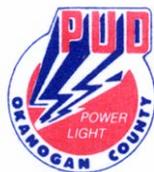


AESTHETICS MANAGEMENT PLAN



ENLOE HYDROELECTRIC PROJECT (FERC PROJECT NO. 12569)

FEBRUARY 2009



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1.0 INTRODUCTION

1.1 PURPOSE AND INTENT

The purpose of the Aesthetics Management Plan (AMP) is to manage Project impacts to aesthetic resources associated with the Project. This Plan establishes goals for managing aesthetic resources in the Project vicinity, identifies implementation activities for managing aesthetics, and describes actions designed to protect, enhance, and minimize impacts to aesthetic resources identified in the August 2008 FLA. The Plan provides specific guidance for managing impacts to aesthetic resources from new Project-related construction on the east bank of the Similkameen River by specifying acceptable color ranges and material textures for new hydroelectric facility buildings and structures. The AMP also identifies areas to be impacted from the potential removal of existing facilities (i.e. powerhouse, penstock, and surge tank on the west bank and the metal tower on the east bank) and identifies the related sites that will experience slope repairs, re-grading, and revegetation. A Vegetation Mitigation and Monitoring Plan (MMP) includes these areas and provides costs associated with this plan and its measures.

This Plan is the culmination of a study of visual resources embodied in the *Technical Memorandum for Visual Resources* conducted from 2006-2008 for Project relicensing (See FLA Appendix E.8.1). Using the U.S. Bureau of Land Management's (BLM) Visual Resource Management (VRM) methodology (See AMP Section 2.1 for more detail), this initial relicensing study included: (1) an inventory and classification of existing Project facilities and surrounding landscape features, (2) an assessment of Project impacts from key observation points (KOPs), and (3) a list of proposed protection, mitigation, and enhancement (PM&E) measures for aesthetic resources. Based on the initial relicensing study, several proposed PM&Es were included in Section E.8.4 of the FLA by the District. This Plan refines several of the FLA's PM&Es.

1.2 GOALS AND OBJECTIVES

The District's management of aesthetic resources in the Project area is defined in Section E.8.4 of the FLA and is further focused by these goals:

Goal 1: Identify specific visually compatible colors and building material textures to be used to harmonize the new Project facilities on the east bank of the Similkameen River with the existing landscape.

Goal 2: Identify areas where existing buildings are to be removed and the related sites to be graded, have slopes repaired, and where revegetation with Native plants would occur.

Goal 3: Develop a monitoring and maintenance plan for the areas noted in Goal 2 and as proposed in E.8-27 of the FLA and to estimate costs for this plan and its measures.

1.3 PROJECT BOUNDARY/PLANNING AREA

The Enloe Hydroelectric Project is situated in a narrow portion of the Similkameen River Valley, about 3.5 miles northwest of the City of Oroville, Washington. The Project Boundary is generally defined by the 1,055 foot elevation contour and encompasses an approximately 2-mile reach of the Similkameen River, including approximately 36 acres of upland area along both river banks (Figure 1). The Project Boundary extends one-quarter (0.25) mile downstream from Enloe Dam to include Similkameen Falls and the site of the proposed powerhouse, tailrace, and associated facilities. Most of the land within the Project Boundary is publicly owned and managed by BLM (i.e. lands above the pre-inundation ordinary high water mark) or DNR (i.e. bedlands and pre-inundation shorelands). The term Project Area used in the AMP refers to the land and water areas encompassed by the Project Boundary.

