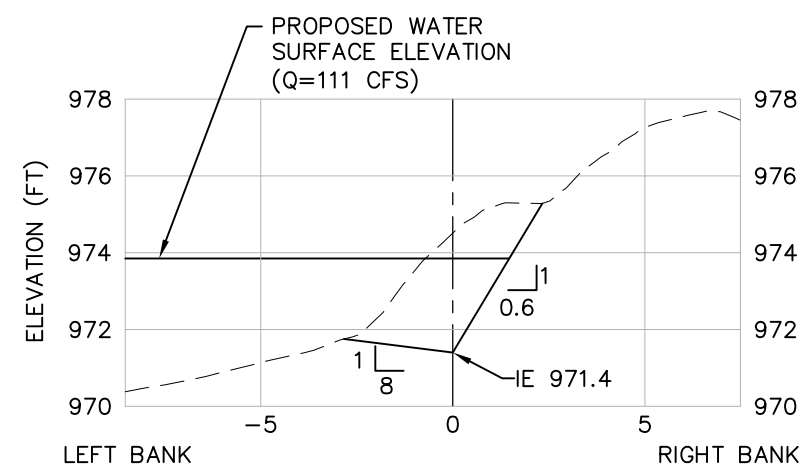
SECTION @ STA 0+02.5



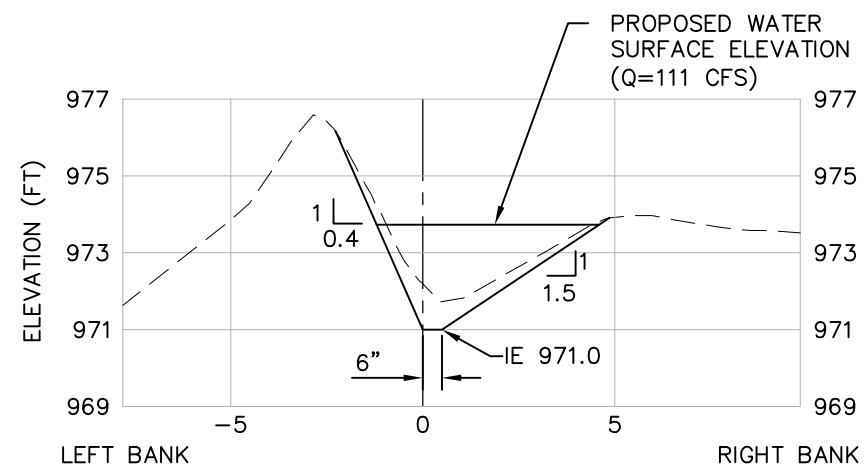
SECTION @ STA 0+10.0



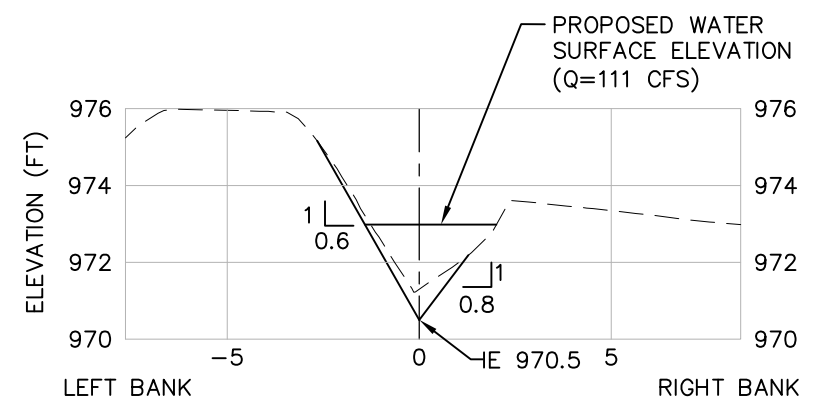
SECTION @ STA 0+17.5



SECTION @ STA 0+05.0



SECTION @ STA 0+12.5



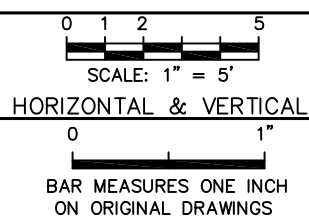
SECTION @ STA 0+20.0

