

# **16 U.S.C. §1532**

**(6) The term “endangered species” means any species which is in danger of extinction throughout all or a significant portion of its range other than a species of the Class Insecta determined by the Secretary to constitute a pest whose protection under the provisions of this chapter would present an overwhelming and overriding risk to man.**

**(16) The term “species” includes any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature.**

# The Statute

- “Each Federal agency shall, in consultation with and with the assistance of the Secretary, insure that any action authorized, funded, or carried out by such agency (hereinafter in this section referred to as an “agency action”) is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [critical habitat]”

# The Regulations: Jeopardy Defined

- “Jeopardize the continued existence of means to engage in an action that reasonably would be expected, directly or indirectly, *to reduce appreciably the likelihood of both the survival and recovery of a listed species* in the wild by reducing the reproduction, numbers, or distribution of that species.” 50 C.F.R. § 402.02

# 50 C.F.R. Part 402

*Action* means all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies in the United States or upon the high seas. Examples include, but are not limited to:

- (a) actions intended to conserve listed species or their habitat;
- (b) the promulgation of regulations;
- (c) the granting of licenses, contracts, leases, easements, rights-of-way, permits, or grants-in-aid; or
- (d) actions directly or indirectly causing modifications to the land, water, or air.

*Action area* means all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action.

# The NEPA Comparison

- “The Federal defendants in this case had been operating the dam for upwards of ten years before the effective date of the Act. During that period, they have from time to time and depending on the river's flow level, adjusted up or down the volume of water released from the Dam. What they did in prior years and what they were doing during the period under consideration were no more than the routine managerial actions regularly carried on from the outset without change. They are simply operating the facility in the manner intended. In short, they are doing nothing new, nor more extensive, nor other than that contemplated when the project was first operational. Its operation is and has been carried on and the consequences have been no different than those in years past.” *Upper Snake River Chapter of Trout Unlimited v. Hodel*, 921 F.2d 232 (1990) (no EIS required)

# The Regulations: Baseline Defined

- “The environmental baseline includes the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process.” (*Id.*)

# The Regulations: Effects Defined

- “Effects of the action refers to the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action, that will be added to the environmental baseline.” 50 C.F.R. § 402.02.

# The BiOp Implementation

- “Evaluate[] whether the effects of the proposed action, taken together with any cumulative effects and added to the environmental baseline, can be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of the affected species . . . .”  
(2004 BiOp at 1-6.)



# BiOp Implementation In Fact

- “In internal discussions, NOAA Senior Policy Staff has affirmed the statement in the issue paper that *any unmitigated gap would result in an appreciable reduction in the likelihood of survival and recovery and therefore would result in a jeopardy determination.*” Memo to R. Lohn, 7/21/04 (Emphasis deleted.)

# 16 U.S.C. §1532

**(5) (A)** The term “critical habitat” for a threatened or endangered species means— **(i)** the specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of section 1533 of this title, on which are found those physical or biological features **(I)** essential to the conservation of the species and

**(II)** which may require special management considerations or protection; and **(ii)** specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of section 1533 of this title, upon a determination by the Secretary that such areas are essential for the conservation of the species.