1.4 OVERVIEW OF THE PLAN

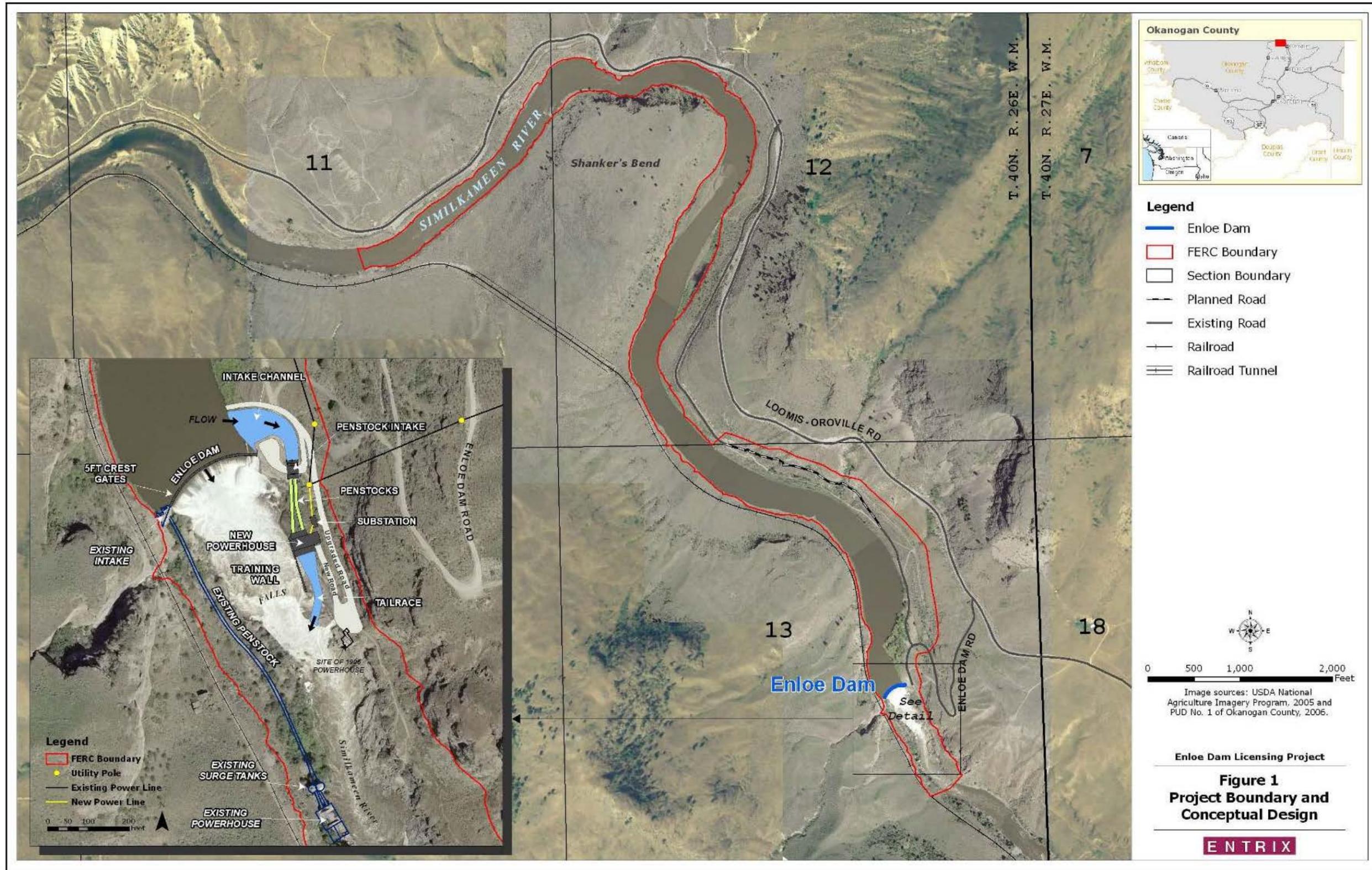
The remainder of the AMP is organized into the following four sections:

Section 1 provides an introduction to the plan by identifying objectives, describing the planning area, and outlining the plan's overall format.

Section 2 describes pre-license consultation activities that have taken place between the District and Federal, state and local agencies, the Colville Confederated Tribes (CCT), and other key stakeholder groups. Section 2 also describes how the AMP will be periodically updated.

