

USDA. FOREST SERVICE
 COLUMBIA RIVER GORGE NATIONAL SCENIC AREA
 902 WASCO AVENUE, SUITE 200
 HOOD RIVER, OR 97031

Telephone: 541-308-1700
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PROJECT REVIEW APPLICATION

DATE OF APPLICATION: December 27, 2012

APPLICANT(S)	PROPERTY OWNERS
U.S. Army Corps of Engineers, Portland Dist.	MAILING ADDRESS
	U.S. Forest Service 902 Wasco Avenue, Suite 200 Hood River, OR 97031
MAILING ADDRESS	Williams Northwest Pipeline 8907 NE 219 th Street Battle Ground, WA 98604
P.O. Box 2946 (CENWP-PM-E) Portland, OR 97208-2946	Oregon Department of Fish and Wildlife 3406 Cherry Avenue NE Salem, OR 97303
	Oregon Department of State Lands 775 Summer Street NE Salem, OR 97301
APPLICANT SIGNATURE AND DATE	PROPERTY OWNER SIGNATURES AND DATE
PHONE: Contact: Steve Helm, 503-808-4778	
E-MAIL: steve.r.helm@usace.army.mil	
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LOCATION OF PROPERTY (Dam)	PROPERTY ADDRESS (IF APPLICABLE)
TOWNSHIP: 1N RANGE: 3E SECTION: 24	Not applicable.
QUARTER SECTION: SW TAX LOT: None	
PARCEL SIZE (ACRES): 750 feet long by 45 feet wide	COUNTY: Multnomah
EXISTING LANDUSE: Conveyance to and	STATE: Oregon

<p>from Sundial Island for recreationists and by Bonneville Power Administration and Williams Northwest Pipeline for facilities maintenance.</p>	
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PROJECT DESCRIPTION: Describe your proposed project, including details on structures to be built, location types of utilities and infrastructure, drainfields, accessory buildings, ground leveling, and filling, or any other relevant activity or mitigation measures proposed. Use additional sheets as necessary:

The original Environmental Assessment (EA) by the Corps for this project was issued for 30-day public review and comment on October 27, 2011 under public notice number CENWP-PM-E-11-06 and the comment period was extended for an additional 15 days per request; the comment period ending December 23, 2011. Since then, additional project components were identified to occur on U.S. Forest Service land including creation of rock storage areas and helicopter landing areas and temporary staging of construction equipment and closure of trails. A revised EA that describes actions on U.S. Forest Service land was issued for 30-day public review and comment on December 21, 2012 under public notice number CENWP-PM-E-12-09. This EA is accessible at the “Announcements” tab at <http://www.nwp.usace.army.mil>. At the end of the public comment period for EAs, the Corps considers all comments received, and make a determination of significance of impacts resulting from the proposed action.

The project described is a Water Resources Development Act, Section 536 restoration project. Section 536 projects aim to restore tidally influenced habitat in the lower Columbia River and Tillamook Estuary. The U.S. Forest Service (USFS) is the project sponsor and, along with Bonneville Power Administration (BPA), is a cooperating agency under the National Environmental Policy Act. Survival Benefit Units for juvenile Salmonids achieved from this project will be applied toward requirements of a biological opinion issued by the National Marine Fisheries Service (NMFS) for continued operation of the Federal Columbia River Power System. The City of Portland Water Bureau (PWB) plans to provide funding for a portion of the dam removal, which will meet a requirement of a biological opinion issued by NMFS to PWB for continued operation of the Bull Run Reservoir.

The Sandy River Delta is located between River Mile 121-123 of the Columbia River at the confluence of the Sandy and Columbia Rivers, east of Troutdale, north of I-84, and at the western end of the Columbia River Gorge National Scenic Area (Figure 1).

