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***STATEMENT OF***  
**W.F. "Zeke" Grader, Jr., Executive Director**  
**Pacific Coast Federation of Fishermen's Associations**  
***TO THE***  
**U.S. HOUSE OF REPRESENTATIVES' COMMITTEES ON**  
**NATURAL RESOURCES AND AGRICULTURE**

***Joint Full Committee Oversight Hearing on "At Risk: American Jobs,  
Agriculture, Health and Species--the Costs of  
Federal Regulatory Dysfunction"***

***Washington, DC***  
***3 May 2011***

Good morning, Chairmen and members of the Natural Resources and Agriculture Committees. My name is Zeke Grader. I am the Executive Director of the Pacific Coast Federation of Fishermen's Associations (PCFFA), a major U.S. fishing industry trade association centered on the U.S. west coast. PCFFA is in turn made up of 14 different member fishing and local port associations, collectively representing working men and women in the West Coast commercial fishing fleet. Our members harvest and provide healthy and nutritious seafood for America's table, and are the drivers of a billion-dollar west coast commercial fishing industry employing thousands of U.S. workers.

We wish to thank the two Committees for the opportunity to provide comments today on behalf of the West Coast fishing industry on the importance of crafting stronger pesticide controls to keep these highly toxic chemicals out of America's rivers, and in particular out of fish such as salmon which are an important part of the human food chain.

The current EPA pesticide protection rules have obviously failed. EPA-regulated pesticides

are now found nearly everywhere in west coast rivers and are killing salmon, destroying salmon jobs, and endangering public health.

As you know, salmon are “anadromous,” which means they begin their lives in inland fresh water streams, then move to the sea for several years, and they then return (typically three to five years later) from the ocean as adult spawners to lay their eggs in inland freshwater streams all along the U.S. west coast and Canada. There the young salmon must remain, some for months – in the case of coho salmon, one year - until they grow large enough to migrate to the ocean where they’ll spend their adult lives. During all this time in fresh water, young salmon are very vulnerable to the dozens of agricultural chemicals (mostly pesticides) that can pollute West Coast rivers.

The great Pacific salmon runs have always been the work horse of commercial fishing on the West Coast. Now, however, many of these salmon stocks are overwhelmed by multiple stressors in our coastal rivers that 17 once-major salmon runs are so imperiled they are protected under the federal Endangered Species Act (ESA) as threatened or in danger of extinction. Another 11 stocks of closely related anadromous steelhead are also ESA-listed in these same river systems, and for the same reasons. For a current list of the west coast salmon and steelhead ESA listings and listing decisions see: [www.nwr.noaa.gov/ESA-Salmon-Listings/upload/snapshot-7-09.pdf](http://www.nwr.noaa.gov/ESA-Salmon-Listings/upload/snapshot-7-09.pdf).

Steelhead, which is closely related to salmon, while not a commercially fished (excepting tribal fishing) species supports a vibrant inland recreational fishing industry that in turn supports thousands of additional sportfishing jobs and hundreds sportfishing businesses, large and small. This, too, is a billion dollar industry bringing jobs and dollars to many rural communities. Salmon and steelhead are collectively referred to as “salmonids.”

When salmon or steelhead stocks are ESA-listed, they cannot be harvested, and fishermen must make every effort to avoid them, which has included closing whole fisheries. This has been done all over the West Coast to protect these weakest stocks – yet still these ESA-listed stocks remain at very low numbers, some still heading toward extinction. Increased mortality from in-river pesticides, scientists now tell us, is one of the reasons these stocks are not recovering.

PCFFA identified the growing threat that water-borne pesticides present to west coast salmon runs in 1999, with the publication of *Diminishing Returns: Salmon Declines and Pesticides* (Feb. 1999), published by the Oregon Pesticide Education Network. That report is available on a PCFFA web site at: [www.pcffa.org/salpest.htm](http://www.pcffa.org/salpest.htm). That report is, however, merely an overview of a representative sample of literally hundreds of peer-reviewed scientific reports and studies at the time (there are many more now) that clearly show how even extremely low but persistent concentrations of pesticides in rivers can greatly increase salmon mortality.

When that report came out, we were also shocked to find out that the US Environmental Protection Agency (EPA), unlike any other federal agency, had never consulted on the impacts of these EPA-registered pesticides on ESA-listed salmonids under ESA Sec. 7 as federal agencies are required by law to do for federal actions. The EPA had simply refused to do so for more than 25 years, since the ESA was first adopted into law in 1976.

As a result, in 2001 PCFFA joined as co-Plaintiff in the lawsuit, *Washington Toxics Coalition, et al. v. Dept. of Interior* (457 F. Supp. 2d 1158) (W.D. Wash. 2006) that subsequently required EPA to consult under Sec. 7 of the ESA, for the first time ever, on the impacts of 54

different commonly used but highly toxic pesticides on ESA-listed salmon and steelhead. PCFFA brought this suit to protect West Coast fishing industry jobs – and seafood consumers – from these chemicals in the river harming the nation’s valuable salmon runs. The end result of that suit, after yet more litigation (see ATTACHMENT B), was the current set of Pesticide Biological Opinions (Pesticide BiOps) that are now coming out of NMFS on a Court-ordered schedule.