### LEGEND

- — — — — PROPOSED CENTERLINE OF CHANNEL
- - - - - EXISTING GRADE
- — — — — PROPOSED GRADE

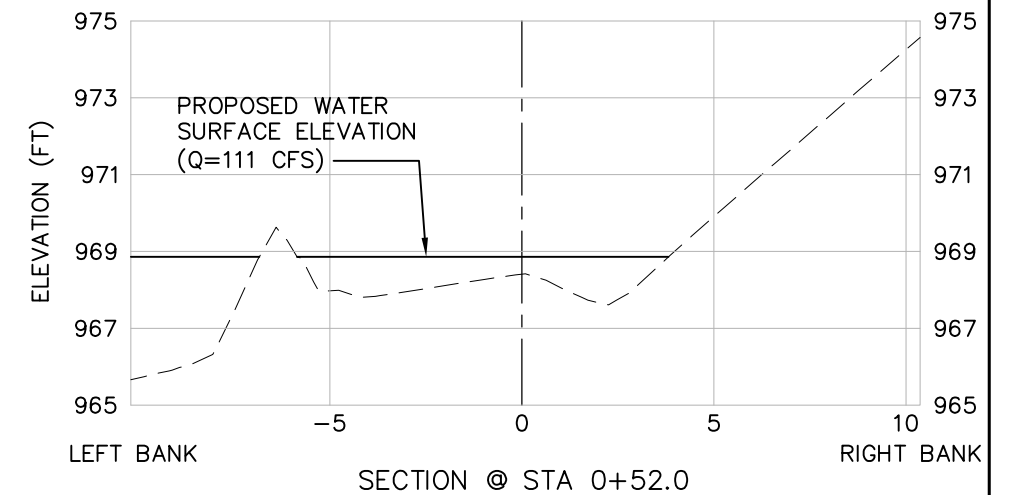
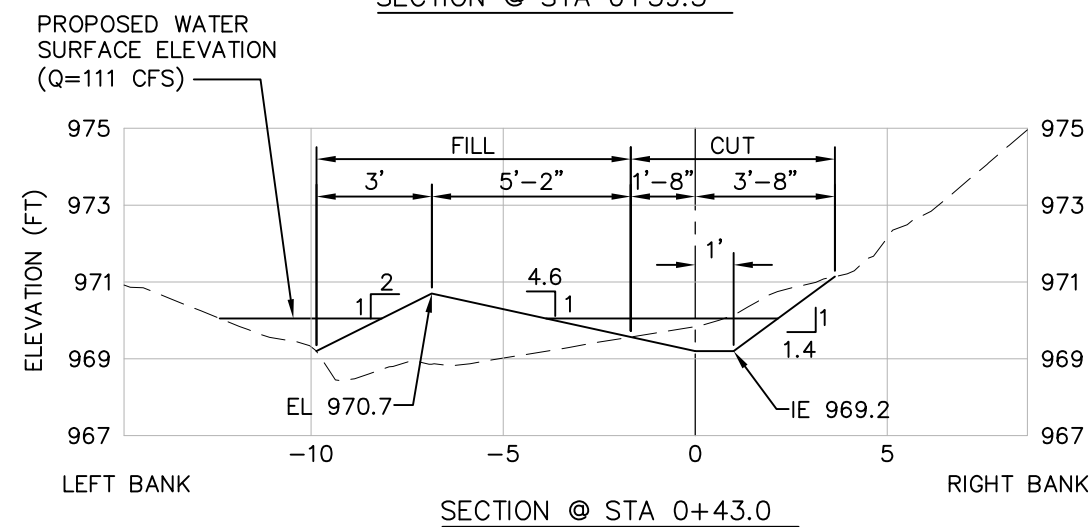
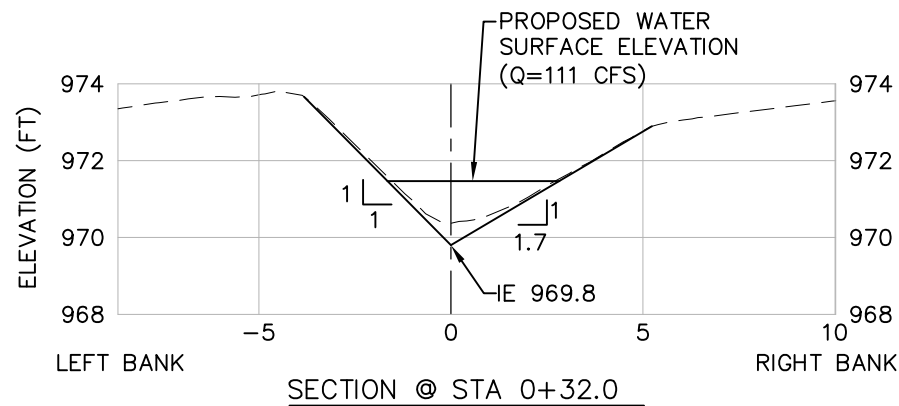
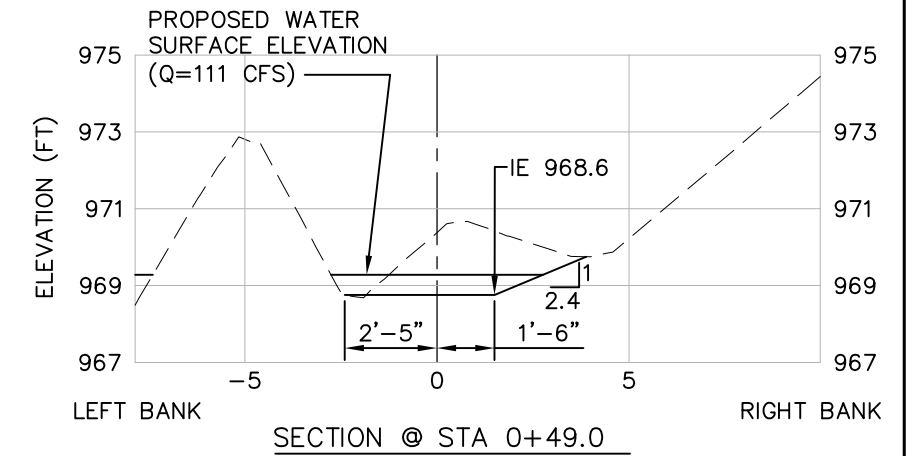
