121 S. Jackson St., Moscow, ID 83843
Phone: (208) 882-7858; Fax: (208) 883-3785

108 W. Idaho Ave., Kellogg, ID 83837
Phone: (208) 786-1206; Fax: (208) 786-1209

3501 W. Elder St., Ste. 102, Boise, ID 83705
Phone: (208) 336-7080; Fax: (208) 908-4980

10905 E. Montgomery Dr., Ste. 3
Spokane Valley, WA 99206-6606
Phone: (509) 928-1063; Fax: (509) 928-1067

302 N. Last Chance Gulch, Ste. 409
Helena, MT 59601
Phone: (406) 441-5441; Fax: (406) 441-5443

7000 Smoke Ranch Rd. Las Vegas, NV 89128
Phone: (702) 987-1397; Fax: (702) 943-0976

www.terragraphics.com

MEMORANDUM

To: Bruce Schuld, IDEQ, Boise
Anne McCauley, EPA, Region X

From: Susan Firor, Moscow

Date: July 14, 2009

Subject: Page Expansion Consultation under Endangered Species Act

---

The Idaho Department of Environmental Quality (IDEQ) and U.S. Environmental Protection Agency Region X (EPA) are working to obtain necessary permits to expand the Page Repository in Smelterville, Idaho in order to meet immediate needs for repository capacity in the region. As part of this program, it is necessary to explore the question of compliance with the Endangered Species Act (ESA) for activities surrounding the proposed expansion. The activities include the expansion of the repository footprint in a westward direction, the modification and partial filling of the wetland area known as West Page Swamp, and construction of a mitigation wetland in the area known as West End Natural Infiltration (WENI) Area. Two methods for hydration of the mitigation wetlands are proposed: using water that currently flows into West Page Swamp and using wastewater effluent from the Page Wastewater Treatment Plant (PWWTP).

The proposed project location is shown in Figure 1, and details in the project vicinity are shown in Figure 2. The mitigation site (the WENI Area) is immediately adjacent to West Page Swamp, separated only by the Trail of the Coeur d'Alenes. The Page repository is immediately east of West Page Swamp, and repository expansion is planned in stages to the west. The site is hydrologically connected to the South Fork Coeur d'Alene River (SFCDR) during normal flows by an outflow channel (Page Out) that empties into Pine Creek which, in turn, discharges to the SFCDR.

Repository Expansion and Modification of West Page Swamp

IDEQ and EPA have investigated all known practical alternatives to provide repository space for the Institutional Controls Program (ICP) of the Bunker Hill Cleanup Operable Units 1 and 2. They have determined that incremental expansion of the Page Repository provides the best workable solution to support the ICP's immediate needs, while longer term solutions for repositories continue to be investigated. Long-term plans for repository expansion at Page include a footprint that fills parts of West Page Swamp while leaving intact some of the highest quality and best established wetlands. Although these plans are far from complete, a conceptual footprint is shown in Figure 3. All fill placed in the wetted elevations of this expansion plan will be clean, coarse, durable materials allowing for both drainage and separation of contaminants from surface water. Active drainage will also be required through culverts as needed to maintain hydration of wetlands and flows through the system.

Constructed Wetlands for Mitigation

Wetlands for mitigation are planned for the WENI area just north of West Page Swamp. Construction will entail excavation and grading, construction of berms and access routes, soil import and amendment, and planting and seeding. A wetland mitigation plan is currently being finalized and includes details on control of weeds, regulatory compliance, public access and restriction, monitoring, operations and maintenance (O&M), and hydrology.

There are two proposals for hydration of the mitigation wetlands. In both cases, the route known as the North Channel (see Figure 2) will be altered such that the majority of flow will be diverted under the bike trail and into the WENI Area. The primary reason for this is to protect the toe of the existing repository from erosion in the case of high flood flows. Some water will still flow in the North Channel in order to provide hydration for the plants growing along the toe.