This initial list target list of 54 pesticides and herbicides was not chosen at random. All of these 54 chemicals have been found at levels higher than maximum health standards in rivers on the west coast, they are among the most broad-spectrum and toxic of all pesticides, and therefore the ones most likely to impact salmon and steelhead generally, and so these were selected for first analysis. Some have been eliminated from the list in the analysis, which now consists of 37 chemicals. These are the worst of the worst for salmon. These are the chemicals now going through ESA Sec. 7 Consultation.

So far these Pesticide BiOps have concluded that, on the basis of the best available science, current EPA-endorsed pesticide practices for those chemicals analyzed will likely drive these already ESA-protected salmon runs towards extinction. This also means that these chemicals negatively impact other, far more abundant, salmon runs in these same rivers. And since these very same chemicals are also serious human health hazards, the fact that all these chemicals are being found in West Coast rivers that supply water to millions of people is also a serious – but as yet unaddressed – human health hazard.

It should be noted as well that PCFFA obtained an Injunction in that case against the further EPA-authorized uses of these 54 target pesticides within buffer zones comparable to those later required in the Biological Opinions, at least until that Sec. 7 Consultation could be completed. That Injunction, and those required buffer zones, have now been in effect since January 22, 2004.

### **GETTING BACK TO FUNDAMENTALS**

In all the technical details of ESA Sec. 7 consultations and discussions (driven by chemical industry concerns about regulation), including some of the past discussions on this issue before these two Committees, many have lost track of some basic facts, including the following:

**These Chemicals Are Poisons.** It is often forgotten that agricultural pesticides and herbicides are poisons for both fish and humans. They are designed to be poisons and, while they may be useful in agriculture when applied at the correct time, place and dosage, once these chemicals escape into the nation’s rivers, they are nothing more than broad-spectrum, highly toxic poisons to both fish and humans.

**These Chemicals Are Already In Our Rivers and Current EPA Protections Have Failed to Prevent It:** Again, the original list of 54 different pesticides and herbicides we chose to sue on in *Washington Toxics Coalition, et al.* were not chosen at random. Not only are these chemicals all highly toxic to fish, each has been found by US Geological Service (USGS), many in multiple locations, in West Coast rivers at levels that far exceed National Academy of Sciences (NAS) recommended aquatic protection standards.

Among the many findings of these various USGS monitoring studies is that the highly toxic pesticides carbaryl, carbofuran, diazinon, chlorpyrifos and malathion were all found at

levels well above NAS's Aquatic Life Criteria (ALC) standards, often multiple times and in multiple basins. For instance, diazinon was found at 400 times the ALC's maximums in the San Joaquin-Tulare river systems. Malathion was found at levels 45 times higher than ALC again in the San-Joaquin-Tulare systems. Malathion was also found at 30 times higher than ALC in the Willamette River in Oregon.

According to these USGS studies, these chemicals were also found frequently (dependent on basin): carbaryl up to 67% of the time; carbofuran up to 29% of the time; chlorpyrifos up to 52%; diazinon up to 100%; and malathion up to 33% of the widely scattered samples taken in several basins.

Among the many USGS government monitoring studies that have found these pesticides to be pervasive in river systems throughout the west coast are the following:

USGS Circular 1216 (Puget Sound, 1996-98)

<http://wa.water.usgs.gov/pubs/misc/summary.rpt.html>

USGS Circular 1161 (Willamette, 1991-95)

<http://pubs.usgs.gov/circ/circ1161>

USGS Circular 1160 (Upper Snake, 1992-95)

<http://pubs.usgs.gov/circ/circ1160>

USGS Circular 1159 (San Joaquin-Tulare, 1992-95)

<http://pubs.usgs.gov/circ/circ1159>

USGS Circular 1144 (Columbia 1992-95)

<http://pubs.usgs.gov/circ/circ1144>

In short, these nasty toxic pesticides are found in major salmon-bearing river systems nearly everywhere on the west coast. What all this means, bluntly, is that whatever protective rules the EPA now has in place are simply not working to keep these chemicals out of the nation's waterways. The committees were right to describe this as federal regulatory dysfunction.

If these commonly used chemicals are already in salmon-bearing rivers they are also in urban public water systems supplied from those same rivers. This represents a serious and growing – but largely unaddressed -- public health hazard. All are highly toxic to humans, many are bioaccumulative in human tissue, several are human endocrine disrupters, and most are virulent carcinogens or mutagens or both. Few of them can be effectively filtered out from these public water systems by any currently available water filtering systems, most are very hard to detect and few are currently even tested for.

If, under EPA labeling controls now in effect, these 54 and many other agricultural pesticides and herbicides are getting into the nation's rivers, it is clear and convincing proof that current EPA restrictions against use of these chemicals in and around waterways is insufficient to keep them out. This simple fact is ignored in this debate by the chemical industry. If EPA rules under FIFRA are, as they claim, "already strong enough," then where did these chemicals in our rivers come from?