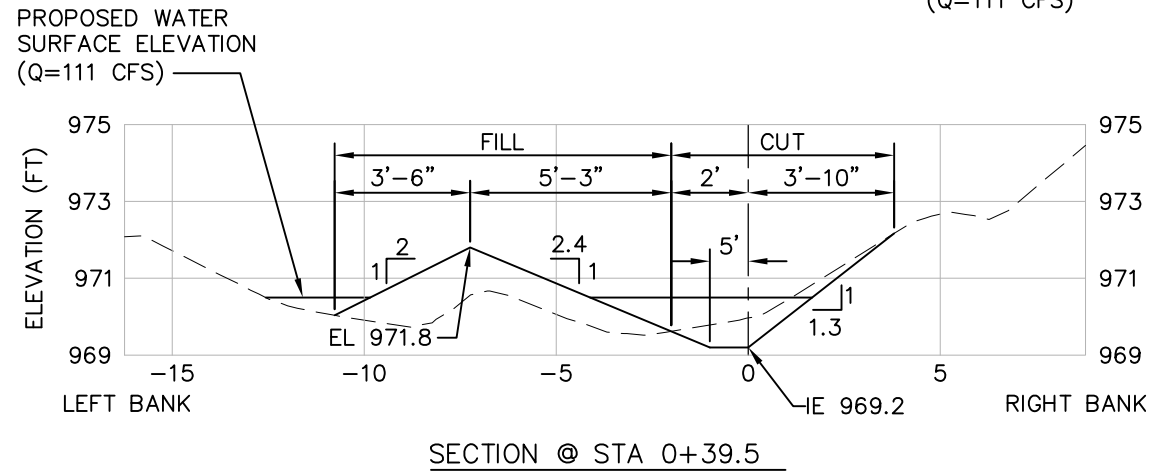
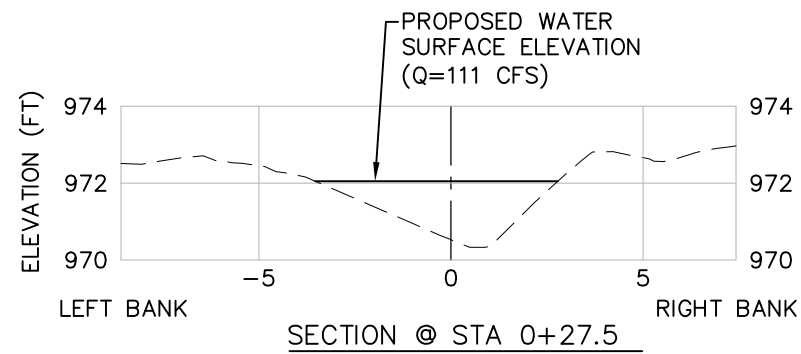
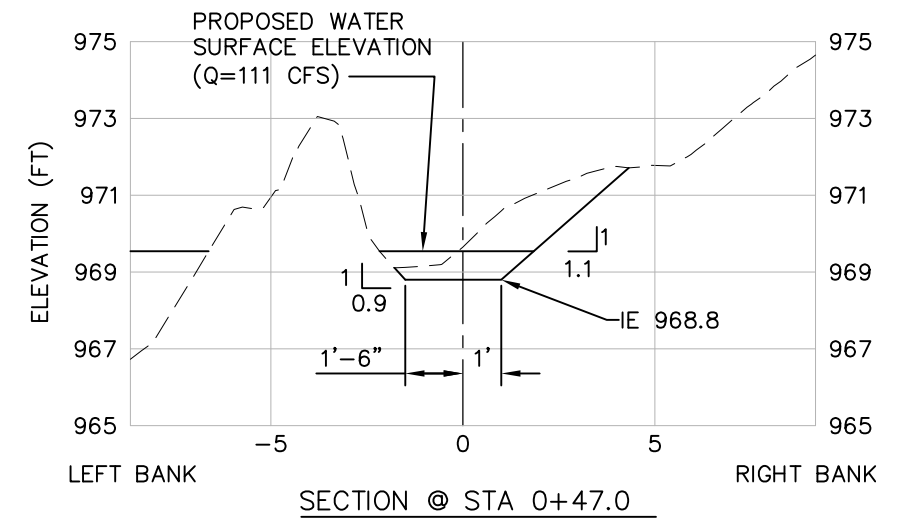
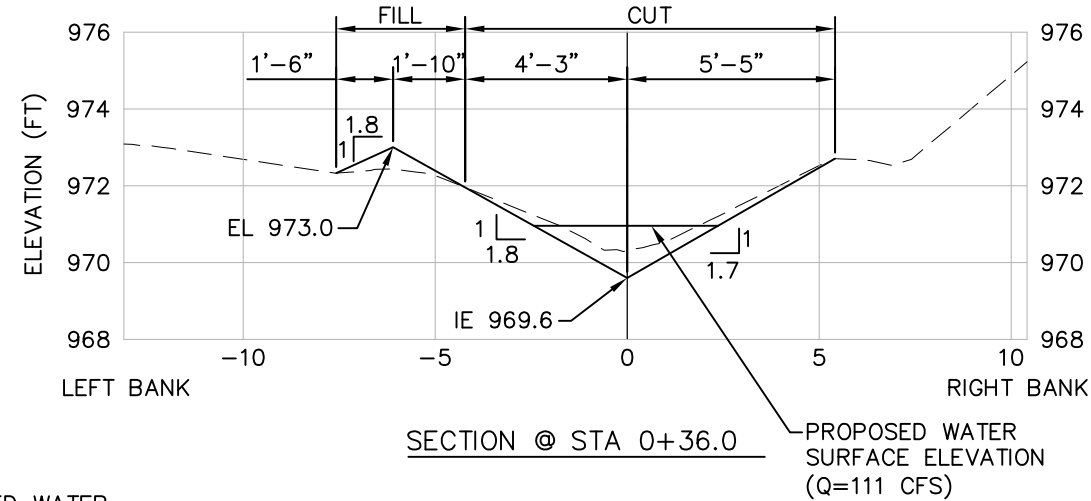
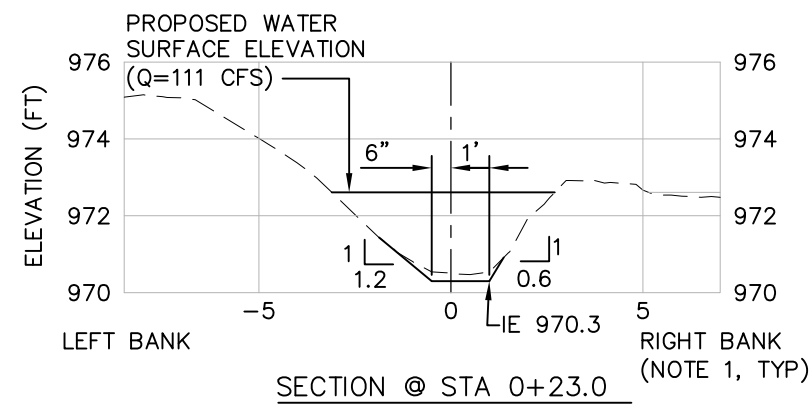
- NOTES:
- CROSS SECTIONS ARE ORIENTED BASED ON A DOWNSTREAM VIEW.
  - SEE SHEET 8 FOR LOCAL CONTROL POINTS.

