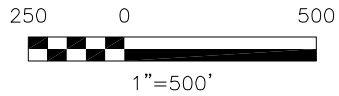
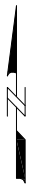
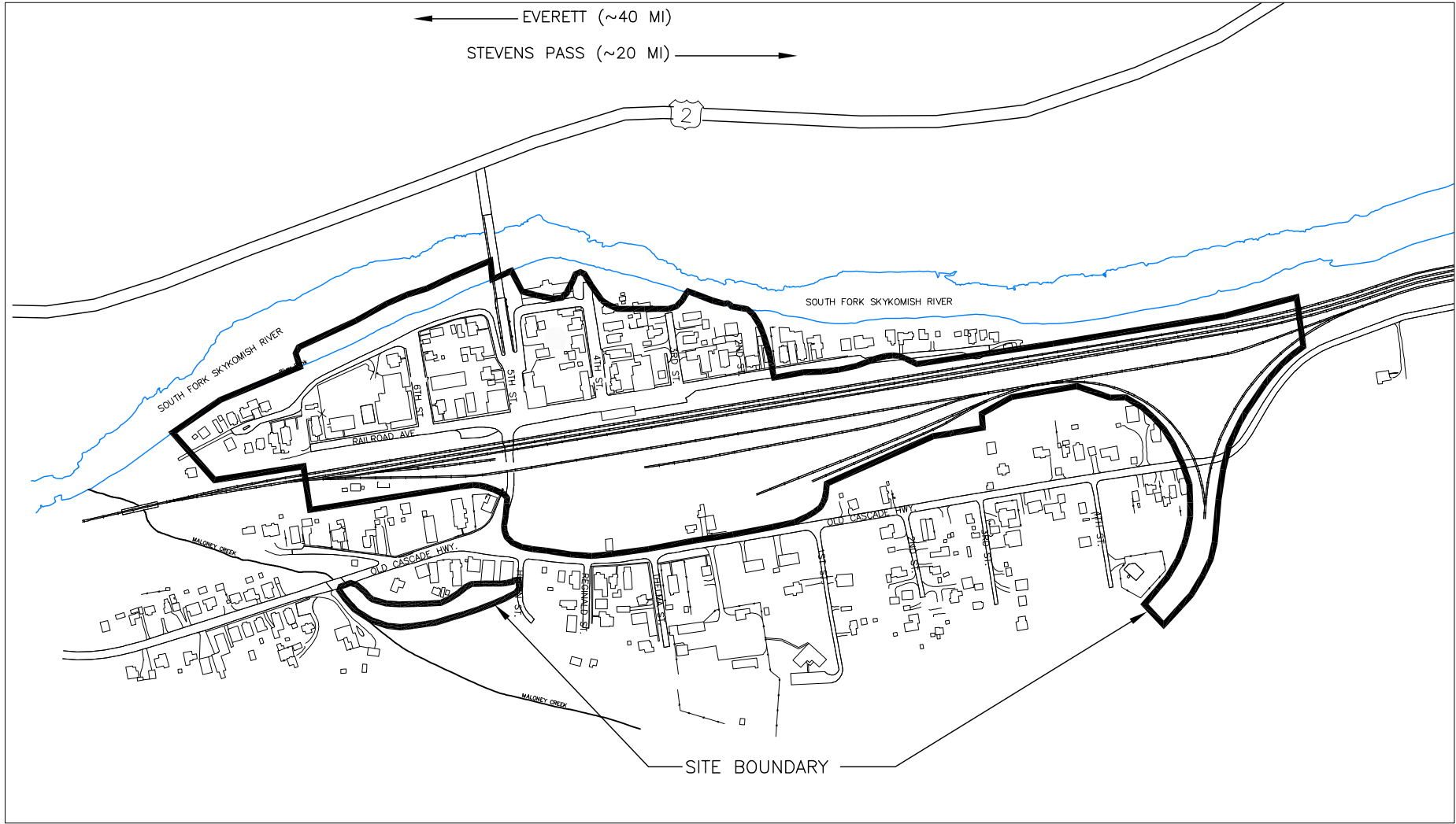
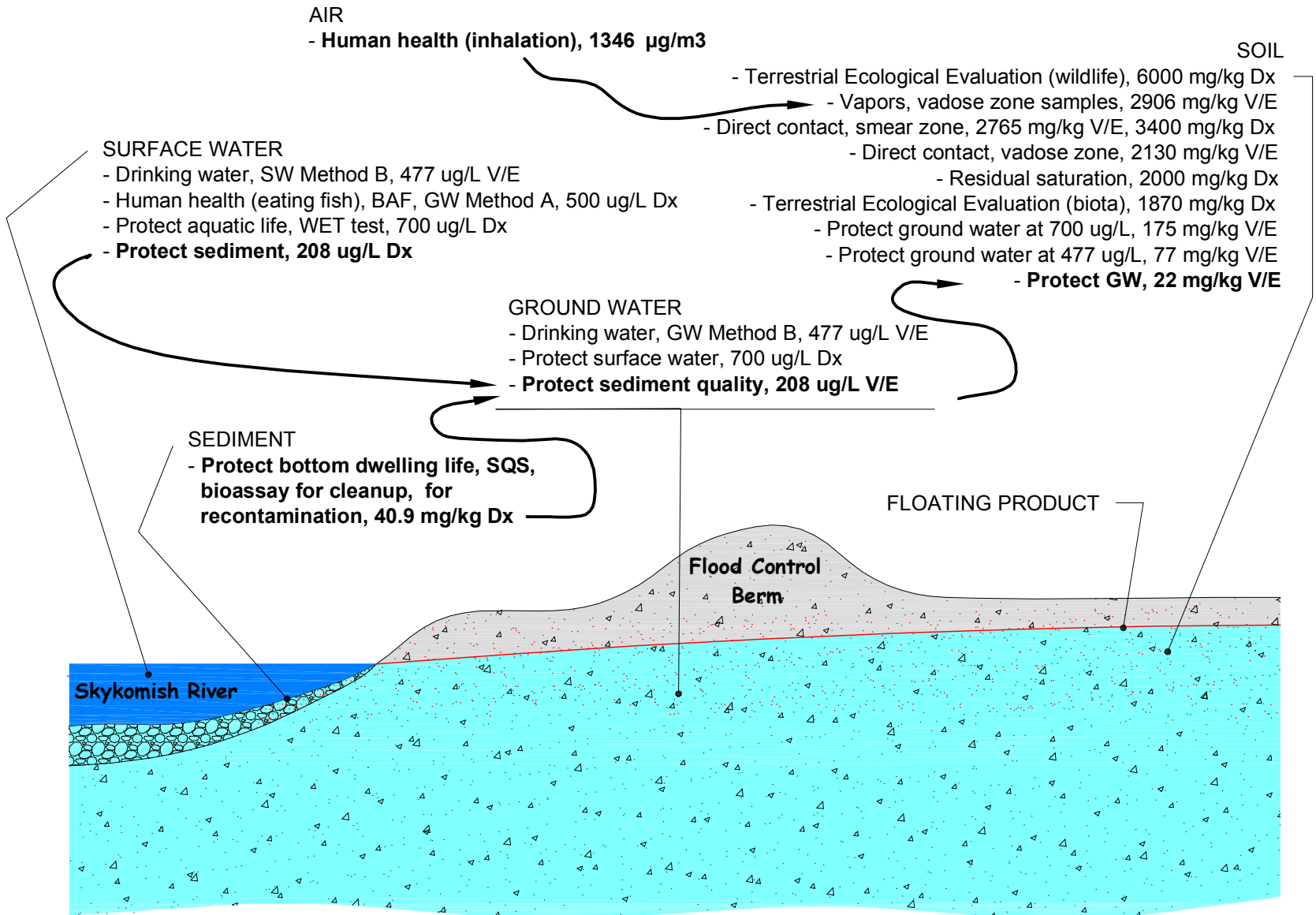


