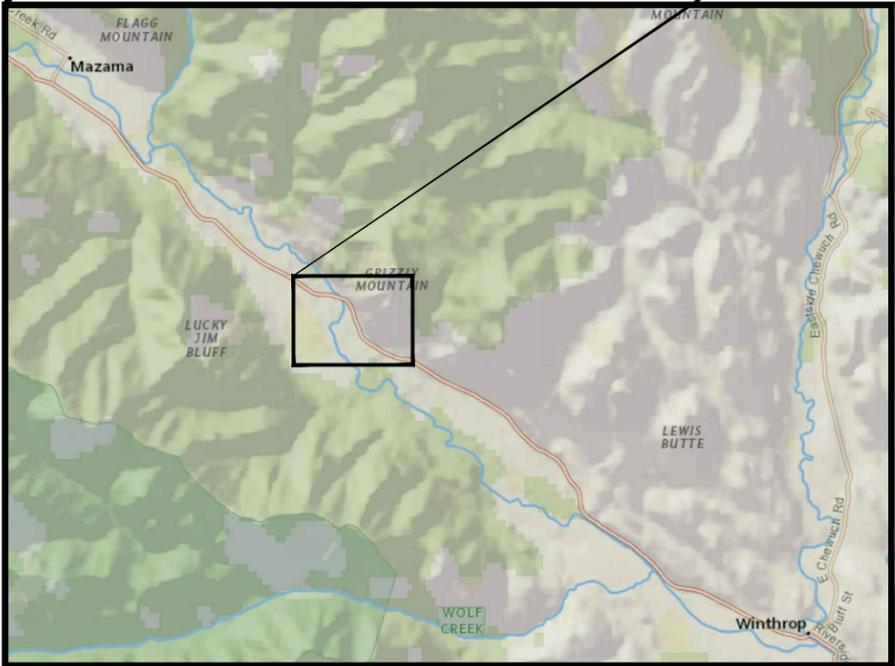


# FENDER MILL SIDE CHANNEL

## 30% DESIGN

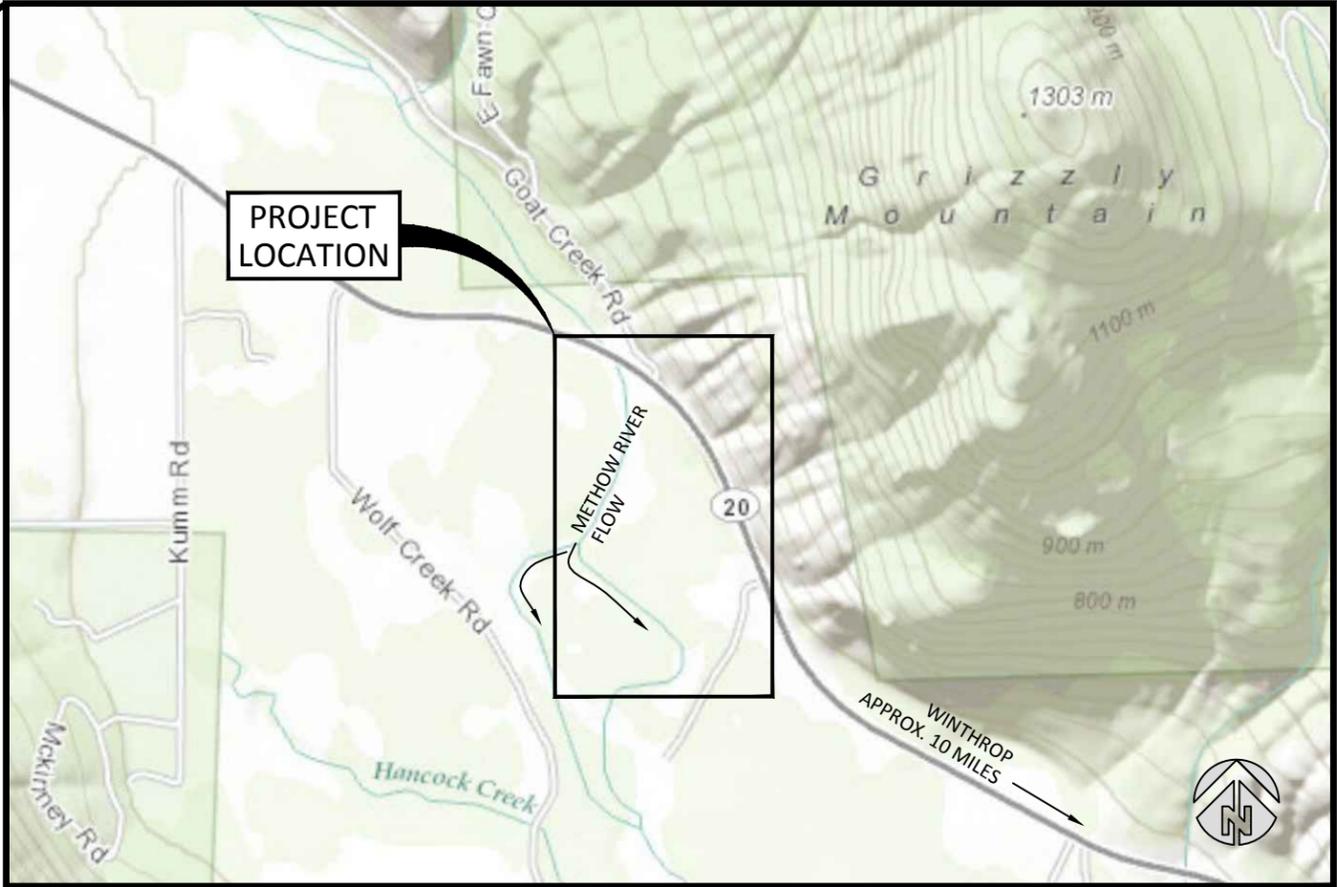
JULY 31, 2014



**COORDINATES:**  
 LATITUDE: 48°32'15" N  
 LONGITUDE: 120°19'15" W

OKANOGAN COUNTY  
 SECTION 15, TOWNSHIP 35N, RANGE 20E

WATERBODY: METHOW RIVER  
 TRIBUTARY OF: COLUMBIA RIVER



YAKAMA NATION FISHERIES  
 2 JOHNSON LANE  
 WINTHROP WA, 98862

**SHEET LIST**

- |    |  |    |   |
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NO.	BY	DATE	REVISION DESCRIPTION

RP,DF DRAWN	MB,MM,RP DESIGNED	MB,MM CHECKED
MB APPROVED	7/31/14 DATE	

CONFEDERATED TRIBES AND BANDS OF THE YAKAMA NATION  
 METHOW RIVER  
 FENDER MILL SIDE CHANNEL

501 Portway Avenue, Suite 101  
 Hood River, OR 97031  
 541.386.9003  
 www.interfluve.com

COVER, SHEET LIST, AND  
 VICINITY MAPS

**EXISTING DATA**

GENERAL TOPOGRAPHIC INFORMATION IS PROVIDED FROM LIDAR FROM BOR AND SPECIFIC PROJECT AREA SURVEY PERFORMED BY INTER-FLUVE, INC. NOVEMBER 2ND TO NOVEMBER 6TH, 2009. SURVEY IS BASED ON A LOCAL COORDINATE SYSTEM.

