



Nutrient Enhancement

SALMONID HABITAT RESTORATION | Fact Sheet

Food limitation may be one of the main impediments to the restoration of salmon populations. Repopulation projects such as egg boxes are fruitless unless done in conjunction with habitat restoration and nutrient enhancement. As coho salmon die after spawning, their decomposing bodies fill the stream with nutrients. The eggs they've just laid and fertilized will hatch within 30-90 days, and the newborn fish will eventually rely on the nutrients provided by that decomposition to survive. Limited numbers of returning fish mean dwindling food supplies.

How it Works

Distributing salmon carcasses directly into a stream is effective, but messy and time consuming, and a potential source of disease. It also requires a source for carcasses—typically a hatchery—and in most cases, significant freezer capacity, and because of the risk of disease, Washington Department of Fish and Wildlife requires that any salmon carcasses dispensed into a stream have their origin in that watershed.

Analogs are processed fishmeal pasteurized and sterilized to minimize the likelihood of spreading disease. They're designed to dissolve over time when placed in a stream. Because they are

compact and mess-free, they can be easily distributed in less accessible areas by hand or helicopter. They have a much longer shelf life and don't need to be frozen.

They take up much less storage space. Once distributed in a stream, they don't attract animals or create a smell.

Nutrient enhancement with fresh carcasses is done at the same time as the spawn, in October-December. Frozen carcasses are distributed in early spring when fry are emerging from gravel and egg boxes. Distribution sites are spaced throughout the spawning areas of a stream to ensure adequate dispersal.

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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What You'll Need

Nutrient enhancement projects must be done in collaboration with hatcheries or local fish and wildlife agencies to ensure that it is done legally, that appropriate amounts of nutrients are dispersed, and that no diseases are introduced into fish stocks.

For more detailed information see the related How-To Guide, "Nutrient Enhancement."

Fish First | P.O. Box 1505 | Woodland, WA 98674