BNSF RAILWAY SITE SKYKOMISH, WA		SITE LOCATION MAP	
DATE: 6/5/07	DRWN:		FIGURE 1



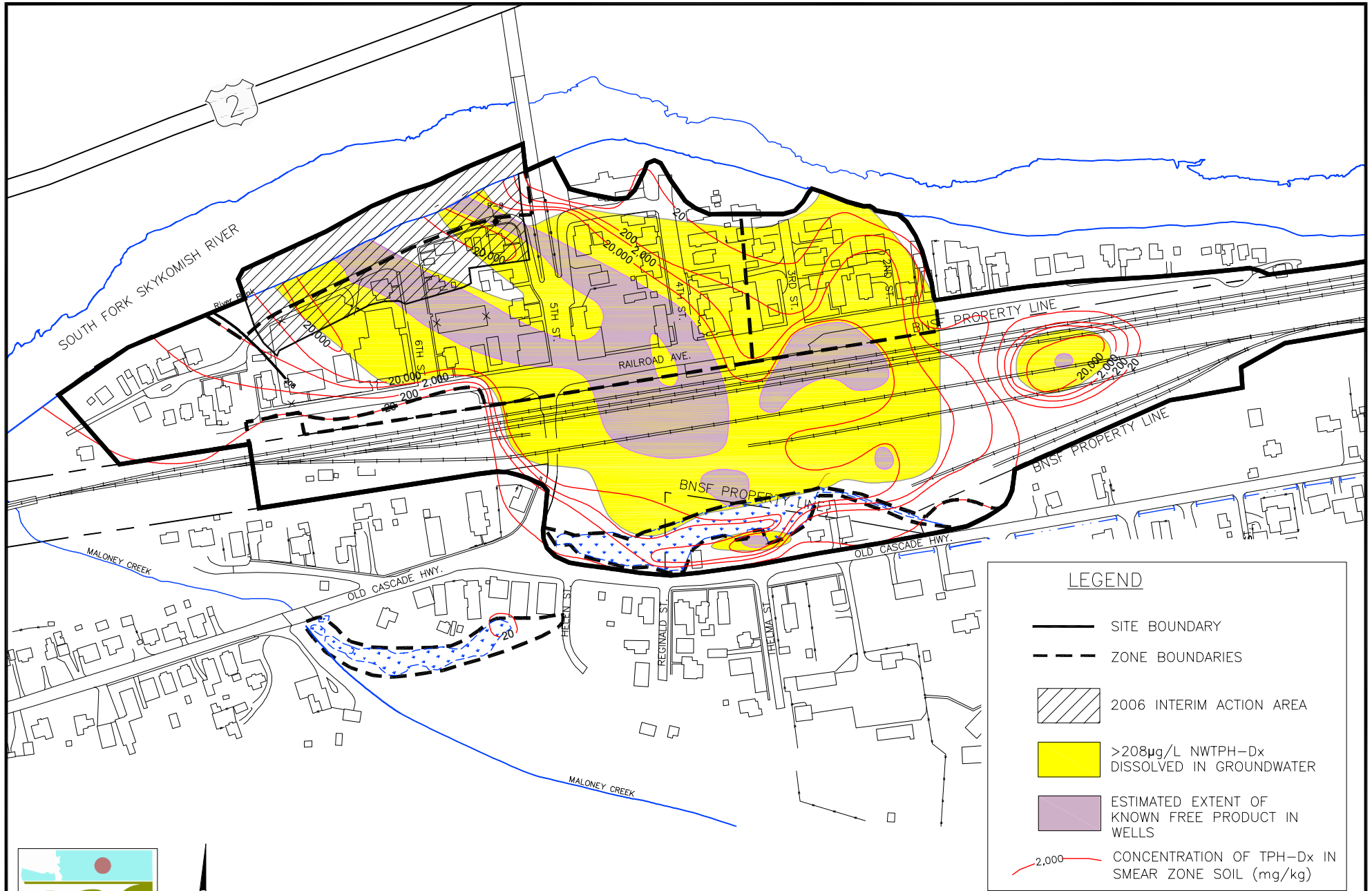
BNSF RAILWAY SITE SKYKOMISH, WA		TOWN STREET PLAN
DATE: 6/4/07	DRWN:	FIGURE 2



Notes: SW = Surface Water, GW = Ground Water, BAF = Bioaccumulation Factor, WET = Whole Effluent Toxicity, SQS = Sediment Quality Standards, Dx = NWTPH-Dx method, V/E = VPH/EPH method

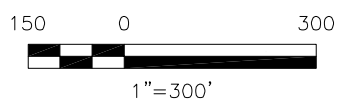


BNSF RAILWAY SITE SKYKOMISH, WA		CONCEPTUAL SITE DIAGRAM WITH PETROLEUM CLEANUP LEVELS	
DATE: 6/4/07	DRWN:		FIGURE 3



LEGEND

- SITE BOUNDARY
- ZONE BOUNDARIES
- 2006 INTERIM ACTION AREA
- $>208\mu\text{g/L}$ NTPH-Dx DISSOLVED IN GROUNDWATER
- ESTIMATED EXTENT OF KNOWN FREE PRODUCT IN WELLS
- CONCENTRATION OF TPH-Dx IN SMEAR ZONE SOIL (mg/kg)

