

NORTHWEST ENVIRONMENTAL ADVOCATES



August 9, 2012

Bill Blosser, Chair
Oregon Environmental Quality Commission
c/o Department of Environmental Quality
811 S.W. Sixth Ave.
Portland, OR 97204

Via Hand Delivery

Re: Petition to Initiate Rulemaking and Take Other Actions to Protect Existing and Designated Uses of Fish and Wildlife from Point and Nonpoint Sources of Pesticides

Dear Mr. Blosser:

Please find attached a Petition to Initiate Rulemaking and Take Other Actions to Protect Existing and Designated Uses of Fish and Wildlife from Point and Nonpoint Sources of Pesticides. This petition is intended to assist Oregon in meeting the requirements of the Coastal Zone Act Reauthorization Amendments, the Clean Water Act, and the Endangered Species Act. It is primarily, but not exclusively, focused on incorporating the findings and science of the National Marine Fisheries Service and U.S. Fish and Wildlife Service with regard to pesticides into Oregon's water quality standards.

I look forward to addressing the Commission on this matter and I hope that if there is any additional information that would be of assistance to the Commission you will inform me.

Sincerely,

A handwritten signature in black ink, appearing to read "Nina Bell".

Nina Bell
Executive Director

cc: Dick Pedersen
Jennifer Wigal
Larry Knudsen

BEFORE THE OREGON ENVIRONMENTAL QUALITY COMMISSION

**Petition to Initiate Rulemaking and Take Other Actions
 to Protect Existing and Designated Uses of Fish and Wildlife
 From Point and Nonpoint Sources of Pesticides**

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BEFORE THE OREGON ENVIRONMENTAL QUALITY COMMISSION

**Petition to Initiate Rulemaking and Take Other Actions
to Protect Existing and Designated Uses of Fish and Wildlife
From Point and Nonpoint Sources of Pesticides**

I. Introduction

Northwest Environmental Advocates (“NWEA”) hereby petitions the Oregon Environmental Quality Commission (“EQC” or “Commission”) pursuant to OAR 340-011-0046 and 137-001-0070 to initiate rulemaking to adopt the Reasonable and Prudent Alternatives (“RPAs”) set out in six Biological Opinions (“BiOps”) completed between November 2008 and July 2012 by the National Marine Fisheries Service (“NMFS”) for 28 insecticides, herbicides, and fungicides and one BiOp completed in September 1989 by the U.S. Fish and Wildlife Service (“USF&WS”) for 41 pesticides (hereinafter collectively “listed pesticides”) as required practices to implement Oregon’s narrative criterion for toxic contaminants to protect designated uses and as antidegradation implementation methods to protect existing uses. These BiOps were completed by NMFS and USF&WS (together “the Services”) to carry out their obligations under the federal Endangered Species Act (“ESA”).

As set out below, there are many compelling reasons for the Commission to adopt the new rules, to revise its permits, and to seek actions by the Oregon Department of Agriculture and Board of Forestry, all of which are requested in this petition, to address the findings in these BiOps. First, Oregon is in jeopardy of losing federal funding if it does not ensure that it can meet water quality standards in coastal watersheds, including protection of beneficial uses from pesticides. Second, Oregon has authorized the discharge of pesticides to Oregon waters through a Clean Water Act (“CWA”) National Pollutant Discharge Elimination System (“NPDES”) general permit that fails to include restrictions needed to prevent the extinction of threatened¹ and endangered² species and enhance their recovery and thus amounts to a “take” under the ESA. Third, Oregon is legally authorized and required to adopt implementation methods and procedures to protect existing uses and the water quality to support them, interpret and apply its narrative criteria for toxics, and to protect designated uses. Fourth, inaction by Oregon, particularly in light of its permit authorizing discharges of pesticides at levels that will jeopardize the continued existence of threatened and endangered species, amounts to a “take” under the ESA subject to substantial civil and criminal penalties. Fifth, actions taken by the Commission consistent with this petition will implement the agency’s Toxics Reduction Strategy whereas inaction will demonstrate the strategy is a paperwork exercise. Last, it is in Oregon’s interest to protect threatened and endangered species from extinction and to prevent species whose populations are rapidly being extirpated and depleted but which are not yet listed under the ESA from moving closer to extinction.

¹ A species is considered endangered when it is “in danger of extinction throughout all or a significant portion of its range.” 16 U.S.C. § 1532(6).

² A species is considered threatened when it is “likely to become endangered within the foreseeable future throughout all or a significant portion of its range.” 16 U.S.C. § 1532(20).

II. Requested Actions

A. Proposed Rulemaking

As discussed below, federal law requires Oregon to adopt “implementation methods” for implementing the state’s required antidegradation policy which includes, *inter alia*, protection of beneficial uses present any time since November 28, 1975 and the maintenance and protection of the level of water quality necessary to protect those uses. Federal law requires Oregon to have published methods for use of its narrative criteria for toxics in its permitting program. Federal law also requires Oregon to have a federally-approved plan to control pesticides to meet water quality standards and protect designated beneficial uses in coastal watersheds in order to continue to receive certain federal funds. For these and other reasons set out below, NWEA hereby petitions the Commission to adopt the rules set out in Section X of this petition to implement these requirements: (1) as new rule OAR 340-041-0004(10)(Antidegradation Policy); (2) as new rule OAR 340-041-0033(8)(Toxic Substances); (3) as new rule OAR 340-041-0033(9)(Toxic Substances); (4) as new rule OAR 340-041-0033(10); (5) as new rule OAR 340-041-0004(11)(Antidegradation Policy); and (6) as new rule OAR 340-04100034(Pesticides).

B. Directive to the Department to Amend the 2300A General Permit, Any Authorized Discharges Pursuant to that Permit, and Any Individual NPDES Permits Issued that Authorize the Discharge of the Listed Pesticides

As explained below in Section VI.B, the issuance of the 2300A NPDES General Permit by the Department of Environmental Quality (“DEQ” or “Department”) for discharges of pesticides including but not limited to the listed pesticides, the issuance of coverage to applicants under the 2300A NPDES General Permit which authorizes such discharges, and the issuance of any individual NPDES permit to discharge pesticides including but not limited to the listed pesticides all constitute a violation of water quality standards and a take under the ESA if such discharges are not consistent with the RPAs. The discharge of the listed pesticides unlimited by the RPA restrictions should be interpreted by the Department as a violation of Oregon’s existing water quality standards – for protection of existing and designated beneficial uses and the narrative criteria – but the Department has a history of not applying all components of its adopted standards, instead limiting regulatory actions to its numeric criteria. Therefore, the 2300A NPDES General Permit’s limitation that a “discharge must not cause or contribute to the violation of water quality standards”³ does not now have any practical association with the RPAs set out in NMFS’ BiOps. In addition, because the permit’s solution to any violation of this prohibition is corrective action under Condition No. 3 of Schedule A of the permit,⁴ the prohibition is essentially meaningless. Specifically, Condition 3 only requires a review, evaluation, and revision of pest management measures. There is nothing in the permit or in the Department’s procedures that establishes effluent limits under the 2300A General Permit that are consistent with the RPAs.

For these reasons, by this petition NWEA requests the Commission direct the Department to immediately re-open the 2300A General NPDES Permit and any individual NPDES permits the

³ DEQ, *2300A General Permit, Schedule A, Condition 1.a.*, available at <http://www.deq.state.or.us/wq/wqpermit/docs/general/npdes2300a/2300aPermit.pdf> (last accessed July 30, 2012).

⁴ *Id.*

Department may have issued for the discharge of pesticides to explicitly incorporate the restrictions set out in the listed pesticide BiOps as well as the ESA consultation for the EPA Pesticide General Permit discussed in Section VI.B.1 below. We further request that in the interim period prior to the permit's revision, the Commission direct the Department to post on its website as guidance those same restrictions.

C. Petitions to the Oregon Department of Agriculture

In addition, pursuant to OAR 340-041-0061(11), NWEA petitions the Commission to petition the Oregon Department of Agriculture ("ODA") to (1) adopt the RPAs in the agency's Agricultural Water Quality Management Area Rules,⁵ and to (2) adopt the RPAs by prohibiting the sale of the listed pesticides in the state, prohibiting the use of the listed pesticides in the state, and/or requiring additional regulations at the point of sale, through State regulation, or through State notification procedures for the listed pesticides.

1. *Petition to ODA to Adopt Reasonable and Prudent Alternatives in Basin Rules*

The Commission's rules require that

If the department determines that the area plan and rules are not adequate to achieve and maintain water quality standards, the department will . . . request the Environmental Quality Commission (EQC) to petition ODA for a review of part or all of water quality management area plan and rules.⁶

Once the determination has been made that the plans and rules are not adequate, Department action is mandatory. Section VII.A.2 of this petition demonstrates that the ODA rules are inadequate. The Commission can, on the basis of this petition, make its own determination that ODA rules that contain no limitations on the use of any pesticides and ODA rules that contain no limitations on the use of the listed pesticides are not adequate to achieve and maintain water quality standards. However, if the Commission finds that its role is constrained to only take action upon the Department's determinations, this petition requests that the Commission direct the Department to make findings by a date certain as to whether the ODA basin rules control the use of pesticides sufficiently to meet water quality standards as defined by the minimum requirements of the BiOp RPAs. Otherwise, this petition requests that the Commission make the determination on the basis of the RPAs themselves, relying on the expertise of the federal wildlife agencies, and direct the Department to draft a petition for the Commission to submit to the ODA by a date certain.

2. *Petition to ODA to Implement the Reasonable and Prudent Alternatives by Prohibiting the Sale and/or Use of the Listed Pesticides in Oregon and/or Requiring Additional Regulations at Point of Sale*

With the exception of those listed pesticides that are subject to discharge under the DEQ 2300A NPDES General Permit, discussed below, the Commission and the Department have no direct

⁵ OAR 603-095-0010 – 603-095-3960.

⁶ OAR 340-041-0061(11).

method of ensuring that changes to state water quality standards will result in restrictions on the use of the listed pesticides. Therefore, this petition further requests that the Commission petition the ODA to obtain changes to the sale and/or labeling and request additional regulations at the point of sale that clarify the water quality standards restrictions that will be adopted by the Commission pursuant to this petition or that are independently required by the RPAs in the event that the Commission denies this petition in its entirety. Such point of sale requirements were set forth, for example, in *Center for Biological Diversity v. EPA*⁷ where the U.S. District Court for the Northern District of California ordered the U.S. Environmental Protection Agency (“EPA”), *inter alia*, to develop and distribute a “shelf tag” to named retail establishments for 45 pesticides for the protection of species in the San Francisco area including the California tiger salamander.⁸ In *Center for Biological Diversity v. Johnson*⁹ EPA agreed to a court order to produce and distribute bilingual brochures about 66 pesticides and protection of the California red-legged frog.¹⁰ In *Washington Toxics v. EPA*, the court required a point-of-sale notification for seven active ingredients in pesticides.¹¹ Copies of these point-of-sale notifications are set out in Appendix A.

D. Petition to the Board of Forestry

The Oregon Department of Forestry (“ODF”) regulates the application of pesticides to forestlands.¹² ODF rules are required to be consistent with the Forest Practices Act which states that forest operations “shall be conducted in full compliance with the rules and standards of the Environmental Quality Commission relating to air and water pollution control.”¹³ The

⁷ *Center for Biological Diversity v. EPA*, No. C07-02794 (JCS) 2010 WL 2143658 (N.D.Cal., May 17, 2010) available at <http://www.epa.gov/oppfead1/endanger/litstatus/cbd-epa-5-30-2007.pdf> (last accessed July 30, 2012).

⁸ See EPA, *Wildlife Hazards [shelf tag]*, <http://www.epa.gov/espp/litstatus/shelf-tag-final.pdf> (last accessed July 30, 2012).

⁹ *Center for Biological Diversity v. Johnson*, No. 02-1580-JSW (JL) (N.D.Cal., October 20, 2006) available at <http://www.epa.gov/espp/litstatus/stipulated-injunction.pdf> (last accessed July 30, 2012).

¹⁰ EPA, *Frogs and Pesticide Hazards*, available at <http://www.epa.gov/espp/litstatus/redleg-frog/rf-brochure.pdf> (last accessed July 30, 2012).

¹¹ *Washington Toxics v. EPA*, No. C01-132C, Order at 4-10 (W.D. Wash. Jan. 22, 2004). California Department of Pesticide Registration, *Endangered Species Project Point-of-Sale Requirements for Urban-Use Pesticides for Protection of Salmonids*, <http://www.cdpr.ca.gov/docs/endspec/pointsale.htm> (last accessed July 31, 2012). The active ingredients are: 2,4-D, carbaryl, diazinon, diuron, malathion, triclopyr BEE, and trifluralin.

¹² ORS § 527.724; OAR Division 620; ODF, *Pesticide Use in Oregon’s Forests*, <http://cms.oregon.gov/ODF/privateforests/Pages/pesticides.aspx> (last accessed August 1, 2012).

¹³ ORS § 527.724; see also ORS § 527.765(1) (“The State Board of Forestry shall establish best management practices and other rules applying to forest practices as necessary to insure that to the maximum extent practicable nonpoint source discharges of pollutants resulting from forest operations on forestlands do not impair the achievement and maintenance of water

Commission may petition the Board of Forestry for adoption of rules.¹⁴ ODF regulations contain two primary sets of rules. The first states generally that use of chemicals on forestland is subject to the “hazardous waste laws administered by the Department of Environmental Quality.”¹⁵ The cross-reference to DEQ’s rules includes only the Department’s hazardous waste laws and omits entirely the water quality program including its water quality standards and DEQ’s permitting program that applies to some pesticides, as discussed in Section VI.B.2 of this petition. Should the Commission engage in rulemaking to incorporate the pesticide BiOp RPAs into Oregon’s water quality standards as requested by this petition, the result would apparently have no effect on forestry operators, despite state statutes that link water quality standards to forest practices.

The second set of restrictions is set out in specific rules that purport to “protect waters of the state . . . by [requiring operators to follow] requirements of the chemical product label and by meeting the additional protection measures listed in this rule.”¹⁶ As this petition will show, the federal labels do not provide adequate and full protection for threatened and endangered species in Oregon. The additional requirements of the rule include the following:

- protecting riparian vegetation from herbicides;¹⁷
- applying chemicals in weather conditions that comply with the rules and labels;¹⁸
- not applying chemicals by air within 60 feet and by ground within 10 feet , and not applying fungicides or non-biological insecticides by air within 300 feet, and applying by air all chemicals parallel to the edge of the water when applying them within 100 feet of significant wetlands; aquatic areas of Type F and D streams, large lakes, aquatic lakes with fish use, or standing water larger than one-quarter acre at the time of application;¹⁹ and
- not applying fungicides or non-biological insecticides by air within 60 feet of aquatic areas of Type N (non-fish-bearing streams) containing flowing water at the time of

quality standards established by the Environmental Quality Commission for the waters of the state.”).