A dam was constructed by the Oregon Department of Fish and Wildlife (ODFW), with the thought of enhancing fish harvest, on what was then the main stem of the Sandy River (East Channel) in the Delta during the 1930s. This construction was done with piling in-filled horizontal timbers. The dam was reinforced in 1938 with large basalt stones and the new (and current) main stem of the Sandy River (West Channel) in the Delta was dredged. The result of dam construction was that water from two shallower channels (East and West Channels) was essentially funneled into one deeper channel (East Channel). Since construction of the dam and because of other factors such as changes in regulation of Columbia River flows and dredging of the West Channel, the East Channel has gradually silted in. The East Channel has largely become a slough, and the Sandy River Delta in general has dried out, with

much less diversity of backwater areas now. The East Channel is influenced by Columbia River flows and tidal effects and receives water from the Sandy River only during high flows in the Sandy; it dries to isolated pools during summer.

The dam is approximately 750 feet long, 45 feet wide at the base, and 8 feet high and provides access to Sundial Island for utility providers and recreationists; the Corps is currently working with various stakeholders regarding their concerns. The dam, soon after construction, is shown in Figure 2. The plan for implementation (Figure 3) consists of construction of a low-flow pilot channel within the East Channel, from the Sandy River West Channel to the Columbia River, full dam removal, and some invasive plant removal / native planting along the East Channel.

The pilot channel will be approximately 5,750 feet long; a cross-section is shown in Figure 4. A dozer, scraper, or excavator will be used to establish a grade through the East Channel to create a continuous, year-round connection between the Sandy River West Channel and the Columbia River. Excavation is projected to be required along the entire length of the East Channel except for one small location between the dam and West Channel. Approximately 30,000 – 50,000 cubic yards of material is expected to be excavated for the pilot channel (see attached drawings). Some minor amounts of vegetation, including perhaps trees, may need to be removed to provide equipment access; this is expected to be a minor amount if any because excavation of the pilot channel is expected to occur with equipment that will be in the East Channel with access via land from the dam (if land-based work is conducted) or via water from the Columbia River (if water-based work is conducted). All of the vegetation growing on the dam will of course be removed. Construction methods will be developed during coordination with the selected contractor. If land-based work is done, equipment that exerts low pressure on the ground will be employed in order to move about effectively in the East Channel and to minimize impacts with respect to soil compaction.

The ODFW designated in-water work period for the Sandy River is July 15 through August 31. An in-water work extension has been coordinated with NMFS and ODFW to extend through October 15. Work is projected to occur in 2013. The contractor, in consultation with the Corps, will determine particulars regarding equipment use and timing of the components of the work.

Beneficial use of excavated material will occur; excavated material from the pilot channel will be side-cast in order to retain the material in the Columbia River system. Sediment in the East Channel has been tested and found suitable for unconfined in-water disposal. Sediment samples at various locations in the East Channel yielded no evidence of elevated levels of toxins in accord with the Sediment Evaluation Framework.

Removal of the entire dam will require excavation of approximately 13,500 cubic yards of rock, pilings, timbers, and sediment using a dozer or excavator (see Figure 5 and attached drawings). The pilings from the dam were analyzed for arsenic and creosote compounds and no contaminants were detected. Some of the rock from the dam will be stored above ordinary high water in the Delta, and the remainder of material from the dam will be hauled off-site to a site located outside the boundaries of the National Scenic Area. Figure 6 shows potential rock storage locations. The purpose of the rock storage areas are to provide material for potential future access to Sundial Island for emergency repairs that could include the natural gas line or transmission lines on the island. Rock could be used, for example, to create abutments for temporary bridge placement and to create approach fill for temporary bridge placement.

Rock storage areas will be a maximum of 4 feet high. If, for example, 10,000 cubic yards of the dam is comprised of rock, then aerial coverage, if all rock storage areas are 4 feet high, would total 7,500 square yards, or approximately 1.5 acres, for all rock storage sites combined. All rock storage areas would be required to be covered with soil and seeded with appropriate upland native species capable of surviving. Rock comprising the dam vary in size from 12 to 24 inches in diameter, with a few larger rocks up to 48 inches in diameter.

