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STATE OF WASHINGTON
DEPARTMENT OF AGRICULTURE

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November 12, 2009

Gary Locke, Secretary
U.S. Department of Commerce
1401 Constitution Ave., NW
Washington, DC 20230

Dear Secretary ~~Locke~~, *Gary*

I am writing to present specific concerns the Washington State Department of Agriculture (WSDA) has regarding the current court ordered consultation between the National Marine Fisheries Service (NMFS) and the Environmental Protection Agency for specific pesticides used near habitat of salmon listed for protection under the Endangered Species Act. Over the last year NMFS has issued two biological opinions (BiOp) for six pesticides (chlorpyrifos, diazinon, malathion, carbaryl, carbofuran and methomyl) used for crop protection in Washington agriculture. WSDA is concerned about: (1) the assumptions NMFS used to determine population level effects to listed species from the use of these pesticides; (2) the application of reasonable and prudent alternatives (RPAs) to a broad array of water bodies that effectively prohibits use of these pesticides in much of Washington and; (3) the lack of transparency regarding the economic impact of the specified RPAs to agricultural production. I will address these three areas in detail.

Population Level Effects

To assess population level effects of the pesticides addressed in the BiOps, NMFS assumes a four day exposure to the entire population of juvenile salmon at concentrations rarely observed in current monitoring data Washington State has collected since 2003. In fact, the ambient concentrations typically observed are at levels the population models indicate would not have a significant effect on the modeled populations. Further, based on land use data WSDA has collected we are able to locate potential pesticide use areas down to the field level and evaluate the relationship of salmon habitat data collected by the Washington Department of Fish and Wildlife. Although there is overlap of agricultural areas and salmon habitat it is unlikely the entire population of juvenile salmon is exposed to these pesticides. WSDA understands NMFS needs to be conservative in their assumptions to protect listed species; however, utilization of state specific land use and habitat data would allow for a better estimate of the exposed population. Lastly, WSDA is concerned about the lack of transparency regarding the population model used. To date NMFS has not released the population model for external peer review.

Definition of Applicable Water Bodies


NMFS has defined the areas to which RPAs will apply as "...freshwater habitats include intermittent streams and other temporally connected habitats to salmonid-bearing waters. Freshwater habitats also include all known types of off-channel habitats as well as drainages, ditches, and other manmade conveyances to salmonid habitats that lack salmonid exclusion devices." The buffer widths specified in the RPAs (up to 1000 feet) to protect habitat as defined by NMFS effectively bans the use of the BiOp pesticides in western Washington where field size is relatively small and drainage ditches are plentiful and is problematic for "reasonable" implementation in eastern Washington where application would be limited to partial fields. Also, WSDA is concerned this habitat definition will have profound repercussions for salmon habitat restoration in agricultural areas. Would a reasonable farmer knowingly allow habitat restoration to occur on their property or support restoration efforts on land near their fields if it would result in large buffers affecting their ability to manage pests?

Economic Impacts to Agriculture

Regulations (50 CFR §402.02) for implementing RPAs under Section 7 of the ESA are required to be "economically feasible". However, there is no mention of the economic impacts of the proposed RPAs detailed within the BiOps issued to date. Given the broad definition of habitat and the likely prohibition of use, did NMFS consider the cost associated with changing existing pest management strategies? In a minor crop state such as Washington changing pest management strategies can take significant time and have a large associated cost. For example, if a newer pesticide is needed to replace any of the pesticides involved in the consultation, research may be needed to evaluate efficacy, food tolerances established for each effected commodity and label changes made to allow use. All of these actions take considerably more time than is allowed under the implementation schedule established in the BiOps and has an economic cost that does not appear to have been considered.

As NMFS moves forward on assessing the remaining pesticides in the court ordered consultation WSDA will continue to provide current state specific data to further refine the potential risk of pesticide exposure to listed salmon in Washington. WSDA would also like to work cooperatively with NMFS and EPA in developing RPAs that work for agriculture as well as protecting salmon in Washington State. As Governor of Washington you advocated against one-size-fits-all federal restrictions for salmon recovery I encourage you to carry on that policy as Secretary of Commerce. I look forward to your response to the concerns and questions I have raised.