Section 3 discusses proposed aesthetics-related PM&E measures included in the FLA. This section includes more specific information about existing PM&Es concerning new facility construction colors and textures, identifies areas where existing buildings will be removed, and identifies associated areas where regrading, slope repairs, and revegetation will occur.

Section 4 describes how the District will implement the proposed PM&E measures following issuance of the FERC license and describes initial cost estimates.



2.0 CONSULTATION, PLAN REVIEW AND REPORTING

2.1 PRE-LICENSE CONSULTATION

In compliance with 18 CFR 4.41, consultation concerning aesthetics was undertaken with Federal, state, and local agencies that have managerial responsibility over any portion of the Project lands or lands abutting the Project. In addition, consultation was undertaken with interested Native American tribes whose cultural values are intimately tied to the visual appearance of the Project Area.

Early consultation on aesthetic issues began in March 2006 with phone calls and emails to the BLM that discussed existing management plans or visual resource classifications in the Project Area, the agency's process for understanding the visual importance of the Project Area, and how the BLM typically evaluates impacts to visual resources. The BLM required that the District use its VRM guidelines: Handbook H-8410-1, Visual Resource Inventory and Manual 8431 – Visual Resources Contrast Rating. These guidelines provided a framework for identifying visual resources and understanding impacts to the resources.

With the methodology established, fieldwork for the visual resource study was undertaken and completed in the spring of 2006 and the study was subsequently drafted from June 2006 to April 2007. Consultation with the public concerning visual resources was integrated into the Recreational Use Survey conducted from June 10 to October 15, 2006. The survey helped determine the importance of visual resources as a portion of recreational use. Of all the visitors surveyed, "sightseeing" accounted for 12.4 percent of area use – surpassed only by boating (18.1 percent) and recreational prospecting (30.5 percent).

Another group with profound interest in visual resources is the Colville Confederated Tribes (CCT). The CCT attaches cultural significance to several natural features and components within the Project Area that are considered Traditional Cultural Properties (TCPs). In February 2007, the CCT, as well as other members of the Cultural Resources Working Group (CRWG) that included the Washington Department of Archaeology and Historic Preservation (WDAHP), FERC, the District, and BLM were provided a copy of the *Technical Memorandum for Visual Resources* (FLA Appendix E.8.1). The memorandum was discussed during the March 6, 2007 meeting of the work group and need for the visual report to recognize the cultural significance of the Project Area's visual attributes particularly in areas identified as TCPs. Further discussion of the CRWG in June 5, 2007 stressed the need for more visual simulations that showed the seasonal de-watering of the dam due to operation of the Project, the visual appearance of the proposed powerplant and penstocks, as well as the visual impact of the new crest gates upon the dam. Potential mitigation measures for new buildings within the Project

Area were also discussed. This included the use of non-reflective building materials and painting the buildings in earth tones to meld with the surrounding landscape.

Following the submittal of the DLA, the District received comments in February 2008 from the National Park Service (NPS), BLM, and Washington Department of Ecology. The commenting agencies requested additional information and studies that expanded the analysis of the aesthetic impacts of dewatering the dam and the new recreational facilities. While no additional studies were conducted, as they are beyond the scope and context of this Project, the District provided additional explanatory text and photographic simulations in FLA Section E.8.2 and FLA Appendix E.8.1 to address the visual impacts of seasonal dewatering of the dam and the new recreational facilities. PM&E HIST-03 was also added to the FLA to address the impacts of dewatering by installing interpretive panels that describe historic operations of the dam with historic images of water over the dam to enhance recreational experiences of visitors. The technical report was updated with this additional information.

On October 28, 2008, FERC accepted the license application but requested additional information concerning impacts to aesthetic resources and also requested that the District prepare this AMP to provide more specifics that include:

- a) Identification of specific visually compatible colors and building material textures that would be used to harmonize the east bank construction with the existing landscape;
- b) Identification of areas where existing buildings would be removed, the sites that would be graded and revegetated, slopes impacted by project-related construction activities that would be repaired and native vegetation would be planted;
- c) A monitoring and maintenance plan; and
- d) Any costs associated with this plan and its measures.

