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

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

June 20, 2008

MEMORANDUM

SUBJECT: Effects Determinations for Telone (1,3-Dichloropropene) Relative to the California Red-Legged Frog and Designated Critical Habitat

FROM: Shannon Borges, Biologist
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Biopesticides and Pollution Prevention Division

6/20/08

TO: Arthur-Jean B. Williams, Acting 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 adverse modification to designated critical habitat from uses of the nematicide/fungicide telone (1,3-Dichloropropene). 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. EPA[1]).

The attached assessment was conducted consistent with the Agency's Overview Document[2]. Effects determinations for this assessment are summarized below:

- A "Not Likely to Adversely Affect" ("NLAA") conclusion was determined for direct effects to the aquatic-phase CRLF for all uses of telone. Risks to the aquatic-phase CRLF were found to be discountable based on expected rarity of exposure, as evidenced by low detection of telone in targeted and non-targeted aquatic monitoring.

- A "NLAA" determination was made for indirect effects to the aquatic-phase CRLF resulting from losses of aquatic animals resulting from all telone uses. Risks for aquatic animals (invertebrates and vertebrates) were determined to be discountable based on expected rarity of exposure, as evidenced by low detection of telone in target and non-target aquatic monitoring.

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[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.

- A "No Effect" ("NE") determination was made for all telone uses for indirect effects to the aquatic-phase CRLF as a result of effects on aquatic plants. RQs calculated for aquatic vascular and non-vascular plants did not exceed LOCs.

- A "NE" determination was made for all uses of telone for direct effects to the terrestrial-phase CRLF and for indirect effects to the CRLF that result from losses of prey (amphibians, mammals, and invertebrates). RQs determined for these taxa were below LOCs.

- A "NLAA" determination was made for all telone uses for indirect effects on the aquatic- and terrestrial-phase CRLF due to losses of terrestrial plants. Risks identified for terrestrial plants were determined to be discountable because of high volatility that is not captured by the TerrPlant model that is used to estimate EECs.

- A "No Habitat Modification" determination was concluded for all telone uses for effects on aquatic-phase CRLF PCEs resulting from changes in water body morphology due to losses of terrestrial plants, and also for changes in water chemistry due to losses of aquatic plants. A "NLAA" determination was made for indirect effects resulting from losses of terrestrial plants, and a "NE" determination was made for indirect effects due to losses of aquatic plants. Residues of telone are also expected to be very low in aquatic environments, and thus not expected to affect water chemistry.

- A "NE" determination was concluded for effects on aquatic- and terrestrial-phase CRLF PCEs for all telone uses resulting from modification to aquatic- and terrestrial-based food sources. "NLAA" and "NE" determinations were made for indirect effects to the aquatic-phase CRLF due to losses of aquatic animal and plant food sources, respectively. A "NE" determination was made for indirect effects to the terrestrial-phase CRLF resulting from losses of terrestrial prey.

- A "No Habitat Modification" determination was concluded for effects on terrestrial-phase CRLF PCEs for all telone uses resulting from elimination and/or disturbance of upland and/or dispersal habitat. Effects to terrestrial plants were determined to be discountable, and RQs for terrestrial food source taxa were determined to be below their LOCs.

- A "NE" determination was made for terrestrial-phase CRLF PCEs due to alteration of chemical characteristics necessary for normal growth and viability of juvenile and adult CRLFs and their food source. This conclusion is based on the lack of effects predicted for the CRLF and its food sources.

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 another scientist who has been trained by the Services to make such determinations (Dr. Melissa Panger).

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

cc: Steven Bradbury
Debbie Edwards

Attachments