Sincerely,



Dan Newhouse
Director



**UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration**

NATIONAL MARINE FISHERIES SERVICE

1315 East-West Highway
Silver Spring, Maryland 20910

THE DIRECTOR

JAN 11 2010

Mr. Dan Newhouse
Director, Washington State Department
of Agriculture
P.O. Box 42560
Olympia, WA 98504-2560

Dear Mr. Newhouse:

Thank you for your letter to Secretary Locke regarding Endangered Species Act (ESA) consultation between the National Marine Fisheries Service (NMFS) and the Environmental Protection Agency (EPA) on the registration of six pesticides (chlorpyrifos, diazinon, malathion, carbaryl, carbofuran, and methomyl) and the resulting biological opinions NMFS provided to EPA. You expressed concern about: (1) the assumptions NMFS used to determine population level effects to listed species; (2) the application of reasonable and prudent alternatives (RPAs) to a variety of aquatic habitats and; (3) the transparency of the Opinions with regard to the economic impact of implementing RPAs.

Population Level Responses. Your letter indicated you are concerned about the lack of transparency regarding the population model used and that it had not been released for external peer review. Population models used in the biological opinions are presented in their entirety (including all assumptions, model inputs, and mathematical equations) in the appendix of each of those biological opinions. Those biological opinions are publically available and can be found on our website at: <http://www.nmfs.noaa.gov/pr/consultation/>. Additionally, the genesis of the population models is now available in the peer-reviewed journal *Ecological Applications* (Baldwin *et al.* 2009).

NMFS recognizes that there will be different levels of exposure among individuals of listed salmonids. Due to uncertainty regarding exposure, they opted for the most protective assumption for that portion of the analysis, which is exposure of an entire population of juveniles. The model is a tool for evaluating what is likely to occur under a specific set of circumstances. It was but one piece of the analysis NMFS used to evaluate effects to listed salmonids of these pesticides. Washington State Department of Agriculture (WSDA) monitoring data were utilized in the Opinions along with several other sources of exposure information. The utility and limitations of this particular data set are thoroughly discussed in the biological opinions. Other monitoring data and fate and transport models were also utilized to characterize pesticide exposure to listed salmonids.




Definition of Applicable Water Bodies. As you are aware, NMFS concluded in its biological opinions that the six pesticides were likely to jeopardize the continued existence of several species of endangered and threatened Pacific salmonids and destroy or adversely modify their critical habitat. The RPAs were established to alleviate the likelihood of jeopardy to these species and to reduce the likelihood of adversely modifying their designated critical habitat. The RPAs and the definition of salmonid habitat reflect the range of freshwater habitats utilized by the listed salmonids and the known mechanisms of transport of pesticides (spray drift, runoff [including those from irrigation returns], groundwater/surface water transport). The specified buffers to salmon habitats allow for use of these pesticides within watersheds inhabited by listed species. Larger buffers (up to 1000 feet) were specified for the most toxic pesticides and the most risky application methods.

Economic Impacts to Agriculture. Reasonable and prudent alternatives identified during the consultation process are alternative actions that can be implemented in a manner consistent with the scope of the Federal agency's legal authority and jurisdiction, that are economically and technically feasible and that NMFS believes would avoid the likelihood of jeopardizing the continued existence of listed species or resulting in the destruction or adverse modification of critical habitat. NMFS believes the reasonable and prudent alternatives contained in each biological opinion met these criteria. NMFS will continue to try to work with EPA to develop RPAs cooperatively for future consultations should they be necessary. The involvement of WSDA and other parties in the development of RPAs and the consultation process is determined by the action agency (*i.e.* EPA).

We appreciate WSDA's interest in these consultations.

Sincerely,


James W. Balsiger, Ph.D.
Acting Assistant Administrator
for Fisheries

Baldwin, D.H., J.A. Spromberg,, T.K. Collier, and N. L. Scholz. 2009. A fish of many scales: extrapolating sublethal pesticide exposures to the productivity of wild salmon populations. *Ecological Applications* 19(8): 2004-2015.