NO.	DATE	REVISION	DESCRIPTION	BY	CHK



SNOHOMISH PUD		MARSH CREEK PASSAGE ENHANCEMENT PROJECT	
DESIGNED BY: _____		CROSS SECTIONS I	DATE: FEB 15, 2011
DRAWN BY: _____			SHEET: 5
CHECKED BY: _____			REV: —
PROJECT MGR: _____			





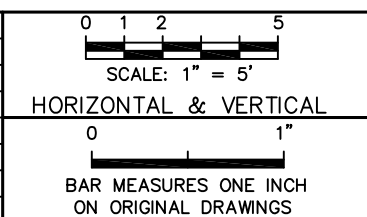
# NOTES:

- CROSS SECTIONS ARE ORIENTED BASED ON A DOWNSTREAM VIEW.
- SEE SHEET 8 FOR LOCAL CONTROL POINTS.

## LEGEND

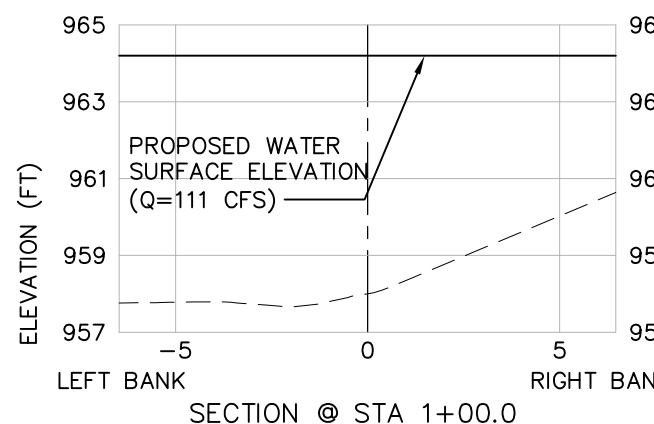
