



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

OFFICE OF
CHEMICAL SAFETY AND
POLLUTION PREVENTION

Date: September 24, 2012

MEMORANDUM

SUBJECT: Effects Determinations for *Lambda-Cyhalothrin* (PC Code 128897) Relative to the Bay Checkerspot Butterfly (BCB), Valley Elderberry Longhorn Beetle (VELB), California Tiger Salamander (CTS) [Santa Barbara County, Sonoma County, and Central California Distinct Population Segments (DPSs)], California Clapper Rail (CCR), California Freshwater Shrimp (CFWS), San Francisco Garter Snake (SFGS), Delta Smelt (DS), and Tidewater Goby (TG) and Designated Critical Habitat for the BCB, CTS-CC, CTS-SB, TG, and DS

TO: Anita Pease, Associate Director
Environmental Fate and Effects Division
Office of Pesticide Programs

FROM: Edward Odenkirchen, Ph.D., Senior Scientist
Environmental Risk Branch 1
Environmental Fate and Effects Division
Office of Pesticide Programs

Ed Odenkirchen 9/27/12

Attached is the assessment of potential direct and indirect effects to the federally threatened bay checkerspot butterfly (*Euphydryas editha bayensis*) (BCB), valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) (VELB), Central California Distinct Population Segment of the California tiger salamander (*Ambystoma californiense*) (CTS-CC), and delta smelt (*Hypomesus transpacificus*) (DS), and the federally endangered Sonoma County (CTS-SC) and Santa Barbara County (CTS-SB) Distinct Population Segments (DPS) of the California tiger salamander (*Ambystoma californiense*), California clapper rail (*Rallus longirostris obsoletus*) (CCR), California freshwater shrimp (*Syncaris pacificus*) (CFWS), San Francisco garter snake (*Thamnophis sirtalis tetrataenia*) (SFGS), and the tidewater goby (*Eucylogobius newberryi*) (TG) arising from FIFRA regulatory actions regarding all marketed uses of the insecticide *lambda-cyhalothrin* (PC Code: 128897). In addition, this assessment evaluates whether the action is expected to result in modification of designated critical habitat for the BCB, CTS-CC, CTS-SB, TG, and DS. The attached ecological risk assessment addresses potential risk to the BCB, CTS-CC, CTS-SC, CTS-SB, DS, CCR, CFWS, SFGS, and TG for which *lambda-cyhalothrin* was alleged to be of concern in a complaint made by the Center for Biological diversity against the 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:

BCB: Based on the best available information, the Agency makes a May Affect, and Likely to Adversely Affect (LAA) determination for the BCB from the currently marketed uses of *lambda*-cyhalothrin, as described in Table 3-1 (in the attached document). The effects determination is based on potential direct and indirect effects to the BCB. The LAA determination applies to all currently marketed *lambda*-cyhalothrin uses in California. Additionally, the Agency has determined that there is the potential for modification of designated critical habitat of the BCB from the use of *lambda*-cyhalothrin.

VELB: Based on the best available information, the Agency makes a May Affect, and Likely to Adversely Affect (LAA) determination for the VELB from the currently marketed uses of *lambda*-cyhalothrin, as described in Table 3-1 (in the attached document). The effects determination is based on potential direct and indirect effects to the VELB. The LAA determination applies to all currently marketed *lambda*-cyhalothrin uses in California.

CTS (all 3 DPS): Based on the best available information, the Agency makes a May Affect, and Likely to Adversely Affect (LAA) determination for CTS (all 3 DPS) from the currently marketed uses of *lambda*-cyhalothrin, as described in Table 3-1 (in the attached document). The effects determination is based on potential direct and indirect effects to CTS (all 3 DPS). The LAA determination applies to all currently marketed *lambda*-cyhalothrin uses in California. Additionally, the Agency has determined that there is the potential for modification of designated critical habitat of the CTS-CC and CTS-SB from the use of *lambda*-cyhalothrin.

CCR: Based on the best available information, the Agency makes a May Affect, and Likely to Adversely Affect (LAA) determination for the CCR from the currently marketed uses of *lambda*-cyhalothrin, as described in Table 3-1 (in the attached document). The effects determination is based on potential and indirect effects to the CCR. The LAA determination applies to all currently marketed *lambda*-cyhalothrin uses in California.

CFWS: Based on the best available information, the Agency makes a May Affect, and Likely to Adversely Affect (LAA) determination for CFWS from the labeled uses of *lambda*-cyhalothrin, as described in Table 3-1 (in the attached document). The effects determination is based on potential direct and indirect effects to the CFWS. The LAA determination applies to all currently marketed *lambda*-cyhalothrin uses in California.

SFGS: Based on the best available information, the Agency makes a May Affect, and Likely to Adversely Affect (LAA) determination for SFGS from the labeled uses of

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.

lambda-cyhalothrin, as described in Table 3-1 (in the attached document). The effects determination is based on potential direct and indirect effects to the SFGS. The LAA determination applies to all currently marketed *lambda*-cyhalothrin uses in California.

TG: Based on the best available information, the Agency makes a May Affect, and Likely to Adversely Affect (LAA) determination for TG from the labeled uses of *lambda*-cyhalothrin, as described in Table 3-1 (in the attached document). The effects determination is based on potential direct and indirect effects to the TG. The LAA determination applies to all currently marketed *lambda*-cyhalothrin uses in California. Additionally, the Agency has determined that there is the potential for modification of designated critical habitat of the TG from the use of *lambda*-cyhalothrin.

DS: Based on the best available information, the Agency makes a May Affect, and Likely to Adversely Affect (LAA) determination for DS from the labeled uses of *lambda*-cyhalothrin, as described in Table 3-1 (in the attached document). The effects determination is based on potential direct and indirect effects to the DS. The LAA determination applies to all currently marketed *lambda*-cyhalothrin uses in California. Additionally, the Agency has determined that there is the potential for modification of designated critical habitat of the DS from the use of *lambda*-cyhalothrin.

As required by the Alternative Consultation Agreement that 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.

Please let me know if you have any questions regarding this assessment and effects determination for *lambda*-cyhalothrin relative the BCB, VELB, CTS-CC, CTS-SC, CTS-SB, DS, CCR, CFWS, SFGS, and TG, and potential modification to designated critical habitat.

Attachments:

128897 SF Bay Analysis.docx