2.2 PERIODIC PLAN REVIEW, REVISIONS, AND UPDATES

This Plan and its exhibits may be updated and/or revised if unforeseen needs arise following the issuance of the FERC license. Any revisions to the Plan would require mutual approval from the District and BLM with written changes documented in the revised AMP.

Any updates to the AMP would be prepared in coordination and consultation with BLM and other agencies/stakeholders, as appropriate. A minimum of 30 days would be allowed for the BLM and other agencies/stakeholders to comment and make

recommendations before the District files the updated plan with FERC. The District would include all relevant documentation of coordination/consultation, including copies of comments and recommendations, with the updated plan filed with FERC. If the District does not adopt a particular recommendation, the filing would include the reasons for not doing so, based on project-specific information.

The Plan will be reviewed annually during the construction period by the District to ensure that Project-related construction and or building removals are completed in compliance with the Plan. Once the project is operating, the Plan will be reviewed every six years by the District and BLM. Agreed-upon changes to the Plan will be incorporated into a revised Plan by the District.

The revised Plan will be reviewed and approved by the District and the BLM and will then be submitted to the FERC for final review and approval. Any disagreements on revisions to the Plan will be submitted to FERC for resolution. Revisions to the Plan will not contradict overall decisions made and agreed upon in the FLA or other Plans developed for the Project.

3.0 PROPOSED PM&E MEASURES

The aesthetic PM&E measures identified below for implementation at the Enloe Hydroelectric Project address the following issues discussed in detail in the FLA:

- The original Enloe powerhouse is deteriorating and has been vandalized
- Demolition and construction activities will cause moderate visual effects to recreational users below Enloe Dam

The District's proposed measures for addressing the deterioration and vandalizing of the powerhouse and the moderate visual effects to recreational users below Enloe Dam caused by demolition and construction activities are described in the paragraphs that follow.

3.1 PM&E AES-01: USE VISUALLY COMPATIBLE COLORS AND BUILDING MATERIALS

Under this PM&E the District will use visually compatible colors and building material textures that harmonize with the existing landscape for the new east-bank construction. A range of compatible colors and building material textures would be used to reduce the visual presence of new project facilities within the larger landscape.

The proposed east bank construction of Project facilities consists of the (1) new crestgates at the top of the dam, (2) headworks that include an approach channel, river intake, and intake canal, (3) penstock intake, (4) two penstocks, (5) powerhouse, (6) tailrace, (7) recreational facilities north of the dam (picnic tables, vault toilet, boat launch), and (8) an improved access road.

As noted in Section E.8.3 of the FLA, of the new facilities only the powerhouse, penstocks, and tailrace will be minimally visible from KOPs #3 and #4 with the powerhouse representing the most visible new feature. These facilities would largely not be visible from KOPs #1 and #2 (See Figure 2).