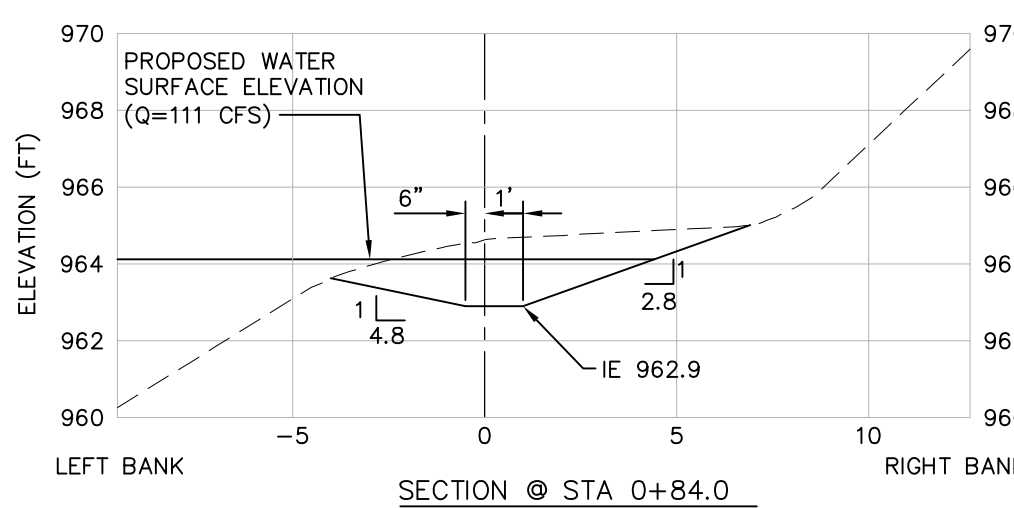
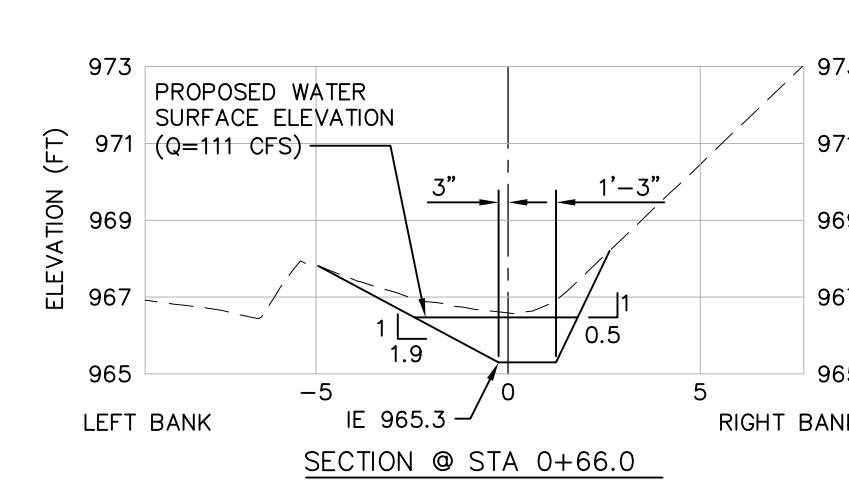
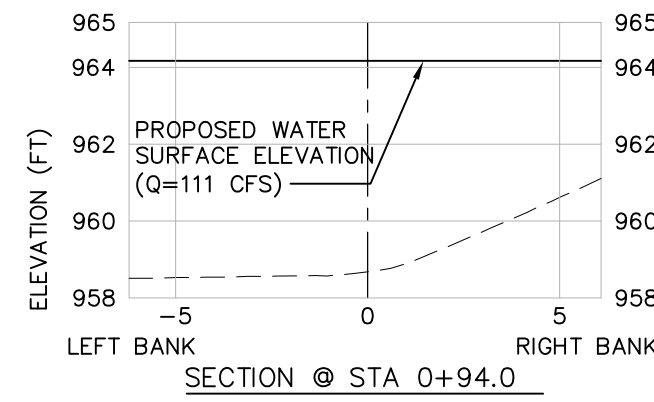
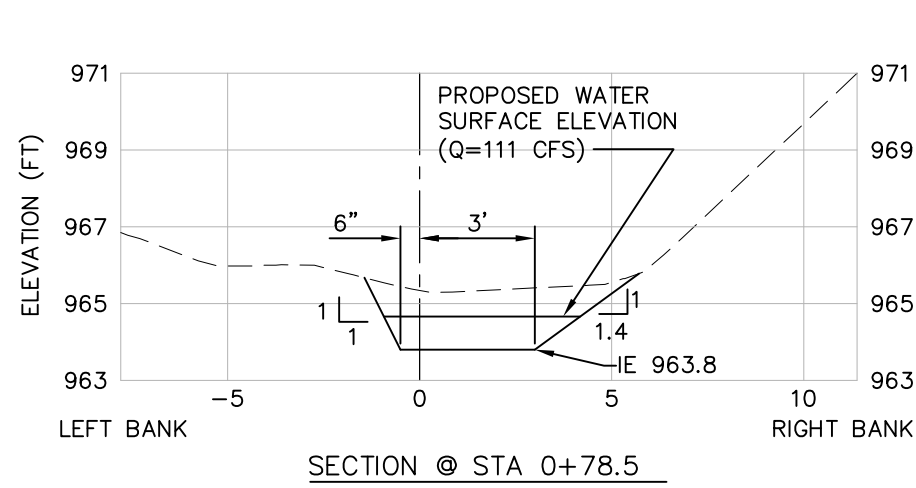
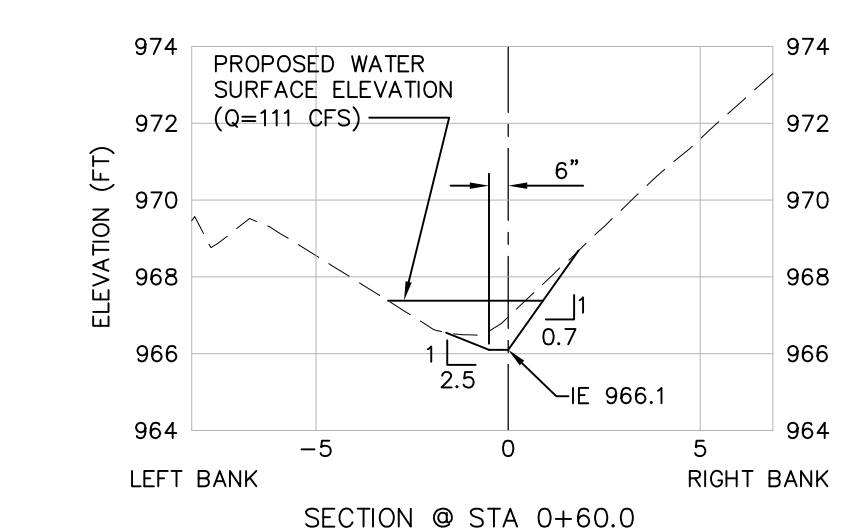
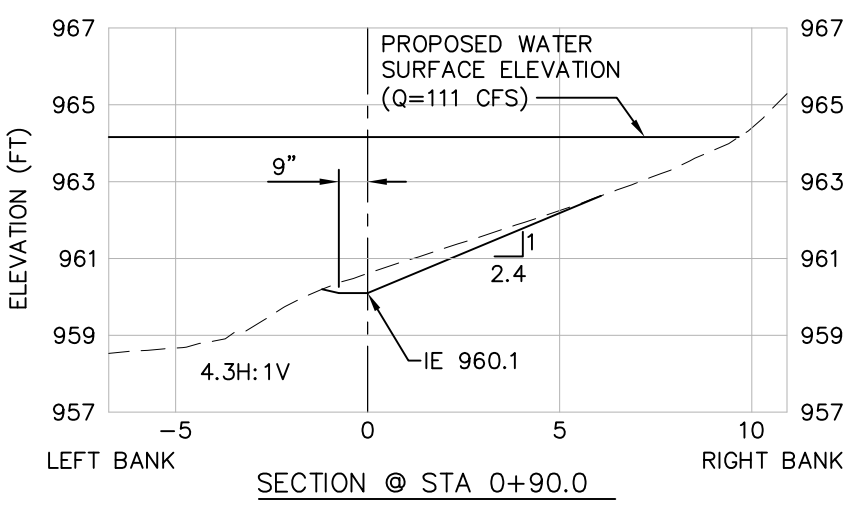
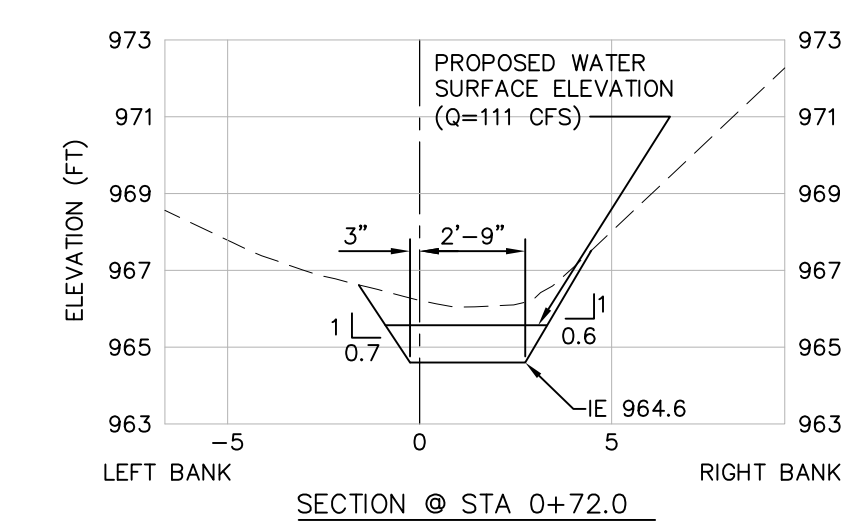
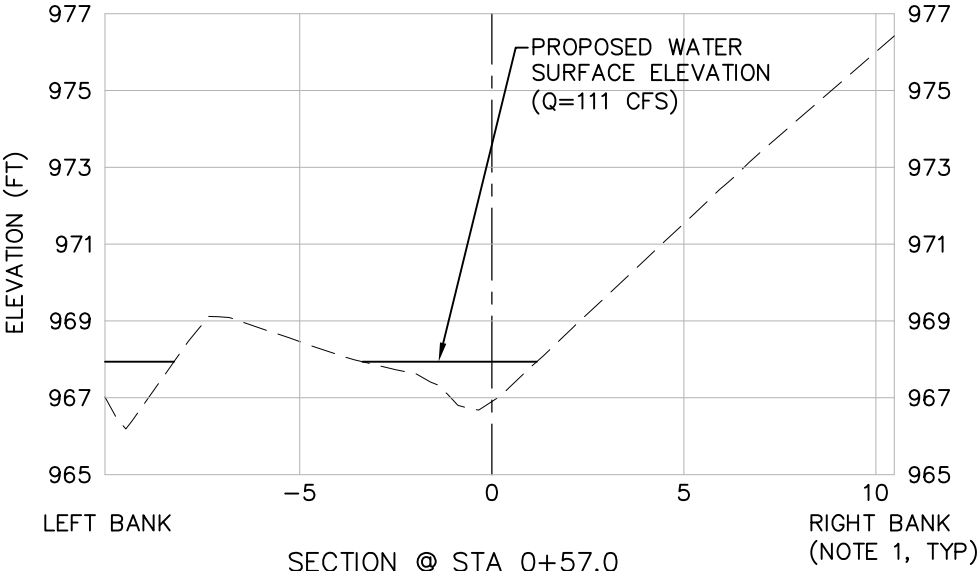
- PROPOSED CENTERLINE OF CHANNEL
- EXISTING GRADE
- PROPOSED GRADE