**These Chemicals Kill ESA-Listed and Non-listed Salmonids Alike:** The 54 commonly used pesticides and herbicides originally chosen as our target list for ESA Sec. 7 consultations in *Washington Toxics Coalition, et al. case* are all well known in the scientific literature as highly toxic, broad spectrum chemicals which can be fatal to fish. The studies cited for salmon mortalities in *Diminishing Returns: Salmon Declines and Pesticides* (Feb. 1999), represent only the tip of the iceberg of the massive number of studies in the scientific literature that indicate these chemicals are toxic to salmonids. Once these pesticides and other agricultural chemicals are in our nation's rivers, they not only kill ESA-listed salmon runs, but all other salmon runs as well.

Most of these 54 target chemicals have been in use for many years, some since shortly after World War II. Most are very broad spectrum toxins which kill both target pests and many beneficial species. Some (in particular carbofuran and azinphosmethyl) are now being phased out by EPA because of increasing pest resistance and widespread ecological toxic side effects. Most of these 54 chemicals are being replaced by second and third generation pesticides that are far less toxic and far more selective.

**Once These Chemicals Are In Our Rivers, Society As a Whole Pays a High Price:** When these poisons are allowed to enter the nation's waterways and kill salmon this depletes the salmon resource that supports thousands of salmon related jobs along the Pacific Coast, and deprives our nation's consumers of one of America's healthiest foods sources. Moreover, it instigates further ESA listings as otherwise healthy salmon stocks (and other fish and wildlife species) are in their turn damaged to the point where they also need federal protection.

In short, allowing these agricultural poisons to continue to enter the nation's rivers COSTS JOBS, jeopardizes human health and DAMAGES THE NATIONAL ECONOMY. These economic losses are now clearly overwhelming any economic benefits these chemicals might provide from their selective use in agriculture.

These chemical pollutants are an increasing public health hazard, including some which are known as human "endocrine disrupters" which can affect human growth and development, especially in infants and children, even at extremely low concentrations. According to EPA, the insecticide cararyl likely causes cancer in humans. Three of the pesticides under analysis (chlorpyrifos, malathion and diazinon) have been linked with attention deficit hyperactivity disorder in children. Many other studies show the dangers of other chemicals on this list to human health.

**There Are Simple and Cost Effective Ways To Keep Most of These Chemicals Out of Our Rivers To Begin With.** It is far more expensive to society as a whole to put poisons in rivers and then have to deal with the consequences to human health and fisheries, plus the added costs of filtering such poisons out of public water supplies (when that can be done at all), than to keep them out of our rivers in the first place. Fortunately, there are very simple ways to keep these chemicals away from rivers – the use of river bank "buffer zones" and substitution with less toxic alternatives, as discussed below.

#### **CHEMICAL INDUSTRY COMPLAINTS ON THE CONSULTATION PROCESS ARE UNFOUNDED**

The chemical industry and pesticide manufacturer's group CropLife has been particularly

vocal about what it characterizes as the “serious flaws” in the Sec. 7 consultation process between NMFS and EPA. On January 26, 2011, eighteen members of the U.S. House of Representatives even asked the Council on Environmental Quality (CEQ) to halt or delay further federal evaluations of the effects of toxic pesticides on threatened and endangered west coast salmon and steelhead on the basis of these unverified – and largely false -- CropLife complaints. A copy of our 28 March 2011 responses to CEQ debunking these claims is enclosed as ATTACHMENT A to this testimony.

Briefly, the major misstatements (and sometimes outright scare-tactic fabrications) CropLife and other agricultural interests have made to this Congress include the following:

- Claim: Riparian buffer zones required under the RPA’s in the NMFS Biological Opinions will eliminate farming over large portions of current agricultural lands.

**Response:** This is nonsense. The buffer zones required in the Pesticide BiOps only restrict the use of a very few of some of the oldest, most toxic and increasingly obsolete pesticides right near rivers and streams. In nearly every instance when one of these highly toxic pesticides would otherwise be used for pest control, there are less toxic, and far more specific pest control alternatives. More are being developed. Agriculture can continue as usual using other newer and far more specific pesticides more wisely. And within these buffer zone, hand applications (as opposed to aerial spays which drift considerably and thus require much larger buffers) are nearly always an option.

To give but one example of many of the alternatives available, in California, Oregon and Washington codling moth causes significant economic losses to apple growers. Four of the pesticides with Pesticide BiOps (carbaryl, chlorpyrifos, diazinon and malathion) are registered for use on this pest. However, most experts in the field now recommend more targeted and less toxic products and practices. The University of California-Davis Integrated Pest Management Guidelines include biological, cultural and options such as spinosad, vegetable oil sprays, kaolin clay products, and pheromones to disrupt codling moth mating. Replacing these older pesticides with better cultivation practices and less toxic alternatives is now common in the agricultural industry.

It should also be noted that the ongoing Injunction in the *Washington Toxics Coalition* case, which mandated no-spray buffer zones for all the 54 chemicals subject to the Pesticide BiOp consultation until consultation is completed, has been in effect since January 22, 2004 -- nearly seven years! Farmers have almost always been able both to find less toxic and more targeted chemical substitutes and to adapt in various ways. Very little productive acreage has been “eliminated” as originally foretold.