Existing invasive species such as thistle and blackberry will be removed as needed along the East Channel and native plants such as willow, hardhack, dogwood, and other water tolerant species will be planted. Extent of invasive removal and planting will depend on restoration work completed by other agencies in recent years in the area.

Full dam removal will benefit juvenile Salmonids spawned in the Sandy River system by allowing access to the East Channel during all flow conditions, by reducing stranding potential during summer months when ponding currently occurs in the East Channel, by providing cooler water to the East Channel from the Sandy River during summer, and by providing additional area that meets appropriate depth and velocity criteria for juvenile Salmonids. By removing the entire dam, more shallow water habitat will exist and the river will be allowed to reestablish a more natural flow pattern. Water conditions and wetted area for the West Channel may have minor loss of habitat because of the diversion of flow into the East Channel during certain periods of the year; riparian development, however, is much better currently along the East Channel than the West Channel, which will benefit fish when they are more easily able to access the East Channel.

Impacts to fish during construction are likely to be minimal since water temperatures of ponds within the East Channel when work is to occur are typically too high to support juvenile Salmonids. Waters near the mouth of the East Channel at the Columbia River are more apt to support temperatures suitable to Salmonids. There will likely be turbidity that enters the West Channel and the Columbia River and may result in disturbance of fish; juveniles and migrating adults of steelhead, Chinook, and coho could be disturbed. This increase in turbidity may have some impacts on Salmonid Critical Habitat and Essential Fish Habitat. This project complied with the Endangered Species Act through SLOPES IV (Standard Local Operating Principles for Endangered Species), which was submitted to NMFS and approved by them. Compliance with the Water Quality Certificate for Nationwide Permit 27 and the programmatic biological opinion for SLOPES will alleviate concerns of turbidity effects to Salmonids during construction. No Salmonid redds would be present at the time of work. It has been coordinated with NMFS that the project will be submitted under the upcoming SLOPES V in order that Eulachon, a recently listed species that occurs in the Delta, has ESA coverage.

Work to occur on USFS lands includes use and improvement of roads in the Delta, creation and use of staging areas during construction, creation and periodic maintenance of a main helicopter landing area and 2 satellite areas on Sundial Island, and rock storage on Sundial Island and on the mainland (Figure 6). Minor access road improvements necessary to get heavy equipment from I-84 to the dam may be required, including temporary removal of the access gate. Staging areas will be rehabilitated and planted with native species after construction is complete.

The road to be used will be the main road from the gate at the parking lot (off of Interstate 84) to the dam, identified as the 1000 Acres Trail in Figure 6. The gate will be temporarily removed and stored

near its present location until reinstalled after completion of work. The helicopter landing areas (Figure 6) will be circular and approximately 45 in diameter and will be located within Bonneville Power Administration's (BPA's) transmission line easement. Fabric and 3-inch minus rock will be used for the main landing area, and the 2 satellite areas will be periodically mowed. The specific area to be chosen will limit the amount of vegetation removal necessary for maintenance. It will not be located where there are trees and shrubs present. The staging area will be located near the dam, on the mainland side of the East Channel, in one of the areas identified in Figure 6. Stored rock will come from the dam and will be available for use for emergency access to Sundial Island by BPA for their transmission lines and by Williams Northwest Pipe for their underground natural gas pipeline in the future if needs arises; Figure 6 also shows rock storage areas on both sides of the dam above ordinary high water. Locations of existing transmission lines and the natural gas pipeline are shown in Figure 6.

Likely equipment to be used on the project include a dozer, excavator, and trackhoe. It is also possible that a floating piece of equipment with a excavator could be used. Weed seeds would be prevented from entering the project site by requirements in the specifications to wash equipment tires before entering the site. All work, including spill prevention, will be done in compliance with the Oregon Department of Environmental Quality water quality certificate that covers Regional General Permit 27.