NO.	DATE	REVISION	DESCRIPTION	BY	CHK



SNOHOMISH PUD	
DESIGNED BY: _____	
DRAWN BY: _____	
CHECKED BY: _____	
PROJECT MGR: _____	

MARSH CREEK PASSAGE ENHANCEMENT PROJECT	
CROSS SECTIONS II	DATE: FEB 15, 2011
6	REV: _____

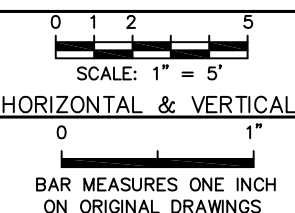


- NOTES:
- CROSS SECTIONS ARE ORIENTED BASED ON A DOWNSTREAM VIEW.
  - SEE SHEET 8 FOR LOCAL CONTROL POINTS.

LEGEND

- PROPOSED CENTERLINE OF CHANNEL
- EXISTING GRADE
- PROPOSED GRADE

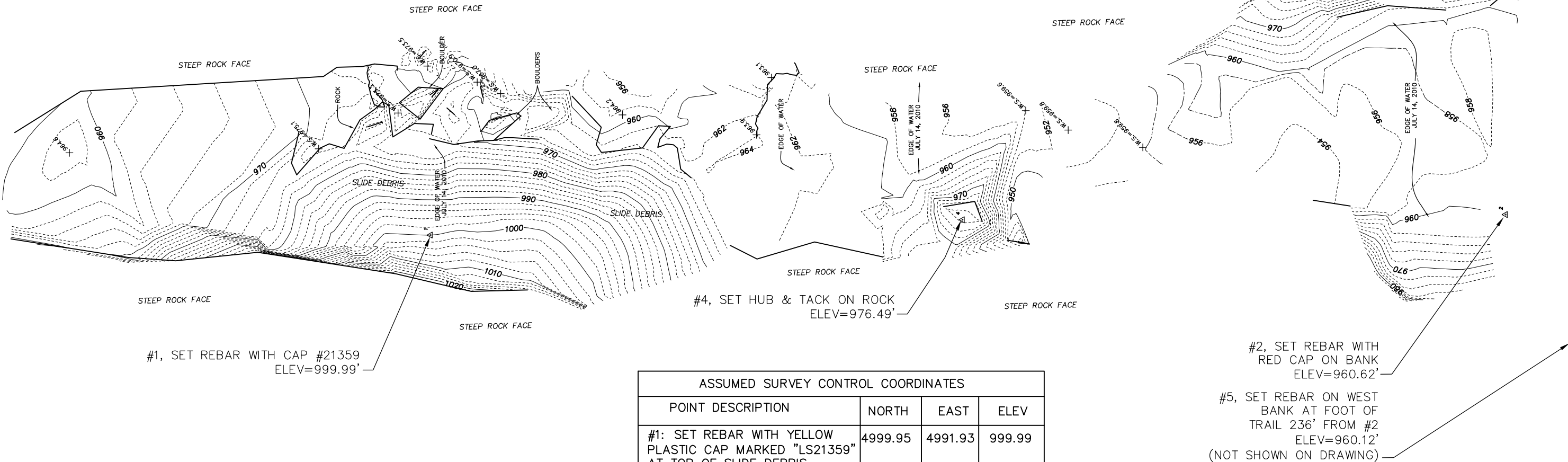
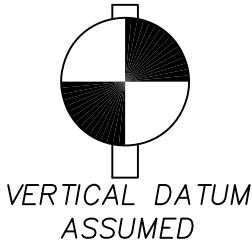
					SNOHOMISH PUD		MARSH CREEK PASSAGE ENHANCEMENT PROJECT	
							CROSS SECTIONS III	DATE: FEB 15, 2011
								SHEET: 7
								REV: -
NO.	DATE	REVISION DESCRIPTION	BY	CHK				



DESIGNED BY: \_\_\_\_\_  
DRAWN BY: \_\_\_\_\_  
CHECKED BY: \_\_\_\_\_  
PROJECT MGR: \_\_\_\_\_

LEGEND

- FOUND REBAR AS NOTED
- △ CONTROL POINT
- +0.0 WATER SURFACE ELEVATION



SURVEYOR'S NARRATIVE AND NOTES

THIS IS A TOPOGRAPHIC MAP OF THE DECEMBER 11, 2004 LANDSLIDE INTO THE SULTAN RIVER. THE APPROXIMATE LOCATION ON THE SULTAN RIVER IS ABOUT 1.74 MILES SOUTHEAST OF LAKE CHAPLAIN AND 0.30 MILES NORTHWEST OF LAKE BRONSON. THE SOUTH END OF THE SLIDE LIES APPROXIMATELY AT LATITUDE N47°55'55.3" AND LONGITUDE W121°47'55.1". THE NORTH END OF THE SLIDE LIES APPROXIMATELY AT LATITUDE N47°55'52.9" AND LONGITUDE W121°47'53.2".

THE SITE LIES WITHIN PROPERTY OWNED BY LAKE BRONSON ASSOCIATES, INC., SULTAN, WASHINGTON. NO PROPERTY LINES WERE LOCATED NOR IS THIS MAP TIED INTO THE PUBLIC LAND SURVEY SYSTEM.

HORIZONTAL DATUM AND VERTICAL DATUM ARE ASSUMED.

THE PURPOSE OF THIS MAP IS TO ASSIST IN SITE SPECIFIC DESIGN TO ENHANCE FISH PASSAGE THROUGH THE SLIDE AREA.

ASSUMED SURVEY CONTROL COORDINATES			
POINT DESCRIPTION	NORTH	EAST	ELEV
#1: SET REBAR WITH YELLOW PLASTIC CAP MARKED "LS21359" AT TOP OF SLIDE DEBRIS	4999.95	4991.93	999.99
#2: SET REBAR WITH RED PLASTIC CAP ON WEST BANK OF RIVER NEAR FIRST SET OF RAPIDS BELOW SLIDE	4577.03	5000.00	960.62
#4: SET HUB AND TACK IN TOP OF LARGE PROMINENT ROCK ON WEST BANK OF RIVER BELOW SLIDE	4790.63	4997.97	976.49
#5: SET REBAR ON WEST BANK OF RIVER AT FOOT OF FISHERMEN'S TRAIL ABOUT 500' BELOW SLIDE	4342.12	5025.85	960.12
#147: FOUND REBAR ON EAST BANK OF RIVER NEAR FIRST SET OF RAPIDS BELOW SLIDE	4572.00	5085.43	962.38

- SURVEY NOTES:
- 1) SURVEY PROCEDURES & EQUIPMENT: FIELD TRAVERSE & 10" TOTAL STATION.
  - 2) THE FIELD TRAVERSES USED IN THIS SURVEY MEET OR EXCEED THOSE STANDARDS CONTAINED IN WAC 332-130-090.
  - 3) DISTANCES ARE IN FEET AND DECIMALS THEREOF.
  - 4) THIS IS NOT A BOUNDARY SURVEY. NO PROPERTY LINES WERE LOCATED NOR IS THIS SURVEY TIED INTO THE PUBLIC LAND SURVEY SYSTEM.
  - 5) THIS SURVEY DOES NOT SHOW EASEMENTS, IF ANY, ENCUMBERING THE SITE.

