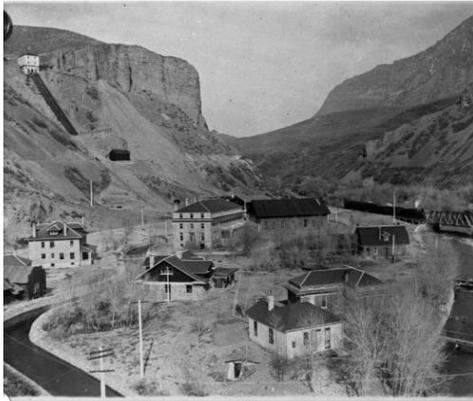


# SCOPING PACKET FOR OLMSTED HYDROELECTRIC POWER PLANT REPLACEMENT PROJECT

## INTRODUCTION

The Central Utah Water Conservancy District (District) and the United States Department of the Interior, Central Utah Project Completion Act Office (Interior), as Joint Lead Agencies, are proposing replacements and modifications to the Olmsted Hydroelectric Power Plant located in Orem, Utah near the mouth of Provo Canyon.

In October 2015, the District will assume the responsibility for operation and maintenance of the Olmsted power plant as a



component of the Bonneville Unit of the Central Utah Project (CUP). The Joint Lead Agencies are preparing an Environmental Assessment (EA) in compliance with the National Environmental Policy Act (NEPA). The EA will provide the necessary analysis for determining potential environmental impacts associated with the Olmsted power plant replacement project.

As part of the EA process, the Joint Lead Agencies are initiating a scoping process and soliciting comments from agencies, interested groups, and the general public regarding the proposed project. The scoping process will assist in the determination of alternatives and environmental impacts to address in the NEPA process.

## OVERVIEW OF THE HISTORY OF OLMSTED POWER PLANT

In the early 1900's, Lucien L. Nunn began construction of a run-of-the-river hydroelectric power plant at the mouth of Provo Canyon. Olmsted is named after one of its principal

designers. Water for this hydroelectric power plant is diverted from the Provo River approximately 4.5 miles up the canyon. It is conveyed through the Olmsted flowline located along the foothills of Mount Timpanogos above the Provo River. The power plant is able to produce about twelve megawatts per hour when operating at capacity. In 1912, Utah Power & Light (now PacifiCorp) purchased the Olmsted power plant through the acquisition of Telluride Power Company and has operated the power plant since that time. For more information on the history of the Olmsted power plant visit:

<http://www.CUWCD.com/olmsted>

## PROJECT BACKGROUND

The CUP planning studies projected future water demand along the Wasatch Front communities. As part of the plan to meet the water demand, in the mid-1980's the U.S. Department of the Interior, Bureau of Reclamation acquired the Olmsted power plant. The acquisition included water rights to provide water for the Bonneville Unit of the CUP through a series of water right exchanges involving Strawberry Reservoir, Utah Lake, and Jordanelle Reservoir. The acquisition also included the Olmsted diversion structure on the Provo River, Olmsted flowline, penstocks, pressure box, powerhouse, and associated rights-of-way. A Settlement Agreement was reached in September 1990 between the District, Interior, and PacifiCorp that outlined compensation and provided for interim operation of Olmsted Hydroelectric Power Plant. The District, by way of Interior, will assume the operation and maintenance of the Olmsted Hydroelectric Power Plant beginning October 2015 when the term of the Settlement Agreement ends.

## PROJECT NEED

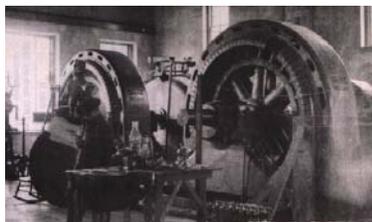
The need for the Olmsted Hydroelectric Power Plant Replacement Project is to continue hydroelectric power generation and to maintain the full water supply for the Bonneville Unit of the Central Utah Project.



## PROJECT PURPOSES

The purposes of the Olmsted Hydroelectric Power Plant Replacement Project include:

- To maintain Bonneville Unit Water rights.
- To reduce maintenance requirements and operation costs associated with power generation.
- To meet existing contractual obligations.
- To provide for project power development and maximize power potential as an incident of CUP operation.
- To reduce risk of failure due to aging



infrastructure.

- To provide the necessary Operation and Maintenance facilities to support the power plant and other District activities.