¹⁴ ORS § 527.765(3)(c)(“ If the petition for review of best management practices is made by the Environmental Quality Commission, the board shall not terminate the review without the concurrence of the commission, unless the board commences rulemaking in accordance with paragraph (e) of this subsection.”); ORS § 527.765(3)(e)(“If, pursuant to review, the board determines that best management practices should be reviewed, the board shall commence rulemaking proceedings for that purpose. Rules specifying the revised best management practices must be adopted not later than two years from the filing date of the petition for review unless the board, with concurrence of the Environmental Quality Commission, finds that special circumstances require additional time.”).

¹⁵ OAR 629-620-000(5).

¹⁶ OAR 629-620-0400.

¹⁷ OAR 629-620-0400(2).

¹⁸ OAR 629-620-0400(3).

¹⁹ OAR 629-620-0400(4), (5), (7) & (8).

application.²⁰

These additional restrictions established by the Board of Forestry are in some cases, depending on the geographic location of threatened and endangered species and the pesticides at issue, inadequate to meet the RPAs set out in the NMFS and USF&WS pesticide BiOps. Simply put, the ODF rules are based on incomplete and inaccurate information. For example, ODF states that “[c]urrent literature and ODF monitoring criteria indicate that thresholds of concern for human health and aquatic biota start at levels much higher than 1 p[ar]t p[er] b[illion].”²¹ In contrast, NMFS found that the chlorpyrifos 96 hour LC50 – that is the dose at which 50 percent of the tested species are killed – for salmonids ranged as low as 0.8 µg/L, or 0.8 ppb.²² A dose that kills half of salmonids is not adequately protective of the species under either the CWA or the ESA. In addition, the ODF rules fail to cross-reference DEQ’s rules that require authorization under an NPDES permit for the discharge of some pesticides.

For the reasons set forth, this petition requests that the Commission petition the Board of Forestry pursuant to ORS § 183.390 and ORS § 527.765(3) to adopt the following changes, indicated by underlined text, to the Board’s rule OAR 629-620-0000(5):

Operations involving the use of chemicals and other petroleum products on forestland are also subject to the pesticide control laws administered by the Department of Agriculture, water quality and hazardous waste laws administered by the Department of Environmental Quality, hazard communication rules administered by the Occupational Safety and Health Division, the water use laws administered by the Water Resources Department, and restrictions established by federal agencies to protect threatened and endangered species. Maximum contaminant levels in drinking water for certain pesticides are established by the Health Division. Operators shall follow the requirements set out in the DEQ rules at OAR 340-041-0034.

III. The National Marine Fisheries Service Biological Opinions on the Effects of Insecticides, Herbicides and Fungicides on Pacific Northwest Salmon and Steelhead

On July 2, 2002, a federal District Court found the EPA in violation of Section 7 of the Endangered Species Act (“ESA”) for failure to consult with NMFS to ensure that 54 pesticides registered by EPA under the Federal Insecticide, Fungicide, and Rodenticide Act (“FIFRA”) would not jeopardize the continued existence of threatened and endangered salmonid species listed under the ESA or result in the destruction or adverse modification of designated critical

²⁰ OAR 629-620-0400(7)(b).

²¹ ODF, *Executive Summary Oregon Department of Forestry Aerial Pesticide Application Project Final Report 4* (March 2000) available at <http://cms.oregon.gov/odf/privateforests/docs/chemappexecsum.pdf> (last accessed August 1, 2012).

²² NMFS, *National Marine Fisheries Service Endangered Species Act Section 7 Consultation Biological Opinion Environmental Protection Agency Registration of Pesticides Containing Chlorpyrifos, Diazinon, and Malathion* 269 (November 18, 2008) available at http://www.nmfs.noaa.gov/pr/pdfs/pesticide_biop.pdf (last accessed July 25, 2012).

habitat²³ for those species.²⁴ Subsequently the Court granted injunctive relief prohibiting certain uses of those 54 pesticides to protect salmonids while the consultation process with NMFS proceeded and requiring point-of-sale notifications for urban uses of the pesticides.²⁵ In 2007, after being sued for failure to complete the required ESA consultations, NMFS entered into a consent decree with the plaintiffs agreeing to issue BiOps on 37 active ingredients of the pesticides EPA had determined “may affect” listed salmonids.²⁶ To date NMFS has completed six BiOps that cover 28 pesticides and 13 species found in Oregon waters. The resulting findings on jeopardy²⁷ and adverse modification²⁸ are as follows:

1. **BiOp No. 1 Insecticides:** chlorpyrifos, diazinon, and malathion.²⁹ Completed November 18, 2008, the BiOp found jeopardy and adverse modification of critical habitat for 13 species found in Oregon waters.^{30, 31}

²³ 16 U.S.C. § 1532(5)(A) (“Critical habitat” for a threatened or endangered species means the specific areas within the geographical areas occupied by the species which are essential to the conservation of the species and which may require special management considerations or protection and any areas outside the areas occupied at the time of ESA listing that are essential for the species’ conservation).

²⁴ *Washington Toxics Coalition v. EPA*, No. C10-132C, slip op. at 20 (W.D. Wash. July 2, 2002), *aff’d*, 413 F.3d 1024 (9th Cir. 2005).

²⁵ *Washington Toxics*, No. C01-132C, Order at 4-10 (W.D. Wash. Jan. 22, 2004). One of the interim protective measures ordered by the Court was the implementation of buffer zones of 20 yards for ground application and 100 yards for aerial application of the listed pesticides, with certain exceptions. *Id.* at 4-5.

²⁶ *Northwest Coalition for Alternatives to Pesticides v. NMFS*, No. 07-1791-RSL (W.D. Wash. August 1, 2008).

²⁷ “Jeopardy” in this petition refers to an action that is “likely to jeopardize the continued existence of any endangered species or threatened species[.]” 16 U.S.C. § 1536(a)(2).

²⁸ “Adverse modification” in this petition refers to an action that is likely to “result in the destruction or adverse modification of habitat” of threatened or endangered species. 16 U.S.C. § 1536(a)(2).

²⁹ Oregon’s Water Quality Pesticide Management Team (WQPMT), composed of staff from the Oregon Departments of Agriculture, Forestry, Human Services and Environmental Quality, identified chlorpyrifos and diazinon as “pesticides of concern” in 2009-2010, a designation of a “pesticide that approaches or exceeds an established benchmark concentration, indicating a possible risk to human or ecological life” in Oregon. *See ODA, Pesticides and Water Quality*, http://egov.oregon.gov/ODA/PEST/water_quality.shtml (last accessed July 28, 2012).

³⁰ NMFS, *supra* n. 22 at 391.

³¹ The 13 salmon species found in Oregon waters include: Snake River Spring/Summer chinook, fall Chinook, steelhead, sockeye; Middle Columbia River steelhead,

2. **BiOp No. 2 Insecticides:** carbaryl, carbofuran, and methomyl. Completed April 20, 2009, the BiOp found jeopardy for 10 species and adverse modification for 9 species for carbaryl and carbofuran and jeopardy and adverse modification for six species for methomyl.³²
3. **BiOp No. 3 Insecticides:** methidathion, naled, phorate, and phosmet. Completed August 31, 2010 this BiOp found jeopardy for nine species and adverse modification for eight species for naled, jeopardy for eleven and adverse modification for eight species for phosmet, jeopardy for six species and adverse modification for five species for phosmet, and jeopardy and adverse modification for one species.³³
4. **BiOp No. 4 Herbicides:** 2,4-D and diuron, and the **Fungicide:** chlorothalonil. Completed June 30, 2011 this BiOp found jeopardy for 12 species and adverse modification for three species from 2,4-D, adverse modification for four species for diuron and two species for chlorothalonil.³⁴
5. **BiOp No. 5 Herbicides:** oryzalin, pendimethalin, and trifluralin. Completed May 31, 2012 this BiOp found jeopardy and adverse modification for three species, jeopardy for six species and adverse modification for five species for pendimethalin, and jeopardy for six species and adverse modification for five species for trifluralin.³⁵

Lower Columbia River chinook, coho, steelhead, and chum; Upper Willamette spring chinook; Oregon coast coho, Southern Oregon/Northern California Coast coho. Other threatened and endangered species, such as the salmonid bull trout, are under the jurisdiction of the USF&WS which has not completed BiOps for pesticides in Oregon waters.

³² NMFS, *National Marine Fisheries Service Endangered Species Act Section 7 Consultation Biological Opinion Environmental Protection Agency Registration of Pesticides Containing Carbaryl, Carbofuran, and Methomyl* 488 (April 20, 2009) available at <http://www.nmfs.noaa.gov/pr/pdfs/carbamate.pdf> (last accessed July 25, 2012).

³³ NMFS, *National Marine Fisheries Service Endangered Species Act Section 7 Consultation Biological Opinion Environmental Protection Agency Registration of Pesticides Containing Azinphos methyl, Bensulide, Dimethoate, Disulfoton, Ethoprop, Fenamiphos, Naled, Methamidophos, Methidathion, Methyl parathion, Phorate and Phosmet* 772-775 (August 31, 2010) available at http://www.nmfs.noaa.gov/pr/pdfs/final_batch_3_opinion.pdf (last accessed July 25, 2012).

³⁴ NMFS, *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* 773-774 (June 30, 2011) available at http://www.nmfs.noaa.gov/pr/pdfs/consultations/pesticide_opinion4.pdf (last accessed July 25, 2012).

³⁵ NMFS, *National Marine Fisheries Service Endangered Species Act Section 7 Consultation Final Biological Opinion Environmental Protection Agency Registration of Pesticides Oryzalin, Pendimethalin, Trifluralin* 640-641 (May 31, 2012) available at http://www.nmfs.noaa.gov/pr/pdfs/consultations/pesticides_batch5opinion.pdf (last accessed July 28, 2012).

6. **BiOp No. 6 Herbicide:** thiobencarb. Completed July 2, 2012. This herbicide is only approved for use on rice in California. The BiOp found no jeopardy or adverse modification for the California populations affected. No Oregon species are affected.³⁶

The RPAs for the five BiOps that affect salmon and steelhead in Oregon are set out in Appendix B. The Reasonable and Prudent Measures (“RMA”), Terms and Conditions, and Conservation Recommendations for these five BiOps are set out in Appendix C. A summary of the jeopardy and adverse modification findings for Oregon species is set out in Appendix D.

NMFS is scheduled to issue BiOp No. 7 on the insecticides propargite, fenbutatin-oxide, diflubenzuron (also a fungicide), 1,3-D, and lindane and BiOp No. 8 on the herbicides racemic metolachlor, bromoxynil, and prometryn by June 30, 2013. Finally, NMFS has completed an ESA consultation on the use of pesticides in EPA’s Pesticide General Permit, discussed in Section VI.B.1 of this petition. The RPAs, RMAs, Terms and Conditions, and Conservation Recommendations for this permit are found in Appendix E.

IV. The U.S. Fish and Wildlife Service Biological Opinion on the Effects of Pesticides on Lost River Sucker, Shortnose Sucker, Modoc Sucker, Warner Sucker, Hutton Tui Chub, and Lahontan Cutthroat Trout

In 1989 the USF&WS finalized consultation on 112 pesticides for numerous species across the country including the following five species listed as threatened or endangered in Oregon: Lost river sucker, Shortnose sucker, Modoc sucker, Warner sucker, and Hutton tui chub.³⁷ In the intervening years additional species, such as the bull trout, have been listed by USF&WS for which this BiOp has not been updated. The 1989 BiOp found 40 pesticides cause jeopardy for the Shortnose and Lost River suckers and made an additional 19 findings of pesticides that may affect but are not likely to cause jeopardy to the species. It found 20 pesticides cause jeopardy for the Modoc sucker and 39 that may affect but are not likely to cause jeopardy. The BiOp found 27 pesticides jeopardize the Warner sucker and 31 may affect but are not likely to cause jeopardy. It concluded that 11 pesticides jeopardize the Hutton tui chub and three may affect but not jeopardize that species. And, the BiOp concluded that 28 pesticides may affect but are not likely to jeopardize the Lahontan cutthroat trout.

³⁶ NMFS, *Biological Opinion National Marine Fisheries Service Endangered Species Act Section 7 Consultation on Environmental Protection Agency’s Registration of Thiobencarb* (June 30, 2012) available at http://www.nmfs.noaa.gov/pr/consultation/opinions/biop_thiobencarb.pdf (last accessed July 30, 2012).

³⁷ Of the pesticides evaluated, USF&WS found the following caused jeopardy and required RPAs for species found in Oregon waters: azinphos-methyl, benomyl, bensulide, captan, carbaryl, carbofuran, carbophenothion, chlorothalonil, chloropyrifos, diazinon, dicofol, dicrotophos, dimethoate, disulfoton, endosulfan, ethion, ethoprop, ethyl parathion, fenamiphos, fensulfathion, fenvalerate, fonofos, malathion, mancozeb, methidathion, methomyl, mevinphos, naled, oxamyl, pendimethalin, permethrin, phorate, phosmet, profenofos, propachlor, propargite, pyrethrin, SSS-tributyl phosphorotrithioate, terbufos, trichlorfon, and trifluralin. USF&WS, *U.S. Fish and Wildlife Service Biological Opinion on Selected Pesticides* (June 14, 1989, revised September 14, 1989) available through National Service Center for Environmental Publications (NSCEP), <http://www.epa.gov/nscep/index.html>.

As a consequence of these findings, USF&WS required RPAs for use of the named pesticides for the applicable species for which it found jeopardy. Three RPAs apply to Oregon species, two of which are application buffers and the third allows for use of granular or soil incorporation treatment methods as an alternative to the buffers in limited instances. The RPAs for the five species are set out in Appendix F to this petition.

Without repudiating the jeopardy findings and RPAs issued in the 1989 BiOp, USF&WS has explained the serious limitations of that 1989 BiOp, limitations the Commission should consider in granting the rulemaking and other actions requested by this petition. In a letter to EPA over a decade later concerning use of pesticides in the State of Texas, USF&WS noted the following limitations of its BiOp: (1) a majority of pesticides used “have had inadequate or no consultation,” (2) “critical habitat has been insufficiently addressed,” and (3) “no current mechanism exists for updating pesticide protection measures for recently listed species, critical habitat, or listed species that previously have undergone consultation.”³⁸ USF&WS concluded that the 1989 BiOp is “outdated since [it] represent[s] consultations for only 19 Texas species and 125 pesticide active ingredients. Moreover, USF&WS stated that the RPAs set out in the 1989 BiOp are inadequate because “new information in the spray drift/runoff literature indicates that buffer zones and other protection measures provided in the 1989 Biological Opinion should be revised.”³⁹ In short, the 1989 BiOp is underprotective.