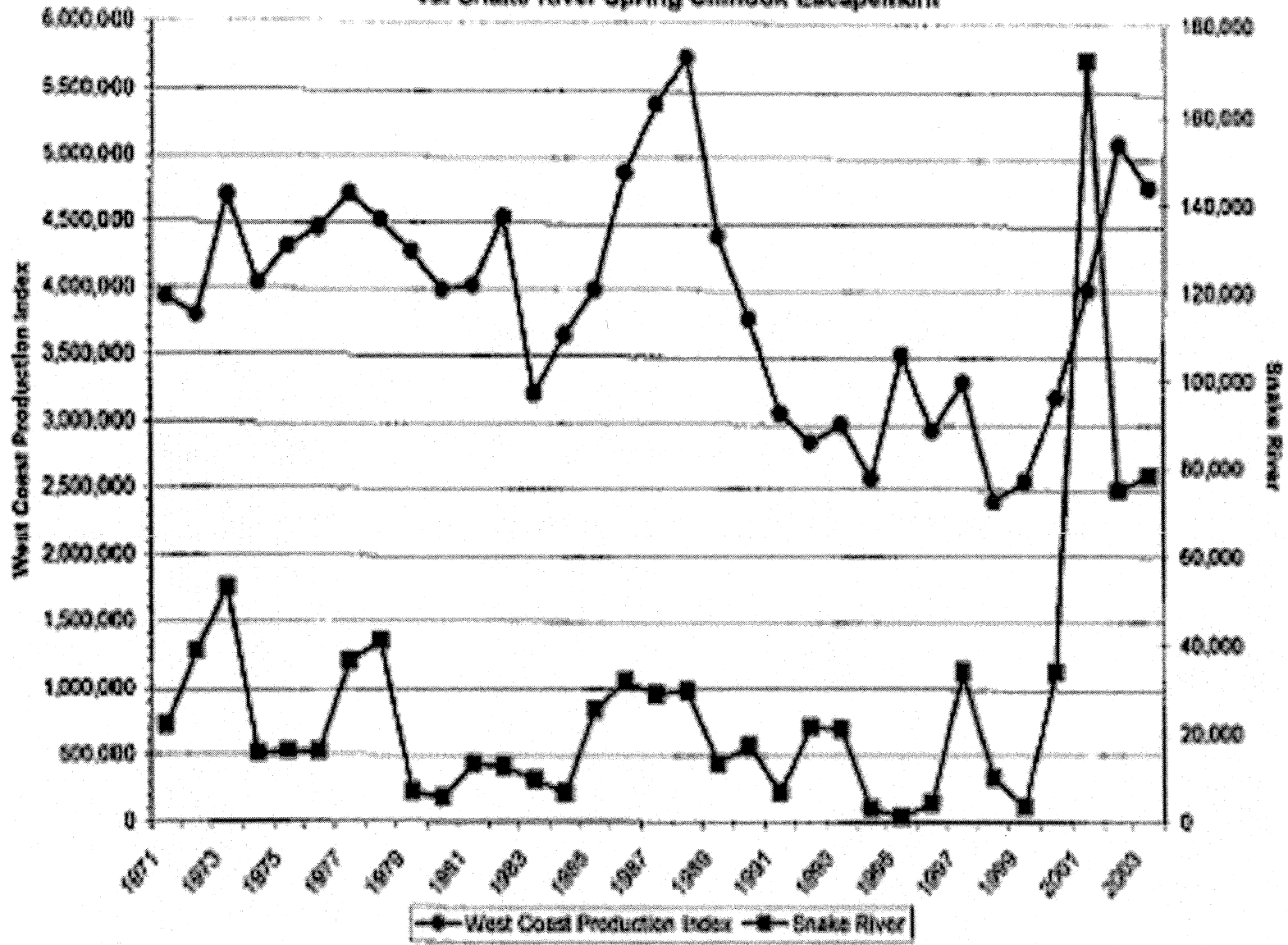
**(B)** Critical habitat may be established for those species now listed as threatened or endangered species for which no critical habitat has heretofore been established as set forth in subparagraph (A) of this paragraph.

**(C)** Except in those circumstances determined by the Secretary, critical habitat shall not include the entire geographical area which can be occupied by the threatened or endangered species.

# Critical Habitat in Fact

Adverse modification of critical habitat: The paper does not explain this section 7 test, what it means, how we use it, how critical habitat is determined. Mostly I think we treat this test and the jeopardy test as the same, but I understand the Boise office has issued opinions that deal with adverse modification then don't address the jeopardy issue. I think we should be explicit about how we are (or are not) using this test. Also, when we make critical habitat designations we just designate everything as critical, without an analysis of how much habitat an ESU needs, what areas might be key, etc. Mostly we don't do this because we lack information. What we really do is the same thing we do for section 7 consultations. We just say we need it all. It might be good to be explicit about this as well, since this designation is related to habitat analyses.