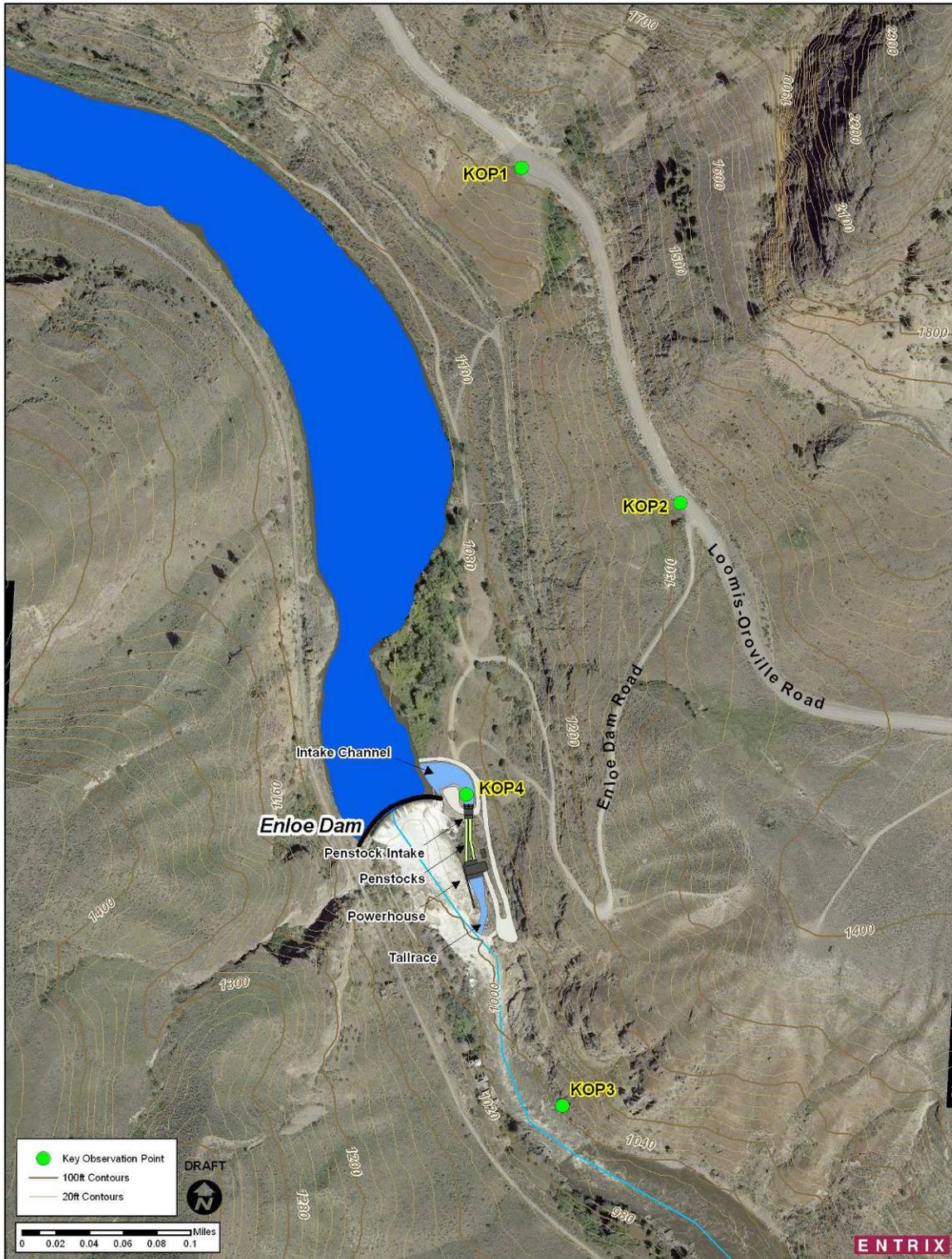


Figure 2. Aerial Mapping with Overlay Showing Proposed Improvements and Locations of Key Observation Points (KOP)

EXISTING COLORATION

As noted in Exhibit 8.3 of the FLA, the color of existing landforms, which includes exposed soils and bedrock consist of warm grays, and warm yellow-browns. Vegetation in the hills on either side of the river, while interspersed with rocky outcrops, largely consists of shrub steppe vegetation spotted with evergreen trees. Riparian forest, dominated by black cottonwood in stands, is found along the reservoir shore. In the spring, summer, and fall, colors in the overall landscape are primarily brown hues dotted with dark green vegetation. Snow is common in the winter months. Existing hydroelectric facilities are largely constructed of concrete, galvanized metal roofing, and steel which tend to exhibit greys, browns, rust, and dark green colors.

COLOR RANGE GUIDELINES FOR NEW BUILDING MATERIALS

Harmony, within the context of color, refers to the pleasing arrangement of hues that ultimately provides order to a visual experience. Overly discordant arrangements of color, for instance, tend to over stimulate visual receptors while overly bland color compositions tend to engender monotony. Color harmony, therefore, is a balance between visual interest and a sense of visual order.