USF&WS also sharply criticized EPA’s use of a quotient model for assessing the risks of pesticides because the model

cannot currently account for sublethal effects by pesticides on listed species such as endocrine disruption, abnormal behavioral changes, olfactory interference in anadromous fish spp., etc. Such sublethal effects from pesticide applications “may affect” listed species and therefore constitute harm as part of take as defined in the ESA. Since pesticide protection measures contained in the 1989 Biological Opinion have been based in part on use of the quotient model, the Service believes that: a) the biological opinion must be revised to provide more accurate protection measures for listed species, and b) the current process used by EPA for reaching “may affect” determinations for listed species must be re-evaluated including the role of mathematical models.⁴⁰

In 2002, USF&WS raised many of the same concerns with regard to EPA’s proposed re-registration of the pesticide atrazine.⁴¹ USF&WS criticized EPA’s risk assessment because it did not: (1) include sublethal effects of pesticides, (2) used inappropriate surrogate species to

³⁸ Letter from David C. Frederick, Supervisor, USF&WS, to Gregg Cooke, Regional Administrator, EPA, *EPA’s Noncompliance in Texas on National Pesticide Consultations 2* (June 28, 2001)(on file with NWEA).

³⁹ *Id.*

⁴⁰ *Id.* at 3.

⁴¹ Letter from Everett Wilson, Chief, Division of Environmental Quality, USF&WS to Kimberly Nesci Lowe, Chemical Review Manager, Information and Resources and Services Division, EPA, *USF&WS Comments on Ecological Risk Assessment of Atrazine for Re-Registration* (June 27, 2002)(on file with NWEA).

evaluate effects on threatened and endangered species, (3) failed to consider the toxicological effects of “inert” ingredients and adjuvants (which increase pesticide effectiveness), (4) failed to consider the potential for bioaccumulation, and (5) failed to evaluate mixtures of chemicals including other pesticides, thereby underestimating the potential for ecological impacts.⁴²

USF&WS specifically addressed the failure of EPA’s atrazine evaluation to consider the pesticide’s effects on amphibians, pointing out that EPA’s risk ranges were “not based on risks to amphibians”⁴³ despite recent research specifically evaluating the risk to amphibians from that pesticide. Likewise, there was no evaluation of the risk of bioaccumulation in amphibians, despite recent studies demonstrating that effect.⁴⁴ The agency also noted that because amphibian larvae subsist on algae and other phytoplankton, adverse impacts to aquatic plants “could have adverse effects to amphibians. This is particularly important because of the dramatic decline in amphibian populations worldwide[.]”⁴⁵ Making an observation that is highly relevant to Oregon’s water quality standards program, USF&WS also pointed out that

Aquatic systems that have fish often lack amphibians and vice versa. In Murphy et al. (2000) several citations are listed for the predatory effects on amphibians by fish[.] The text states that “many anuran species cannot coexist with such predatory fish.” Therefore, an aquatic community with amphibians is likely to be much different than an aquatic community with fish.⁴⁶

While Oregon has created designated use maps for salmonids, Oregon has no information that it uses to protect non-salmonid aquatic life such as amphibians and reptiles. The assumption underlying Oregon’s water quality program that protection of salmonids will result in protection of other sensitive species is simply incorrect, particularly with regard to species that are in a state of rapid decline.

V. Effects of Pesticides on Aquatic Life and Limitations of Existing Regulatory Programs in Oregon to Protect Aquatic and Aquatic-Dependent Species

Pesticides are poisons intended to kill insects, plants, microorganisms, and animals. Pesticides affect aquatic and aquatic-dependent life in two general ways, short-term acute effects and long-term chronic effects. The USF&WS notes that acute effects are both easily measured and severe: “[s]ignificant fish and bird kills have resulted from the legal application of pesticides, with millions of fish and birds estimated to die from pesticide exposure each year.”⁴⁷ The latter effect, from longer-term low-level exposure, can lead to a wide range of reproductive, developmental, growth, and behavior problems that are more difficult to detect and require greater scientific

⁴² *Id.* at 2-5.

⁴³ *Id.* at 4.

⁴⁴ *Id.* at 5.

⁴⁵ *Id.* at 4.

⁴⁶ *Id.*

⁴⁷ USF&WS, *Pesticides and Wildlife, Environmental Contaminants Program*, <http://www.fws.gov/contaminants/Issues/Pesticides.cfm> (last accessed July 25, 2012).

study. Many pesticides are endocrine disruptors which when absorbed into the body either mimic or block hormones and disrupt the body's normal functions. Some identified effects of endocrine disruptors in wildlife include: abnormal blood hormone levels, masculinization of females, feminization of males, intersex, deformities, abnormal and malformed reproductive organs, embryo mortality, skewed sex ratios, reduced fertility, altered sexual behavior, modified immune system, altered thyroid functions, brain and neurological problems, reproductive tissue cancers, and altered bone density and structure.⁴⁸ Fetuses and embryos, whose growth and development are highly controlled by the endocrine system, are especially vulnerable to exposure.⁴⁹ Female fish, amphibians, reptiles, birds can pass contaminants to their offspring prenatally in eggs.

A. EPA Has Failed to Incorporate Mandatory Reasonable and Prudent Alternatives Into its Pesticide Regulatory Program

Despite the fact that NMFS completed the first BiOp on the effects of pesticides on Pacific Northwest salmonids on November 18, 2008 and USF&WS completed its only BiOp on pesticides in 1989 – over three and a half years and 23 years respectively – EPA has taken no action to incorporate the RPAs into its FIFRA registrations. In the few instances where USF&WS has consulted with EPA under the ESA on pesticides, EPA has disregarded the agency's findings. As USF&WS pointed out with regard to the use of pesticides in Texas, "EPA is not in compliance with [the 1989 BiOp's] reasonable and prudent alternatives (RPAs) and reasonable and prudent measures (RPMs) . . . RPAs and RPMs are nondiscretionary actions that must be implemented by EPA and any applicant to ensure compliance with the ESA."⁵⁰ The Service also explained that "[EPA's] standard practice . . . requires protection measures only in cases where habitat is known to be occupied by listed species and does not require surveys of potential habitat before application of potentially harmful pesticides. . . . The Service believes that application of pesticides in potential habitat of listed species without appropriately authorized surveys . . . exceeds the level of take anticipated by [the] biological opinion[]." ⁵¹

EPA has similarly failed to incorporate the RPAs from the 1989 BiOp into its national re-registrations of pesticides. For example, the 1989 BiOp found that registered endosulfan uses potentially affected 130 listed species and jeopardized the survival and recovery of 41 aquatic species and two terrestrial species yet, according to USF&WS, EPA failed to adopt 9 of the 13 RPAs to avoid jeopardy.⁵² Nonetheless, EPA re-registered endosulfan for use on a variety of

⁴⁸ Tulane University, e.hormone; your gateway to the environment and hormones, *Endocrine Disruption Tutorial; Wildlife Effects*, <http://e.hormone.tulane.edu/learning/wildlife-effects.html>.

⁴⁹ See, e.g., Bern H. *The Fragile Fetus in Chemically-induced Alterations in Sexual and Functional Development: The Wildlife/Human Connection*, Vol 21, 9-15 (T. Colborn and C. Clement eds., Princeton Scientific Publishing Co. 1992).

⁵⁰ Letter, *supra* n. 38 at 1.

⁵¹ *Id.* at 4.

⁵² Letter from Jamie Rappaport Clark, Director, Fish and Wildlife Service to Susan Wayland, Acting Assistant Administrator for Prevention, Pesticides and Toxic Substances, EPA, *Re: Re-Registration of endosulfan* (June 9, 2000)(on file with Center for Biological Diversity).

fruits and vegetables in November 2002. EPA subsequently terminated all use of endosulfan in June 2010 as posing “unacceptable risks to agricultural workers and wildlife.”⁵³

As a result of EPA’s inaction under FIFRA and the ESA, Oregon cannot rely on EPA to provide protection from pesticides for the threatened and endangered species in the state nor to protect designated and existing uses from those chemicals. This EPA inaction, taken together with the significant limitations of EPA’s evaluations of pesticides on aquatic life in the context of the CWA and the findings and RPAs in the Services’ BiOps, demonstrates the importance of Oregon’s acting under its CWA authorities and augmenting the FIFRA-authorized labels on pesticides used in the state.

B. Limitations of Existing Clean Water Act Programs to Protect Aquatic Life

The CWA’s water quality-based approach to protecting the designated use of aquatic life is based on states’ setting water quality standards that are more often than not based on EPA’s recommended criteria.⁵⁴ Compared to the literally thousands of registered pesticides, EPA’s CWA recommended criteria include very few current-use pesticides. EPA has recommended criteria for a total of six current-use pesticides: acrolein, atrazine (acute only), carbaryl, chlorpyrifos, diazinon, and malathion (chronic only).⁵⁵ This very limited list of pesticides for which states adopt numeric criteria makes comparisons between monitored water quality and such benchmarks of acceptable pollution levels difficult. For example, in 1999 the U.S. Geological Survey (“USGS”) found that aquatic life criteria values were frequently exceeded in U.S. streams.⁵⁶ However, in most instances the USGS was unable to compare water quality data to state or EPA aquatic life criteria because there were only six such criteria.⁵⁷ Moreover,

⁵³ EPA, *EPA Action to Terminate Endosulfan*, <http://www.epa.gov/pesticides/reregistration/endosulfan/endosulfan-cancel-fs.html> (last accessed July 27, 2012).

⁵⁴ Pursuant to section 304(a) of the CWA, EPA recommends numeric criteria for the states to formally adopt as part of their water quality standards for toxic pollutants listed in section 307(a)(1).

⁵⁵ EPA, *Office of Pesticide Programs' Aquatic Life Benchmarks, OPP Aquatic Life Benchmarks*, http://www.epa.gov/oppefed1/ecorisk_ders/aquatic_life_benchmark.htm#benchmarks (accessed July 26, 2012). EPA’s website states that “[c]riteria are available for roughly 16 pesticides.” *Id.* Of the eight actually listed on EPA’s table, only the now-cancelled endosulfan is the subject of the pending ESA consultation for Oregon’s 2004 criteria updates. EPA has also cancelled the FIFRA registration for lindane.

⁵⁶ Larson, S.J. et al, *Pesticides in Streams of the U.S. – Initial Results from the National Water-Quality Assessment Program (“NWQA”)*, USGS Water-Resources Investigation Report 98-4222 (1999). See also USGS, *The Quality of Our Nation's Waters: Pesticides in the Nation's Streams and Ground Water, 1992–2001—A Summary* (March 2, 2006) available at <http://water.usgs.gov/nawqa/pnsp/> (last accessed July 31, 2012).

⁵⁷ USGS used Canadian values where they were available but had no benchmarks for the majority of chemicals evaluated.

despite the fact that pesticides are more often found in combinations of chemicals,⁵⁸ EPA's recommended criteria – that the Commission has adopted into Oregon's water quality standards as numeric criteria – are based solely on their effects as individual chemicals, not in combinations. In addition EPA's recommended criteria do not address some types of effects such as endocrine disruption and other sublethal effects, effects of degradate products when chemicals change in the environment, and seasonal high concentrations. Finally, EPA has not established any recommended criteria for the protection of aquatic-dependent wildlife, with the exception of a handful that apply only in the Great Lakes.⁵⁹ As a result, states such as Oregon have no numeric criteria for the protection of wildlife and rarely, if ever, use their narrative toxic criteria to provide that protection in regulatory actions.

C. ESA Consultations on the Effects of Pesticides on Oregon Threatened and Endangered Species Have Not Addressed Plummeting Populations of Amphibians and Reptiles in Oregon

Pesticides are known to have adverse effects on amphibians and reptiles.⁶⁰ Whereas NMFS is responsible for anadromous fish, such as salmon, steelhead, and marine animals, USF&WS is responsible for the protection of non-anadromous inland fish, aquatic invertebrates, mollusks, crustaceans, amphibians, reptiles and aquatic-dependent mammals and birds. To date, however, the USF&WS has completed no BiOps for the listed pesticides other than the 1989 consultation for the inland fish⁶¹ described above. USF&WS did not complete consultation on EPA's pesticide discharge permit, discussed below. The consequence of this failure to consult is a gaping hole in our understanding of the effects of pesticides on the species under the jurisdiction of USF&WS that are known to be at risk of extinction but for which there are no ESA consultations or for which the 23-year old BiOp is likely out-of-date. There are now four inland fish that are federally-listed as endangered and six listed as threatened.⁶² The 1989 BiOp did not

⁵⁸ See e.g., Larson, *supra* n. 56 (USGS found concentrations of two or more pesticides often exceeded benchmarks in the Willamette Basin. About 80 percent of samples from urban and mixed land use streams contained more than four pesticides and about 15 percent of all samples contained more than ten pesticides.).

⁵⁹ 40 C.F.R. Appendix D to Part 132—Great Lakes Water Quality Initiative Methodology for the Development of Wildlife Criteria; Table D-1, Tier I Great Lakes Wildlife Criteria (criteria for DDT and metabolites, mercury, PCBs, and 2,3,7,8-TCDD).

⁶⁰ See, e.g., Willingham, E., *Embryonic exposure to low-dose pesticides: effects on growth rate in the hatchling red-eared slider turtle*, 64 Journal of Toxicology and Environmental Health (A) 257-272 (2001).

⁶¹ The 1989 USF&WS BiOp also addressed two ESA-listed species in Oregon, the Borax Lake chub and the Fosskett speckled dace, and found no pesticides likely to affect them. 1989 BiOp, *supra* n. 37 at III-5. Nor did the BiOp address bull trout which were listed as threatened species after 1989.

⁶² Endangered status inland fish are: Modoc sucker, Shortnose sucker, Lost River sucker, and Borax Lake chub. Threatened status inland fish are: Warner sucker, Hutton tui chub, Lahontan cutthroat trout, Oregon chub, Fosskett speckled dace, and Bull trout. USF&WS, *Federally Listed, Proposed, Candidate, Delisted Species, and Species of Concern Under the Jurisdiction of the Fish and Wildlife Service Which May Occur Within Oregon 1*, available at

address the bull trout or the Oregon chub, both threatened species.