					0 20 40 SCALE: 1" = 40'		SNOHOMISH PUD		MARSH CREEK PASSAGE ENHANCEMENT PROJECT	
					0 1" BAR MEASURES ONE INCH ON ORIGINAL DRAWINGS		DESIGNED BY: _____ DRAWN BY: _____ CHECKED BY: _____ PROJECT MGR: _____		PROJECT CONTROL	
NO. DATE REVISION DESCRIPTION BY CHK									DATE: FEB 15, 2011	
									SHEET: 8	REV: —

## **Appendix 2**

---

### *Consultation Documentation*

## Presler, Dawn

---

**From:** Presler, Dawn  
**Sent:** Thursday, September 20, 2012 7:50 AM  
**To:** 'Okeefe@americanwhitewater.org'; 'Jim Miller'; 'mick.matheson@ci.sultan.wa.us'; 'steven.m.fransen@noaa.gov'; 'Leonetti, Frank'; 'Anne Savery'; 'tim\_romanski@fws.gov'; 'Loren Everest - USFS'; 'Maynard, Chris (ECY)'; 'Applegate, Brock A (DFW)'  
**Cc:** Binkley, Keith; Moore, Kim  
**Subject:** Jackson - draft MCS Modification Report - for your 30-day review  
**Attachments:** MCS Modification Report.docx; MCS\_Appendix1\_Drawings.pdf

Dear ARC Members:

Attached is the draft Marsh Creek Slide Modification Report. Please take the next 30 days to review and provide comments, if any, to me by October 20, 2012. If you have no comments on the report, please let me know that as well.

Thanks!

*Dawn Presler*  
Sr. Environmental Coordinator  
Generation Resources  
(425) 783-1709

\*\*\*\*\*

PUD No. 1 of Snohomish County  
PO Box 1107  
Everett, WA 98206-1107

**Presler, Dawn**

---

**From:** Maynard, Chris (ECY) [cmay461@ECY.WA.GOV]  
**Sent:** Friday, September 21, 2012 1:54 PM  
**To:** Presler, Dawn; 'Okeefe@americanwhitewater.org'; 'Jim Miller'; 'mick.matheson@ci.sultan.wa.us'; 'steven.m.fransen@noaa.gov'; 'Leonetti, Frank'; 'Anne Savery'; 'tim\_romanski@fws.gov'; 'Loren Everest - USFS'; Applegate, Brock A (DFW)  
**Cc:** Binkley, Keith; Moore, Kim  
**Subject:** RE: Jackson - draft MCS Modification Report - for your 30-day review

Dawn,

The report looks good to me. I don't have anything to add.

Chris

Chris Maynard | Hydropower & Instream Flows | Water Resources | WA Department of Ecology | 360.407.6641 [cmay461@ecy.wa.gov](mailto:cmay461@ecy.wa.gov)

## 1. FUTURE REPORTING

As indicated in Section 5 of the MCS Plan, the District will submit a report within six months of the sixth-year anniversary of the filing of this report (i.e. by **May 2019**). The report will document the results of the effectiveness of the initial rockslide modifications at improving fish passage, and include any proposals and anticipated costs for additional modifications to improve fish passage at the Marsh Creek rockslide. Any required future modifications will be funded by the Habitat Enhancement Account per the Fish Habitat Enhancement Plan. The report will be prepared after consultation with the ARC and include responses, based on project specific information, to any comments received.

---

**From:** Presler, Dawn [<mailto:DJPresler@SNOPUD.com>]  
**Sent:** Thursday, September 20, 2012 7:50 AM  
**To:** 'Okeefe@americanwhitewater.org'; 'Jim Miller'; 'mick.matheson@ci.sultan.wa.us'; 'steven.m.fransen@noaa.gov'; 'Leonetti, Frank'; 'Anne Savery'; 'tim\_romanski@fws.gov'; 'Loren Everest - USFS'; Maynard, Chris (ECY); Applegate, Brock A (DFW)  
**Cc:** Binkley, Keith; Moore, Kim  
**Subject:** Jackson - draft MCS Modification Report - for your 30-day review

Dear ARC Members:

Attached is the draft Marsh Creek Slide Modification Report. Please take the next 30 days to review and provide comments, if any, to me by October 20, 2012. If you have no comments on the report, please let me know that as well.

Thanks!

*Dawn Presler*  
Sr. Environmental Coordinator  
Generation Resources  
(425) 783-1709  
\*\*\*\*\*  
PUD No. 1 of Snohomish County  
PO Box 1107



## Presler, Dawn

---

**From:** Thomas O'Keefe [okeefe@americanwhitewater.org]  
**Sent:** Saturday, September 22, 2012 5:44 PM  
**To:** Presler, Dawn  
**Subject:** Re: Jackson - draft MCS Modification Report - for your 30-day review

Looks good. Curious to test out navigability someday soon.

Thomas O'Keefe, PhD  
Pacific Northwest Stewardship Director  
American Whitewater  
3537 NE 87th St  
Seattle, WA 98115

ph 425-417-9012

On Sep 20, 2012, at 7:50 AM, "Presler, Dawn" <[DJPresler@SNOPUD.com](mailto:DJPresler@SNOPUD.com)> wrote:

Dear ARC Members:

Attached is the draft Marsh Creek Slide Modification Report. Please take the next 30 days to review and provide comments, if any, to me by October 20, 2012. If you have no comments on the report, please let me know that as well.

Thanks!

