

MYTHBUSTERS

FISH AND WILDLIFE MYTHS ABOUT THE NORTHWEST HYDROELECTRIC SYSTEM

Myth No. 1:
Spilling water over
dams is the safest
route of fish passage.



THE FACTS: A SCIENTIFIC OVERVIEW

◆ Spill is not “natural” and has risks

Juvenile fish must dive before passing under spill gates. Egress conditions are turbulent and might injure fish, and increase incidence of predation. High spill volumes might increase total dissolved gas above state water quality standards, and might negatively affect the survival of salmonids and other aquatic organisms.

◆ Increased migration speed does not equal increased survival

Speed of migration is not the only factor that affects juvenile fish survival and subsequent adult returns. Research has shown that higher survival is correlated with release date, river flow, water temperature and turbidity. Because of strong correlations among the environmental variables, researchers have determined it is not possible to identify unequivocally which variable has the greatest influence on survival.

◆ More spill does not always lead to higher survival

Spill is one tool used to safely pass juvenile fish through the federal hydro system. Spill volumes are set at each dam after extensive study by independent researchers. In 2004, NOAA Fisheries, the federal agency in charge of salmon recovery, found that survival of Snake River juvenile spring chinook at The Dalles Dam was higher under a 30-percent spill (92-percent survival) compared with a 64-percent spill (76-percent survival).

◆ High spill volumes might adversely affect upstream migration of adult salmon

High spill volumes can slow or stop the migration of adult fish or cause fish to “fall back” through the spillways after they pass through the adult fish ladder. Delayed migration was demonstrated in 2005 at Little Goose Dam on the Snake River in Washington when summer spill was ordered by the U.S. District Court in Portland. The University of Washington found that a 70-percent spill nearly stopped migration of adult fall chinook. Migration continued successfully when spill was reduced to 40 percent.

◆ Read more about fish and wildlife myths at www.ruralite.org/mythbusters

Source: Public Power Council, based on research collected from state and federal agencies, universities and the private sector.