Another significant hole is the agency's identification of species for which ESA listing is warranted but for which listing has not yet occurred. This "warranted but precluded"⁶³ status is based on the agency's having higher priorities and applies to two "candidate" species, the Columbia spotted frog (Great Basin distinct population segment) and the Oregon spotted frog.⁶⁴ The Oregon Department of Fish & Wildlife (ODFW) has essentially concurred with this warranted-but-precluded status for these two frogs and includes yet two additional frogs found in Oregon: the Foothill yellow-legged frog and the Northern leopard frog. ODFW classifies all four of these as "sensitive-critical."⁶⁵ Likewise, ODFW lists two aquatic reptiles – the Western painted turtle and Western pond turtle – as "sensitive-critical."⁶⁶ ODFW defines "sensitive-critical" to mean species "imperiled with extirpation from a specific geographic area of the state because of small population sizes, habitat loss or degradation, and/or immediate threats. Critical species may decline to point of qualifying for threatened or endangered status if conservation actions are not taken."⁶⁷

A recent petition filed with USF&WS by the Center for Biological Diversity seeks endangered status for the Foothill yellow-legged frog, the Western pond turtle, and the Cascades frog.⁶⁸ The petition notes that "populations of foothill yellow-legged frogs in greatest decline are all downwind of highly impacted (mostly agriculturalized) areas" and that

historical pesticide use was a strong, significant variable in population declines for the foothill yellow-legged frog, especially so for organophosphates and carbamates. In particular, they found that sublethal exposure to the pesticide carbaryl likely inhibits the innate immune defense of foothill yellow-legged frogs

<http://www.fws.gov/oregonfwo/Species/Lists/Documents/OregonStateSpeciesList.PDF> (last accessed July 27, 2012).

⁶³ See 16 U.S.C. § 1533(b)(3)(B)(iii); 50 C.F.R. § 424.14(b)(3); see also Kristina Alexander & Congressional Research Service, *Warranted but Precluded: What That Means Under the Endangered Species Act (ESA)* (April 20, 2010) available at <http://www.scribd.com/doc/68803421/Warranted-but-Precluded-What-That-Means-Under-the-Endangered-Species-Act-ESA> (last accessed July 29, 2012).

⁶⁴ *Id.* at 2.

⁶⁵ ODFW, *2008 ODFW Sensitive Species List, organized by category 9* available at http://www.dfw.state.or.us/wildlife/diversity/species/docs/SSL_by_category.pdf (last accessed July 27, 2012).

⁶⁶ *Id.*

⁶⁷ *Id.* at 2.

⁶⁸ Center for Biological Diversity, *Before the Secretary of the Interior, Petition to list 53 Amphibians and Reptiles in the United States as Threatened or Endangered Species Under the Endangered Species Act* (July 11, 2012) available at http://www.biologicaldiversity.org/campaigns/amphibian_conservation/pdfs/Mega_herp_petition_7-9-2012.pdf (last accessed July 27, 2012).

and increase susceptibility to disease. Sparling and Fellers (2007) found that environmental concentrations of the pesticides chlorpyrifos, malathion and diazinon and their oxons can be harmful to populations of the frog. Sparling and Fellers (2009) established the chronic toxicity of chlorpyrifos and endosulfan, two of the insecticides most commonly used in the Central Valley and found in the mountains, which likely contributes to observed declines in the frog. Kerby (2007) examined the sublethal effects of four pesticides on foothill yellow-legged frogs and found significant alteration of behavior and development.⁶⁹

USF&WS also lists as “species of concern” the following aquatic or aquatic-dependent species: one species of turtle, five species of frogs, five species of salamanders, 21 species of inland fish, and three species of snails.⁷⁰ ODFW’s roughly corresponding list of “sensitive–vulnerable” species comports with this list although it is longer, with five additional species of salamanders for a total of 10 salamanders and two additional frogs for a total of six frogs.⁷¹ ODFW defines its “sensitive–vulnerable” category as including species “facing one or more threats to their populations and/or habitats. Vulnerable species are not currently imperiled with extirpation from a specific geographic area or the state but could become so with continued or increased threats to populations and/or habitats.”⁷² Finally, the Oregon Biodiversity Information Center (“ORBIC”) at Portland State University includes all of ODFW’s sensitive species but adds an additional two toads, one salamander, one frog, one newt, and two turtles.⁷³ ORBIC ranks rare, threatened, and endangered species found in Oregon according to state and global priorities. Of a total of 24 non-ESA-listed species ranked, ORBIC identifies 14 as “critically imperiled” or “imperiled.”⁷⁴

⁶⁹ *Id.* at 240-241.

⁷⁰ These species are: Northern Pacific pond turtle, Rocky Mountain tailed frog, Coastal tailed frog, Oregon slender salamander, Del Norte salamander, Larch Mountain salamander, Siskiyou Mountains salamander, Northern red-legged frog, Foothill yellow-legged frog, Cascades frog, the Southern torrent (seep) salamander, Goose Lake sucker, Jenny Creek sucker, Klamath largescale sucker, Malheur mottled sculpin, Margined sculpin, Slender sculpin, Alvord chub, Sheldon tui chub, Oregon Lakes tui chub, Catlow tui chub, Summer Basin tui chub, River lamprey, Pacific lamprey, Goose Lake lamprey, Pit roach, Westslope cutthroat trout, Coastal cutthroat trout, Great Basin redband trout, Catlow Valley redband trout, Umpqua chub, Millicoma dace, Newcomb's littorine snail, Columbia pebblesnail, and Minor Pacific sideband snail. USF&WS, *supra* n. 62 at 4.

⁷¹ In addition to the USF&WS species of concern, ODFW lists as “sensitive–vulnerable” the following species: Cope’s giant salamander, Columbia torrent salamander, Cascade torrent salamander, Larch, Clouded salamander, Black salamander, Rocky Mountain tailed frog, and Columbia spotted frog.

⁷² ODFW, *supra* n. 65.

⁷³ Oregon Biodiversity Information Center, Portland State University, *Rare, Threatened, and Endangered Species of Oregon, Species Review Spreadsheets*, <http://orbic.pdx.edu/documents/Terrestrial%20vertebrates.xlsx> (last accessed July 27, 2012). These additional species are: Blotched tiger salamander, Western toad, Woodhouse’s toad, Northern leopard frog, Crater Lake newt, Pacific pond turtle, and Painted turtle.

⁷⁴ *Id.*

Appendix G discusses the population status of two frogs and two turtles found in Oregon waters that likely will eventually be listed as threatened or endangered: the Oregon spotted frog, the Columbia spotted frog, the Western pond turtle, and the Western painted turtle.

D. EPA Initiation of ESA Consultations on California Frogs and Salamanders

Because USF&WS has not developed BiOps for pesticides since 1989 and because it has not listed as threatened or endangered all the Oregon species for which it believes ESA-listing is warranted, Oregon cannot rest on the formal findings of the USF&WS to protect the reptiles, amphibians, inland fish, and other aquatic species that constitute Oregon's designated and existing beneficial uses that require protection under the CWA and Oregon's water quality standards. Oregon can, however, turn to the work done in California by EPA to address similar species, the California tiger salamander and the California red-legged frog.

To protect the threatened California tiger salamander, in 2010 a federal court vacated and enjoined EPA's authorization of any use of 45 pesticides⁷⁵ in (1) all areas within 200 feet of habitat if applied by ground, and (2) all areas within 400 feet of habitat if applied by air. The habitat for this purpose is defined as

fresh-water (including natural or manmade (e.g., stock) ponds, slow-moving streams or pools within streams, vernal pools, and other ephemeral or permanent water bodies which typically support inundation during winter rains and hold water for a minimum of 12 weeks in a year of average rainfall, but only to the extent that any such ecological features are found within the eight counties specifically identified in the Complaint (and in this Stipulated Injunction) in either (1) critical habitat designated for the California tiger salamander by the FWS . . . or (2) in the [enumerated] sections of California[.]⁷⁶

Of the pesticides at issue in this case, EPA has completed 20 effects determinations. Of those 20, the registrations for two pesticides have been cancelled (azinphos-methyl and methamidophos) and one EPA determined was not likely to adversely affect the species (methoprene). EPA found that for the remainder of the pesticides – a total of 17 to date – at least some uses of the pesticides were likely to adversely affect the listed species. The USF&WS has not completed consultation on EPA's determinations and to NWEA's knowledge has not begun such action.

To protect the threatened California red-legged frog and other San Francisco Bay area species, a federal court signed a stipulated order in 2006 vacating and enjoining EPA's authorization of any

⁷⁵ The pesticides vacated for use without restriction are as follows: acephate, aluminum phosphide, azinphos-methyl, bensulide, beta-cyfluthrin, bifenthrin, chlorophacinone, chlorothalonil, chlorpyrifos, cyfluthrin, cyhalothrin (lambda), cypermethrin, deltamethrin, dimethoate, diphacinone, disulfoton, endosulfan, esfenvalerate, ethoprop, fenpropathrin, fipronil, fluvalinate, imidacloprid, malathion, maneb, mancozeb, metam sodium, methamidophos, methidathion, methomyl, methoprene, methyl bromide, oryzalin, oxydemeton-methyl, oxyfluorfen, PCNB, phenothrin, phosmet, propargite, resmethrin, S-metolachlor, strychnine, tetramethrin, tralomethrin, and zeta-cypermethrin. *Center for Biological Diversity v. EPA*, No. C07-02794 (JCS), Order at 12-13 (N.D. Cal., May 17, 2010).

⁷⁶ *Id.* at 13.

use of 66 pesticides in certain habitats in certain parts of 33 counties in California.⁷⁷ The injunction requires no-use buffers of areas within 60 feet from the edge of the aquatic breeding, non-breeding aquatic, or upland critical habitat and areas within 60 feet from the edge of all Aquatic Features or Upland Habitats for the California red-legged frog within 564 named sections of California and an aerial use buffer pertaining to the same areas of 200 feet.

Of the pesticides at issue in the San Francisco Bay area consultation, EPA has completed effects determinations on all pesticides and found that only four were not likely to adversely affect the species (Methoprene, Fenamiphos, Telone (1,3-dichloropropene), and Molinate). According to EPA, a total of 62 pesticides are likely to adversely affect the listed species in at least some use of the chemicals. In the same consultation, EPA found that 11 pesticides were likely to adversely affect the Delta smelt but one was not likely to affect (carbofuran). The USF&WS has not completed consultation on EPA's determinations and to NWEA's knowledge has not begun such action.

While NWEA has no specific data showing that the California red-legged frog and California tiger salamander have identical sensitivity to these pesticides as Oregon's candidate species, the Columbia spotted frog and the Oregon spotted frog, or Oregon's species of concern – the Northern Pacific pond turtle, Rocky Mountain tailed frog, Coastal tailed frog, Oregon slender, Del Norte salamander, Larch Mountain salamander, Siskiyou Mountains salamander, Northern red-legged frog, Foothill yellow-legged frog, Cascades frog, and Southern torrent (seep) salamander – the Commission should adopt a biologically-conservative approach to ensuring that these species of concern are protected under the CWA and that they do not eventually warrant listing as threatened or endangered species under the ESA. Without protective actions by regulatory agencies, populations such as of these species that are already highlighted as declining will continue to decline until more expensive and onerous actions are required to protect them from extinction. This petition requests that the Commission take action under the Clean Water Act to provide protection for these species as existing and designated uses rather than waiting until they are prospects for ESA-based regulation.

VI. The Clean Water Act Requires Oregon Action

A. Applicable Water Quality Standards

Water quality standards incorporate the following three elements: (1) designated beneficial uses,

⁷⁷ The pesticides vacated for use without restriction are as follows: 2,4-D, diflubenzuron, methamidophos, phorate, acephate, dimethoate, methidathion, phosmet, alachlor, disulfoton, methomyl, prometryn, aldicarb, diuron, methoprene, pronamide, atrazine, endosulfan, methyl parathion, propanil, azinphos-methyl, EPTC, metolachlor, propargite, bensulide, esfenvalerate, molinate, rotenone, bromacil, fenamiphos, myclobutanil, simazine, captan, glyphosate, naled, strychnine, carbaryl, hexazinone, norflurazon, telone (1,3-dichloropropene), chloropicrin, imazapyr, oryzalin, thiobencarb, chlorothalonil, iprodione, oxamyl, triclopyr, chlorpyrifos, linuron, oxydemeton-methyl, trifluralin, DCPA, malathion, oxyfluorfen, vinclozolin, DEF, mancozeb, paraquat dichloride, ziram, diazinon, maneb, pendimethalin, dicofol, metam sodium, and permethrinin. *Center for Biological Diversity v. Johnson*, No. 02-1580-JSW (JL), Order at 2-3 (N.D. Cal., October 20, 2006).

(2) narrative and numeric criteria to protect those uses, and (3) an antidegradation policy.⁷⁸ (General policies, such as mixing zones, may also be included in water quality standards.⁷⁹) Use designations are a required element of water quality standards.⁸⁰ A waterbody must fully support the designated uses.⁸¹ In Oregon, the designated uses include “Fish & Aquatic Life” and “Fishing.”⁸² Salmonid fish use maps are set out by basin.⁸³

In addition to meeting full support of designated uses, water quality must meet both numeric and narrative criteria. There are few numeric criteria for the protection of aquatic life, as discussed above, and of those aquatic life criteria, extremely few are for pesticides.⁸⁴ However, in addition to numeric criteria, Oregon’s water quality standards include narrative criteria such as the following criteria to protect aquatic life from toxic contaminants:

Toxic substances may not be introduced above natural background levels in waters of the state in amounts, concentrations, or combinations that may be harmful, may chemically change to harmful forms in the environment, or may accumulate in sediments or bioaccumulate in aquatic life or wildlife to levels that adversely affect public health, safety, or welfare or aquatic life, wildlife, or other designated beneficial uses.⁸⁵

* * *

Notwithstanding the water quality standards contained in this Division, the highest and best practicable treatment and/or control of wastes, activities, and flows must in every case be provided so as to maintain dissolved oxygen and overall water quality at the highest possible levels and water temperatures, coliform bacteria concentrations, dissolved chemical substances, toxic materials,

⁷⁸ 33 U.S.C. § 1313(c)(2), 1313(d)(4)(B); 40 C.F.R. Part 131, Subpart B; *PUD No. 1 of Jefferson County v. Washington Department of Ecology*, 114 S.Ct. 1900 (1994).

⁷⁹ 40 C.F.R. § 131.13.

⁸⁰ 40 C.F.R. §§ 131.6(a), 131.3(f).

⁸¹ See, e.g., *Advance Notice of Proposed Rulemaking, Water Quality Standards Regulation*, 63 Fed. Reg. 36741 (July 7, 1998); 62 Fed. Reg. 41,162, 41,169 (July 31, 1997) (EPA recognized a need to build in “an adequate margin of safety” to protect species, particularly if they are proposed for listing as threatened under the ESA. EPA sought to “fully support[] bull trout in setting numeric criteria.”); *id.* at 41,174 (temperature criteria could be revised upward if bull trout “would be fully supported”); *id.* at 41,177 (“[o]ne of the fundamental principles of the CWA is . . . that it is necessary to control pollution at the source to fully protect the nation’s waters.”). 40 C.F.R. § 131.33(a)(3)(ii) (“Any such [site specific] determination shall be made consistent with § 131.11, and shall be based on a finding that bull trout would be fully supported at the higher temperature criteria.”).

⁸² OAR Division 41, Tables 101A-340A.

⁸³ OAR Division 41, Figures 130A-340B.

⁸⁴ See OAR 340-041-0033(1), Tables 20 and 33A, 33B.

