



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL MARINE FISHERIES SERVICE  
West Coast Region  
1201 NE Lloyd Blvd, Suite 1100  
Portland OR, 97232

December 19, 2016

Ms. Cathy Lucero  
Clallam County Weed Control Board  
223 East 4<sup>th</sup> Street Suite 15  
Port Angeles, WA 98362

Dear Ms. Lucero:

I reviewed the chemicals proposed for roadside treatment, and reviewed multiple NMFS biological opinions that reviewed the effects of herbicides applied consistently with EPA label instructions, in order to determine which, if any of those proposed for use by the county had been previously evaluated. I found that of the several proposed herbicides, 2,4-D and Triclopyr BEE had both been specifically evaluated by our ecotoxicologist team, and were found to create risk of jeopardy (2,4-D) or Jeopardy and Adverse modification of critical habitat (Triclopyr BEE) based on aerial application, per EPA labeling.

The County protocols rely on hand held application and on spot treatment rather than aerial application. This protocol dramatically reduces risk, and provides a much more cautious approach to use than the EPA label instructions for application.

I requested additional review from the ecotoxicologist team, and received this input:

- 1) Aerial application per EPA label instructions for both 2,4-D and Triclopyr BEE have been evaluated in an earlier biological opinion (NMFS 2011), but the Triclopyr BEE analyzed by NMFS was BEE, not TEA; Aquatic invertebrates and fish are more sensitive to TEA than BEE.
- 2) The 2011 biological opinion found increased risk of jeopardy to listed salmonid species, including Lake Ozette Sockeye, from the aerial application of both 2,4-D and Triclopyr BEE. The Opinion also found increased risk of adverse modification of designated critical habitat from aerial application of Triclopyr BEE;
- 3) The jeopardy opinion identified a “reasonable and prudent alternative” (RPA) to the aerial application; the RPA is a set of protocols for application of 2,4-D and Triclopyr BEE that are *different from the EPA label instructions*, which, if used, will avoid jeopardy.
- 4) Application protocols of the RPA which are relevant to the Clallam County Proposal are:

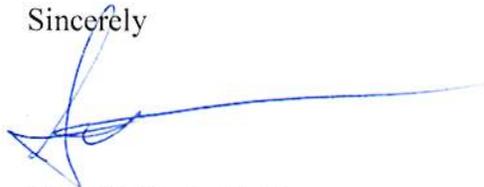


- hand held application/spot treatment is required - aerial application is not appropriate;
  - no application may be made directly to water
  - no application may be made when soil is saturated
  - allowable application to Lake Ozette tributaries is period is June 1-Sept 30, when juvenile sockeye have migrated to the lake, and before adults are returning to spawn.
- 5) Additional advisory comments from the ecotoxicologists are that application should be avoided if rainfall is forecast in the following 24 hours, and that ground boom spray is not appropriate. As the county's proposal is for use of TEA, rather than BEE, at a minimum the protocols identified for BEE should also be applied to TEA as a cautionary practice.

Thus, this review indicates that a few minor revisions should be made to the proposal as drafted - which is to strike "heavy" before rainfall, and revise "imminent" to explain that that means "within 24 hours following application." Finally, irrespective of timing windows above, no application should be made directly to water of tributaries to Lake Ozette. To reiterate, these application criteria, above, are more stringent than the label requirements for application of these two chemicals; the label requirements were found insufficiently protective of ESA listed fishes. The criteria above, if adopted, are sufficient based on the analyses to date.

Please direct questions regarding this letter to Bonnie Shorin of my staff at (360) 753-9578 or [bonnie.shorin@noaa.gov](mailto:bonnie.shorin@noaa.gov)

Sincerely



*for:* Kim W. Kratz, Ph.D.  
Assistant Regional Administrator  
National Marine Fisheries West Coast Region  
Oregon and Washington Coastal Area Office

NMFS 2011. National Marine Fisheries Service Endangered Species Act Section 7 Consultation  
Biological Opinion Environmental Protection Agency Registration of Pesticides 2,4-D,  
Triclopyr BEE, Diuron, Linuron, Captan, and Chlorothalonil. June 30, 2011.