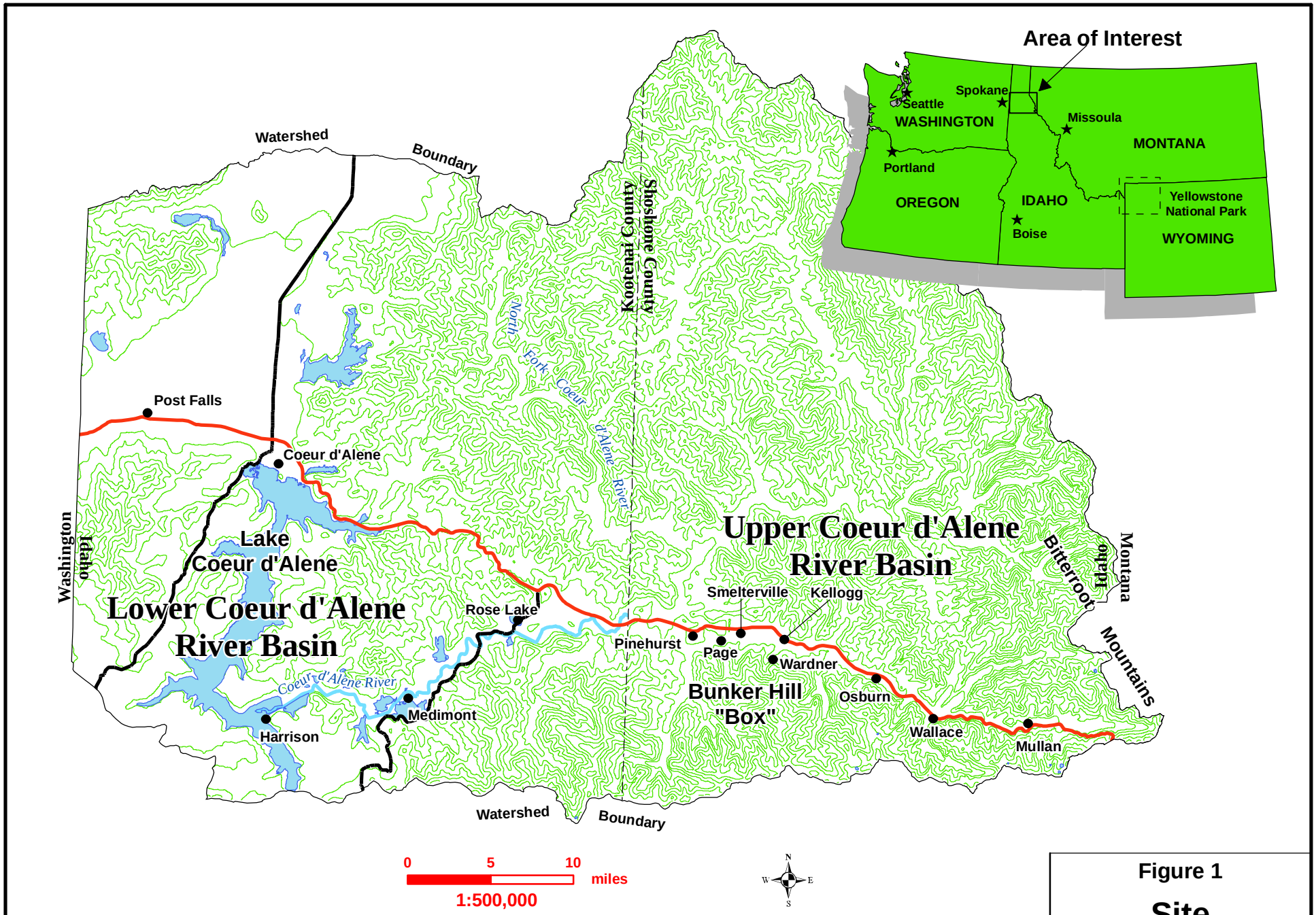
The first alternative for hydration of the mitigation wetlands is to build bridges along the Trail of the Coeur d'Alene for flow conveyance between West Page Swamp and the WENI Area allowing the two wetlands to share water. Modeling is underway to establish the practicality of this alternative, as it will depend on the final elevations of both sites and outflow configurations to maintain adequate hydrology in both sites.

The second alternative is to use treated wastewater from the Page Wastewater Treatment Plant (PWWTP) to hydrate the mitigation wetlands. Currently, the treated effluent is discharged directly into the immediate floodplain of the SFCDR in the west end of Smelterville Flats (see Figure 2). One significant advantage to this alternative is that hydration of the wetlands can be carefully controlled. Flows can be moderated to those needed for plant growth until disturbed ground is completely re-vegetated so no sediment influx to the river during and after construction will be anticipated.

ESA Consultation

It is the belief of EPA and IDEQ personnel that consultation under ESA Section 7 is not necessary for this project. This arises from the following considerations:

1. No endangered species are present in or near the project area.
2. No Critical Habitat is designated near the project area. Critical bull trout habitat begins about 2.7 miles downstream from this project.
3. The only potential adverse impact to the environment from the proposed actions is the filling of wetlands. However, planned mitigation will provide a net improvement in wetland quality and no net loss of wetland quantity at the site. In addition, water quality may be improved by wetland polishing of wastewater before it is discharged into the river.