⁸⁵ OAR 340-041-0033(2).

radioactivity, turbidities, color, odor, and other deleterious factors at the lowest possible levels.⁸⁶

* * *

The creation of tastes or odors or toxic or other conditions that are deleterious to fish or other aquatic life ... may not be allowed.⁸⁷

* * *

The formation of appreciable bottom or sludge deposits or the formation of any organic or inorganic deposits deleterious to fish or other aquatic life ... may not be allowed.⁸⁸

The lack of numeric criteria for the majority of current use pesticides highlights the importance of Oregon's fully implementing the narrative toxic criteria.

Finally, federal law requires states to include in their water quality standards an antidegradation policy that ensures, *inter alia*, that "[e]xisting instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected."⁸⁹ "Existing uses" are defined as "those uses actually attained in the water body on or after November 28, 1975, whether or not they are included in the water quality standards."⁹⁰ In other words, if a use is existing but has not been designated, it must be protected. This existing use provision is referred to as Tier I of the antidegradation policy. According to EPA, "[Tier I is] the absolute floor of water quality" providing "a minimum level of protection" to all waters.⁹¹ Oregon's version of Tier I is as follows:

The purpose of the Antidegradation Policy is to guide decisions that affect water quality such that unnecessary further degradation from new or increased point and nonpoint sources of pollution is prevented, and to protect, maintain, and enhance existing surface water quality to ensure the full protection of all existing beneficial uses.⁹²

An example of a use that may be designated but not afforded CWA protection because the use has been locally extirpated and therefore is likely to be ignored by DEQ staff in regulatory matters is demonstrated by a map of the locations of the Oregon spotted frog. As seen in the map below, the yellow dots represent recorded sitings before 1990 whereas the green dots represent current sitings. The antidegradation policy's protection of existing uses requires the protection of

⁸⁶ OAR 340-041-0007(1).

⁸⁷ OAR 340-041-0007(11).

⁸⁸ OAR 340-041-0007(12).

⁸⁹ 40 C.F.R. § 131.12(a)(1).

⁹⁰ 40 C.F.R. § 131.3(e).

⁹¹ EPA, *Questions and Answers on: Antidegradation 4* (August 1985) available at http://water.epa.gov/scitech/swguidance/standards/upload/2002_06_11_standards_handbook_handbookappxG.pdf (last accessed July 30, 2012).

⁹² OAR 340-041-0004(1).

both the Oregon spotted frog and the water quality necessary to support that species in those locations from which it is now extirpated, including those areas on the map designated in yellow even though the frogs are no longer thought to inhabit those areas.



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B. The State is Required to Have Published Methods for the Use of Narrative Criteria for Toxics

Narrative criteria supplement or fill the gaps left by numeric criteria: “EPA considers that the narrative criteria apply to all designated uses at all flows and are necessary to meet the statutory requirements of section 303(c)(2)(A) of the CWA.”⁹⁴ To ensure that narrative criteria for toxics are attained, EPA regulations require that “[w]here a State adopts narrative criteria to protect designated uses, the State must provide information identifying the method by which the State intends to regulate point source discharges of toxic pollutants on water quality limited segments based on such narrative criteria.”⁹⁵ EPA states that “[s]uch implementation procedures should address all mechanisms to be used by the State to ensure that narrative criteria are attained.”⁹⁶ Here, Oregon has but rarely if ever uses narrative criteria to protect designated uses, such as salmonids, for those pesticides for which the state has no numeric criteria. The use of pesticides has not historically been treated as a point source.⁹⁷ However, as of September 30, 2011 Oregon

⁹³ USF&WS, *Species Fact Sheet, Oregon spotted frog*, <http://www.fws.gov/oregonfwo/Species/Data/OregonSpottedFrog/> (last accessed July 26, 2012).

⁹⁴ EPA, *Water Quality Standards Handbook, Second Edition, EPA-823-B-94-005a* at section 3.5.2 (August 1994), available at <http://water.epa.gov/scitech/swguidance/standards/handbook/upload/hbk-ch3.pdf> (last accessed July 30, 2012).

⁹⁵ 40 C.F.R. § 131.11(a)(2).

⁹⁶ EPA, *supra* n. 94 at 21 (internal citations omitted).

⁹⁷ In 2009 the U.S. Sixth Circuit Court of Appeals vacated EPA’s 2006 Final Rule on Aquatic Pesticides, finding that point source discharges of biological pesticides, and chemical pesticides that leave a residue into waters of the U.S. were pollutants under the CWA. *National Cotton Council, et al. v. EPA*, 553 F.3d 927 (2009). As a consequence, as of October 31, 2011 such discharges require coverage under an NPDES permit.

now regulates the discharge of some pesticides through its NPDES General Permit 2300A.⁹⁸ Even so, Oregon has not provided information on how it intends to use its narrative toxic criteria to regulate discharges of the listed pesticides into waters that are water quality limited as required by 40 C.F.R. § 131.11(a)(2). Granting this petition for rulemaking will provide a partial solution to Oregon's failure to meet federal methodology requirements for its narrative criteria.

1. *EPA's Pesticides General Permit*

EPA also has a newly-issued Pesticides General Permit⁹⁹ ("PGP") which in Oregon applies only to Indian Country.¹⁰⁰ Because EPA's PGP is a federal action, the agency completed ESA consultation on the permit with NMFS.¹⁰¹ This consultation resulted in RPAs applicable to discharges allowed under the PGP.¹⁰² The RPAs are set out in Appendix E. As a result of these RPAs, EPA's PGP restricts discharges of pesticides to "NMFS Listed Resources of Concern,"¹⁰³ prohibiting such discharges unless: (1) there has been a separate consultation that resulted in no jeopardy or adverse modification of habitat; (2) the "take" of the species is authorized through a habitat conservation plan; (3) the discharge is intended to address a Declared Pest Emergency Situation; (4) NMFS has approved the method of application; or (5) an agency has determined the discharge is not likely to adversely affect the species.¹⁰⁴ A map of the NMFS Listed Resources of Concern is in Appendix I. Where, as with the BiOps for the listed pesticides, there has been a separate ESA consultation (alternative No. 1 above), the PGP requires that the

⁹⁸ Oregon's 2300A NPDES General Permit covers application of pesticides for the purpose of mosquito and other flying insect pest control, weed and algae control, nuisance animal control, forest canopy pest control, and something called "area-wide pest control."

⁹⁹ EPA, *Pesticide General Permit (PGP) for Discharges from the Application of Pesticides*, effective October 31, 2011, available at http://www.epa.gov/npdes/pubs/final_pgp.pdf (last accessed July 26, 2012). Excerpts from the PGP are found in Appendix H.

¹⁰⁰ EPA, *Endangered and Threatened Species and Critical Habitat Protection under EPA's Pesticide General Permit*, available at <http://cfpub.epa.gov/npdes/pesticides/esa.cfm> (last accessed July 26, 2012).

¹⁰¹ NMFS, *National Marine Fisheries Service Endangered Species Act Section 7 Consultation Biological Opinion [of the U.S. Environmental Protection Agency's Proposed Pesticides General Permit]* (October 14, 2011) available at http://www.nmfs.noaa.gov/pr/pdfs/consultations/biop_epa_pgp2111014-1.pdf (last accessed August 1, 2012).

¹⁰² *Id.* at 155-160.

¹⁰³ EPA, *NMFS Listed Resources of Concern* are set out in a map, available at http://www.epa.gov/npdes/pubs/pgp_or_map.pdf; a list of Oregon watersheds available at http://www.epa.gov/npdes/pubs/pgp_oregon_watersheds.pdf; a list of steelhead and salmon waters, available at http://www.epa.gov/npdes/pubs/pgp_oregon_waters.pdf; a list of eulachon waters, available at http://www.epa.gov/npdes/pubs/pgp_oregon_eulachon.pdf; and a list of green sturgeon waters, available at http://www.epa.gov/npdes/pubs/pgp_oregon_greensturgeon.pdf (last accessed July 31, 2012).

¹⁰⁴ EPA, *supra* n. 99 at 1-3 – 1-4.

discharges be consistent “as modified with a reasonable and prudent alternative[.]”¹⁰⁵ The discharger may also seek NMFS’ determination of eligibility or “self-certify” that its discharges are not likely to adversely affect NMFS Listed Resources of Concern by following the instructions in the PGP.¹⁰⁶ The NMFS Listed Resources of Concern covers a wide swath of Oregon watersheds, all basins fully or partially with the exception of the Powder, Malheur River, Owyhee, Malheur Lake, Goose & Summer Lakes, and Klamath.¹⁰⁷

2. *Oregon’s General Permit 2300A*

The NMFS BiOp for the PGP includes a discretionary conservation recommendation to EPA, noting that section 7(a)(1) of the ESA directs federal agencies to use their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of threatened and endangered species. The conservation recommendation states that

EPA should work with States with the delegated authority to implement the NPDES program to develop their permits in a manner that is protective of endangered or threatened species or designated critical habitat and to create monitoring programs that evaluate whether these permits are successful in accomplishing that goal.¹⁰⁸

NWEA is unaware of any effort by EPA to ensure that Oregon’s 2300A pesticide general permit is consistent with the RPAs established to mitigate the jeopardy and adverse modification findings of the NMFS BiOp.

For discharges of pesticides to Oregon waters not in Indian Country and therefore not covered under EPA’s PGP, authorization to discharge must be obtained through Oregon’s 2300A General Permit. In addition to allowing the use of pesticides to kill mosquitos, weeds and algae, and nuisance animals by direct application to waters of the state, the 2300A General Permit also allows discharges of pesticides for “forest canopy pest control” and “area-wide pest control,” both of which involve aerial pesticide applications over large areas which “will unavoidably be applied over and deposited in water.”¹⁰⁹ The 2300A General Permit contains no restrictions on the use of the pesticides found by NMFS to cause jeopardy or adverse modification to threatened and endangered species found in Oregon waters.

Unlike EPA’s PGP, the Oregon pesticide NPDES General Permit 2300A allows the discharge of some or all of the pesticides covered in the BiOps. There are no limitations on which pesticides

¹⁰⁵ EPA, *PGP Appendix I, Endangered Species Procedures* I-2 (October 31, 2011) available at http://www.epa.gov/npdes/pubs/pgp_appi.pdf (last accessed July 30, 2012).

¹⁰⁶ *Id.* at I-3 – I-4.

¹⁰⁷ It should be noted that the USF&WS has not completed ESA consultations on either the PGP or the FIFRA labels so it is unknown what effect the identified pesticides may have on threatened and endangered species that are under its jurisdiction and which are present in the watersheds that are not covered by the NMFS “Listed Resources of Concern.”

¹⁰⁸ NMFS, *supra* n. 101 at 164.

¹⁰⁹ DEQ, *supra* n. 3.

can be used pursuant to the permit. For example, the herbicide 2,4-D, which NMFS concluded jeopardizes 12 of 13 species in Oregon waters and adversely modifies critical habitat for three species, could be allowed to be discharged for the purpose of killing weeds under Oregon's 2300A permit. The 2300A permit contains no specifications requiring that dischargers follow pesticide labels other than an exhortation that the permittee should "[u]se the optimal amount of pesticide consistent with the pesticide label directions to reduce the potential for development of pest resistance and to minimize the frequency of pesticide applications necessary to control the target pest."¹¹⁰ Nor does DEQ's 2300A permit require compliance with the mandatory RPAs in the NMFS BiOps, the 1989 USF&WS BiOp, or the PGP BiOp. In other words, unlike EPA's PGP, Oregon's 2300A permit provides *zero* protections for threatened and endangered species.

The only relevant restrictions in the 2300A permit are two water quality-based effluent limitations that (1) the "discharge must not cause or contribute to the violation of water quality standards"¹¹¹ and (2) it must "comply with any applicable effluent standards or prohibitions established under Oregon Administrative Rules (OAR) 340-041-0033 [water quality standards for toxics] and 307(a) of the federal Clean Water Act for toxic pollutants . . . even if the permit has not yet been modified to incorporate the requirement."¹¹² However, the state's failure to meet the federal requirement that it "provide information identifying the method by which the State intends to regulate point source discharges of toxic pollutants on water quality limited segments" leaves wholly undefined whether or how DEQ interprets the permit's effluent limitation, as discussed above. What precisely does Oregon mean when it states that the discharge of pesticides shall not cause or contribute to violations of water quality standards? Specifically, Oregon has not provided information on how it will regulate the discharge of the pesticides covered under the BiOps using its narrative criteria for toxics in the 2300A permit. Nor has it provided information on how it will regulate the discharges of those pesticides in any individual permit that it might choose to issue to a discharger that cannot conform to the requirements of the 2300A general permit and chooses to seek an individual NPDES permit.

As discussed below, however, discharges of the listed pesticides even when used in conformity with the FIFRA labels – the very action evaluated by NMFS in the pesticide BiOps – will cause jeopardy and/or adverse modification if not in conformity with the applicable RPAs. The NMFS findings of jeopardy and adverse modification set out in BiOp Nos. 1 - 5 and the USF&WS jeopardy findings in the 1989 BiOp are *prima facie* evidence that use of the listed pesticides in or near waters supporting the named species do not fully support the designated uses and are, therefore, a violation of Oregon water quality standards if the discharges or uses are not consistent with the RPAs. The finding of jeopardy means that the Services have determined that continuation of the use of these pesticides as the FIFRA labels currently allow will likely lead to extinction of the species. Extinction of the species is the elimination of the aquatic life and fishery as both an existing and a designated use and is prohibited under the Clean Water Act.

¹¹⁰ *Id.* at Schedule A, Condition 2.a.

¹¹¹ Oddly, if a discharger does cause or contribute to violations of water quality standards, "corrective action must be taken as required in Condition No. 3. below." *Id.* at Schedule A, Condition 1.a. Condition No. 3 merely requires the violator to review and make changes to its procedures and clean up any spills. *Id.* Also oddly, while the 2300A permit requires the discharger to have a Pesticide Discharge Management Plan and to keep the plan updated, the permit does not require the discharger to comply with that plan.

¹¹² DEQ, *supra* n. 3, Schedule F, Condition 6 Toxic Pollutants.

In addition, DEQ's 2300A permit contains no protections for candidate or sensitive species identified by the Services or for sensitive species identified by ODFW. The permit does not require an applicant to survey a waterbody for species such as frogs, salamanders, and turtles that are declining precipitously in Oregon prior to DEQ's authorizing the discharge of pesticides, including directly and intentionally to waters of the state. Neither does the permit require DEQ to determine that the discharge will not directly or indirectly kill or injure such species. As a general NPDES permit, DEQ requires no public notice that an application has been made for authorization to discharge pursuant to the permit, no public comment is solicited, and no notice is given that discharges have been authorized.

