



Rearing Pens

SALMONID HABITAT RESTORATION | Fact Sheet

Moving juvenile salmon in numbers from hatchery net pens to offsite net pens can be effective both at ensuring a higher survival rate among returning hatchery fish and reintroducing spawning fish to native streams.

How it Works

Juvenile hatchery fish are kept in raceways for six to eight months before being released into the stream. However, in the raceways fry face increased risks of disease from overcrowding.

One solution is to separate out some of these fish and rear them offsite in rearing pens in the actual watershed where they will be released. Benefits include:

- Fish reared in offsite pens have been shown to grow at the same rate as those reared in hatchery raceways.
- They require as much as 40 percent less food, because the water in which they're

kept provides the same natural nutrients they will eat once released.

- This reduces the cost of providing food, but it also "trains" the fish to feed themselves. Hatchery fish are reliant upon feed pellets, and when they're first released into the wild they have to learn from scratch how to find food.

For fish reared in offsite net pens, this head start increases the chances of survival.

- Pen rearing also allows fish to imprint on a location other than a hatchery, creating future returns to a target area.

What You'll Need

Net pens can be set up in the body of the river itself, or in a lake, pond or reservoir in the watershed. Locations should be chosen based on cleanliness of the water, protection from predators and weather, and access for feeding and cleaning.

Submerged pens, or cages made of netting, are attached to floats, often with wooden decking. Cost and available space determine what size and configuration works best for individual applications. Aquaculture suppliers will build to your designs, or to a variety of existing specifications.

For more detailed information see the related How-To Guide, "Rearing Pens."

Copies of this document are available through Fish First, and can be found on the Web at www.fishfirst.org. You'll also find a library of how-to guides and fact sheets as well as other resources and information to help with salmon restoration projects made possible in part by grants from:



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