Figure 1. West Coast Chinook Production Index  
vs. Snake River Spring Chinook Escapement



# Yearling Chinook Salmon

## Route Specific Survival Model Probabilities

	Juvenile Bypass System	Powerhouse 2 (unguided)	Corner Collector	Spillway	Dam Survival
	97.0%	95.1%	101.6%	91.0%	95.1
2004	(94.3, 99.5)	(92.9, 97.2)	(99.9, 100.3)	(88.8, 93.1)	(93.6, 96.6)
2005	100.8%	96.6%	102.1%	93.0%	96.6%
	(99.2, 102.3)	(94.7, 98.3)	(100.9, 103.3)	(91.3, 94.8)	(95.4, 97.9)

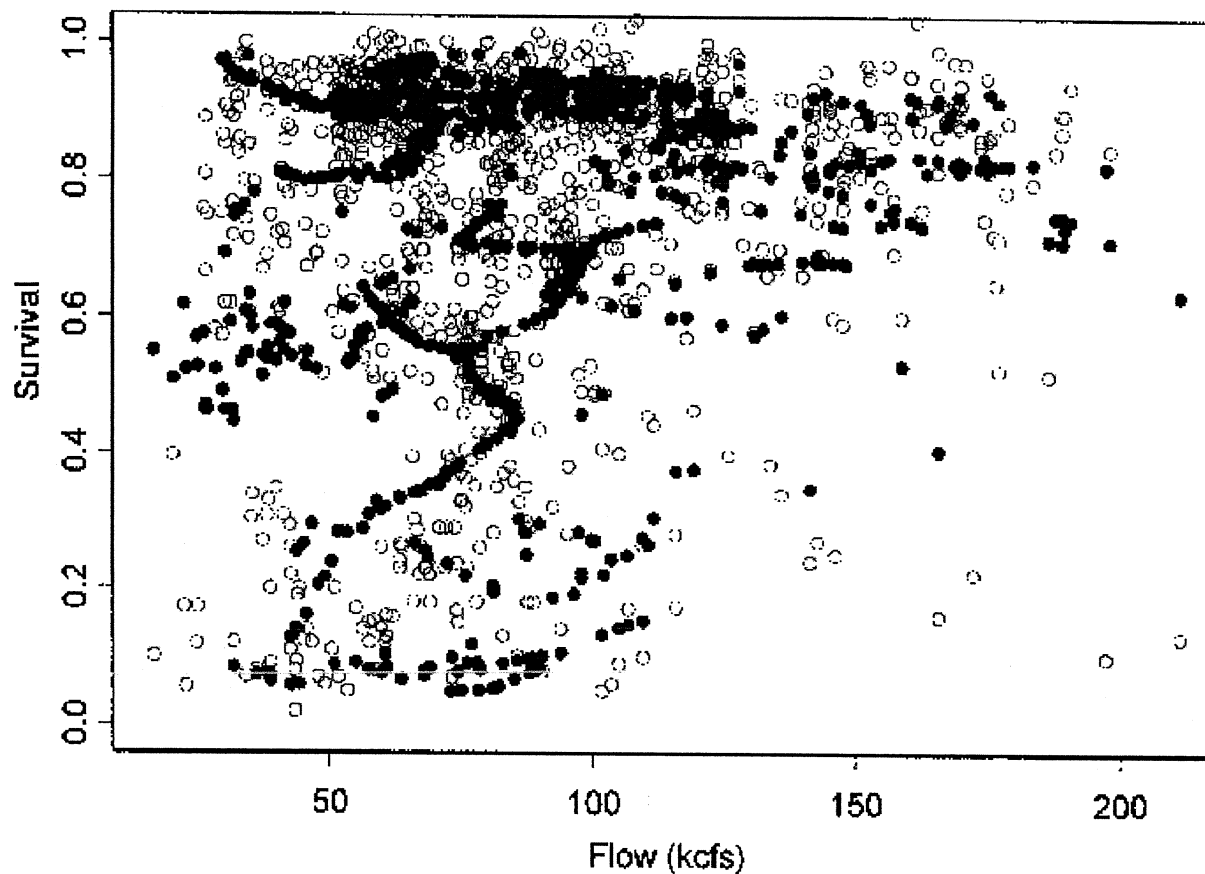


Figure 9. Modeled and observed chinook survival vs. flow over single and multiple reaches between LGR to MCN over the years 1995-2002. Survival estimated with PIT tags designated ( $\circ$ ) survival estimated with the X-model designated ( $\bullet$ ).