In a recent instance in which DEQ issued an authorization to discharge the herbicide diquat dibromide to Fairview Lake to kill the native plant elodea canadensis, DEQ did not require the completion of a turtle survey in the lake and associated wetlands prior to authorizing the discharge despite its being known habitat for native turtles.¹¹³ Diquat dibromide is known to suppress dissolved oxygen levels to lethal levels, to be toxic to very young fish,¹¹⁴ and there is evidence that it is directly toxic to turtles. Limits on removal of vegetation established by local ordinances were ignored by the authorized discharger in part because DEQ failed to require dischargers to be in compliance with statewide land use goals and comprehensive plans as required by DEQ's regulations, thereby removing review and protection by other agencies.¹¹⁵

¹¹³ See Letter from Nina Bell, NWEA to Greg Geist, Northwest Region, DEQ *Application for Coverage Under General Permit NPDES No. 2300A by Fairview Lake Property Owners Association; Proposed Use of Fluridone on Fairview Lake and Upper Slough* (February 17, 2012) available at <http://www.northwestenvironmentaladvocates.org/nweafiles/Fairview%20Lake%202017%202012.pdf>; Letter from Nina Bell, NWEA to Dick Pedersen, Director, DEQ *Petition for Reconsideration of May 15, 2012 Letter Approving Coverage Under the NPDES General Permit 2300A for the Fairview Lake Property Owners Association* (June 20, 2012) available at <http://www.northwestenvironmentaladvocates.org/nweafiles/Fairview%20Lake%20June%202012.pdf>.

¹¹⁴ The State of New York has a "Special Local Needs (SLN) registration that provides for more stringent use conditions than are in effect in other states or under the EPA-registered label" due to toxicity tests showing diquat's toxicity to young fish and lack of label precautions that would prevent lethal doses. The SLN restrictions set out by New York include, *inter alia*, a prohibition on use in waters less than three feet deep. See Memorandum from Steven J. Sanford, Bureau of Habitat, Division of Fish, Wildlife and Marine Resources, New York State Department of Environmental Conservation to Regional Supervisors of Natural Resources, *Natural Resource Guidance for the Review of Aquatic Herbicide Permit Applications* 12 (March 7, 2005) available at http://www.dec.ny.gov/docs/administration_pdf/aquaticherbicide2005.pdf (last accessed July 27, 2012). Diquat use in New York is limited to one annual treatment. 6 NYCRR 327.6(b)(6).

¹¹⁵ OAR 340-018-0000. See also, Letter from Nina Bell, NWEA to Dick Pedersen, Director, DEQ *Addendum to Petition for Reconsideration of May 15, 2012 Letter Approving Coverage Under the NPDES General Permit 2300A for the Fairview Lake Property Owners Association* (July 17, 2012); Letter from Nina Bell, NWEA to Jeff Cogan, Chair, Multnomah County, *Violation of Requirement to Obtain an SEC Permit* (July 13, 2012)(available from NWEA).

VII. Need for Commission Adoption of the Proposed New Rules for Pesticides

A. The State of Oregon Must Adopt Measures to Meet Water Quality Standards, Including Protection of Designated Uses, in Coastal Watersheds Under the Coastal Zone Act Reauthorization Amendments

1. CZARA Requirements

The Coastal Zone Act Reauthorization Amendments (“CZARA”) control state funding from the federal government through section 319 of the Clean Water Act (“CWA”) and section 306 of the Coastal Zone Management Act (“CZMA”). CZARA is jointly administered by EPA and the National Oceanic and Atmospheric Administration (“NOAA”)(together the “federal agencies”). CZARA generally requires coastal states, such as Oregon, to develop and implement coastal nonpoint source pollution control programs that meet statutory criteria and federal guidance.¹¹⁶

Nonpoint source pollution is caused by precipitation runoff that moves over the ground, carrying away pollutants and depositing them into lakes, rivers, wetlands, and other waters. In CZARA, Congress required the federal agencies to withhold a percentage of CWA and CZMA grant funds¹¹⁷ from states that fail to submit coastal nonpoint programs that meet applicable criteria and protect water quality.

This outcome is assured by, at a minimum, compliance with the section (g) management measures¹¹⁸ developed by the federal agencies as well as such “additional management measures” as may be required to meet state water quality standards adopted under the CWA. Where compliance with EPA’s 1993 guidance containing the (g) management measures is not expected to achieve and maintain water quality standards and protect designated uses, CZARA calls for the “implementation and continuing revision from time to time of additional management measures . . . that are necessary to achieve and maintain applicable water quality standards under section 1313 of Title 33 and protect designated uses.”¹¹⁹

CZARA required states to submit their Coastal Nonpoint Programs to the federal agencies by July 1995¹²⁰ and the federal agencies to review and approve or disapprove such state programs within six months of submittal.¹²¹ Notwithstanding these statutory requirements the federal

¹¹⁶ 16 U.S.C. § 1455b(a)(1).

¹¹⁷ CWA section 319 funds are granted to DEQ, which uses them to support its own programs as well as to fund other agencies, such as the Oregon Department of Forestry, and landowner activities. CZMA section 306 funds are granted to the Oregon Department of Land Conservation and Development.

¹¹⁸ As required by CZARA, 16 U.S.C. § 1455b(g), EPA issued *Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters* in January 1993.

¹¹⁹ 16 U.S.C. § 1455b(b)(3).

¹²⁰ 16 U.S.C. § 1455b(a)(1).

¹²¹ 16 U.S.C. § 1455b(c)(1).

agencies established a program of issuing “conditional approval” to deficient state programs and indefinitely delayed the withholding of CWA and CZMA grant funds from such conditionally approved states.

2. *Oregon’s CZARA Program*

In July 1995 Oregon submitted its Coastal Nonpoint Program to the federal agencies for review. On January 13, 1998, the federal agencies found many components of Oregon’s Coastal Nonpoint Program to be deficient, identifying 40 conditions Oregon needed to meet to obtain full approval of its program, most of which were to be completed by January 13, 2001.¹²² Over the years, Oregon consistently failed to demonstrate compliance with the (g) management measures with regard to pesticides. By 2003, the federal agencies were once again pointing out that the state’s pesticide programs run by the Oregon Department of Agriculture (“ODA”) fell short of CZARA requirements for, among other reasons, “[f]ew of the 1010 [agricultural water quality management] plans developed so far address pesticide management” and that Oregon had stated “no new rules for pesticides will be developed under the Agricultural Water Quality Management Program.”¹²³ In fact, the agricultural water quality management *plans* are irrelevant from the perspective of CZARA approval of Oregon’s agriculture program because they are not enforceable.¹²⁴ And, with extremely limited exceptions, ODA basin *rules* do not mention pesticides.^{125, 126} The next year, the federal agencies gave up on Oregon’s taking responsibility

¹²² See EPA & NOAA, *A Pollution Prevention and Control Program for Oregon's Coastal Waters: Supplemental Information in Response to the Federal Findings of January 1998* Table 1 (April 1999)(available from NWEA).

¹²³ EPA & NOAA, *Submittal of Additional Information on the State’s Measures for Urban Sources in Response to Federal Findings of 1998* at 4-5 (June 24, 2003)(available from NWEA).

¹²⁴ See Letter from Nina Bell, NWEA to Michael Bussell, EPA & John King, NOAA, *Oregon Coastal Nonpoint Pollution Control Program; EPA and NOAA’s Interim Approval of Agricultural Management Measures for Oregon* 14-18 (April 24, 2012)(available from NWEA).

¹²⁵ The exceptions include the following ODA basin rules that mention pesticides: Coos & Coquille Basin OAR 603-095-1540(4)(a)(pesticide provisions limited to cranberry production); North Coast Basin OAR 603-095-0840(7)(a)(pesticides to be used in accordance with labels); Umatilla Basin OAR 603-095-0340(7)(b)(farm chemicals should be stored properly); Lower Willamette Basin OAR 603-095- 3740(5)(a)(C)(riparian vegetation should filter pesticides in surface runoff). Rules available at http://www.oregon.gov/ODA/NRD/water_agplans.shtml.

¹²⁶ Even when DEQ has completed a Total Maximum Daily Load (“TMDL”) for pesticides to establish pollutant reduction targets, ODA has not updated its rules, the only mandatory aspect of its program. For example, DEQ completed the Molalla-Pudding Subbasin TMDL in December 2008 in which it called for a percentage reduction of DDT, DDE, DDD, and dieldrin from agricultural nonpoint sources in the Little Pudding River of >99, 96, 95, and 92 percent respectively. DEQ, *Molalla-Pudding Subbasin TMDL Chapter 4 Pesticides* 4-48 (December 8, 2008), available at <http://www.deq.state.or.us/WQ/TMDLs/docs/willamettebasin/MolallaPudding/MoPudChapter4Pesticides.pdf> (last accessed July 30, 2012). Yet ODA has not updated its rules for this subbasin since 2002. OAR 603-095-1900.

for pesticide restrictions and instead decided to rely upon the pesticide injunction issued in *Washington Toxics*. The federal agencies agreed on language to obliquely refer to the results of this case as “processes that may result in additional buffer protection requirements beyond those on existing labels in order to protect endangered species.”¹²⁷

This 2004 injunction remained in place through 2008 but as NMFS has issued each pesticide BiOp, the injunction ceases to have effect on the pesticides covered by the BiOp.¹²⁸ NMFS has issued six BiOps, rendering the injunction moot for 28 pesticides. To date, EPA has failed to implement any of the RPAs included in the BiOps. Therefore, with no court-ordered buffers remaining and no EPA-required buffers established as needed to protect salmonids in the RPAs, the current use of at least the 16 pesticides in Oregon for which NMFS found jeopardy or adverse modification are – by definition – not protective of the designated uses, as required by CZARA.

3. *Litigation on Oregon’s CZARA Program Approval*

Northwest Environmental Advocates challenged the federal agencies’ ability to issue conditional approvals under CZARA in *Northwest Environmental Advocates v. Locke, et al.*, Civil No. 09-0017-PK. The case was settled based on Oregon DEQ’s commitment to carry out certain actions. One outcome of the settlement of that case was the federal agencies’ agreement to publish on or before November 15, 2013 a proposed decision to approve or disapprove Oregon’s program and on or before May 15, 2014 to issue a full and final approval or disapproval. Therefore, Oregon must have in place prior to November 15, 2013 sufficient management measures to “achieve and maintain applicable water quality standards under section 1313 of Title 33 and protect designated uses” or risk a proposed disapproval action. This includes management of pesticides to meet water quality standards.

4. *Oregon Cannot Rely on EPA Action to Address its CZARA Program Requirements for Pesticides*

NMFS has been issuing BiOps on an established list of pesticides pursuant to court order since November 2008. Upon the issuance of each BiOp, the court-ordered injunction in *Washington Toxics* establishing limitations on the use of those pesticides terminates. Each BiOp has included a number of determinations by NMFS of jeopardy and/or adverse modification for a number of species present in Oregon waters. A summary of these findings is set out in Appendix D. Accordingly, each BiOp has included RPAs to prevent jeopardy and adverse modification of critical habitat associated with use of those pesticides. However, upon the termination of the injunction with regard to individual pesticides, EPA has taken no action to implement the RPAs associated with the pesticides for each BiOp.¹²⁹ Therefore, as each BiOp has been published,

¹²⁷ Email from Teena Reichgott, EPA Region X, to Allison Castellan, NOAA, et al., *Findings on OR add measures for forestry* (April 9, 2004)(available from NWEA).

¹²⁸ *Washington Toxics*, No. C01-132C (W.D. Wash. Jan. 22, 2004) at 12.

¹²⁹ On November 29, 2010, the Northwest Center for Alternatives to Pesticides (“NCAP”) filed suit alleging EPA had taken no steps to implement the RPAs set out in the BiOps nor taken any alternative protective measures. *Northwest Center for Alternatives to Pesticides, et al. v. EPA*, CV-01919-TSZ, (W.D. Wash.) Complaint for Declaratory and Injunctive Relief at ¶¶ 10, 11. On May 25, 2011, the Intervenor Defendants in that case sought and received a stay pending a challenge to BiOp No. 1 in the District of Maryland. The District of Maryland

there has been a concurrent loss of protection for the designated uses of threatened and endangered salmonids. As a result, there is no regulatory mechanism in place to ensure that pesticide use in Oregon is consistent with the requirement of CZARA to “achieve and maintain applicable water quality standards under section 1313 of Title 33 and protect designated uses.” As a further result, absent EPA action prior to November 15, 2013, the federal agencies will be in a position of having to find that Oregon’s CZARA program fails to protect designated uses from pesticides and will have no apparent choice other than to issue a proposed disapproval of Oregon’s program, resulting in mandatory withholding of federal funds through CWA and CZMA. Should the federal agencies instead issue a final approval of Oregon’s program, such action would be arbitrary and capricious unless Oregon has put in place protections for designated uses and to meet water quality standards by the date of that action, not later than May 15, 2014.

B. Use of Listed Pesticides in Oregon Based on the FIFRA Labels Violates Oregon Water Quality Standards.

The Services’ findings that certain pesticides will cause “jeopardy” is shorthand for the agencies’ determinations that the continued use of the pesticides without restrictions is “likely to jeopardize the continued existence” of the enumerated endangered and threatened species.¹³⁰ The clause “jeopardize the continued existence of” means “to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species.”¹³¹ The phrase “likely to destroy or adversely modify designated critical habitat” refers to a situation where designated critical habitat is lost or impaired such that it threatens a species’ survival or impairs its *recovery* (i.e., even if there remains sufficient critical habitat for the species’ survival).¹³²

NMFS notes that it reached the conclusion that specified pesticides would cause jeopardy or adverse modification to specified species

because measured and predicted concentrations of the three active ingredients in

subsequently issued an opinion that the BiOp was not flawed. *Dow AgroSciences*, 821 F. Supp. 2d at 810-11 Order, No. 09-cv-824 (S.D. Maryland October 31, 2011). On June 20, 2012, the Washington District Court denied EPA’s motion for an additional stay of six months in the *NCAP* case and subsequently established a briefing schedule that will be completed on January 18, 2013.

¹³⁰ Threatened and endangered salmonids under the jurisdiction of NMFS are as follows: Lower Columbia River Chinook salmon, Snake River fall-run Chinook salmon, Snake River spring/summer-run Chinook salmon, Upper Willamette River Chinook salmon, Columbia River chum salmon, Southern Oregon/Northern Coastal California coho salmon, Oregon Coast coho, Snake River sockeye salmon, Lower Columbia River steelhead, Middle Columbia River steelhead, Snake River Basin steelhead, Lower Columbia River coho salmon, and Upper Willamette River steelhead.

¹³¹ 50 C.F.R. § 402.02.