Buffer zones are common practice. EPA already requires various types of waterway “buffer zone” restrictions for many of these registered pesticides, as part of its FIFRA label restrictions. The common use of such “buffer zones” was noted by the Court in the *Washington Toxics Coalition* case, as follows:

“The evidence submitted ..... demonstrates that pesticide-application buffer zones are a common, simple, and effective strategy to avoid jeopardy to threatened and endangered salmonids. ... Neither EPA or CropLife dispute those basic principles.... [C]urrent EPA effects determinations and expert recommendations hinge on the employment of buffer

zones, such as those outlined by California county bulletins, to prevent jeopardy to threatened and endangered salmonids.... Likewise, CropLife acknowledges the efficacy of buffer zones imposed by the most recent Reregistration Eligibility Decisions for several pesticides..... *Finally, the Court notes that the 20-yard and 100-yard buffer zones requested by plaintiffs are generally consistent with those recommended by EPA.*” (*Washington Toxics Coalition*, Order 8 August 2003, pgs. 16-18, emphasis added)

The restricted pesticides evaluated so far in the Pesticide BiOps are generally outdated, broad-spectrum killers. Many are being phased out because they kill both pest species as well as beneficial species, thus often undercutting their effectiveness. Many of these EPA-approved pesticides are also linked to cancer, endocrine disruption and other serious health effects in humans, particularly children, the elderly, farm families and farmworkers. Those that are endocrine disruptors interfere with both fish and human hormones, causing developmental, neurological, reproductive and immune system problems in wildlife and humans alike.

- Claim: The current ESA process is completely duplicative of EPA’s FIFRA analysis, under which EPA already considers the effects of pesticides on fish and wildlife.

**Response:** The ESA consultation process as currently conducted in no way duplicates EPA’s current FIFRA pesticide evaluation processes because the ESA analysis asks very different questions. To the contrary, because EPA’s ecological risk assessment process fails (in all the ways discussed below) to adequately consider and protect the nation’s most threatened and endangered wildlife, the ESA Sec. 7 consultation process is an indispensable check on EPA’s inadequate species risk assessments. Moreover, EPA’s own internal ESA effects determinations also show that its FIFRA process to register pesticides is flawed because the EPA’s own “effects determinations” have nearly all concluded that pesticides that EPA has already approved under FIFRA are nonetheless likely to adversely affect listed species—see for instance [www.epa.gov/espp/litstatus/effects/redleg-frog/index.html](http://www.epa.gov/espp/litstatus/effects/redleg-frog/index.html).

Furthermore, both NMFS (and for non-salmonids, US Fish & Wildlife Service) have considerably more experience with evaluating impacts on fish and wildlife than does EPA. That is, in fact, part of the Services’ statutory job description.

In its Pesticide BiOps, NMFS scientists have concluded that much of the methodology used by EPA is simply not sufficient to ascertain the impacts of these chemicals on ESA-listed salmonids. In its own toxicology studies, the EPA does not account for several effects on fish that occur in the real world in our streams, including: (a) impacts from chronic but low-concentration exposures that are not immediately lethal but which add to stress on the fish in various ways that can lead to increased mortality; (b) long-term behavioral impacts that may adversely affect how the fish survives in the long run, or make the fish more vulnerable to other sources of mortality such as predators or disease; (c) synergistic effects from the exposure to multiple pesticides simultaneously, even at low concentrations, as we would see in any typical river. NMFS does take these important, but much more subtle, real world impacts into account. The EPA does not.

Further,, EPA does not conduct most of its own research, but relies almost completely on data and studies provided to it by the chemical industry it regulates, few of which are ever peer-reviewed. Fewer still of these industry studies on these pesticides actually studied impacts on salmonids. Unlike EPA, however, NMFS has the facilities to conduct its own research and has

done so specifically with regard to impacts of these chemicals on salmonids as part of the scientific background information needed for these pesticide BiOps.

As the courts have found, EPA's ecological risk assessment process under FIFRA simply fails to address the impacts of these chemicals on species:

*Washington Toxics Coalition v. Dep't of Interior*, 457 F. Supp. 2d 1158, 1184 (W.D. Wash. 2006) (concluding that "EPA's risk assessment process is not only less protective than Service determinations, there is overwhelming evidence on the record that . . . EPA risk assessments . . . would actually result in harm to listed species."); *id.* at 1193 (holding EPA's risk assessment process contains "substantial flaws . . . [and is] highly likely (if not certain) to result in an overall under-protection of listed species.")

More bluntly, the pesticide industry disputes the science only because it is science they cannot control, and that they do not want to hear. But these scientific decisions, many of which affect industries such as ours, as well as the health and welfare of millions of Americans, must be based on the "best available science," not on the "most convenient (or profitable) conclusions." Ignoring the increasingly large body of science showing the serious collateral impacts of certain highly toxic and broad-spectrum pesticides in the ecosystem is not a sound policy basis for curtailing this impacts analysis under Sec. 7 of the Endangered Species Act (ESA). Nor is it a sound basis for any kind of deregulation in this important public health arena.

While there are clearly scientific disputes between EPA and the Services over methodology that need to be ironed out, these scientific disputes have already been referred by EPA to the National Academy of Sciences' National Research Council for a thorough analysis and resolution. Congress should let this process naturally unfold. Resolving scientific disputes is something that scientists should do, not politicians. Scientific disputes of this nature are not uncommon, and effective steps are being made now to resolve them. Nothing in the process to date justifies more delay – especially since the burden of delay could jeopardize industry jobs and the public's health.

