

Bank Stabilization and Creating Habitat for Pollinators at Albeni Falls Dam and Lake Pend Oreille

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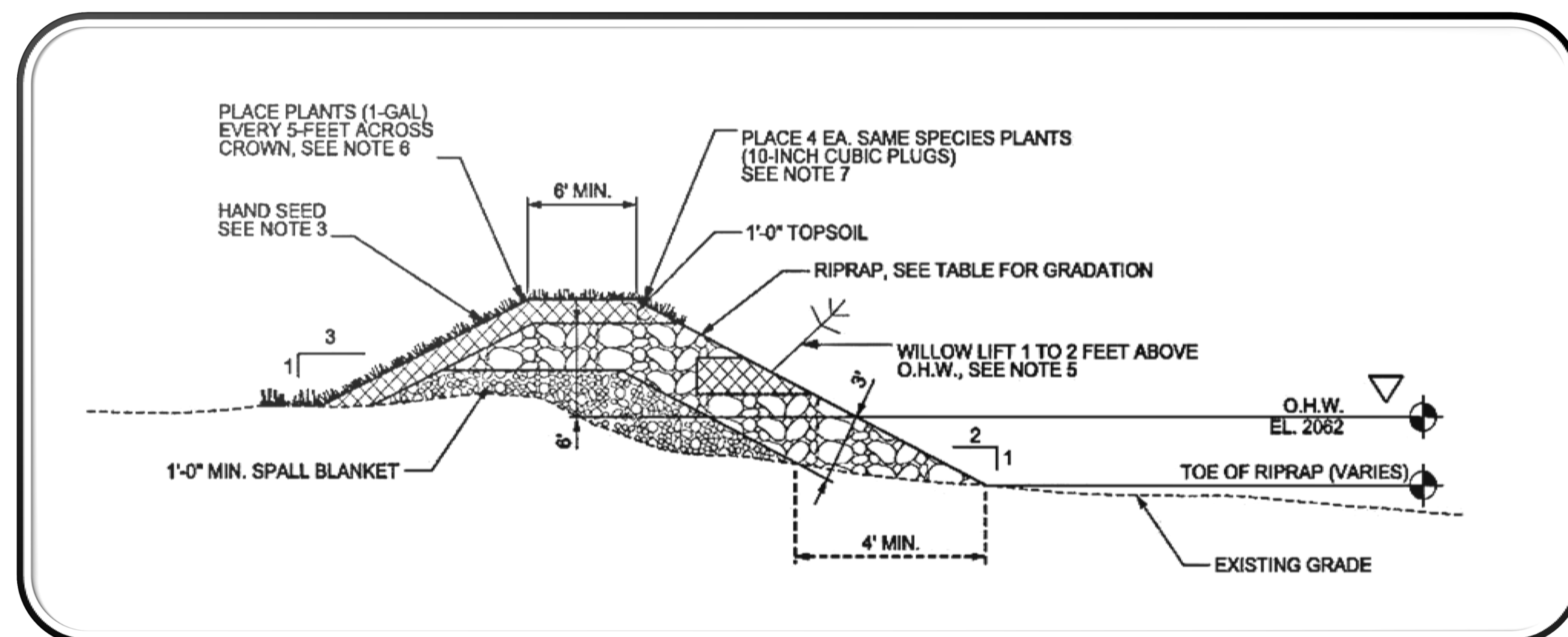
Army Corps of Engineers, Seattle District

Introduction

A total of nine bank stabilization projects have occurred at Albeni Fall Dam (AFD) to stabilize and protect archaeological sites from erosion. However, bank stabilization projects can do more than just stabilize an archaeological site. At AFD bank stabilization sites serve dual purposes: protection of archaeological sites and habitat for both pollinators and non-pollinators!

Bank Stabilization

Bank stabilization projects at AFD are undertaken to protect archaeological sites from ongoing erosion that occurs due to the changes in water elevation, boat wake, wind driven waves, and winter storms. Bank stabilization projects are constructed in front of the eroding bank with large rip rap placed over a layer of gravel. Willow lifts are added into the rip rap layer. Once the rip rap is installed, soil is placed between the riprap and eroding bank. The top of the bank stabilization project is then planted with native plants that attract both pollinators and non-pollinators.

