



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

OFFICE OF PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

October 16, 2008

MEMORANDUM

SUBJECT: Effects Determinations for Rotenone Relative to the California Red-Legged Frog and Designated Critical Habitat

FROM: Thomas Steeger, Ph.D., Senior Biologist *Thomas Steeger 10/16/08*
ERB 4
Environmental Fate and Effects Division

TO: Arthur-Jean B. Williams, Associate Director
Environmental Fate and Effects Division

Attached is the assessment of potential direct and indirect effects to the California red-legged frog (CRLF) and potential modification to designated critical habitat from uses of the piscicide rotenone. While the Endangered Species Act requires we assess uses of pesticides relative to any potentially affected listed species, this assessment focuses only on the CRLF, including designated critical habitat, addressing provisions of a settlement agreement entered into by the federal government to resolve claims made by plaintiffs against EPA in a court case (CBD v. EPA¹).

The attached assessment was conducted consistent with the Agency's Overview Document². Effects determinations for this assessment are summarized below:

- Based on the best available information, the Agency makes a May Affect and Likely to Adversely Affect (LAA) determination for the CRLF from the use of rotenone as a piscicide. Additionally, the Agency has determined that there is the potential for modification of CRLF designated critical habitat from the use of rotenone as a piscicide. RQs for direct effects of rotenone to aquatic-phase CRLFs exceed acute and chronic risk LOCs by factors of 206X and 105X, respectively, and the likelihood of individual mortality of aquatic-phase CRLF is 100%. Indirect effects to the CRLF may also occur through the loss of both vertebrate and invertebrate aquatic forage items. Based on the absence of exposure to terrestrial-phase CRLF, the Agency makes a "no effect" determination for terrestrial-phase CRLF.

As required by the Alternative Consultation Agreement EPA entered into with the U.S. Fish and Wildlife Service and National Marine Fisheries Service (Services), I have been trained by the Services to

¹ Settlement agreement of October 20, 2006: Center for Biological Diversity v. United States Environmental Protection Agency. Civ. No: 02-1580-JSW(JL)).

² Overview of the Ecological Risk Assessment: Process in the Office of Pesticide Programs, U.S. Environmental Protection Agency: Endangered and Threatened Species Effects Determinations: January 23, 2004.

make such determinations. Additionally, this assessment was subjected to internal Agency peer review throughout its development. The review panel included Dr. Melissa Panger and Ms. Anita Pease, other scientists who have been trained by the Services to make such determinations.

Please let me know if you have any questions regarding this assessment and effects determination for rotenone relative to the CRLF and its designated critical habitat.

cc: Steven Bradbury
Debbie Edwards

Attachments