- **Claim:** The ESA Sec. 7 consultation process allows no input from the chemical industry or affected users, and does not consider the real-life circumstances in which these chemicals are used.

**Response:** This is an easy one to dispose of. Far from being a "closed process," since the draft of the first biological opinion ("BiOp") evaluating the effects of the organophosphates chlorpyrifos, diazinon, and malathion was released in 2008, EPA has released each draft BiOp specifically to solicit and consider input from pesticide manufacturers, local, state, and tribal governments, and the general public. It has published guidance outlining the procedures for input and established a docket number (EPA-HQ-OPP-2008-0654) for this specific purpose, available on the Internet.

To date, EPA has received over 300 written comments on the first three BiOps alone, including from each of the manufacturers, many pesticide users, various state agencies, and concerned members of the public. In addition, for each BiOp prepared, EPA and NMFS have held extensive meetings with pesticide manufacturers, and have received large amounts of information and material from those registrants. NMFS has documented this input and detailed



how it considered the information it received in each of the BiOps issued thus far. For more details see the Letter to CEQ dated 28 March, 2011, enclosed as ATTACHMENT A.

As to considering “real world conditions,” this is exactly what NMFS does when it considers not only long-term behavioral impacts but also synergistic impacts of multiple pesticides working together, as they certainly do in real world streams. EPA only considers effects of one pesticide at a time in isolation, and then only for the so-called “active” ingredient, excluding the impacts of so-called “inert ingredients” in pesticide formulations, some of which are actually more toxic to fish than the registered ingredient. Thus it is EPA, not NMFS, which is not considering the “real world impacts” of these chemicals in the natural environment. This is one reason EPA’s FIFRA toxic risk analysis method has been criticized by both scientists and the courts.

- Claim: If these chemicals cannot be used for mosquito control, there will be outbreaks of west Nile virus and other serious diseases which will jeopardize human life.

**Response:** First off, none of the most common chemicals used for mosquito abatement are currently under ESA scrutiny.

Secondly, urgent public health or land management matters such as mosquito control or control of invasive species are not likely to be affected by these Pesticide BiOps. Special exemptions (such as ESA incidental take permits) can and have been carved out for these rare, and usually one-time, hazard abatement techniques. Use of integrated pest management techniques is also increasingly replacing the heavy-handed use of these kinds of highly toxic chemicals, and additionally many modern alternatives to these chemicals that are far most specific to mosquitos are being developed or already available.

Third, in our January 22, 2004, Injunction in the *Washington Toxics Coalition* case, which enjoined the use of many of these same chemicals within certain buffer zones, contained the following specific exclusions:

“Based on EPA’s effects determinations, the stipulation of plaintiffs, or the evidence in the record .... the Court determines that EPA’s authorization of the following Pesticide uses specified below is not vacated:

1. *Public Health Vector Control Programs:* Use of Pesticides for public health vector control as administered by public health entities.
2. *Noxious Weed Programs:* Use of the Pesticides for control of state-designated noxious weeds as administered by public entities, when such control program implements the following safeguards that NMFS routinely requires for such programs.....” (*Washington Toxics Coalition*, Order of Jan. 22, 2005)

**IT IS FAILURE TO PROTECT ESA-LISTED SPECIES FROM PESTICIDES THAT  
PROMOTES GOVERNMENT WASTE AND INCREASES  
PRIVATE SECTOR ESA RESTRICTIONS**

In light of the theme of this Hearing, which is on job costs from “Federal regulatory dysfunction” it should be obvious that it is past EPA failure to prevent harmful pesticides from

getting into salmon-bearing rivers, harming ESA-listed and non-listed salmonids, and threatening public health that wastes government money and jeopardize jobs, including:

- (A) Further restricting the west coast commercial and recreational salmon fishing industries, jeopardizing the very resources upon which they both depend, and destabilizing tens of thousands of family wage jobs in coastal and inland salmon-dependent communities;
- (B) Making it that much harder to recover, and thus to eventually de-list, those species that are already ESA protected, essentially helping to keep them on the ESA list forever.
- (C) Driving currently abundant salmonid species into a downward population spiral, creating more ESA listings in the future.
- (D) Many hundreds of millions of dollars in combined federal, state and local landowner funds have now gone toward protecting endangered salmonids. Poisoning these species with federally-allowed pesticide practices that pollute rivers works at complete cross purposes with all existing salmon recovery efforts.
- (E) As more ESA-listed fish decline from pesticides, this just increases in severity the restrictions necessary on local landowners. Many Central Valley farmers, for instance, have pointed to “water pollution” as a main cause of depletion of San Francisco Delta salmon stocks (not to mention Delta smelt). But the more these fish stocks are depleted by pesticide pollution, the more irrigation water will be necessary to take from agriculture to help offset that other damage, e.g., diluting the pollution. It is thus just as much in the Central Valley farmers’ best interests to make sure these pesticides do not jeopardize ESA-listed fish in the San Francisco Bay-Delta Estuary as it is for fishermen. This is also true elsewhere in rivers throughout the West Coast, in most of which pesticides are serious problems for ESA-listed fish.
- (F) Causing serious public health concerns as toxic pesticides are increasingly found in drinking water and begin significantly entering the human food chain.