Application Checklist: the following is required to complete your application:

- Application form completed and signed (completed – yes; signed – no)
- Site Plan
- Key viewing areas checklist (attached)
- Names and addresses of adjacent property owners within 200 feet of parcel
- Any additional information as required:

KEY VIEWING AREAS: Key viewing areas are important public viewpoints and areas that afford opportunities to view the Gorge scenery. Key viewing areas are listed below. Please check those sites which can be seen from your property.

- | | |
|--|--|
| <input type="checkbox"/> Historic Columbia River Highway | <input type="checkbox"/> Washington State Route 14 |
| <input checked="" type="checkbox"/> Sandy River | <input type="checkbox"/> Washington State Route 142 |
| <input type="checkbox"/> Portland Women's Forum State Park | <input type="checkbox"/> Washington State Route 141 |
| <input type="checkbox"/> Crown Point | <input type="checkbox"/> Cook-Underwood Road |
| <input type="checkbox"/> Rooster Rock State Park | <input type="checkbox"/> Dog Mountain Trail |
| <input type="checkbox"/> Multnomah Falls | <input type="checkbox"/> Beacon Rock |
| <input type="checkbox"/> Larch Mountain | <input type="checkbox"/> Cape Horn |
| <input type="checkbox"/> Highway I-84, including rest stops | <input checked="" type="checkbox"/> Columbia River |
| <input type="checkbox"/> Bonneville Dam Visitor Centers | <input type="checkbox"/> Pacific Crest Trail Oregon Highway 35 |
| <input type="checkbox"/> Sherrard Point on Larch Mountain | |
| <input type="checkbox"/> Rowena Plateau/Nature Conservancy Viewpoint | |
| <input type="checkbox"/> Larch Mountain Road | |
| <input type="checkbox"/> Wyeth Bench Road | |
| <input type="checkbox"/> County Road 1230 (Old WA St. Route 14) | |

PROJECT SITE PLAN: A plan drawn in black ink at a scale of about 1 inch equal to 200 feet (1:2400) or at a scale providing greater detail must be included with the application.

If the parcel is very large, you may show the project on the portion of the parcel affected by the proposed use. Be sure, however, to show enough of the parcel or some adjacent features, such as roads, so that the reviewers can orient themselves on your map. A small vicinity map showing the subject parcel and surrounding parcels may help.

At a minimum, you must show the following features:

Applicant(s) name

Location and width of existing and proposed roads, driveways, and trails

Scale and north arrow

Location and size of existing and proposed structures

Boundaries of parcel with dimensions and size

Location of existing and proposed services including wells or other water supplies, structures, power and telephone poles and lines and outdoor lighting.

Significant terrain features or landforms

Location and depth of all proposed grading and ditching

[x - stated in general terms] Groupings and species of trees or other vegetation on the parcel

[x - specific locations along East Channel not known at this time] Location and species of vegetation that would be removed or planted

