UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Memorandum

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Subject: "No Effect" Determination for hexazinone for the Northern California/Southern Oregon coastal Coho Salmon, Central Valley California steelhead, and South Central California coast steelhead for alfalfa and forestry uses

I reviewed data and other information for hexazinone, a registered herbicide named by the Californian's for Alternatives to Toxics (CATs) and included in the Consent Decree that settled the case CATs brought against EPA. Hexazinone is a herbicide registered nationally for control of weeds on agricultural crops and forestry. A Reregistration Eligibility Decision (RED) that includes an ecological risk assessment for aquatic fish, invertebrates, and plants, was issued in September 1994. I have adapted the more general findings of the EFED assessment to develop an analysis of the potential effects on three specific Evolutionary Significant Units (ESUs) of salmon - the Northern California/Southern Oregon coastal Coho, Central Valley California Steelhead, and South Central California coastal Steelhead.

Hexazinone is practically non-toxic to fishes and practically non-toxic to slightly toxic to freshwater and marine invertebrates. OPP does not categorize toxicity to plants; however, the data indicate that hexazinone is toxic to aquatic plants. The Estimated Environmental Concentrations (EECs) were modeled with a Tier 2 model, PRZM-EXAMS, for current labeled

application rates. Acute and chronic risk quotients were calculated from these EECs and the available toxicity values indicate no direct risk to endangered fish and no indirect effect to their food supply of invertebrates. Even though hexazinone is toxic to aquatic plants, the risk quotients indicate that there are no indirect effects to pacific salmon and steelhead from loss of plant cover. I conclude that hexazinone will not present a direct effect on Pacific salmon and steelhead in these three ESUs through acute mortality or long-term sublethal effects and no indirect effects through loss of their food supply or loss of plant cover. Hexazinone will have no effect on the critical habitat of these ESUs.

Attachment