### **IN SUMMARY**

In short, it makes no economic sense to be poisoning the nation’s rivers and salmon runs which support tens of thousands of jobs, simply to keep using certain highly toxic pesticides, most of which could be easily replaced with much less toxic alternatives.

The current Sec. 7 ESA consultations and their resulting Pesticide BiOps help us craft ways to keep these chemicals out of our nation’s rivers and away from urban water supplies in the first place. It is always far more cost effective to prevent a problem in the first place than to have to clean it up later – if it can be cleaned up at all.

And while conducting these decades-overdue ESA Sec. 7 consultations may burden the resources of EPA and the Services temporarily, the long-term solution is to provide the agencies the additional resources they need to speed up the process. The solution is not to deny the science, ignore polluted rivers, devastate the nation’s valuable salmon runs, turn a blind eye to serious human health problems, overturn the law -- and then just hope for the best!

Mr. Chairmen, we do indeed have a dysfunctional federal regulatory system when it comes to regulating pesticide usage in order to protect food fish, jobs and human health. That was why PCFFA sued. PCFFA looks forward to working with you, the committees and members of Congress to ensure that the regulation of pesticides will, in fact, *effectively* consider and protect our nation's valuable food fish, fishing-industry jobs – along with protection for farm workers, and human health. Thank you and I'll be happy to answer any questions.

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**PCFFA APPENDIX A – Joint Letter to CEQ**

**DEFENDERS OF WILDLIFE ♦ EARTHJUSTICE ♦ NORTHWEST  
CENTER FOR ALTERNATIVES TO PESTICIDES ♦ PACIFIC COAST  
FEDERATION OF FISHERMEN'S ASSOCIATIONS ♦  
INSTITUTE FOR FISHERIES RESOURCES**

March 28, 2011

Nancy Sutley, Chair  
Council on Environmental Quality  
722 Jackson Place, N.W.

On January 26, 2011, eighteen members of the U.S. House of Representatives asked the Council on Environmental Quality to halt or further delay federal evaluation of the effects of toxic pesticides on threatened and endangered West Coast salmon and steelhead. That request, however, is based on a misunderstanding of the science underlying the required protections and on an inaccurate picture of the process that the National Marine Fisheries Service and the Environmental Protection Agency have followed. We write to urge CEQ to instead use its resources and authorities to ensure that these agencies can effectively complete and immediately implement the long-overdue measures necessary to protect West Coast salmon and steelhead from the harm caused by these pesticides.

Specifically, the letter asks CEQ to intervene in the on-going Endangered Species Act (ESA) consultation process based on allegations that biological opinions have been prepared without an adequate opportunity for input from pesticide manufacturers and users and without considering the best available science on the levels of these chemicals found in salmon waters. Both of these contentions are incorrect.

First, the letter is based on a misunderstanding of the consultation process as it has unfolded for the eighteen pesticides that have been evaluated so far. Since the draft of the first biological opinion (“BiOp”) evaluating the effects of the organophosphates chlorpyrifos, diazinon, and malathion was released in 2008, EPA has released draft BiOps *specifically* to solicit and consider input from pesticide manufacturers, local, state, and tribal governments, and the general public.<sup>1</sup> It has published guidance outlining the procedures for input and established a docket number (EPA-HQ-OPP-2008-0654) for this specific purpose at [www.regulations.gov](http://www.regulations.gov). <http://www.regulations.gov/#!docketDetail;dct=PS;rpp=10;so=ASC;sb=postedDate;po=60;D=EPA-HQ-OPP-2008-0654>.

To date, EPA has received over 300 comments on the first three BiOps alone, including from each of the manufacturers, many pesticide users, various state agencies, and concerned members of the public. In addition, for each BiOp prepared, EPA and NMFS have held extensive meetings with pesticide manufacturers, and have received large amounts of information and material from those registrants. NMFS has described this input and detailed how it considered the information it received in each of the BiOps issued thus far.<sup>2</sup> The categorical statement in the House members’ letter that EPA has not adequately consulted with

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<sup>1</sup> While this Organophosphate biological opinion (“OP BiOp”) does not represent the first consultation evaluating the effects of a pesticide on a listed species, it is the first of many such consultations since the Court confirmed EPA’s obligation to consult on its pesticide registrations and reregistrations more than eight years ago. Washington Toxics Coalition v. EPA, 413 F.3d 1024 (9th Cir. 2005). This and other recent biological opinions are the result of a process that began before 2002, when EPA first requested consultation for diazinon and bensulide. EPA’s effects determinations for these and other pesticides required by Washington Toxics Coalition were made by December, 2004.

<sup>2</sup> See, e.g., OP BiOp at 16-21 (detailing meetings with registrants and nine file boxes of information provided to EPA by registrants alone); Biological Opinion re: Environmental Protection Agency Registration of Pesticides Containing Carbaryl, Carbofuran, and Methomy (“Carbamate BiOp”) (Apr. 20, 2009) at 6-16; Biological Opinion Environmental Protection Agency Registration of Pesticides Containing Azinphos methyl, Bensulide, Dimethoate, Disulfoton, Ethoprop, Fenamiphos, Naled, Methamidophos, Methidathion, Methyl parathion, Phorate and Phosmet (Aug. 31, 2010) at 6-23 (discussing extensive meetings, comments, and information exchanges between the agencies and the manufacturers, and public comments).

the pesticide industry and grower interest groups cannot be squared with the agencies' actions, EPA's notice and request for comments on each of these draft BiOps, and the extensive input received. We continue to support EPA's effort to solicit input from all interested groups and individuals as it completes other consultations and believe that the agencies have used their existing authorities to conduct this process in a transparent manner that allows for input from all affected parties and that will quickly achieve compliance with the law.