Water courses and bodies of water

Figure 1. Sandy River Delta

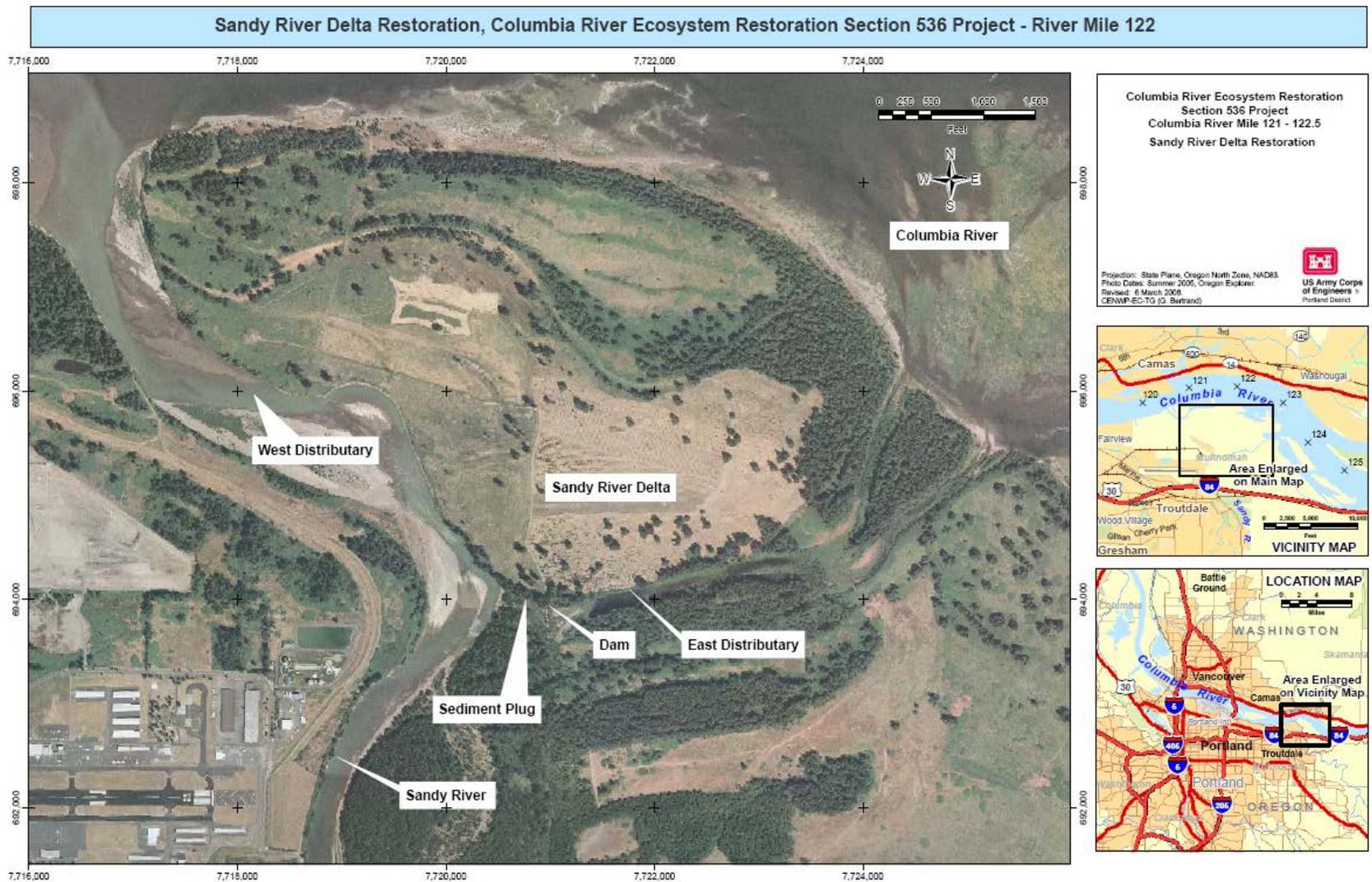


Figure 2. Dam after construction, 1939



$Q(\text{Columbia}) \approx 350,000 \text{ cfs}$

$Q(\text{Sandy}) \approx 2,040 \text{ cfs}$

