



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

OFFICE OF PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

June 10, 2009

MEMORANDUM

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

FROM: Jean Holmes, DVM, MPH *Jean Holmes 6/10/09*
ERB 2
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 paraquat. 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:

- For the use of paraquat a "Likely to Adversely Affect" (LAA) determination is made overall.
- For direct effects to the aquatic-phase CRLF, a "No Effect" determination is made for all uses of paraquat, on both an acute and a chronic exposure basis. For direct effects to the terrestrial-phase CRLF, a "Likely to Adversely Affect" (LAA) determination is made for all uses of paraquat except melons, on an acute exposure basis, and a "Likely to Adversely Affect" (LAA) determination is made for all uses of paraquat, on a chronic exposure basis.
- Indirect effects to aquatic non-vascular plants, terrestrial-phase amphibian, and mammalian prey base are also expected.
- Modification to designated critical habitat from the use of paraquat is also expected due to impacts to food sources for juvenile and adult CRLFs (aquatic non-vascular plants, small mammals, and terrestrial-phase amphibians), and impacts to terrestrial and aquatic plants as

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.

refuge.

- Table 1-1 and Table 1-2 of the Executive Summary of the Pesticide Effects Determination document provide a more detailed account of the effects determination.

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 make such determinations. Additionally, this assessment was subjected to internal Agency peer review throughout its development. The review panel included one other scientist who has 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 paraquat relative to the CRLF and its designated critical habitat.

Attachments