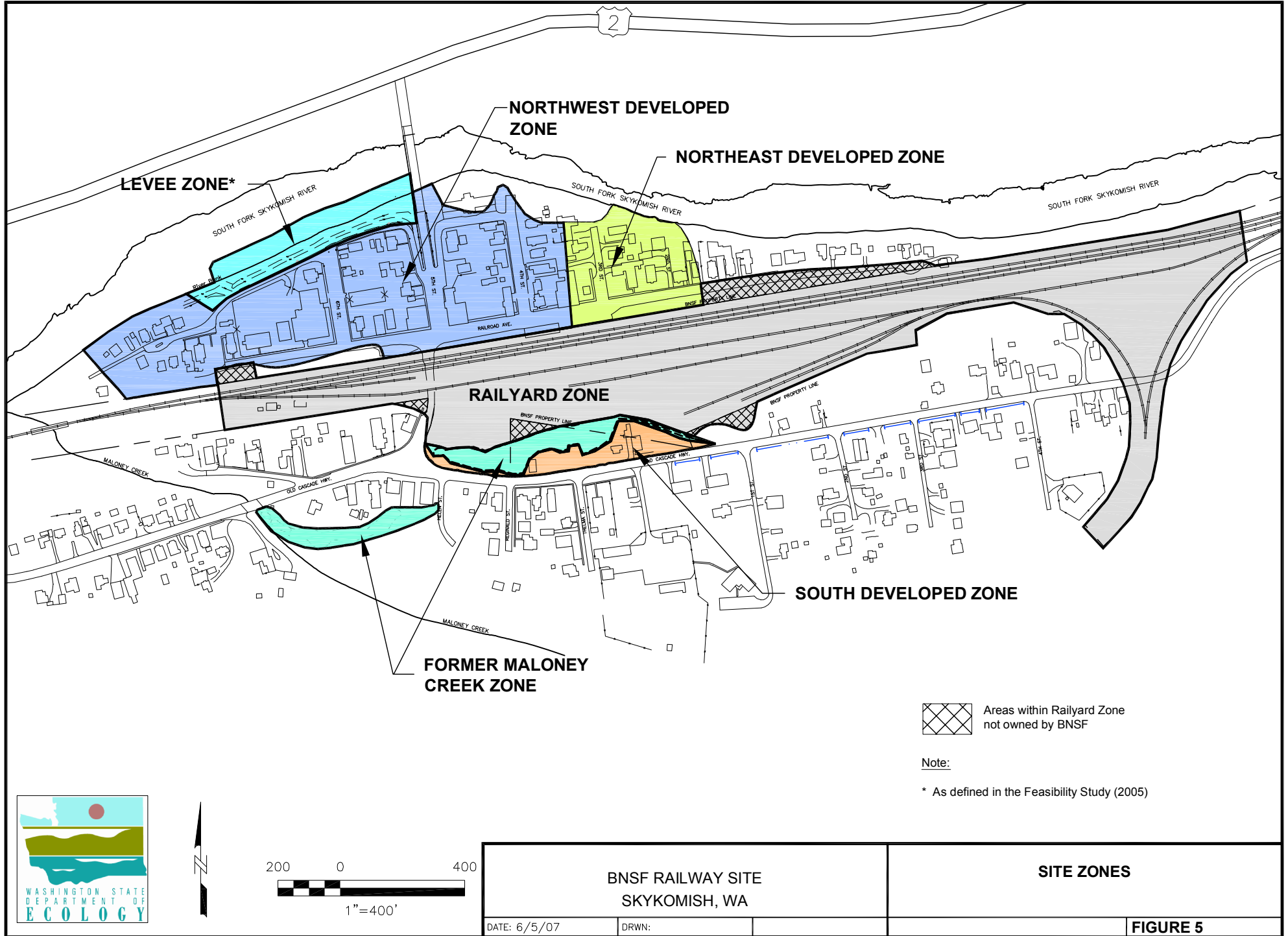


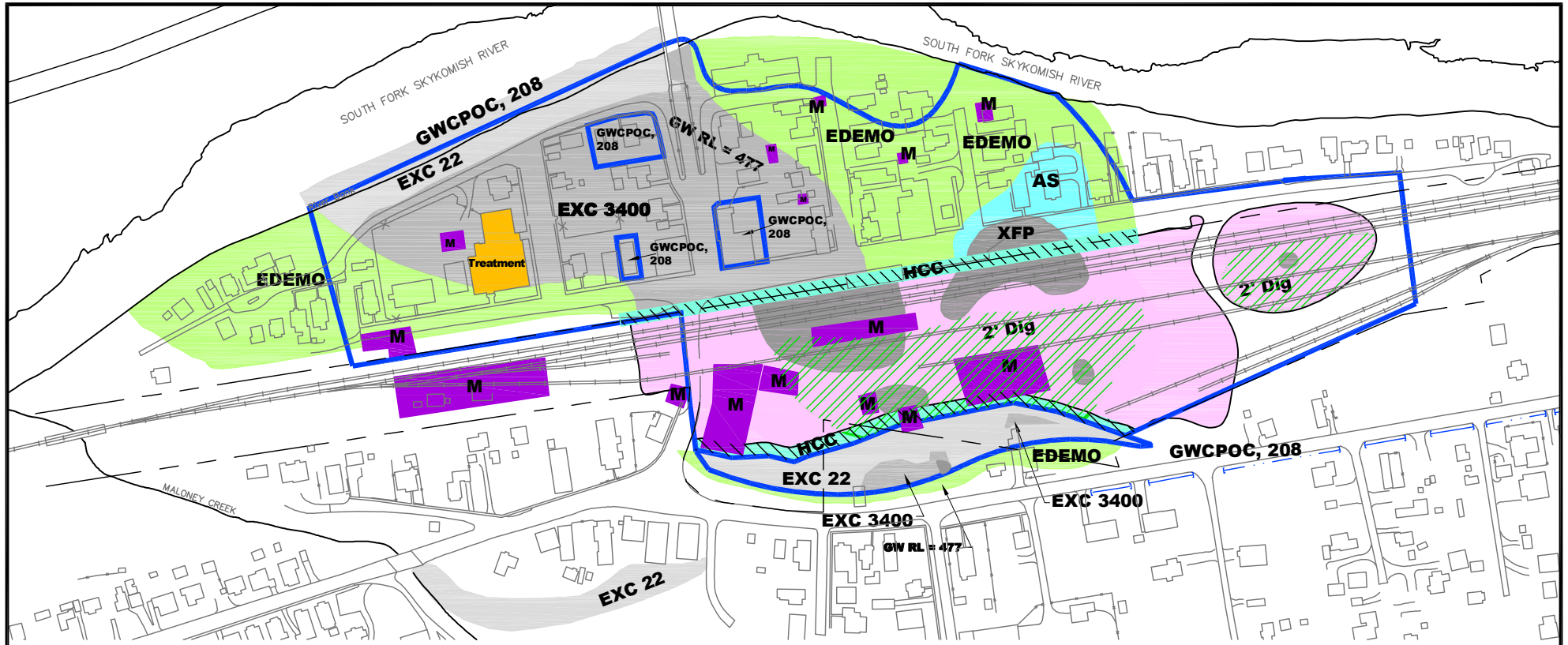
**BNSF RAILWAY SITE
SKYKOMISH, WA**

DATE: 6/5/07 DRWN:

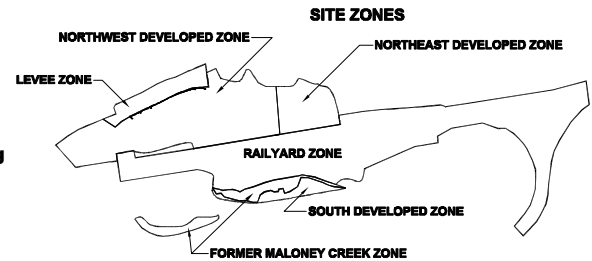
SITE PETROLEUM DISTRIBUTION

FIGURE 4

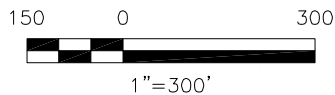




- **GWCPOC, 208** Groundwater Conditional Point of Compliance, 208 µg/L
- HCC** Hydraulic Control and Containment System
- XFP** Excavate Free Product
- EXC 3400** Excavate soil with petroleum exceeding 3,400 mg/kg
- EXC 22** Excavate soil with petroleum exceeding 22 mg/kg
- AS** Air Sparge soil with petroleum between 3,400 mg/kg & free product; air sparge groundwater
- EDEMO** Empirical Demonstration that leaving soil in place with petroleum between 22 and 3,400 mg/kg is protective of groundwater
- M** Excavate surface metals contamination
- 2' DIG** Excavate petroleum-contaminated soil within 2 feet of the surface where petroleum exceeds 1,870 mg/kg
- Treatment** Treatment under the school
- Excavate** Excavate selected areas of contaminated soil on the Railyard