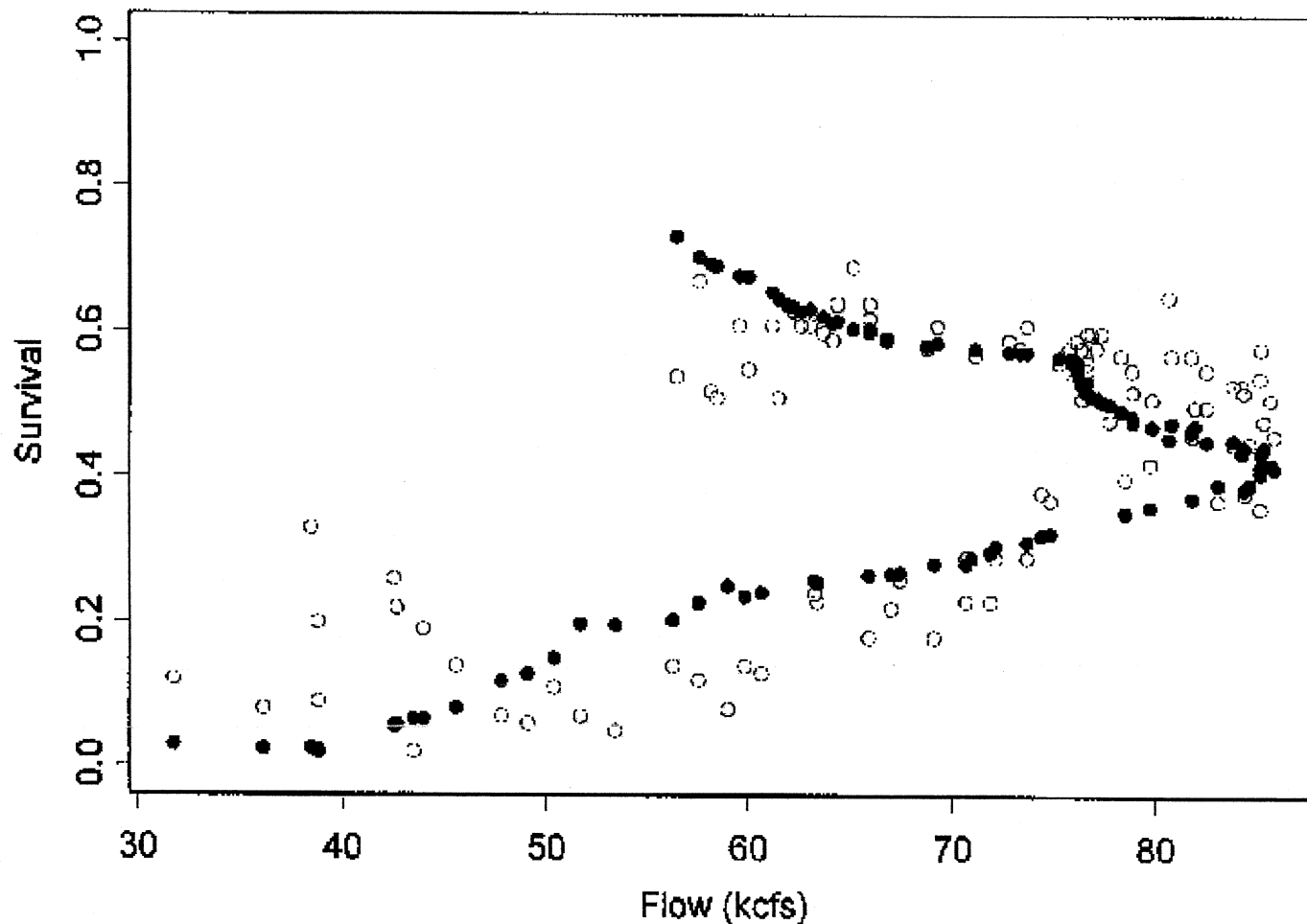


Figure 14. Modeled and observed chinook survival vs. flow for migration between LGR and MCN in 2001. Survival estimated with PIT tags designated (○) survival estimated with the X-model designated (●).