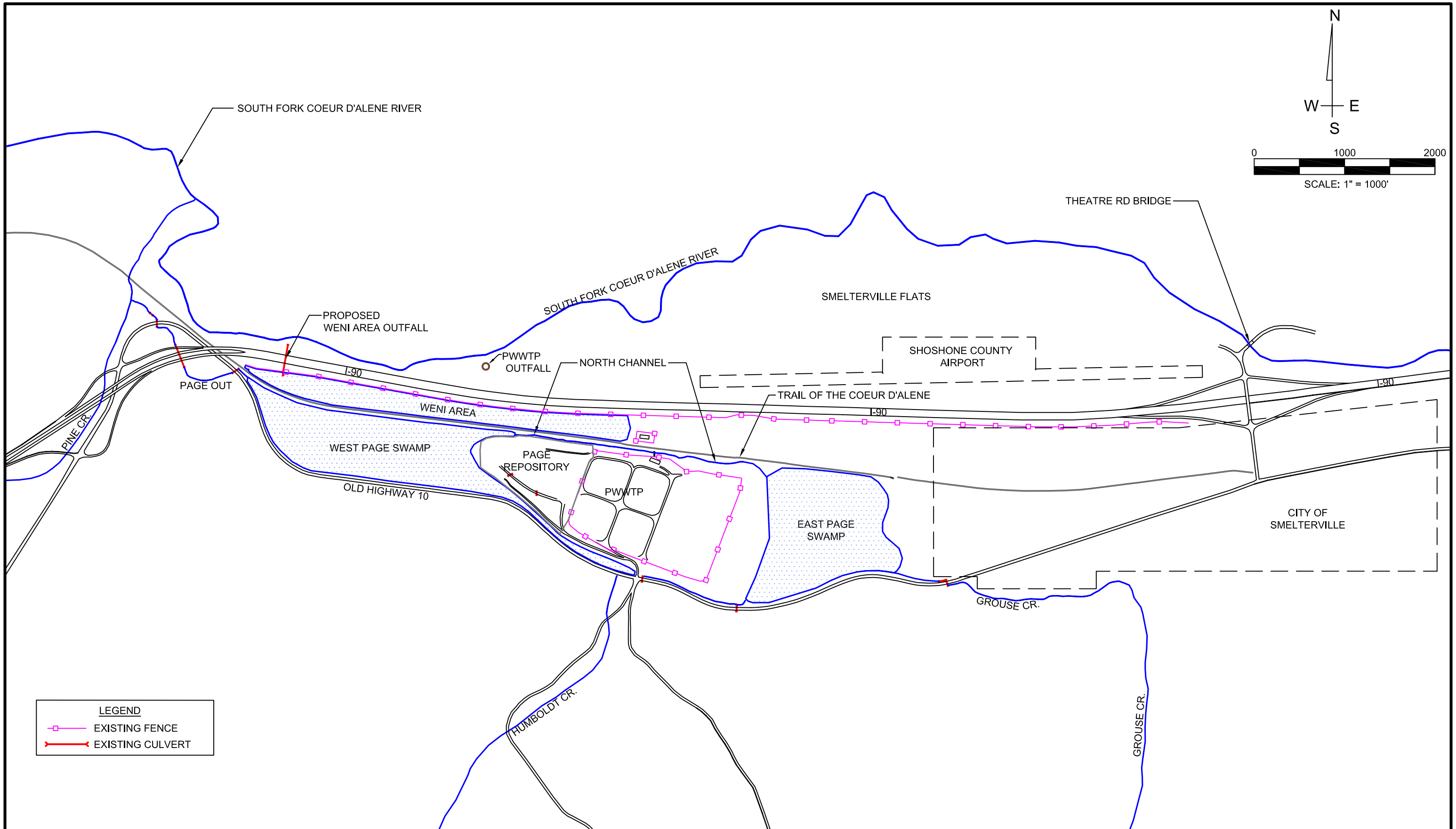


TerraGraphics
Environmental Engineering, Inc.
www.TerraGraphics.com

- Towns
- Interstate Highways
- Major Highways
- Rivers and Streams
- Elevation Contours