Second, as the amount of input into the process demonstrates, NMFS did not "ignore" the best available monitoring data and science relevant to the presence of these chemicals in salmon waters. To the contrary, each BiOp explicitly discusses the data relied upon, discloses gaps in that information, and details how NMFS dealt with any uncertainty. NMFS requested and analyzed the most current information that manufacturers, state agencies, and users were willing to provide – including voluntary measures and growers' best practices. For example, NMFS relied on extensive monitoring conducted by the United States Geological Survey, as well as data from state agencies like the California Department of Pesticide Regulation.<sup>3</sup> In some West Coast watersheds, this monitoring revealed levels of these pesticides well above standards set to protect aquatic life - sometimes at concentrations 1000 times higher than accepted levels, presenting a risk not only to the fish and those people who may consume them, but also to human populations which also use these same rivers as a source for urban water supplies. Moreover, because use patterns and practices change and because high levels of these pesticides are routinely found in actual water samples, NMFS also properly focused on the legal uses allowed by the current pesticide labels.

NMFS comprehensively reviewed this data and all other information regarding the impacts of pesticides on salmon and ultimately concluded that current uses of these insecticides jeopardize the existence of these imperiled fish. It then required proven and time-tested protections that would help keep harmful levels of these chemicals out of salmon waters in the first place. Measures such as no-spray buffers, vegetative strips to catch run-off from fields, and limits on pesticide application rates during adverse weather conditions have been employed for years by state and federal regulators and effectively reduce the amount of pesticides that enter our waters.

The highly toxic pesticides that NMFS has so far examined in biological opinions, and which were the subject of the Washington Toxics Coalition lawsuit leading to this analysis, were not chosen at random. These organophosphate and carbamate pesticides are some of the most widely used and broadest-spectrum – as well as most dangerous – neurotoxic chemicals still used in both agricultural and/or urban insect control. Numerous cost-effective and less toxic alternatives to these pesticides already exist to meet the demand from farmers who often avoid the use of such heavy-handed broad-spectrum chemicals because they kill beneficial insects and can lead to greater pest problems over time.

Rather than further delaying this already long-overdue evaluation of the impacts of pesticides on threatened and endangered species, we urge CEQ instead to help the agencies focus their efforts and resources to implement the long-overdue measures required to protect salmon from the impacts of these lethal chemicals. While there have been some differences of opinion between EPA and the Services over interpretations of some of the science, the agencies

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<sup>3</sup> See, e.g., OP BiOp at 242-52 (discussing water quality and water monitoring studies); *id.* at 173-75 (citing USGS National Water-Quality Assessment Program data).

themselves can and should resolve these differences. It should be scientists who make such scientific judgments, not politicians.

Sincerely,

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Patti Goldman  
Vice President for Litigation  
Earthjustice

*Zeke Grader*  
Zeke Grader  
Executive Director  
Pacific Coast Federation of Fishermen's Associations and the Institute  
for Fisheries Resources

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## **PCFFA APPENDIX B – Pesticide ESA Sec. 7 Litigation Chronology**

### **Pesticides and West Coast Salmon Litigation Timeline**

EPA's failure to fulfill its obligation under the Endangered Species Act (ESA) to protect threatened and endangered West Coast salmon and steelhead from toxic pesticides has unfortunately been the subject of extensive litigation. Fishermen, public health advocates, and conservation groups have been forced to repeatedly turn to the Courts to enforce the law, and EPA has fought them – and lost – every step of the way.

By 2000, a decade after the first runs of salmon were first protected under the ESA, EPA had not initiated consultation with NMFS over the effects on salmon of its registration or registration of hundreds of pesticides under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

Fishermen and public health and environmental advocates formally notified EPA in July of 2000 that they intended to sue if EPA did not take steps to clear this backlog. After EPA took no action, these groups in 2001 filed litigation in the U.S. District Court of the Western District of Washington. Washington Toxics Coalition v. EPA, No. C01-132 (W.D. Wash.).

In 2002, the Court held that EPA violated its duty to consult under ESA section 7(a)(2) for at least 54 specifically identified pesticides. Washington Toxics Coalition v. EPA, No. C01-132C, 2002 WL 34213031 at \*8-9 (W.D. Wash. July 2, 2002) The Court found that “[d]espite competent scientific evidence addressing the effects of pesticides on salmonids and their habitat, EPA has failed to initiate section 7(a)(2) consultation with respect to its pesticide registrations. ....Such consultation is mandatory and not subject to unbridled agency discretion.” The Court then ordered EPA to make effects determinations and initiate consultations with NMFS regarding the 54 pesticides not later than December, 2004. Id. at \*10.