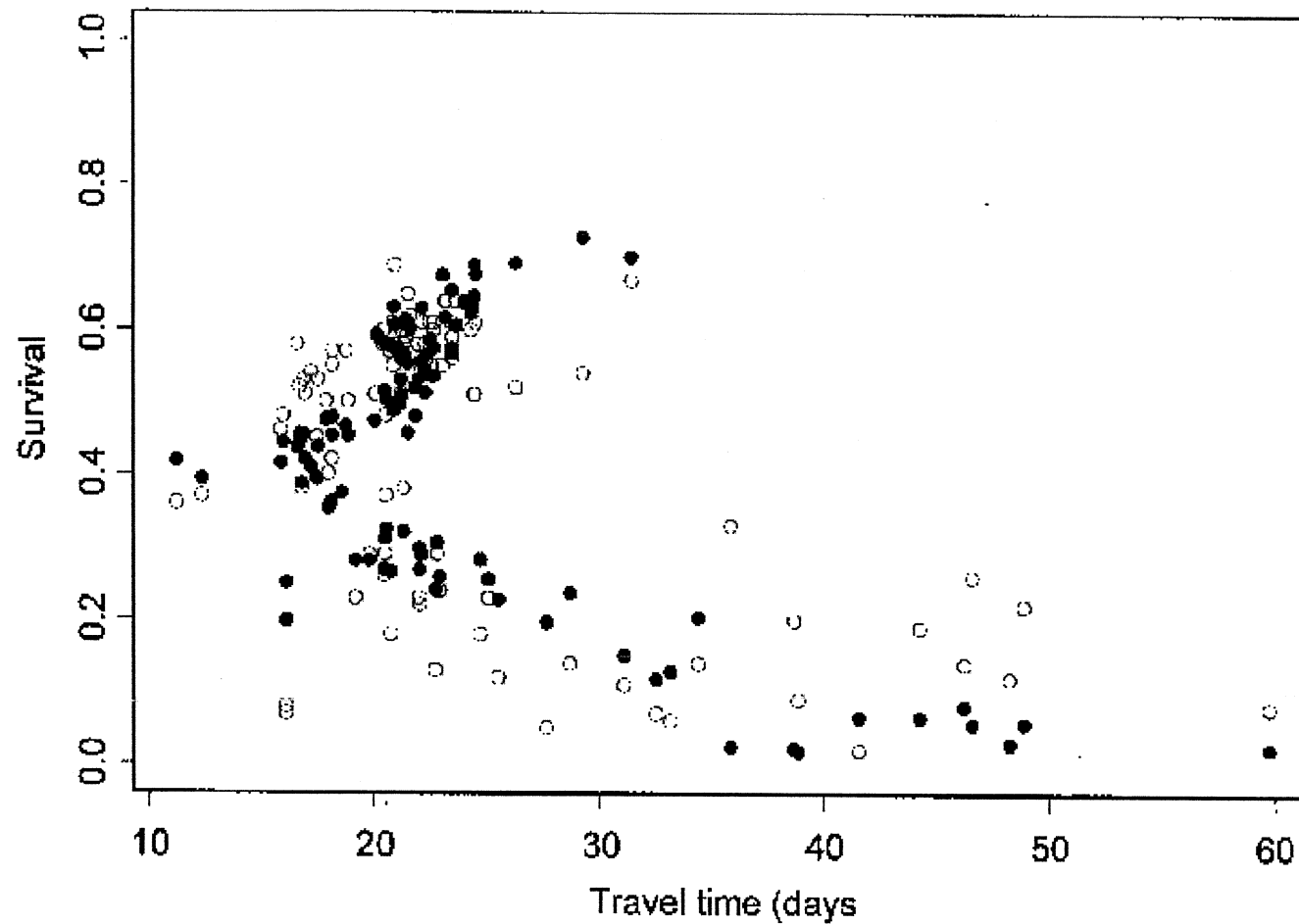


Figure 13. Modeled and observed chinook survival vs. travel time for migration between LGR and MCN in 2001. Survival estimated with PIT tags designated (○) survival estimated with the X-model designated (●).



Figure 35. Best-fit sigmoid curve (dashed line) and piecewise linear regression model (solid line) for estimated survival from Lower Granite Dam to McNary Dam for PIT-tagged, yearling Snake River Chinook salmon vs. flow exposure index, 1995–2003. ○ = data from 2001; + = all other years. Point of “break,” or threshold, is not precisely estimated.