**SOILS**

METHOW RIVER GRAVEL AND FLOODPLAIN SOILS.

**UTILITIES**

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR HAVING UTILITIES LOCATED PRIOR TO CONSTRUCTION ACTIVITIES.

THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE AFFECTED UTILITY SERVICE TO REPORT ANY DAMAGED OR DESTROYED UTILITIES. THE CONTRACTOR SHALL PROVIDE EQUIPMENT OR LABOR TO AID THE AFFECTED UTILITY SERVICE IN REPAIRING DAMAGED OR DESTROYED UTILITIES AT NO COST TO THE OWNER.

**CONSTRUCTION ACCESS**

THE CONTRACTOR SHALL ENTER THE SITE FROM HIGHWAY 20.

THE CONTRACTOR IS SOLELY RESPONSIBLE FOR OBTAINING ANY REQUIRED TRAFFIC CONTROL OR ACCESS PERMITS.

THE CONTRACTOR IS SOLELY RESPONSIBLE FOR PROVIDING ANY REQUIRED TRAFFIC CONTROL INCLUDING, BUT NOT LIMITED TO, SIGNAGE AND FLAGGERS.

ALL SAPLING AND TREES TO BE TRANSPLANTED OR REMOVED SHALL BE APPROVED AND CLEARLY MARKED BY THE OWNER'S REPRESENTATIVE.

ALL EQUIPMENT, MATERIALS AND PERSONNEL SHALL REMAIN WITHIN THE LIMITS OF DISTURBANCE.

