PORTLAND WATER BUREAU

# Dabney State Park Large Wood Placement

Multnomah County, Oregon

Portland Water Bureau

*clockwise from top: Juvenile coho (Oncorhynchus kisutch) observed in newly installed pool; Large woody debris installed for stability and habitat; Helicopter delivery of cobble and logs minimized forest impacts*

*With the first seasonal high flows after project completion, juvenile coho salmon (Oncorhynchus kisutch) were observed finding refuge among the installed pools, gravel, and placed logs.*

From its origin as snowmelt on the western slopes of Mount Hood, the Sandy River flows 56 miles before emptying into the Columbia River. The river and its tributaries support several anadromous species, including threatened salmon and steelhead. Over the last several decades, human impacts such as a former hydroelectric dam, increased channelization, reduction of spawning and rearing habitat, and road construction have contributed to a significant decline in salmon and steelhead runs.

In support of the Portland Water Bureau, the Oregon Parks and Recreation Department, and the interagency Sandy River Partnership, Biohabitats helped to restore key habitat for threatened salmon and steelhead at Dabney Recreation Area, located along the Sandy River. The Dabney Large Wood Placement Project increases off-channel habitat in Springwater Creek, a tributary to the Sandy River. At the project site, a landslide had buried a stream channel and caused it to flow straight to the Sandy River rather than following its longer, historic path. This stream had provided refuge for juvenile salmon and steelhead to spend winter, out of danger from swift Sandy River flows.

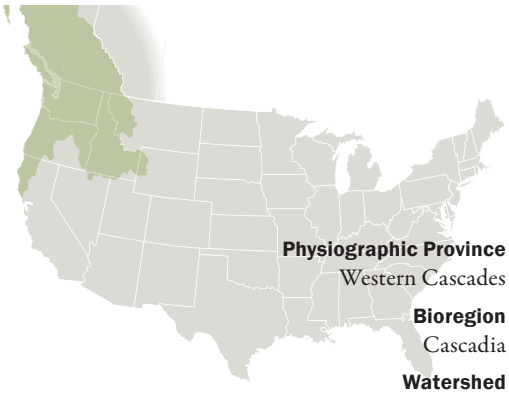
Leveraging our team's unique strategic experience with low-impact deployment of heavy machinery and large natural materials in highly sensitive natural environments, the Biohabitats construction crew excavated about 2,000 feet of new channel. To limit impacts to the mature floodplain forest, a Columbia Model 107-II heavy lift helicopter was used to deliver and install 60 tons of native cobble and 30 logs in the channel to provide habitat complexity and stability. Because the project took place in a popular public park during peak recreation season, Biohabitats coordinated reinforcing layers of safety tactics during these operations, including constant radio communications, temporary park closures, signage, and foot traffic control measures.

After project completion, native trees and vegetation were planted in the surrounding riparian areas, and with the first seasonal high flows after project completion, juvenile coho salmon (*Oncorhynchus kisutch*) were observed finding refuge among the newly installed pools, gravel and logs.

**SERVICES**

Construction

*conservation planning*
***ecological restoration***
*regenerative design*



**Physiographic Province**
Western Cascades

**Bioregion**
Cascadia

**Watershed**
Sandy River

Biohabitats
CASCADIA BIOREGION

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