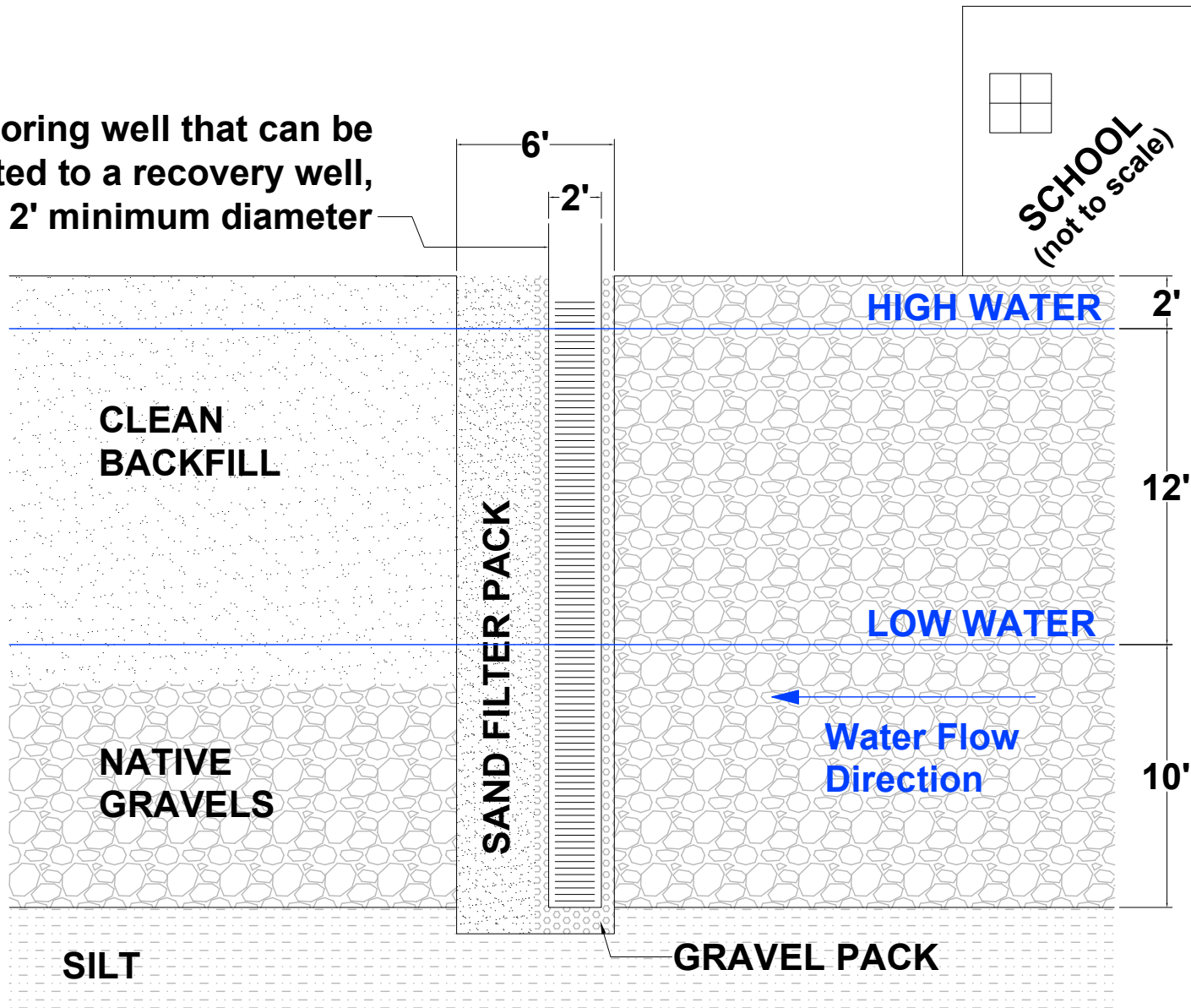


Note: Groundwater remediation level of 477 µg/L expected to be met in the SDZ and inside the GWCPOC in the NWDZ and NEDZ (see text for discussion)