THE CONTRACTOR SHALL KEEP THE WORK AREAS IN A NEAT AND CLEAN CONDITION FREE OF DEBRIS AND LITTER FOR THE DURATION OF THE PROJECT.

**FISH RESCUE**

ALL FISH RESCUE EFFORTS SHALL BE SUPERVISED BY A QUALIFIED FISHERIES/AQUATIC BIOLOGIST EXPERIENCED WITH THE COLLECTION AND HANDLING OF SALMONID FISHES FROM CONSTRUCTION SITES.

ALL FISH TRAPPED IN RESIDUAL POOLS WITHIN THE PROJECT AREA WILL BE CAREFULLY COLLECTED BY SEINE AND/OR DIP NETS AND PLACED IN CLEAN TRANSFER CONTAINERS WITH ADEQUATE VOLUME OF WATER AND HELD WITHIN NO LONGER THAN 10 MINUTES.

CAPTURED FISHES SHALL BE IMMEDIATELY RELEASED INTO THE RIVER.

**TREE SALVAGE**

ANY REMOVED VEGETATION GREATER THAN 6 INCHES DIAMETER AND 15 FEET LONG SHOULD BE INCORPORATED INTO LOG JAM STRUCTURES. CONTRACTOR IS RESPONSIBLE FOR REMOVING SMALLER CLEARING AND GRUBBING DEBRIS FROM THE SITE AT THE END OF THE PROJECT UNLESS DIRECTED BY THE OWNER'S REPRESENTATIVE.

ALL TREES REMOVED WITHIN CLEARING LIMITS SHALL BE REMOVED WHOLE WITH ROOT WAD AND UTILIZED IN THE STREAM CONSTRUCTION AS DIRECTED BY OWNER'S REPRESENTATIVE.

SALVAGE BRUSH AND TREES IN FILL AREA FOR POST CONSTRUCTION PLACEMENT.

PLACE SALVAGED BRUSH AND TREES IN FILL AREA AND REALIGNED HIGH FLOW CHANNEL AREA POST CONSTRUCTION, PER OWNER'S REPRESENTATIVE.

**LIVE TREES**

ALL TREES NOT MARKED FOR REMOVAL SHALL BE LEFT STANDING UNDISTURBED. LOGGING ACTIVITY SHALL NOT DEBARK OR DAMAGE LIVE TREES.

KEEP OUT OF DRIP LINE OF EXISTING TREES TO REMAIN.

**SUMMARY OF QUANTITIES**

Item	Value	Unit	Notes
Imported Large Wood	520	Pieces	30 foot 18-24 in. DBH (2050 cy)
Silt Fence	100	LF	
Total Fill Zone Area	0.2	acre	
Check Dam Gravel	400	CY	
<b>Side Channel</b>			
Area	4.2	acre	
Cut	30000	CY	
<b>Regraded High Flow Channel</b>			
Area	0.11	acre	
Cut	200	CY	
<b>Groundwater Pipe Trench</b>			
Area	1	acre	
Cut	7600	CY	
Fill	6300	CY	
Washed Gravel	1300	CY	2" minus