To protect salmon during the consultation process, the Court in 2003 enjoined EPA from authorizing uses of the pesticides within prescribed distances of salmon-bearing streams, and required point-of-sale notifications regarding the dangers posed to salmon for domestic uses. In requiring these interim no-spray buffers around salmon-bearing waters, the Court found that:

The evidence submitted - including the declarations of *all* parties’ experts, reregistration eligibility decisions, EPA risk assessments, prior EPA consultations with the Fish and Wildlife Service, EPA’s reliance on California’s county bulletin buffer zones, and an EPA expert’s current section 7(a)(2) recommendations - demonstrates that pesticide-application buffer zones are a common, simple, and effective strategy to avoid jeopardy to threatened and endangered salmonids. Plaintiffs’ experts sufficiently articulate the general efficacy of buffer zones in preventing the migration of pesticides, via spray drift, surface runoff, or erosion, into salmonid-bearing waters. Neither EPA nor Crop life dispute these basic principles.

Washington Toxics Coalition v. EPA, No. C01-132C, Order (Aug. 8, 2003) at 16.

After hearing from again from all parties, the Court set the specific buffers for specific pesticides and specific applications in a detailed order in January 2004. In addition to the interim buffers, the Court – upon agreement of the parties – carved out exceptions allowing these chemicals to be used where necessary for public health (such as mosquito control programs) and in fighting noxious weeds or invasive species. Washington Toxics Coalition v. EPA, No. C01-132C, Order (Jan. 22, 2004) at 9-10.

EPA, CropLife, and others appealed both the Court’s legal ruling that EPA must consult and the injunction to the Ninth Circuit Court of Appeals. The Court affirmed all aspects of the district court’s orders, including the injunction. Washington Toxics Coalition v. EPA, 413 F.3d 1024, 1029 (9th Cir. 2005).

By 2004, EPA had made effects determinations for all of the 54 pesticides at issue in Washington Toxics and had initiated consultations with NMFS on 37 of those pesticides that it deemed “may affect” listed salmon species. As of 2006, NMFS had not completed any of the

required consultations for the 37 “may affect” pesticides, due to critical flaws in EPA’s risk assessment methodologies.

In another attempt to avoid its legal obligations under the ESA, the government adopted a set of “counterpart regulations” that would specifically govern the ESA consultation process for pesticides. These regulations allowed EPA to make its own ESA determinations based on its flawed risk assessment process without involving the expert biologists at NMFS or FWS. To ensure that the consultations were based on the best available science and not on EPA’s flawed risk assessments, fishermen, public health advocates and conservationists again returned to Court to challenge the counterpart regulations. Washington Toxics Coalition v. Dep’t of Interior, 457 F. Supp. 2d 1158, 1193 (W.D. Wash. 2006)

The Court reviewed the extensive record documenting flaws in EPA’s risk assessment process – including its failure to account for sublethal effects, synergistic impacts, and effects of “inert” ingredients in pesticide mixtures. Id. at 1182-93. The Court agreed that “EPA’s risk assessment process is not only less protective than Service determinations, there is overwhelming evidence on the record that . . . EPA risk assessments . . . would actually result in harm to listed species.” Id. at 1184. The Court emphasized that the Services therefore provided an essential check on EPA’s assessments and set aside the challenged regulations because EPA’s risk assessment process alone contained “substantial flaws . . . [and was] highly likely (if not certain) to result in an overall under-protection of listed species.” Id. at 1193. EPA did not appeal this ruling.

In 2007, EPA and NMFS still had not completed consultation for a single one of the 37 pesticides covered by Washington Toxics Coalition. Fishermen and public health advocates therefore returned to court yet again to compel NMFS to complete the 37 consultations. NW Coalition for Alternatives to Pesticides v. NMFS, Civ. No. 07-01791 (W.D. Wash. Nov. 5, 2007). On July 30, 2008, NMFS and the plaintiffs in that action entered into a settlement agreement establishing a schedule for NMFS’s completion of consultation on all 37 pesticides by late 2012. See id., Stipulated Settlement Order (Dkt.# 21) (Aug. 1, 2008). That schedule has since been extended several times to accommodate longer comment periods agency workloads.

After EPA published drafts and solicited comment and input from pesticide users, state agencies, and the general public– and after NMFS met extensively with the pesticide industry and others during the consultation process -- NMFS issued the first two biological opinions covering six pesticides in November 2008 and April 2009. These two biological opinions found that the broad-spectrum organophosphate pesticides diazinon, chlorpyrifos, and malathion, and carbamate pesticides, carbaryl, carbofuran, and methomyl, jeopardized nearly all species of West Coast salmon and steelhead and destroyed or adversely modified their critical habitat. In the biological opinions, NMFS required mitigation measures that would avoid these impacts, including no-spray aerial and ground buffers and application restrictions during adverse weather. Both biological opinions required EPA to implement these protections within one year. As of April 2011, EPA has yet to implement a single one of these – or any other protective measure to avoid the devastating impacts of these and other toxic pesticides to West Coast salmon runs.

Fishermen, public health advocates, and conservationists have been forced to turn to the Courts yet again in an effort to get EPA to fulfill its legal obligations and protect these fish. In November 2010, these groups challenged EPA’s failure to implement salmon protections in these two biological opinions in U.S. District Court for the Western District of Washington.



NCAP v. EPA, 2:10-CV-0199-TSZ (W.D. Wash.). Briefing in this case should begin in the summer of 2011.

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