

JUSTIFICATION:

In Lake Pend Oreille, bull trout heavily use kokanee as forage. Elsewhere, when forage became limiting and introduced lake trout were present, the bull trout populations have been severely depressed and lake trout have become the dominant char. Examples of this negative population interaction include Flathead Lake, Montana and Priest Lake, Idaho. Kokanee population levels in Lake Pend Oreille have become depressed to the extent that in the absence of significant habitat manipulation and concurrent management actions leading to a reduction in the lake trout population, the bull trout population is at risk. The effect of lake level on kokanee spawning success is being evaluated as a tool to benefit the kokanee population.

This recommendation is part of a study of lake level operations intended to determine the effectiveness of variable lake level management as a tool in the maintenance of the kokanee population. Findings to date indicate that kokanee egg-to-fry survival has increased from a mean of 2.8% in years of full drawdown, to a mean of 6.6% in years when the lake was held higher (Figure 1). Recent monitoring by Idaho Department of Fish and Game indicates a spawning population of about 100,000 female kokanee will spawn this fall. A higher lake level, with its associated expansion of spawning areas, would be expected to benefit the population during the 2005 spawning season. Information from an independent scientific review panel also recommended holding the lake at 2055 feet for 2 to 3 years in a row followed by a drawdown to 2051 feet to enhance the kokanee population. Based on this information, the Fish and Wildlife Service and the Idaho Department of Fish and Game request that the water surface elevation of Lake Pend Oreille be maintained at 2055 feet during the winter of 2005 – 2006 to evaluate the efficacy of higher lake levels on kokanee spawning and as an attempt to provide a forage base for the lake's bull trout population.

The Action Agencies use Lake Pend Oreille to provide fall flow augmentation to enhance listed Chum Salmon spawning conditions below Bonneville Dam. Current hydrologic modeling indicates that the Action Agencies will be able to initiate the chum spawning operation beginning the first week of November while implementing this System Operation Request. Implementing Specification number 2 of this System Operation Request helps ensure the likelihood of initiating the Chum Salmon spawning operation in early November while also providing for the identified needs of resident fish in Lake Pend Oreille.

The lake level during the winter of 2006-2007 will be determined at a later date following a review of information available at that time.

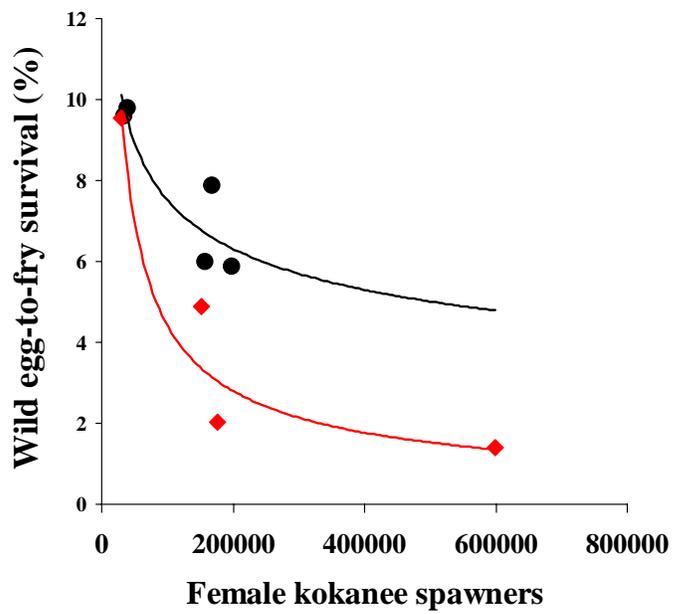


Figure 1. Survival rate of kokanee eggs in Lake Pend Oreille during years when the winter lake level was held higher (dots) and during years of a full drawdown (diamonds).