Photo: 11 May 1939

Figure 3. Proposed work for Full Dam Removal showing the dam and pilot channel

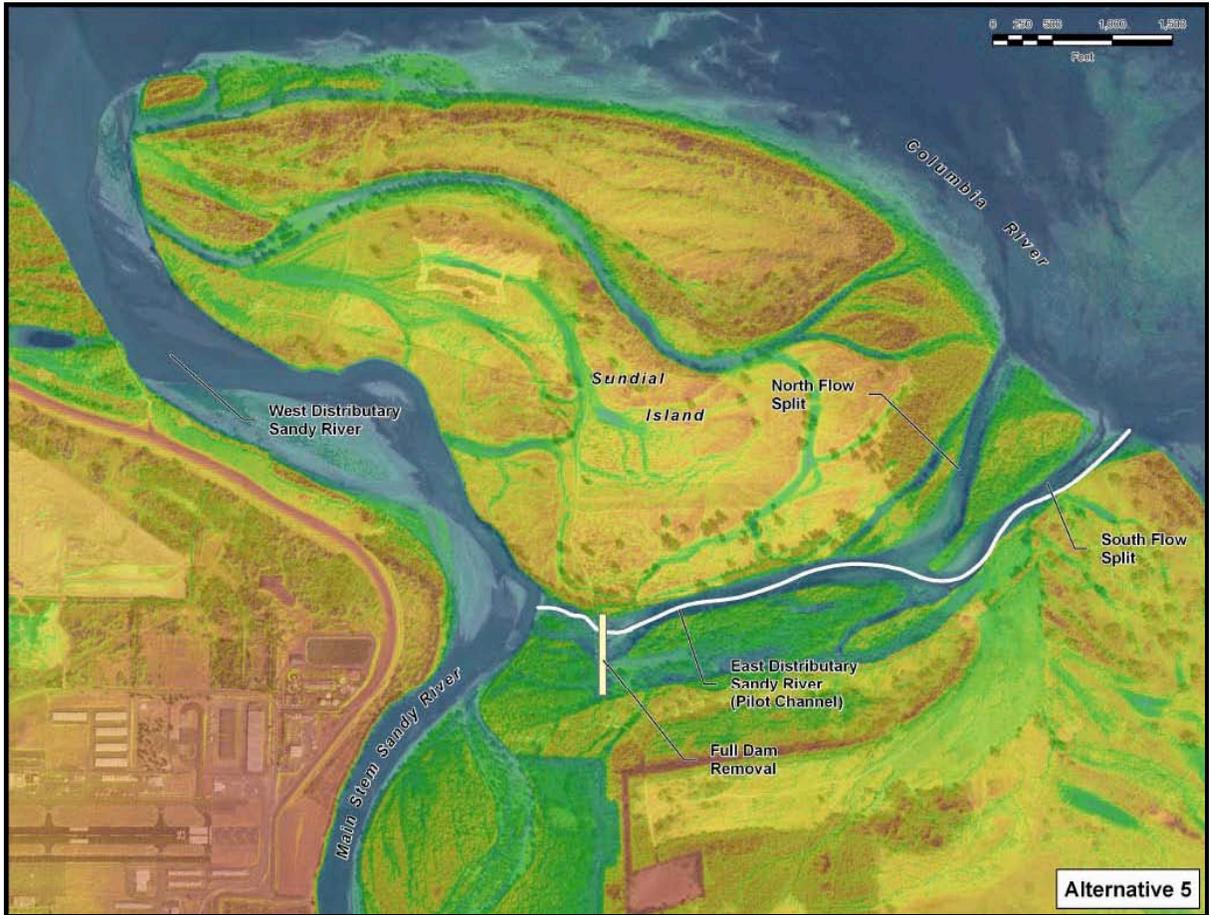


Figure 4. Schematic of Pilot Channel

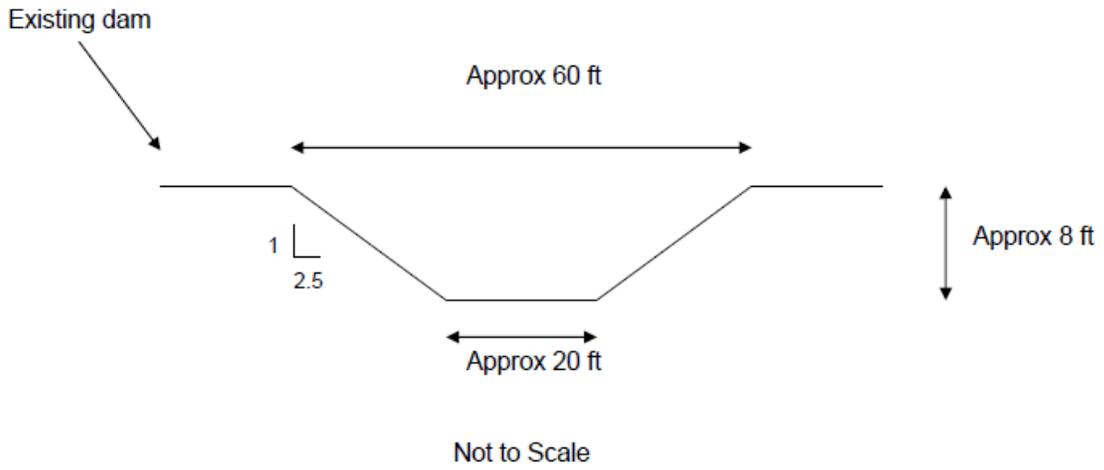