¹³² *Gifford Pinchot Task Force v. U. S. Fish and Wildlife Service*, 378 F.3d 1059, 1070 (9th Cir. 2004).

salmonid habitats, particularly in off-channel habitats, are likely to cause adverse effects to listed species including significant reductions in survival, reproduction, migration, and growth. Further, all but one population of listed Pacific salmonids are likely to suffer reductions in viability given the severity of expected changes in abundance and productivity associated with the proposed action. These adverse effects are expected to appreciably reduce the likelihood of both the survival and recovery of the listed Pacific salmonids. EPA's proposed registration of chlorpyrifos, diazinon, and malathion is likely to result in the destruction or adverse modification of critical habitat of these endangered and threatened species because of adverse effects on salmonid prey and water quality in freshwater rearing, spawning, migration, and foraging areas.¹³³

The jeopardy and adverse modification findings include the degraded baseline of poor habitat quality for salmonids and impaired water quality. For example:

Drift and runoff from areas of intensive urban and agricultural development will likely contain carbaryl, carbofuran, and methomyl in addition to other pesticides - particularly other AChE-inhibiting pesticides, chemical pollutants, and sediments that also degrade water quality. Depending on the available water flow, amount of shade from L[arge]W[oods]D[ense] and intact riparian zones, and water temperature in aquatic habitats, the toxicity of carbaryl, carbofuran, and methomyl in tributary and stream waters may become more pronounced. Reductions in water quality may reduce the conservation value of designated habitats used for spawning, rearing, and migration. Furthermore restoration actions promoted in many of the salmonid recovery plans focus on increasing flood plain connectivity and creating new off-channel habitats. These actions are proposed in agricultural and urban flood plains that overlap with uses of the three insecticides. Water quality (as well as prey availability) may be degraded in these newly constructed habitats from the stressors of the action – effectively precluding intended benefits to rearing juvenile salmonids. We expect that proposed uses may contaminate these areas, thereby precluding habitat from its intended purpose in supporting the survival and recovery of listed Pacific salmonids.¹³⁴

One aspect of the impacts of pesticides on salmonids is the role of water temperatures which are elevated across the State of Oregon and for which there are numerous findings of impairment as evidenced by the temperature listings on the CWA section 303(d) list and the majority of Total Maximum Daily Loads established by Oregon, which are for temperature.¹³⁵ NMFS found that in many cases increased temperatures exacerbate the impacts of pesticides in waterways.¹³⁶ These

¹³³ NMFS BiOp No. 1, *supra* n. 22 at 392.

¹³⁴ NMFS BiOp No. 2, *supra* n. 32 at 480.

¹³⁵ See, e.g., DEQ, *Oregon's Impaired Waters, 2004/2006 Water Quality Limited Waters*, <http://www.deq.state.or.us/WQ/assessment/docs/MapImpairedWaters.pdf>; DEQ, *Oregon's TMDL Priorities and Schedule* (May 23, 2011) available at <http://www.deq.state.or.us/wq/assessment/docs/2010TMDLPriorities.pdf> (last accessed July 24, 2012).

¹³⁶ See, e.g., NMFS BiOp No. 1, *supra* n. 22 at 41 (“Exposure to elevated temperatures can enhance the toxicity of the stressors of the action.”).

water quality limited waters are precisely the concern that is addressed, in theory, by the narrative toxic criteria in Oregon's water quality standards quoted above.

While a finding of jeopardy or adverse modification is a *prima facie* demonstration that designated and existing uses are not supported and therefore use of the pesticides based on existing EPA-approved labels under FIFRA will violate water quality standards, it is not necessarily true that following the RPAs established by NMFS will not result in a violation of water quality standards. Instead, the RPAs merely ensure that jeopardy or adverse modification will not occur. While jeopardy is established at a point where pollution levels would "reduce appreciably the likelihood of both the survival and recovery of a listed species" fully supporting that use under the CWA may well require a higher level of protection and a lower level of pollution. While adoption of the RPAs will not entirely eliminate the impacts of the use of these pesticides, their adoption will be a step in the right direction.

1. *Violation of Designated Use Support*

Oregon's designated uses include the use of salmonids and aquatic life, which are the species for which the NMFS and USF&WS pesticide BiOps have concluded jeopardy or adverse modification of habitat as set out above. Therefore, to avoid violations of the requirement to fully support designated and existing uses of salmonids to meet water quality standards, Oregon must either (1) ban the use of the listed pesticides, (2) adopt the RPAs to ensure at a minimum that they do not cause jeopardy or adverse modification of critical habitat, or (3) adopt more stringent restrictions than the RPAs to ensure protection against jeopardy and full support of the uses. With regard to the last of these options, adoption of the RPAs is *not* the equivalent of providing full support for designated uses of ESA-listed salmonids as NMFS makes clear in each of the pesticide BiOps such as this statement concerning the FIFRA registration of seven pesticides:

In the proposed RPA, NMFS does not attempt to ensure there is no take of listed species. NMFS believes take will occur, and has provided an incidental take statement exempting that take from the take prohibitions, so long as the action is conducted according to the RPA and reasonable and prudent measures (RPM). Avoiding take altogether would most likely entail canceling registration, or prohibiting use in watersheds inhabited by salmonids.¹³⁷

The term "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.¹³⁸ Just as NMFS has not found that use of the pesticides with the RPAs will not prevent take, NMFS also has not concluded that the pesticides for which it has not found jeopardy or adverse modification are safe for salmonids and other aquatic life at the levels allowed by EPA's FIFRA registration levels. Rather, the agency has found that their use will not appreciably reduce the likelihood of both the survival and recovery of these listed Pacific salmonids. Not reducing the likelihood of survival and of recovery is not the same as providing full support for these designated uses. For these reasons, to meet the requirements of the Clean Water Act the Commission should instruct the Department to go further than the RPAs to create a greater assurance that the listed pesticides will not enter Oregon's waters and cause adverse effects to the listed species.

¹³⁷ NMFS BiOp No. 3, *supra* n. 33 at 777.

¹³⁸ 16 U.S.C. § 1532(19).

2. Violation of Narrative Toxics Criteria

For the purposes of considering the NMFS pesticide BiOps findings within the context of Oregon water quality standards, Oregon's toxic narrative criteria taken together contain the following relevant prohibitions:

- no amounts, concentrations, or combinations that may be harmful to aquatic life or wildlife
- no amounts, concentrations or combinations that may chemically change to harmful forms in the environment
- no amounts, concentrations or combinations that may accumulate in sediments
- no amounts, concentrations or combinations that may bioaccumulate in aquatic life or wildlife with adverse effects
- control of toxic materials at the lowest possible levels.
- no toxic conditions that are deleterious to fish or other aquatic life

The NMFS findings of jeopardy or adverse modification are a *prima facie* showing that use of the pesticides consistent with the label requirements may result in amounts and concentrations of pesticides that may be harmful and therefore constitute a violation of all or nearly all of Oregon's narrative criteria for toxic constituents set out above. For example, the RPAs specifically address the Oregon narrative criterion's prohibition against combinations of chemicals, pesticide degradates, and combinations of pesticides and deleterious conditions, such as the combination of pesticides and high water temperatures. In BiOp No. 1, for example, NMFS found that its RPAs accounted for the following effects of pesticide operators' following the FIFRA labels:

(1) the action will result in exposure to other chemical stressors that may increase the risk of the action to listed species including unspecified inert ingredients, adjuvants, and tank mixes; (2) exposure to chemical mixtures containing chlorpyrifos, diazinon, and malathion and other cholinesterase-inhibiting compounds result in additive and synergistic responses; (3) exposure to other chemicals and physical stressors (e.g., temperature) in the baseline habitat will likely intensify response to chlorpyrifos, diazinon, and malathion.¹³⁹

Therefore, adoption of the RPAs will address many of the elements of the narrative criteria.

3. Violation of Tier I of the Antidegradation Policy

Finally, because the antidegradation policy requires protection of existing uses and all of the ESA-listed salmonids are existing as well as designated uses, allowing the application of these pesticides as allowed on the FIFRA labels may not protect the existing uses or the water quality to support them. This is contrary to the clear intent and language of the antidegradation policy and to EPA's interpretation of its requirements:

No activity is allowable under the antidegradation policy which would partially or completely eliminate any existing use whether or not that use is designated in a State's water quality standards. The aquatic protection use is a broad category requiring further explanation. Non-aberrational resident species must be protected, even if not prevalent in number or importance. Water quality should be such that

¹³⁹ NMFS BiOp No. 1, *supra* n. 22 at 392.

it results in no mortality and no significant growth or reproductive impairment of resident species. *Any lowering of water quality below this full level of protection is not allowed.*¹⁴⁰

The Services' findings of jeopardy and adverse modification demonstrate that use of the pesticides as allowed on FIFRA labels may and likely will result in failure to protect existing uses are required by Tier I of the antidegradation policy.

C. Inaction by Oregon Amounts to Authorizing Illegal "Take" Under the Endangered Species Act

Protections for threatened and for endangered species may be the same or may differ based on the status of the species. The ESA makes it illegal for any person subject to the jurisdiction of the United States to take any species of fish or wildlife that is listed as *endangered* without specific authorization.¹⁴¹ "Take" is defined as to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct."¹⁴² "Harass" is defined as an intentional or negligent act that creates the likelihood of injuring wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns such as breeding, feeding, or sheltering.¹⁴³ "Harm" is defined as an act that actually kills or injures a protected species. Harm can arise from significant habitat modification or degradation where it actually kills or injures protected species by significantly impairing essential behavioral patterns, including breeding, spawning, rearing, migrating, feeding, or sheltering.¹⁴⁴ Violating the take prohibitions may result in civil or criminal penalties.

While section 7 of the ESA precludes any federal agency from funding, permitting, or carrying out any activity that will *jeopardize* the continued existence of *threatened* species, this restriction is not necessarily enough to prevent *harm* to species or to *recover* threatened species. Therefore, when the activities of state and local governments and private citizens harm threatened species, section 4(d) of the ESA requires that harm be minimized so it does not lead to extinction. Section 4(d) requires NMFS to issue regulations for threatened species deemed "necessary and advisable to provide for the conservation of the species." These 4(d) rules for threatened species may apply to any or all of the ESA section 9 protections that automatically prohibit take of species listed as endangered. The 4(d) rule for 14 species of threatened salmon and steelhead in Oregon and Washington prohibits illegal take of these species without specific written

¹⁴⁰ EPA, *Water Quality Standards Handbook, Second Edition*, EPA-823-B-94-005a at section 4.4.2 (August 1994), available at <http://water.epa.gov/scitech/swguidance/standards/handbook/upload/hbk-ch4.pdf> (last accessed July 30, 2012)(emphasis added).

¹⁴¹ 16 U.S.C. § 1538(a)(1).

¹⁴² 50 C.F.R. § 10.12. As the U.S. Supreme Court observed, "The action agency is technically free to disregard the Biological Opinion and proceed with its proposed action, but it does so at its own peril (and that of its employees), for "any person" who knowingly "takes" an endangered or threatened species is subject to substantial civil and criminal penalties, including imprisonment." *Bennett v. Spear*, 520 U.S. at 170 (citations omitted).

¹⁴³ 50 C.F.R. § 17.3.

¹⁴⁴ 50 C.F.R. § 222.102.

authorization.¹⁴⁵ While applying the take prohibition to threatened species,¹⁴⁶ the 4(d) rule also sets out programs and activities, or criteria for future programs or activities, for which NMFS will not apply the take prohibitions. For the Oregon species, the 4(d) rule sets out 13 limits.¹⁴⁷ Use of pesticides is not among the categories of activities for which the 4(d) rule grants protection to states, local governments, and citizens against the take provisions.¹⁴⁸

In order to avoid take, NMFS recommends that governmental entities, such as the State of Oregon

1. Identify the program or activity (for state and local governments, this may include activities it funds, authorizes, or carries out);
2. Evaluate whether the program or activity is likely to take or harm listed fish;
3. If the program or activity is not likely to take or harm listed fish, then there is no need to modify the activity, or to contact NMFS;
4. If, however, after reviewing the program or activity, it seems likely it will take or harm listed fish, or there is uncertainty about whether take or harm may occur, the acting agency, entity, or individual should contact NMFS to seek more information on evaluating the activity's impacts and determining ways to avoid harming the fish and violating the ESA.¹⁴⁹

NMFS has issued take guidance that sets out the types of activities that are likely to injure or kill threatened salmon and steelhead.¹⁵⁰ While the activities listed in the guidance will not necessarily harm these species they are the most likely to and therefore to violate the 4(d) rule. Among the activities likely to cause harm, and therefore constitute a "take" are:

Discharging pollutants, such as oil, toxic chemicals, radioactivity, carcinogens, mutagens, teratogens, or organic nutrient-laden water (including sewage water) into a listed species' habitat.

Removing, poisoning, or contaminating plants, fish, wildlife, or other biota that the listed species requires for feeding, sheltering, or other essential behavioral

¹⁴⁵ 65 Fed. Reg. 42422 (July 10, 2000).

¹⁴⁶ 50 C.F.R. § 223.203(a).

¹⁴⁷ 50 C.F.R. § 223.203(b).

¹⁴⁸ *Id.*

¹⁴⁹ NMFS Southwest Regional Office, *Evaluating Potential ESA Take Liability, A Citizen's Guide to the 4(d) Rule for Threatened Salmon and Steelhead on the West Coast* (June 20, 2000) <http://swr.nmfs.noaa.gov/fmd/citguide.htm#Evaluating%20Potential%20ESA%20Take%20Liability> (last accessed July 24, 2012).

¹⁵⁰ *Id.* at *Take Guidance*, <http://swr.nmfs.noaa.gov/fmd/citguide.htm#Take%20Guidance> (last accessed July 24, 2012).

patterns.¹⁵¹

NMFS specifically addressed the use of pesticides in its 4(d) rule:

[C]oncentrations of pesticides may affect salmon behavior and reproduction. Current EPA label requirements were developed without information about some of these subtle but real impacts on aquatic species such as salmon. And they were not developed with the intent of protecting or recovering threatened salmon. Where new information indicates that label requirements do not adequately protect salmon, NMFS will work with EPA through the section 7 consultation process to develop more protective use restrictions, and thereby provide the best possible guidance to all users. Similarly, where water quality standards or state authorizations lead to pollution levels that may cause take, NMFS intends to work with the state water quality agencies and EPA to bring those standards (or permitting programs) to a point that does protect salmon.¹⁵²

As set out in this petition, EPA has failed to work to incorporate the results of the pesticide BiOps into FIFRA label requirements and the section 7 consultation on EPA's PGP limits only the discharge of pesticides into Oregon waters in Indian Country.