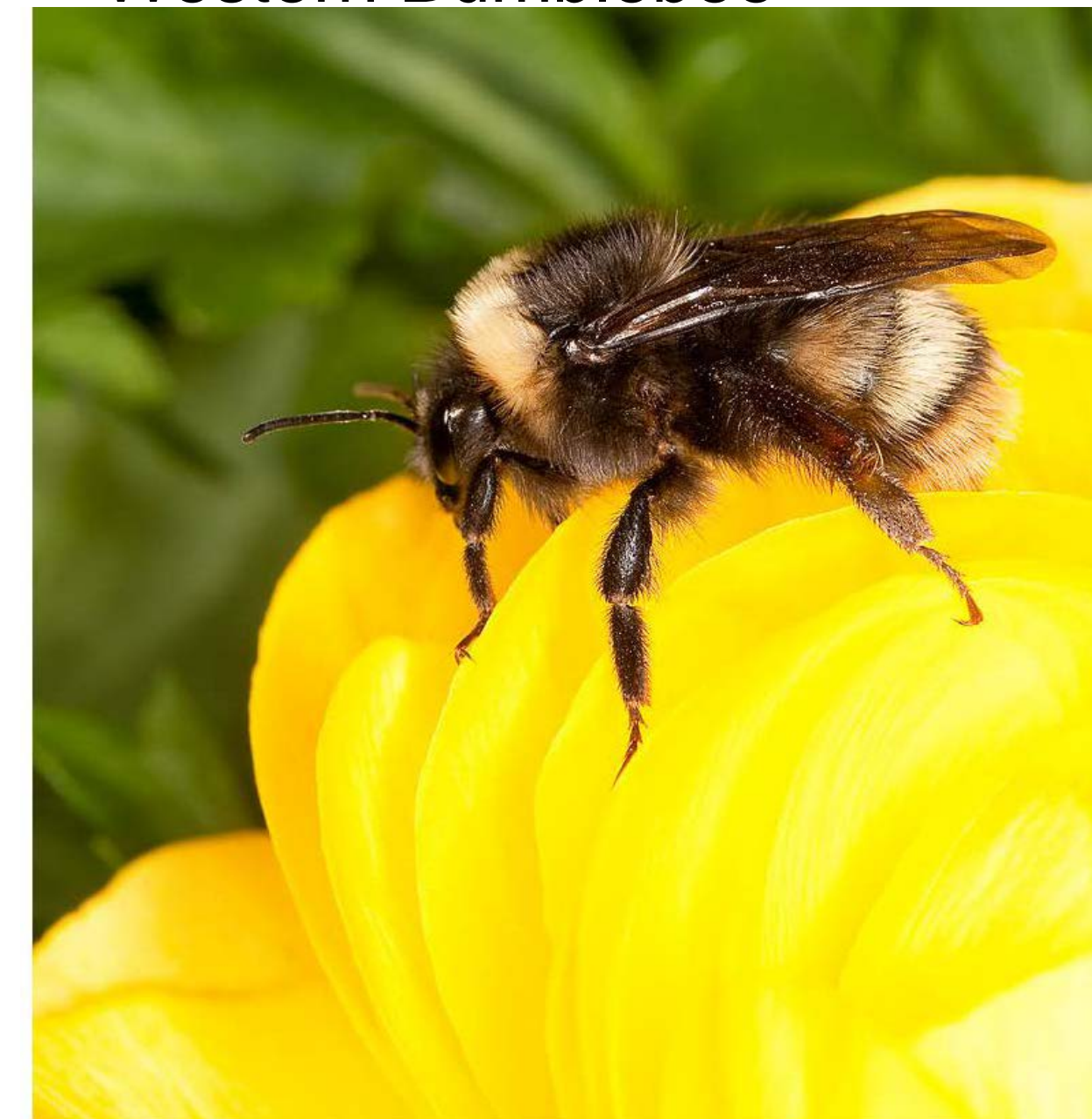


Carey Creek Bank Stabilization design plans.

Pollinators

Due to the declining pollinator populations from loss of habitat, AFD works to ensure all bank stabilizations and restoration projects are designed to ensure habitat for pollinators. AFD follows guidance in *Pollinator-Friendly Best Management Practices for Federal Lands* and the Corps uses the Idaho Department of Fish and Game riparian mix with 2% milkweed. Pollinators that have been observed include: hummingbirds, western bumblebees, honey bees, mason bees, moths and butterflies.

Western Bumblebee



Rufous Hummingbird



Riley Creek Stabilization



Priest River Stabilization



Non-Pollinators

Bank stabilization projects also benefit other wildlife and fish species. The willow lifts shade the riverbank increasing fish habitat. A large assortment of wildlife have been observed utilizing the habitat created by bank stabilization projects. Non-pollinator species that have been observed include: deer, moose, elk, skunks, snakes, salamanders, squirrels, moles, and shrews. Birds include: eagles, ospreys, red-winged black birds, geese, and killdeer. Eagles have been observed using the willows as a loafing areas, and their nests have been observed in trees near various stabilization areas. Killdeer nests have been observed at Priest River WMA.



Killdeer nest and Garter snake at Priest River bank stabilization area.

Acknowledgements

Thanks goes to AFD Natural Resources Staff Betsy Hull, Craig Brengle, and Seattle District Biologist Beth McCasland for their support of bank stabilization projects and providing photographs.

Photo Credits:

Western Bumblebee: Agricultural Research Service USDA
 Rufous Hummingbird: Cornell Lab of Ornithology
 Carey Creek, Riley Creek, Priest River, Killdeer nest and Garter snake: USACE, Seattle District.