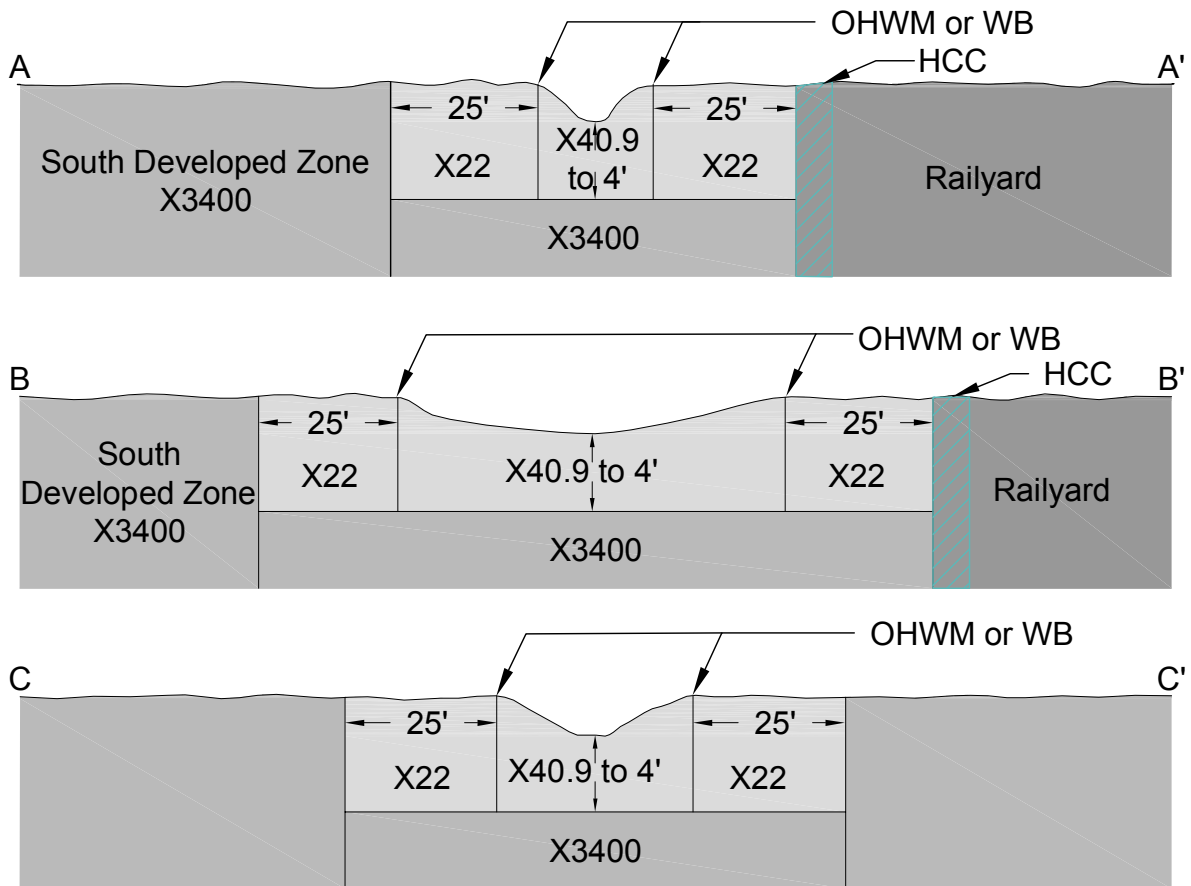
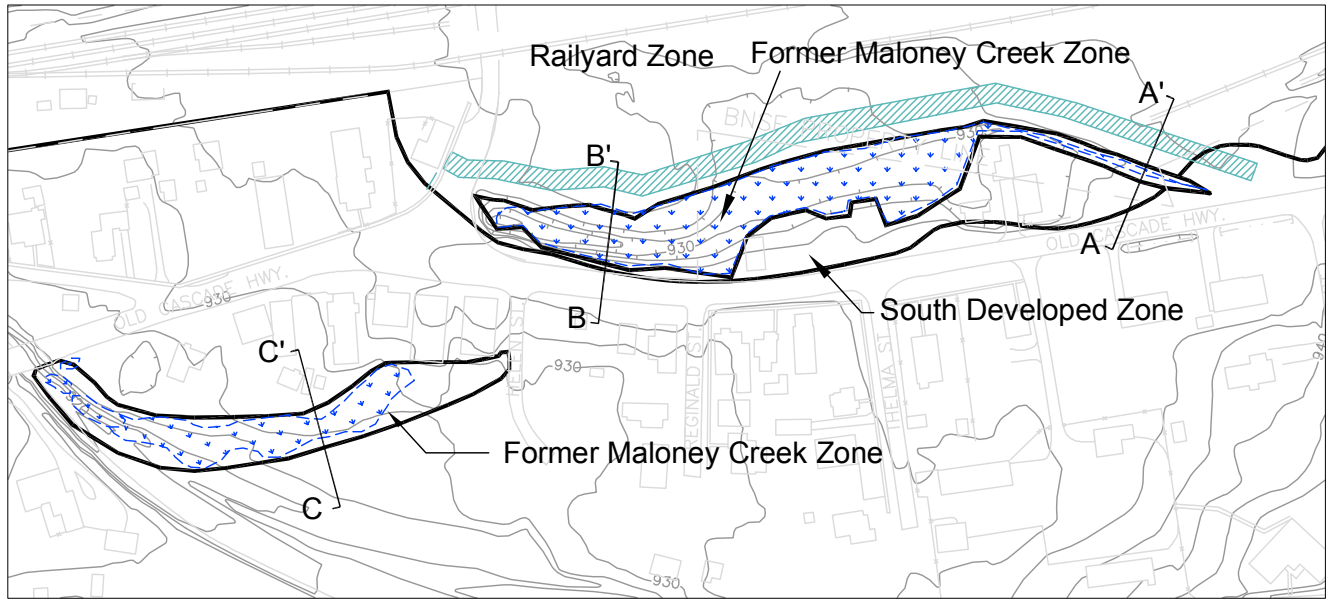
BNSF RAILWAY SITE SKYKOMISH, WA		SUMMARY MAP OF CLEANUP ACTIONS
DATE: 10/11/07	DRWN:	FIGURE 6

Monitoring well that can be converted to a recovery well, 2' minimum diameter



BNSF RAILWAY SITE SKYKOMISH, WA		CONCEPTUAL DIAGRAM OF PETROLEUM MONITORING AND RECOVERY TRENCH DOWNGRADIENT FROM SCHOOL TREATMENT AREA	
DATE: 6/5/07	DRWN:		FIGURE 7

Cleanup requirements overlap into adjacent zones



X3400 = Excavate to 3,400 mg/kg NWTPH-Dx

X22 = Excavate to 22 mg/kg NWTPH-Dx

X40.9 = Excavate to 40.9 mg/kg NWTPH-Dx

OHWM or WB = Ordinary High Water Mark or Wetland Boundary

HCC = Hydraulic Control and Containment System



BNSF RAILWAY SITE
SKYKOMISH, WA

FORMER MALONEY CREEK
CLEANUP REQUIREMENTS

DATE: 6/5/07

DRWN:

FIGURE 8

North

South

Groundwater Monitoring Well

BNSF Property Line

Water pumped to treatment system, clean water infiltrated at appropriate location

RR TRACKS

REDUNDANT BARRIER SYSTEM

BARRIER SYSTEM MAY EXTEND BEYOND BNSF PROPERTY LINE, SUBJECT TO FINAL DESIGN AND AGREEMENT OF ADJACENT PROPERTY OWNERS.