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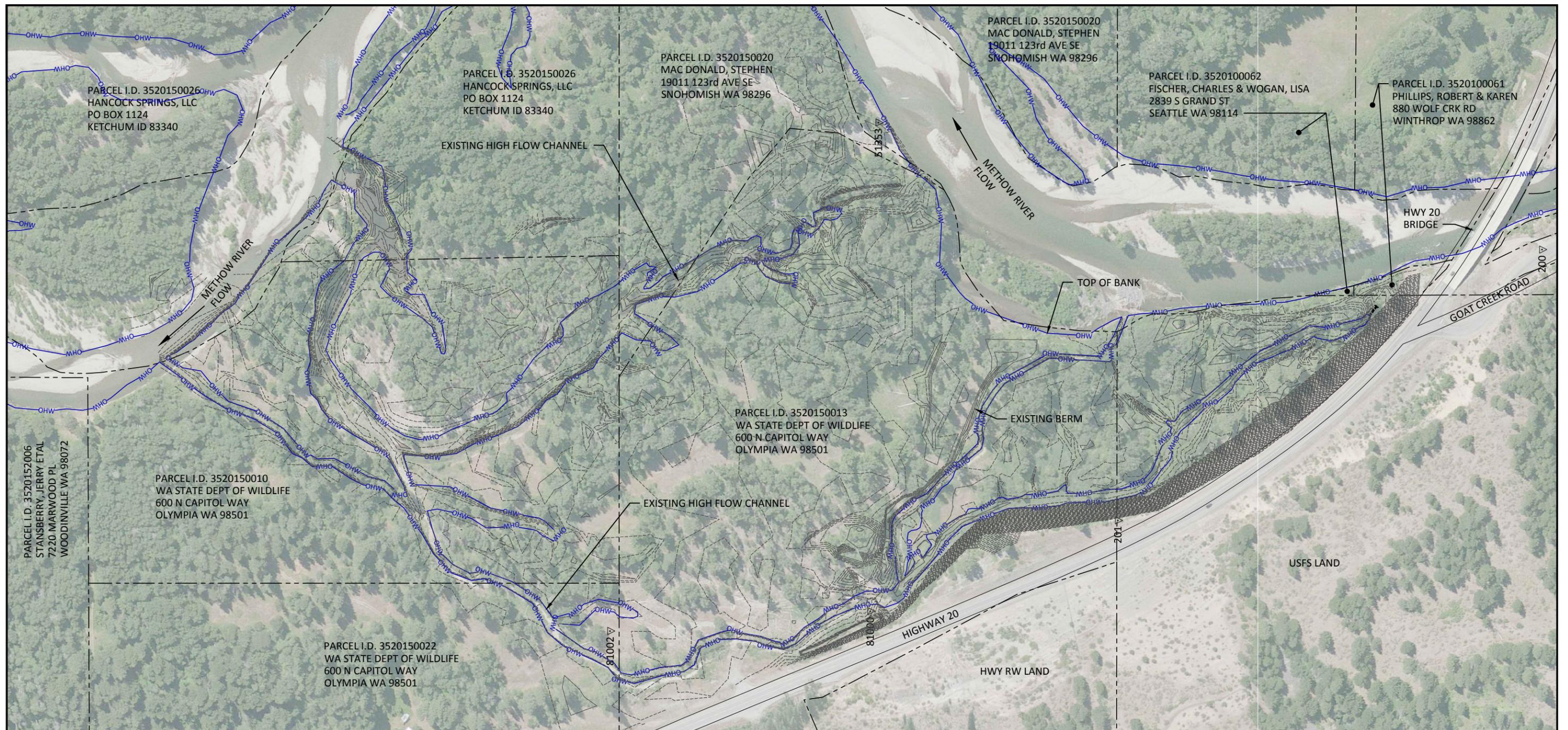
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GENERAL NOTES



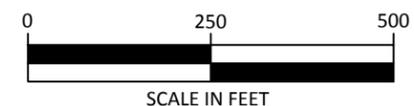
PLAN VIEW OF EXISTING CONDITIONS

SURVEY CONTROL POINTS				
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
200	563784.9'	1764021.7'	629.0'	PK NAIL 200
201	562691.5'	1764718.5'	631.4'	PK NAIL 201
51353	562074.3'	1763695.1'	597.4'	REBAR 60410
81000	562053.2'	1764952.1'	600.1'	BOR 2329 GPIN
81002	561382.7'	1765002.9'	592.9'	BOR 24 GPIN

LEGEND

- EXISTING CONTOURS (1 FOOT INTERVALS)
- △ CP 603 CONTROL POINT
- OHW — ORDINARY HIGH WATER
- PROPERTY LINES

NOTE:  
SPECIFIC PROJECT AREA SURVEY PERFORMED BY INTER-FLUVE, INC.  
NOVEMBER 2ND TO NOVEMBER 6TH, 2009. SURVEY IS BASED ON A  
LOCAL COORDINATE SYSTEM.