*Dawn Presler*  
Sr. Environmental Coordinator  
Generation Resources  
(425) 783-1709

\*\*\*\*\*

PUD No. 1 of Snohomish County  
PO Box 1107  
Everett, WA 98206-1107

<MCS Modification Report.docx>

<MCS\_Appendix1\_Drawings.pdf>

**From:** Everest, Loren -FS [leverest@fs.fed.us]  
**Sent:** Monday, September 24, 2012 1:40 PM  
**To:** Presler, Dawn  
**Subject:** RE: Jackson - draft MCS Modification Report - for your 30-day review

Loren Everest  
Fisheries Program Manager  
Mt. Baker Snoqualmie NF  
Office (425) 783-6040  
Cell (425) 238-2721

Dear ARC Members:

Thanks!

This electronic message contains information generated by the USDA solely for the intended recipients. Any unauthorized interception of this message or the use or disclosure of the information it contains may violate the law and subject the violator to civil or criminal penalties. If you believe you have received this message in error, please notify the sender and delete the email immediately.

**Presler, Dawn**

---

**From:** Presler, Dawn  
**Sent:** Thursday, October 25, 2012 9:28 AM  
**To:** 'Applegate, Brock A (DFW)'; 'Okeefe@americanwhitewater.org'; 'Jim Miller'; 'mick.matheson@ci.sultan.wa.us'; 'steven.m.fransen@noaa.gov'; 'Leonetti, Frank'; 'Anne Savery'; 'tim\_romanski@fws.gov'; 'Loren Everest - USFS'; Maynard, Chris (ECY)  
**Cc:** Binkley, Keith; Moore, Kim; Bails, Jamie L (DFW)  
**Subject:** RE: Jackson Hydroproject- draft Marsh Creek Slide Modification Report - for your 30-day review

Hi Brock,

Since this is a one-time report of modification methods, listing the results of the escapement surveys would be better served and already included in the Fisheries and Habitat Monitoring Plan (FHMP) annual reporting. The FHMP annual report will provide the broader context results of monitoring (all index areas of the Sultan River and side channels) rather than just the confined area at MCS. The focus of the MCS Modification Report is “within 6 months of completing the modifications...the District will file a report with FERC detailing what methods were used to modify the slide.” However, I will put a sentence in the MCS report referencing the reader to the escapement data which is identified in the FHMP annual report.

Dawn

---

**From:** Applegate, Brock A (DFW) [<mailto:Brock.Applegate@dfw.wa.gov>]  
**Sent:** Friday, October 19, 2012 4:19 PM  
**To:** Presler, Dawn; 'Okeefe@americanwhitewater.org'; 'Jim Miller'; 'mick.matheson@ci.sultan.wa.us'; 'steven.m.fransen@noaa.gov'; 'Leonetti, Frank'; 'Anne Savery'; 'tim\_romanski@fws.gov'; 'Loren Everest - USFS'; Maynard, Chris (ECY)  
**Cc:** Binkley, Keith; Moore, Kim; Bails, Jamie L (DFW)  
**Subject:** RE: Jackson Hydroproject- draft Marsh Creek Slide Modification Report - for your 30-day review

Hi Dawn, Would this be a good report to list the fish/redd survey results in the reach above Marsh Creek Slide? I am mainly asking this question because A-LA 2: Marsh Creek Slide Modification and Monitoring asks for “(5) the method and schedule for monitoring fish use and escapement upstream of the Marsh Creek Slide on an annual basis throughout the license term,” in the Marsh Creek Slide Plan. I recommend this information gets added to the plan.

Thanks for asking for our review.

Sincerely, Brock

Brock Applegate  
Major Projects Mitigation Biologist  
Washington Department of Fish and Wildlife  
16018 Mill Creek Boulevard  
Mill Creek, WA 98012-1541

(425) 775-1311 x310  
(360) 789-0578 (cell)  
(425) 338-1066 (fax)

---

**From:** Presler, Dawn [<mailto:DJPresler@SNOPUD.com>]  
**Sent:** Thursday, September 20, 2012 7:50 AM  
**To:** 'Okeefe@americanwhitewater.org'; 'Jim Miller'; 'mick.matheson@ci.sultan.wa.us'; 'steven.m.fransen@noaa.gov'; 'Leonetti, Frank'; 'Anne Savery'; 'tim\_romanski@fws.gov'; 'Loren Everest - USFS'; Maynard, Chris (ECY); Applegate, Brock

A (DFW)

**Cc:** Binkley, Keith; Moore, Kim

**Subject:** Jackson - draft MCS Modification Report - for your 30-day review

Dear ARC Members:

Attached is the draft Marsh Creek Slide Modification Report. Please take the next 30 days to review and provide comments, if any, to me by October 20, 2012. If you have no comments on the report, please let me know that as well.

Thanks!

*Dawn Presler*

Sr. Environmental Coordinator

Generation Resources

(425) 783-1709

\*\*\*\*\*

PUD No. 1 of Snohomish County

PO Box 1107

Everett, WA 98206-1107

## **Appendix 3**

---

### *Response to Comments*

No.	Comment:	Response:
1	<b>WA Department of Ecology, 9/21/2012</b> The report looks good to me. I don't have anything to add.	-
2	<b>American Whitewater, 9/22/2012</b> Looks good. Curious to test out navigability someday soon.	-
3	<b>U.S. Forest Service, 9/24/2012</b> This report looks good to me.	-
4	<b>WA Department of Fish and Wildlife, 10/19/2012</b> Would this be a good report to list the fish/redd survey results in the reach above Marsh Creek Slide? I am mainly asking this question because A-LA 2: Marsh Creek Slide Modification and Monitoring asks for "(5) the method and schedule for monitoring fish use and escapement upstream of the Marsh Creek Slide on an annual basis throughout the license term," in the Marsh Creek Slide Plan. I recommend this information gets added to the plan.  Thanks for asking for our review.	Since this is a one-time report of modification methods, listing the results of the escapement surveys would be better served and already included in the Fisheries and Habitat Monitoring Plan (FHMP) annual reporting. The FHMP annual report will provide the broader context results of monitoring (all index areas of the Sultan River and side channels) rather than just the confined area at MCS. The focus of the MCS Modification Report is "within 6 months of completing the modifications...the District will file a report with FERC detailing <u>what methods were used to modify the slide.</u> " However, I will put a sentence in the MCS report referencing the reader to the escapement data which is identified in the FHMP annual report.  Added sentence to Section 4.