When applied to the Project, most notably the powerhouse, color harmony is achieved when colors similar to those found within the existing natural and manmade landscape are used. Using photographs of the site to provide a color baseline, the District has utilized a Munsell color chart to develop a range of colors for use on the proposed facilities (See Figure 3).

To further reduce the visual presence of the new powerhouse and have the new structure harmonize with its surroundings, the following range of colors is provided as a guideline for building material coloration on the east bank facilities. Figures 4,5, and 6 (KOP #3) are provided to demonstrate the range of existing colors experienced by visual receptors (recreators) below the dam during the spring, summer, and fall. These colors are consistent with suggested guidelines within the HPMP regarding new construction within the Enloe Project. These guidelines state that “muted, natural tone materials, avoiding bright or modern colors” should be used. Matte finishes, as opposed to glossy finishes, should also be used.



Figure 3. Color Range for New Building Materials Used within the Project



Figure 4. Representative Site Photo (Just North of KOP #3) Showing Coloration Taken January 2009.



Figure 5. Representative Site Photo (Just Above and East of KOP #3) Showing Coloration Taken April 2006.



Figure 6. View from KOP #3 Looking NW towards New Powerhouse Site Showing Coloration Taken in September 2006.

TEXTURES FOR NEW BUILDING MATERIALS

While texture is often discussed as a part of the sense of touch, it also has a visual component. From a visual perspective, textures are often most perceptible when a physical surface permits the dramatic interplay of light and dark. Hence smooth surfaces with minimal textures exhibit minimal shadows and thus uniform color, while rough surfaces often display contrasts of light and dark that highlight surface undulations and cause color variation.

Consistent with guidance within the HPMP, new building materials, such as concrete, steel, and galvanized metal roofing should have minimal, but some discernable textures. Concrete, for instance, shall, in general be left exposed, trowelled smooth so that board forms are not visible, or coated with natural gray-colored stucco coatings to blend with the original features. While galvanized materials, such as steel or iron roofing, are by nature smooth, they should be primed with a matte finish and be non-reflective. Examples of textured stucco are provided in Figure 7 for reference only and are not intended to limit the possible range of colors and/or textures. Figure 8 is a representative example of pre-primed corrugated metal roofing panel with non-reflective matte finish that falls within the color and texture guidelines.

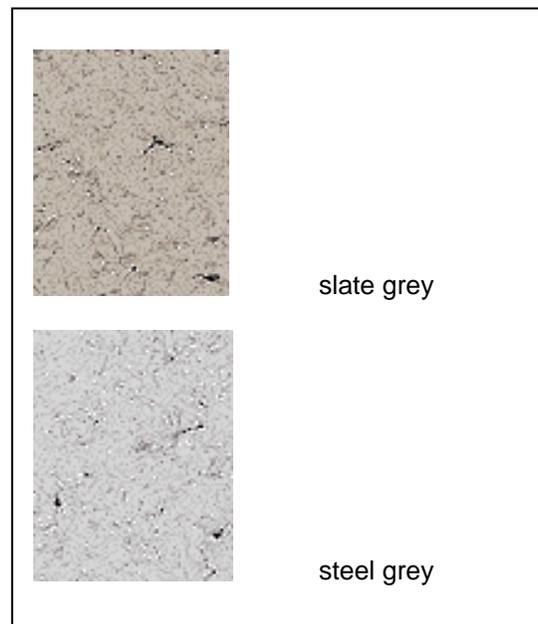


Figure 7. Examples of Textured Colored Stucco That Would Be Consistent with AMP Color and Texture Guidelines¹

¹ Source: <http://www.parex.com/Stucco/Colors.html>



Figure 8. Example of Pre-primed Corrugated Metal Roofing with Non-reflective Matte Finish²

**3.2 PM&E (BOTANY) BOTA-02: PLANT RIPARIAN VEGETATION;
BOTA-07: MONITOR RESTORED AREAS AND REPLANT IF
NECESSARY; BOTA-08: EMPLOY BEST MANAGEMENT PRACTICES
(BMPs) TO PROTECT RIPARIAN AND WETLAND VEGETATION**