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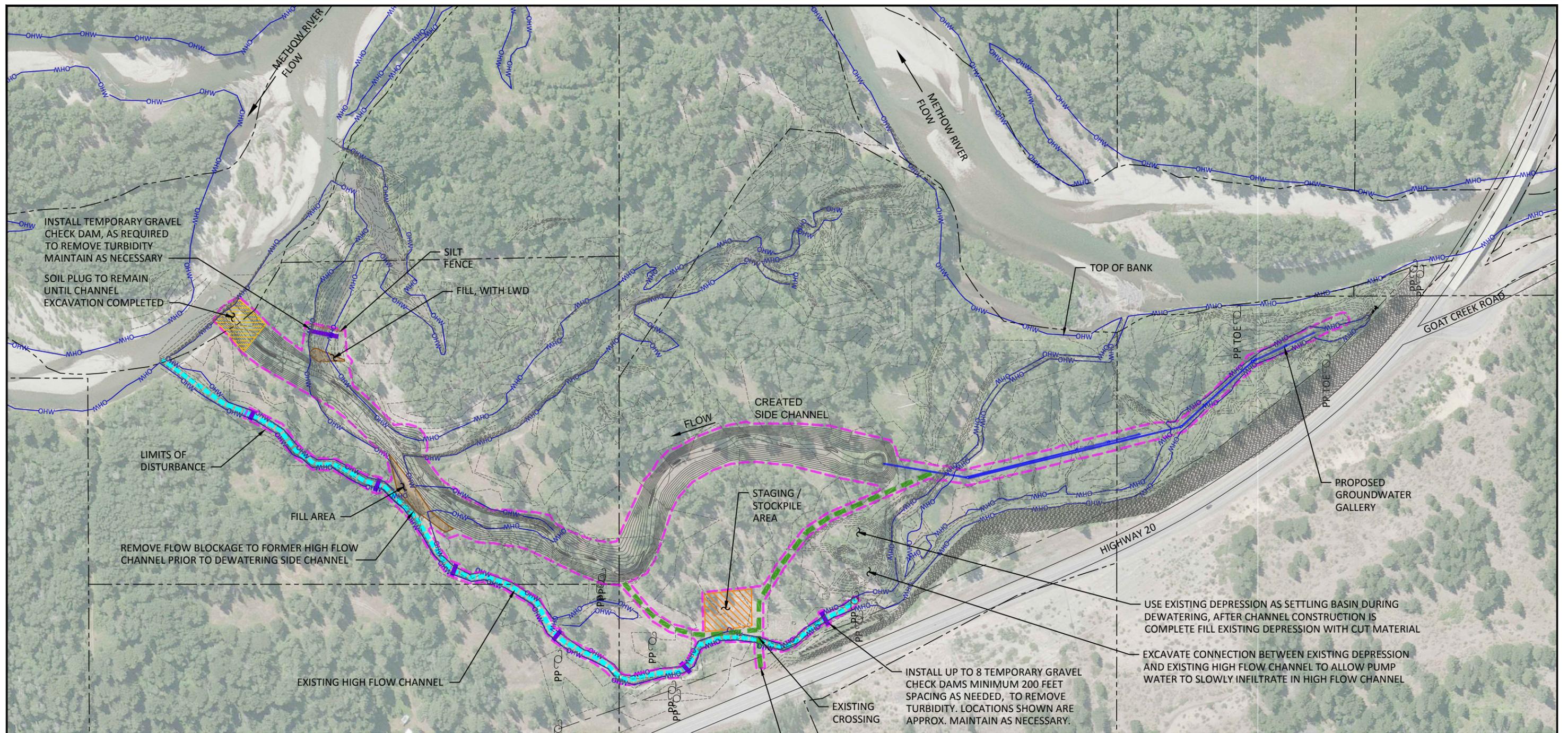
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PLAN VIEW EXISTING CONDITIONS  
AND PROPERTY OWNERSHIP

SHEET  
3 OF 23

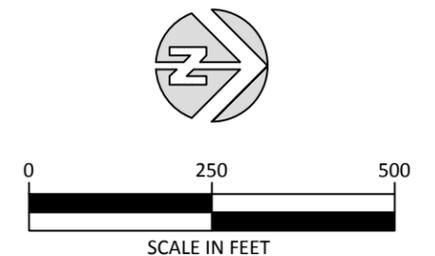


**PLAN VIEW**

**LEGEND**

- PROPOSED CONTOURS (1 FT INTERVAL)
- TEMPORARY GRAVEL CHECK DAM
- ACCESS ROUTE
- STAGING/STOCKPILE
- LIMITS OF DISTURBANCE
- SILT FENCE
- SOIL PLUG
- EXISTING DITCH TO BE USED FOR DEWATERING
- FILL
- ORDINARY HIGH WATER
- PROPERTY LINES
- UTILITY POLE

NOTE:  
ALL TREES TO REMAIN EXCEPT THOSE  
FIELD MARKED FOR REMOVAL.



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PLAN VIEW ACCESS AND  
EROSION CONTROL

SHEET  
4 OF 23