Figure 5. Schematic for Full Dam Removal

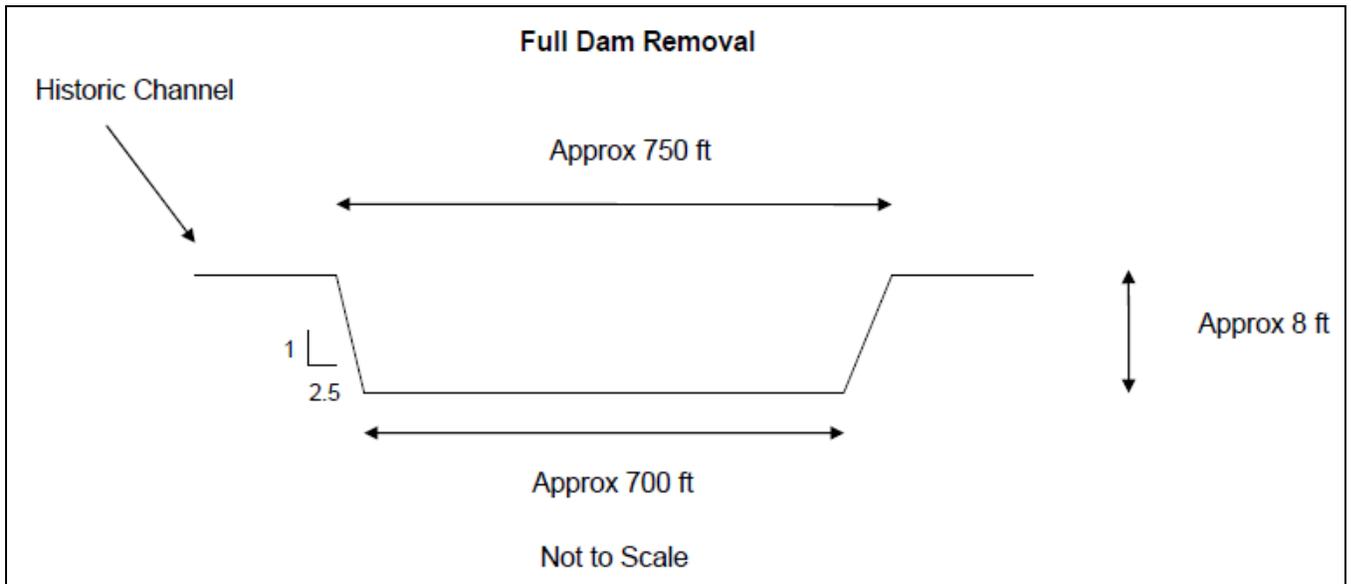


Figure 6. Project area showing potential rock storage areas, helicopter landing areas, staging areas, and infrastructure.