To address these PM&Es, the District has prepared Figure 9, that illustrates the tentative upland areas that will likely be disturbed by Project-related construction on the east side and demolition of facilities on the west side of the Similkameen River near the dam. This map does not include lay down or construction material storage areas as they have yet to be determined. For those disturbed areas in the upland area on the west bank, revegetation will be consistent with Section 2.8 of the MMP. The objective of this section of the MMP is to establish native vegetation where bare soil may be exposed by the removal of the former powerhouse, surge tank, or penstock facilities on the west bank. While rocky ledges underlie much of this area, there is vegetation along the penstock and along the old powerhouse access road that could be disturbed, depending on the methods used to remove the facilities. For those disturbed areas in the upland area of the east bank, thin/poor soils, lack of vegetation, and the prevalence of rocky outcrops preclude revegetation.

² Source:

<http://www.atas.com/Products/Wall/ExposedFastener/CorrugatedPanel/tabid/178/Default.aspx>

The MMP also includes goals, the species to be used, methods, and benchmarks of success for botanical resources, monitor areas for replanting if necessary and employ best management practices to minimize impacts. Details of cattle exclusion fencing to protect mitigation/restoration areas will be included in the MMP. Noxious weed control measures for the mitigation areas also will be included in the MMP. The BLM will have approval authority for the elements of the plan that apply to BLM-administered lands.

The existing buildings will be removed unless a qualified third party entity assumes ownership and management of the old west bank powerhouse to maintain it for historic and recreation purposes (See FLA, Section E.4.2.3). If a qualified third party entity is not identified within five years of licensing, then the historic Enloe Powerhouse located on the west side of the Similkameen River and below Enloe Dam, would be demolished. While a registered historic resource would be removed, the demolition would improve the human-made visual environment by removing the most dilapidated portions of the structure. The foundation of the powerhouse and surge tanks, which accounts for about 50 percent of the visible portions of the building, would be retained. In addition to this PM&E, the District would also ensure that these actions are consistent with PM&E Measures HIST-01, HIST-02, and ARCH-01.

4.0 IMPLEMENTATION AND COORDINATION

The District is committed to implementing a number of aesthetic mitigation measures to reduce impacts to aesthetic resources within the Project as noted in Section 3 with the issuance of the FERC license.

The District will be responsible for the full cost of the aesthetic mitigation measures committed to by the District in the AMP. The District will also be responsible for scheduling and/or performing all needed activities, including the provision of necessary personnel, equipment requirements, materials purchase and management oversight.

The District shall seek to coordinate the AMP, as necessary, with all Project Plans that include, but are not limited to the HPMP, RMP, MMP, and Erosion and Sediment Control Plan. In addition to consulting with the BLM, and consistent with AES 2 of the FLA, the District shall also consult with the CCT during aesthetics-related restoration activities.

4.1 COST ESTIMATES

Initial cost estimates for each of the proposed aesthetic PM&E measures described in this AMP is presented in Table 1. These costs will be refined during subsequent design work.

Table 1. Cost Estimates for Proposed PM&E Measures in AMP

PM&E Measure	Cost
AES 01: Using visually compatible Colors/Textures and building materials.	<ul style="list-style-type: none"> Initial Cost: \$10,000 (as noted in FLA)
BOTA-02; BOTA 07; BOTA-08: Component of Monitoring and Mitigation Plan related to repairing slopes, regrading, and revegetation related to building removals.	<ul style="list-style-type: none"> Initial Cost: TBD, Incremental Cost: TBD

5.0 REFERENCES AND LITERATURE CITED

Public Utility District No. 1 of Okanogan County. 2008. Enloe Hydroelectric Project (FERC Project No. 12569). Final License Application. Vol. 1.

Websites:

<http://www.atas.com/Products/Wall/ExposedFastener/CorrugatedPanel/tabid/178/Default.aspx>

<http://www.parex.com/Stucco/Colors.html>