

DRILLING CONTRACTOR DRAFT SCOPE OF WORK

Island Complex Recreational Area Remedial Actions

1.1 PROJECT BACKGROUND

The Washington State Department of Ecology (Ecology) is conducting remedial actions at the Island Complex Recreational Area in Spokane County, Washington. Historical mining practices in the Coeur d'Alene basin in Idaho resulted in sediment and soil contamination along the shoreline of the Island Complex and at other shoreline sites in the Spokane River in Washington, between the Washington – Idaho state line and Upriver Dam. The primary contaminants of concern include lead, arsenic, cadmium, zinc which occur in concentrations that exceed human health- and ecological-based criteria.

The remedial design for the Island Complex site will include stabilization of portions of the downstream bank to minimize the re-distribution of contaminants in the river; enhancement and capping of trail sections and stable banks to prevent contact with contaminated soil; installation of signage, vegetation or physical barriers, such as boulders or fencing, to better define the trails; and enhancement (or avoidance of disturbance) to the uplands, riparian, and aquatic habitat.

Ecology is seeking a qualified licensed drilling contractor to provide hollow-stem auger drilling services. The boreholes will be used for planting cottonwood and willow poles along the southern bank of the main island at the Island Complex Recreational Area.

1.2 PROJECT LOCATION

The Island Complex recreational area is located at approximate river mile 95.0 about 1.0 mile west of the Idaho State line in Spokane County, Washington (Figure 1). The site is located on land owned by the State of Washington and managed by the Washington Department of Natural Resources (DNR), and can be accessed via a 0.5-mile trail through parkland owned by Spokane County. The trailhead is located at a parking lot adjacent to the river near Exit 299 on I-90.

Access to the work site will likely require off-road capabilities. Prospective bidders are encouraged to visit the site and become familiar with existing conditions.

Project Drawings can be viewed at www.ridolfi.com/spokaneriver.

1.3 SCOPE OF WORK

- A. The Driller will use a 6-inch inside diameter (I.D.) hollow-stem auger drill rig to drill approximately thirty (30) boreholes to depths of approximately eleven (11) feet below ground surface (bgs). The boreholes will be used for planting

cottonwood and willow poles along the southern bank of the main island at the Island Complex Recreational Area. The Driller will provide a truck or track mounted hollow-stem-auger drill rig, drill tools, and all labor, equipment and supplies needed to adequately and efficiently complete the work.

- B. Prior to installing the boreholes in the back channel for planting, the Driller will conduct one to two days of test drilling at the project location to verify that hollow-stem auger is an effective method for drilling the boreholes to plant the poles. Test drilling work will be directed by Ecology or its designated representative.
- C. The Drilling Contractor will perform drilling Work, using methods determined during test drilling, required for the installation of rooted poles in the Back Channel as delineated and described in the project Drawings.
- D. All Work will be coordinated with Ecology or its designated representative and the pole Planting Contractor.
- E. Drilling and plant installation activities will likely follow the following sequence:
1. NOTE: Back Channel Zone 1 irrigation system, by Others, must be installed, tested and operating before drilling and rooted pole installation can occur.
 2. Drilling contractor will drill a hole to a depth of approximately 11-feet using 6-inch I.D. hollow-stem auger. Final depth will be determined in the field by subsurface conditions as directed by Ecology or its designated representative.
 3. Planting Contractor will then fill annular space within auger with water.
 4. Working as quickly as possible, the Planting Contractor will remove one cottonwood rooted pole from temporary cool storage and 4-inch-diameter PVC growth container and insert pole into hollow-stem auger until approximately 6 inches remains above the ground surface.
 5. The Planting Contractor will then insert a section of 1/2-inch-diameter perforated PVC pipe into the hollow-stem auger to the full length of the cottonwood rooted pole. The 1/2-inch PVC pipe shall be capped at the bottom end and have 4-mm diameter holes drilled every 1-foot along its length as well as in the cap.
 6. The Planting Contractor will then insert two rooted willow poles into center of the hollow-stem auger such that approximately the top 6-inches remain above the ground surface. NOTE: the Driller may need to partially withdraw the auger before the willow poles can be inserted depending on the length of the poles.
 7. The Planting Contractor will fill remaining annular space within hollow-stem auger with drilling spoils, topsoil, and soil enhancements, as

appropriate, to ensure the hole is completely filled with soil (i.e. no air pockets).

8. The Driller will carefully retrieve the hollow-stem auger, taking care not to pull the rooted poles from the ground. As the auger is withdrawn, the native soil will be allowed to collapse around the rooted poles.
- F. To the extent possible, drilling spoils shall be placed back into the respective borehole. In the event that excess spoils are present at the site, the Driller will be responsible for transporting off site to a disposal facility approved by Ecology. Driller will submit waste manifests to Ecology as part of the project closeout procedure.
- G. The Driller will submit a daily report that includes a description of work completed, equipment used, personnel on site, hours worked, number of planting locations completed, supplies used and other pertinent information.

1.4 SCHEDULE

- A. July 2007: One to two days of test auger drilling conducted in Back Channel to identify appropriate equipment and installation techniques.
- B. September to October 2007: Drilling holes for installation of rooted stock in Back Channel. Driller to coordinate Work with Ecology's Planting Contractor.

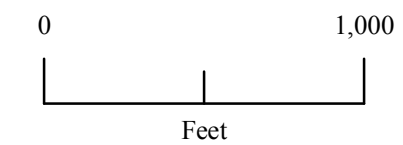


Figure 1
Island Complex
Site Location Map

Island Complex Recreation Area
Spokane River, WA

April 2007