



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

OFFICE OF PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

December 27, 2011

MEMORANDUM

SUBJECT: Effects Determinations for Warfarin (PC Code 086002) Relative to the Alameda Whipsnake and the Salt Marsh Harvest Mouse and Designated Critical Habitat for the Alameda Whipsnake

FROM: Stephanie Syslo, Environmental Scientist/Risk Assessment Process Leader
ERB 6
Environmental Fate and Effects Division

A handwritten signature in blue ink, appearing to read "Stephanie Syslo", is written over the typed name and title.

TO: Anita Pease, Associate Director
Environmental Fate and Effects Division

Attached is the assessment of potential direct and indirect effects to the federally threatened Alameda whipsnake (*Masticophis lateralis euryxanthus*; AW) and the federally endangered salt marsh harvest mouse (*Reithrodontomys raviventris*; SMHM) arising from FIFRA regulatory actions regarding all registered uses of the rodenticide warfarin (PC Code 086002). In addition, this assessment evaluates whether the action is expected to result in modification of designated critical habitat for the AW. The attached ecological risk assessment addresses potential risk to the AW and the SMHM for which warfarin was alleged to be of concern in a complaint made by the Center for Biological Diversity against United States Environmental Protection Agency on May 30, 2007 (Case No: 07-2794-JCS).

The attached assessment was conducted consistent with the Agency's Overview Document¹. Effects determinations for this assessment are summarized below:

- AW: Based on the best available information, the Agency makes a May Affect, and likely to Adversely Affect (LAA) determination for AW from the labeled uses of warfarin as described in Table 1.1 (in the attached document). The effects determination is based on potential direct and indirect effects to AW. The LAA determination applies to all currently registered warfarin uses in California. Additionally, the Agency has determined that there is the potential for modification of designated critical habitat of the AW from the use of warfarin.
- SMHM: Based on the best available information, the Agency makes a May Affect, and likely to Adversely Affect (LAA) determination for SMHM from the labeled uses

¹ 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.

of warfarin as described in Table 1.1 (in the attached document). The effects determination is based on potential direct and indirect effects to SMHM. The LAA determination applies to all currently registered warfarin uses in California.

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 two other scientists who have been trained by the Services to make such determinations (Thomas Steeger, Melissa Panger).

Please let me know if you have any questions regarding this assessment and effects determination for warfarin relative to the AW and SMHM and potential modification to designated critical habitat.

Attachments