Figure 1

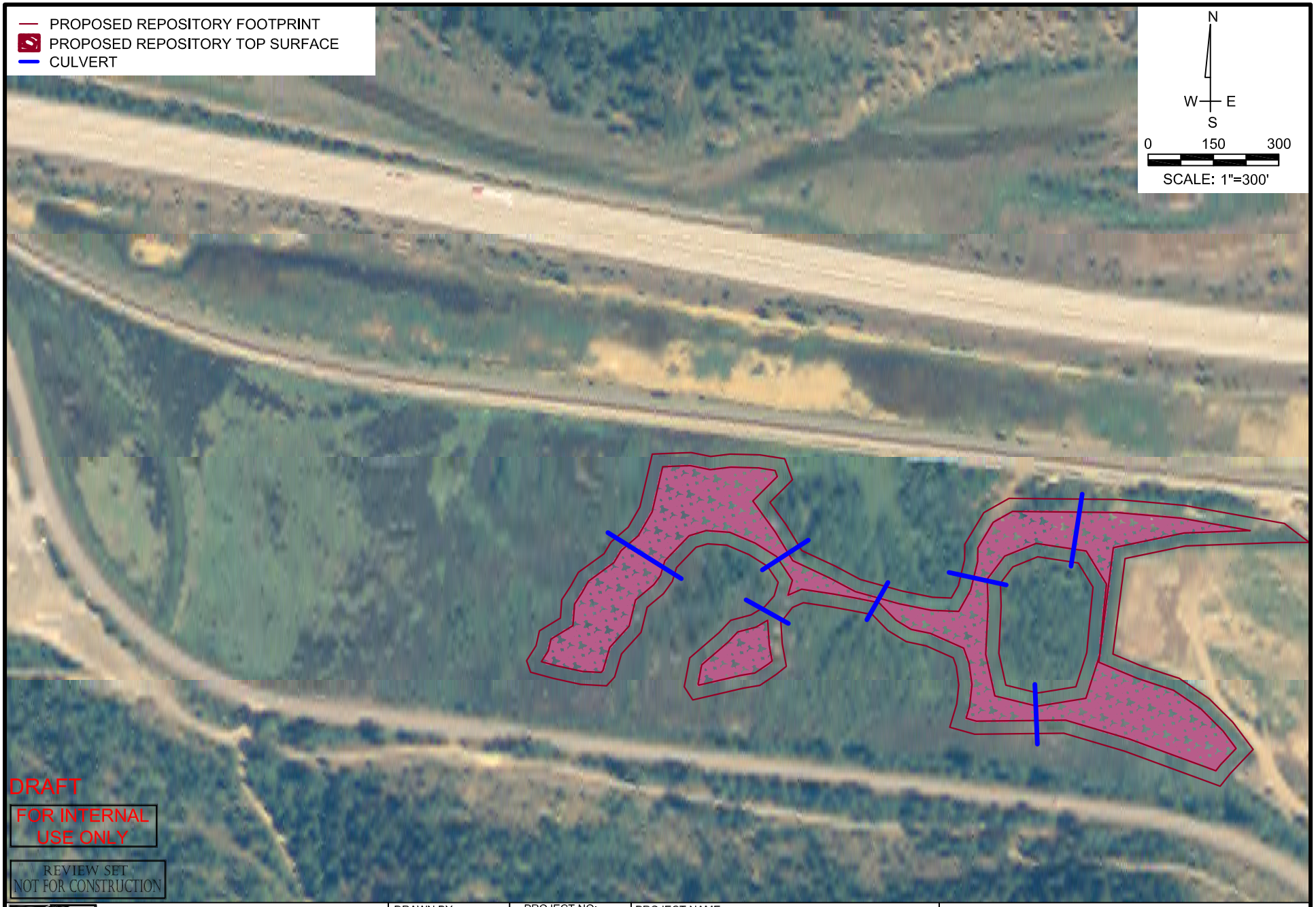
Site Location Map



TerraGraphics
Environmental Engineering, Inc.

DRAWN: C.HALEY	PROJECT NO.: 2005-4060	PAGE REPOSITORY AREA	FIGURE 1. VICINITY MAP
ENGINEER: S.FIROR	SCALE: 1" = 1000'		
CHECKED:	APPROVED:	SMELTERVILLE, IDAHO	
	DATE: 7/17/2009		

COORDINATE SYSTEM: ISP, ZONE WEST, NAD 83, NAVD 88, FT
DATE: ARPIL 28, 2009
SHEET: 1 OF 1



TerraGraphics
Environmental Engineering, Inc.

DRAWN BY:	PROJECT NO:	PROJECT NAME:
S. FIROR	4060	PAGE REPOSITORY EXPANSION
PROJECT MANAGER:	DATE:	
S. FIROR	07/10/2008	

FIGURE 3.
BUILDOUT CONCEPT