CLEAN BACKFILL

NATIVE GRAVELS

HIGH WATER

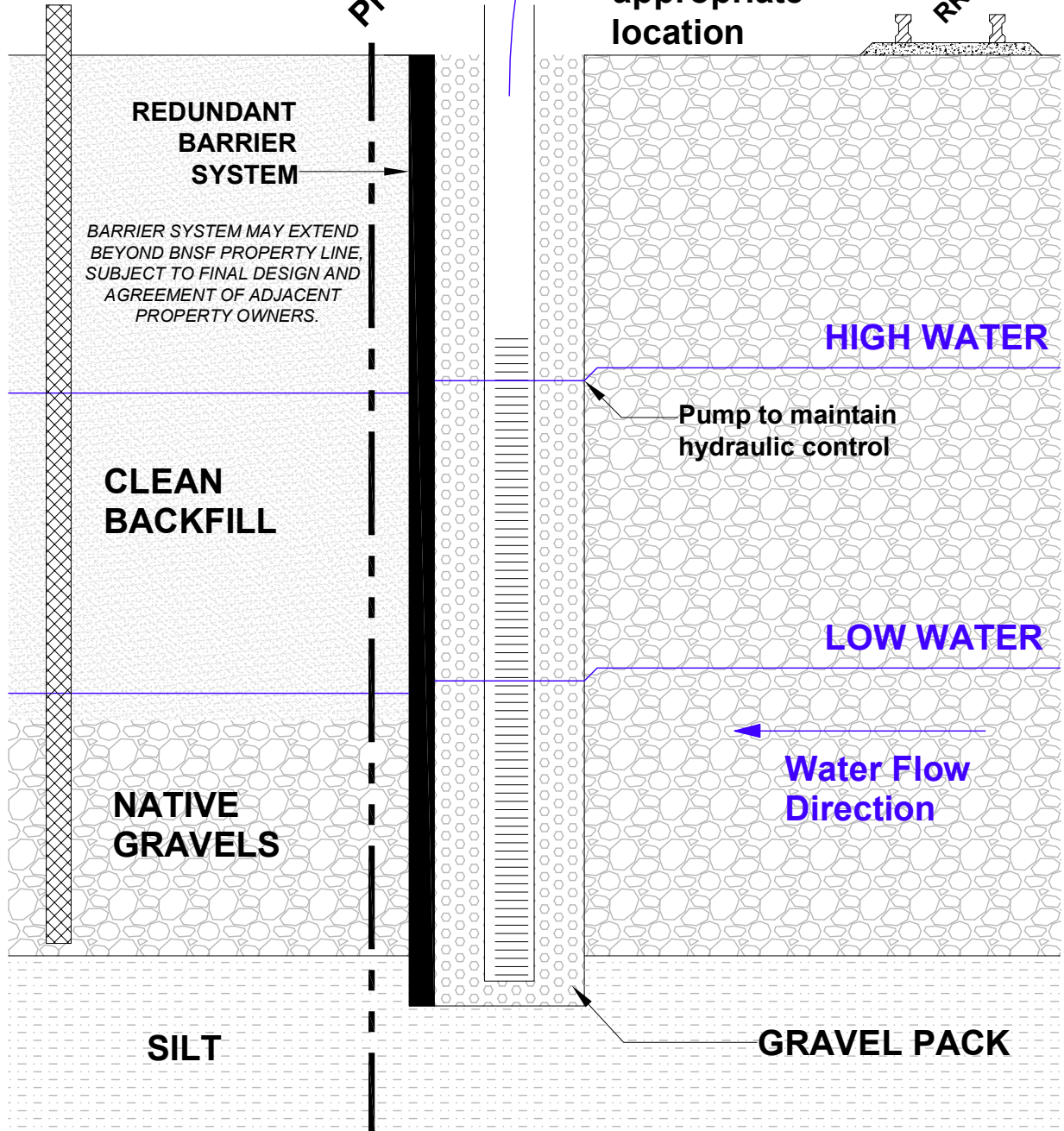
Pump to maintain hydraulic control

LOW WATER

Water Flow Direction

SILT

GRAVEL PACK



File: H:\BNSF-Skykomish\ECOLOG\10-11-07\FIG_9-GW-BARRIER_TRENCH_DESIGN.dwg Layout: ANSL_AVI-CP User: emarshall Plotted: Oct 12, 2007 - 8:26am Xref's:



BNSF RAILWAY SITE SKYKOMISH, WA		CONCEPTUAL HYDRAULIC CONTROL AND CONTAINMENT SYSTEM - GROUNDWATER BARRIER TRENCH DESIGN	
DATE: 10/11/07	DRWN:		FIGURE 9