## PROPOSED ACTION

The principal components of the proposed Olmsted power plant project are outlined below:

### Construction of a new Powerhouse

The EA will evaluate the environmental impacts of constructing a new powerhouse located within the current Olmsted property. The new powerhouse is proposed to be located near the existing powerhouse (see Project Area Map). The existing powerhouse would remain in-place; however, it would no longer be used for hydroelectric power generation. The EA will also address impacts of the existing powerhouse (e.g. hazardous waste, long term building maintenance, etc.).



### Replacement of the Penstocks

Currently, the Olmsted power plant includes three 36-inch and one 72-inch riveted/welded steel penstocks; one of the 36-inch penstocks is not operational. The penstocks originate at a pressure box located above the existing powerhouse. The proposed project includes replacing the existing penstocks with at least one larger penstock in the same general alignment as the existing penstocks.



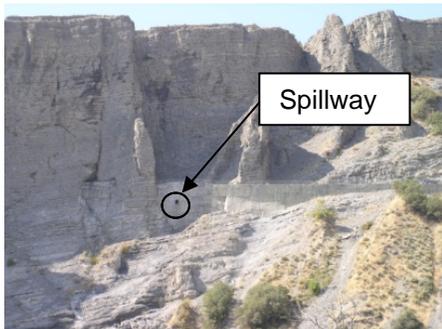
### Utilize the 10 million gallon (MG) Olmsted Flow Equalization Reservoir

The proposed operation of the Olmsted Hydroelectric Power Plant includes utilizing the existing 10 MG Olmsted Flow Equalization Reservoir. The 10 MG reservoir is located at the mouth of Provo Canyon on the Olmsted flowline. Using the 10 MG reservoir provides improved operational control, increased height of the water surface elevation above the power plant (improved power generation), and improved flexibility of water deliveries to the power plant. To use the 10 MG reservoir, modifications or changes need to be made to the pressure box, the existing spillway, and the Olmsted rock tunnel as discussed below:

- **Options for Pressure Box** – The pressure box is located above the Olmsted power plant and sits visibly on the hillside at the mouth of Provo Canyon. Over time, the pressure box has deteriorated and has become a safety hazard. Utilizing the 10 MG reservoir eliminates the need for or requires modifications to the existing pressure box. The EA will analyze the environmental impacts for potentially removing, modifying, or leaving the pressure box in place.



- **Existing Spillway** – The existing spillway is located along the Olmsted flowline between the pressure box and 10 MG reservoir. In order to utilize the 10 MG reservoir, the existing spillway needs to be modified and raised. The proposed spillway would be raised in the same general location as the existing spillway and would use the existing drainage easement to the Provo River.



- **Olmsted Rock Tunnel** – The Olmsted rock tunnel is approximately 900 feet long. It is the last segment of the Olmsted flowline before discharging into the pressure box and penstocks (see project area map). The Olmsted rock tunnel would become pressurized by using the 10 MG reservoir (currently, the tunnel flows are non-pressurized). The Olmsted tunnel would require a concrete or steel lining to safely accommodate the pressure.

### Power Generation

Under the 1990 Settlement Agreement, PacifiCorp operates the Olmsted power plant until October 2015. It's anticipated that at that time the U.S. Department of Energy, Western Area Power Administration will begin marketing the power generated at Olmsted, operated by the District. The EA will evaluate potential issues associated with Western Area Power Administration marketing the power generated at Olmsted beginning in October 2015.

### Operation and Maintenance Facilities

The EA will evaluate the potential for additional District Operation and Maintenance facilities located within the Olmsted power plant property. These potential facilities are needed to support the Olmsted power plant as well as other District needs.

## PROVO RIVER

The proposed Olmsted Hydroelectric Power Plant Replacement Project will utilize the same water supply as the existing power plant. The proposed project would not result in changes to quantities or quality of water, deliveries, timing, or location of the tailrace connection to the Provo River. Hydropower would continue to be generated incidental to other CUP purposes. All the existing and previous environmental commitments and agreements associated with the Bonneville Unit of the CUP will be maintained.

## NEPA PROCESS

Following the scoping period (January 31, 2014), the Joint Lead Agencies will review all comments received and will take them into consideration during the preparation of the EA. A draft EA will be made available to agencies and the public for a 30-day review and comment period. Comments received on the draft EA will be considered for incorporation into the final EA. If the final EA shows no significant impacts, then a Finding of No Significant Impact (FONSI) will be issued



by the Joint Lead Agencies and distributed along with the final EA to interested agencies and public. During the EA process, if the Joint Lead Agencies determine that there is (or may be) a significant impact to the human environment, preparation of an Environmental Impact Statement would be initiated.

## SCOPING INFORMATION

The scoping comment period for this project extends until January 31, 2014. Comments may be submitted by mail, email, or via the project website.

### Contact Information

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