EPA's inaction highlights the affirmative obligations of the State of Oregon to avoid take. The Commission should therefore identify for the Department the programs and activities that regulate or could regulate the use of the listed pesticides. In this petition NWEA has identified (1) the establishment of water quality standards by the Commission, (2) the issuance of the 2300A NPDES General Permit by the Department, (3) the coverage under the 2300A NPDES General Permit authorized by the Department to individual applicants, and the (4) issuance of any individual NPDES permit to applicants to discharge pesticides. Each of these programs or activities that allow the discharge of the listed pesticides limited only by the FIFRA labels is a violation of water quality standards and a take under the ESA. This petition has also identified the inadequate EPA-approved, federally-registered label used by the Oregon Department of Agriculture as allowing violations of water quality standards and take by applicators of the listed pesticides. And this petition has identified inadequate rules of the Oregon Department of Forestry that also allow take by applicators of the listed pesticides. NMFS has expressed its willingness to work with the state to bring its regulatory programs into conformance with its 4(d) rule:

Many activities that may kill or injure salmonids are regulated by state and/or Federal processes, such as fill and removal authorities, NPDES or other water quality permitting, pesticide use, and the like. For those types of activities, NMFS would not intend to concentrate enforcement efforts on those who operate in conformity with current permits. Rather, if the regulatory program does not provide adequate salmonid protection, NMFS intends to work with the responsible agency to make necessary changes in the program.¹⁵³

¹⁵¹ *Id.*

¹⁵² 65 Fed. Reg. 42400, 42473 (July 10, 2000).

¹⁵³ *Id.*

Therefore, NWEA requests by this petition that the Commission initiate a collaborative effort with NMFS through rulemaking to conform Oregon's water quality standards, the 2300A NPDES General Permit, and pesticide labels used in Oregon to the results of the consultations on the listed pesticides and EPA's PGP permit. By taking the actions requested in this petition, the Commission will provide a minimum level of protection to the designated and existing uses and help to prevent take of threatened and listed salmonids, thereby helping to insulate state and local governments and private citizens from violating take prohibitions.

VIII. Commission Authority

A. Commission Action is Authorized by State Statutes

The Commission has authority to adopt water quality standards and implementing rules pursuant to ORS 468.020, 468B.010, 468B.020, 468B.048, 468B.050, and 468B.110.

B. Commission Action To Regulate Pesticides is Not Precluded by FIFRA

FIFRA specifically allows for State regulation of pesticides.¹⁵⁴ Oregon is prohibited from adding regulations that affect the physical pesticide label.¹⁵⁵ This prohibition does not, however, prevent Oregon from prohibiting the sale of pesticides in the state, prohibit the use of pesticides in the state, or requiring additional regulations at the point of sale, through State regulation, or through State notification procedures.

IX. Commission Action Consistent with This Petition Will Support State Policies

A. Granting This Petition Will Support the Agency's Toxics Reduction Strategy

1. *The Draft Toxics Reduction Strategy*

One of the Department of Environmental Quality's strategic directions is to "protect Oregonians from toxic pollutants."¹⁵⁶ According to DEQ, "[g]iven that toxic chemicals and pollutants readily move from one environmental media to another, DEQ determined that a more integrated and strategic approach was needed to most efficiently and effectively reduce toxics in the environment." Started in 2009, DEQ completed a draft of its Toxics Reduction Strategy

¹⁵⁴ 16 U.S.C. § 136v(a) ("A State may regulate the sale or use of any federally registered pesticide or device in the State, but only if and to the extent the regulation does not permit any sale or use prohibited by this subchapter.").

¹⁵⁵ 16 U.S.C. § 136v(b).

¹⁵⁶ DEQ, *Draft DEQ Toxics Reduction Strategy: Summary of Actions*, November 2011, at 1, available at <http://www.deq.state.or.us/toxics/docs/ToxicsReductionDraftActionSummary.pdf> (last accessed July 30, 2012).

(“Strategy”) in December 2011.¹⁵⁷ The Strategy includes a Focus List¹⁵⁸ of priority toxic chemicals and 25 actions¹⁵⁹ to reduce and assess toxics in Oregon. The Focus List was developed on the basis of chemicals that were found on three or more program priority lists used by at least two DEQ divisions.¹⁶⁰ The Focus List contains 15 “current use pesticides” that include: diazinon, trifluralin, atrazine, chlorpyrifos, hexachlorocyclohexane (HCH), gamma- (lindane), pentachlorophenol, permethrin, carbaryl, malathion, pendimethalin, 2,4-D, chlorothalonil, diuron, glyphosate, and propoxur (baygon).¹⁶¹ Of these current use pesticides on the Focus List, this Petition specifically addresses the following 10 pesticides: chlorpyrifos, diazinon, malathion, carbaryl, 2,4-D, diuron, chlorothalonil, pendimethalin, permethrin, and trifluralin and generally addresses the remainder.

After establishing the Focus List, DEQ posed an initial set of two screening questions to identify recommended actions: (1) How effective would the action be in reducing Focus List chemicals in the environment or people? and (2) How practically implementable is the action?¹⁶² According to DEQ, the overarching theme of the Strategy is “the involvement of multiple agencies and organizations to ensure effective implementation” and “sharing the costs of implementing an action.”¹⁶³

The Strategy organizes its recommendations for action into four categories, described as

- Improving integration and prioritization of toxics reduction activities
- Enhancing effective existing toxics reduction efforts
- Addressing identified toxics reduction needs
- Assessing and characterizing toxics in Oregon¹⁶⁴

Specifically for current use pesticides, DEQ’s draft recommended actions include the following two recommended actions:

¹⁵⁷ DEQ, *Reducing Toxics in Oregon*, <http://www.deq.state.or.us/toxics/#Reduction> (last accessed July 25, 2012).

¹⁵⁸ DEQ, *Initial DEQ Toxics Focus List 2010-2011*, available at <http://www.deq.state.or.us/toxics/docs/ToxicsFocusList2010-2011.pdf> (last accessed July 25, 2012).

¹⁵⁹ DEQ, *Draft DEQ Toxics Reduction Strategy: Descriptions of Actions*, November 2011, available at <http://www.deq.state.or.us/toxics/docs/ToxicsReductionDraftActionDescriptions.pdf> (last accessed July 25, 2012).

¹⁶⁰ DEQ, *supra* n. 157 at 1.

¹⁶¹ Of these current use pesticides, NMFS and the U.S. Fish and Wildlife Service are in the process of completing their biological opinions of Oregon’s aquatic life criteria adopted in 2004 that include lindane and pentachlorophenol.

¹⁶² DEQ, *supra* n. 157 at 2.

¹⁶³ *Id.* at 3.

¹⁶⁴ *Id.* at 3-4.

I-3 Use existing rural planning and resource management programs to reduce loadings of Focus List toxics into Oregon waterbodies through natural resource agency collaboration

* * *

E-2 Expand Pesticides Stewardship Partnerships and related technical assistance programs to encompass more watersheds, land use diversity, water media (e.g., groundwater), and additional assistance and outreach tools¹⁶⁵

The Department's description of Action No. I-3 comments that

there are multiple current use pesticides on the Focus List that have also been designated as priorities by the inter-agency Water Quality Pesticide Management Team (Departments of Agriculture, Forestry, Environmental Quality, and Health) based on monitoring data. Water quality criteria don't exist for many of these current use pesticides, and although they are (and will be) addressed through the Pesticide Stewardship Partnership program in limited geographic areas, these pesticides could also be addressed through Agricultural Water Quality Management Program and Forest Practices Act related work by identifying them as priorities to further improve water quality.¹⁶⁶

It also comments that "[t]his recommended action builds on well-established rural water quality management programs, and attempts to optimize efficiencies of state and federal agency resources by addressing multiple pollutants through these existing programs."¹⁶⁷

The Department's comments regarding Action No. E-2 note that it proposes to expand existing

Pesticide Stewardship Partnerships (PSPs) [that are] designed to use surface water monitoring data to focus pesticide best management practices and technical assistance in areas where elevated stream concentrations of pesticides have been found.¹⁶⁸

But it also notes that

The primary barrier to implementing an expansion of the Pesticide Stewardship Partnership program is identifying and securing an adequate and stable source of funding. Currently, the monitoring is supported by federal water quality grant funds disbursed on an annual basis.¹⁶⁹

¹⁶⁵ *Id.* at 6.

¹⁶⁶ *Id.* at 3.

¹⁶⁷ *Id.*

¹⁶⁸ *Id.* at 7.

¹⁶⁹ *Id.*

Many other recommended actions of the Strategy are expected to apply to all Focus List chemicals. Of these, the low assigned priority Action No. E-7, described as “Assess opportunities to improve management of Focus List chemicals through use of existing state product or chemical reporting, notification, registration, and licensing mechanisms”¹⁷⁰ could address current use pesticides. Relevant descriptions by the Department of this action item include:

agencies administering these programs, as well as other interested stakeholders, work together to assess how well current reporting, licensing, notification and registrations systems are addressing the objectives of the programs relative to Focus List chemicals.

* * *

Based on the results of these evaluations, changes to the programs may be recommended to improve the management of Focus List chemicals and increase program efficiencies.

* * *

The state systems designed to generate data on, and ensure management of, products and chemicals before or during use provide an opportunity to proactively influence activities that can reduce Focus List chemicals in the environment at the source. By evaluating how well all of these systems are achieving objectives related to Focus List chemicals, agencies can determine how to build on existing efforts to improve effectiveness and efficiencies. The Focus List and the data generated on these chemicals can help to narrow the scope of the assessment of the programs, thereby ensuring that any recommended improvements yield the most effective results from an environmental and human health perspective.¹⁷¹

2. *This Petition Supports the Goals of the Strategy*

If the Commission accepts this petition, it will strongly enhance the goals that ostensibly drive the Strategy. The initial screening questions ask whether an action would be effective in reducing chemicals in the environment and whether the action is “practically implementable.” Adopting the RPAs would help address the gap that DEQ identifies with regard to current use pesticides in Action I-3 that “criteria don’t exist for many of the[m].” Adopting the RPAs as water quality standards would establish regulatory requirements for other agencies, such as the Departments of Agriculture and Forestry, and DEQ’s own programs, which are required to meet state water quality standards, thereby optimizing efficiencies and providing a far more effective mechanism than mere appeals to pesticide users for voluntary reductions or use of limiting practices. The Commission’s petitioning the ODA would meet the Strategy’s overarching theme of involving multiple agencies and sharing the costs of implementation.

Granting the petition has significant benefits over the recommended Action No. E-2 because, as DEQ points out, this Action is heavily dependent upon monitoring of toxics, an activity for

¹⁷⁰ *Id.* at 14.

¹⁷¹ *Id.* at 14-15.

which all agencies combined have wholly inadequate funding. Moreover, DEQ does not point out that the Action is only triggered by findings of “elevated stream concentrations of pesticides” which means that the agencies only move into action *after* the damage to the designated and existing uses has started. It is far more protective of the uses and administratively efficient to prevent the pesticides from entering the water. Any program that builds exclusively on finding scarce monitoring funds is not based on prevention, which is the only way to provide full protection of uses, particularly those that are threatened or endangered.

Finally, Action No. E-7 addresses notification and registration but it is wholly a bureaucratic exercise of evaluating how well the state’s systems are working and has no action component whatsoever. There is no need to assess whether the state regulatory system is working other than to compare the labels used in Oregon and the limits placed on pesticide dischargers under the NPDES General Permit 2300A with the RPAs set out in the BiOps. That comparison is stark and the state programs fail. This Strategy has been three years in the making and its likely next steps will be more plans and meetings with little or no action. The Commission’s adoption of the rulemaking requested in this petition will move the State into a posture of actually taking action to reduce pesticides with known effects on threatened and endangered species, pesticides already identified by Oregon, EPA, and/or the Services as posing harm to designated and existing uses.

B. Oregon Policy on Protection of Sensitive Species Not Yet Listed as Threatened and Endangered

Proactive action by the Commission to protect species not yet listed as threatened or endangered under federal law is supported by state policies. As ODFW notes

It is Oregon’s policy “to prevent the serious depletion of any indigenous species” (ORS 496.012). The Oregon administrative rules for threatened and endangered species (OAR 635-100-0100 to 0130) are intended to help implement this policy. In accordance with these rules, species can be classified as “threatened” (any native species likely to become endangered within the foreseeable future throughout any significant part of its range within the state) or “endangered” (any native species determined to be in danger of extinction). *However, recovering species when their populations are severely depleted can be difficult and expensive.* In addition, designation of such species can be socially and economically divisive.¹⁷²

Accordingly, the purpose of the Sensitive Species List is to “prevent species from declining to the point of qualifying as threatened or endangered” and to provide a “positive, proactive approach to species conservation” by “[i]mplementation of appropriate conservation measures to address the threats may prevent them from declining to the point of qualifying for threatened or endangered status” and “serv[ing] as an early warning system for biologists, land managers, policy makers, and the public . . . [to] ensure that conservation actions are prioritized, cost-efficient, and effective.”¹⁷³

The evaluations by EPA and the USF&WS for species in California that are similar to those species in Oregon for which ESA listing is warranted but precluded, which ODFW has

¹⁷² ODFW, *supra* n. 65 at 1 (emphasis added).

¹⁷³ *Id.*

determined are “sensitive–critical,” and which USF&WS and ODFW have determined to be species of concern and/or “sensitive–vulnerable” are the basis for Commission action under the Clean Water Act to provide protection for species before they are locally extirpated and/or become close to extinction. This petition requests rulemaking to protect all aquatic and aquatic-dependent species, not just those at the brink of extinction.

X. The Proposed Rulemaking

While the restrictions set out in the BiOp RPAs are not necessarily the equivalent of meeting water quality standards and fully protecting existing and designated uses because, for example, NMFS concluded there would be “take” even with the RPA buffers in its first BiOp and USF&WS has pointed out the inadequacies of its 23-year old BiOp, use of the RPAs would constitute significant movement towards meeting Oregon’s water quality standards.

Accordingly, NWEA hereby petitions the Commission to adopt the following rule as a supplement to Oregon’s antidegradation policy, as new rule OAR 340-041-0004(10) (Antidegradation Policy):

OAR 340-041-0004(10) (Antidegradation Policy) To prevent further degradation of water quality and to provide protection to all existing beneficial uses, the use of pesticides authorized under the federal Insecticide, Fungicide, and Rodenticide or Clean Water Acts for which either the National Marine Fisheries Service or the U.S. Fish and Wildlife Service have finalized consultation under the federal Endangered Species must conform at a minimum to the reasonable and prudent alternatives set out in the Biological Opinions published by those federal agencies as they pertain to preventing jeopardy or adverse modification of critical habitat for species present in Oregon waters and as set out in OAR 340-041-0034.

For the protection of designated uses that may not be existing uses, NWEA petitions the Commission to adopt the following proposed new rule OAR 340-041-0033(8)(Toxic Substances):

OAR 340-041-0033(8)(Toxic Substances) To provide support to all designated beneficial uses, the use of pesticides authorized under the Federal Insecticide, Fungicide, and Rodenticide or Clean Water Acts for which either the National Marine Fisheries Service or the U.S. Fish and Wildlife Service have finalized consultation under the federal Endangered Species Act, must conform at a minimum to the reasonable and prudent alternatives set out in the Biological Opinions published by those federal agencies as they pertain to preventing jeopardy or adverse modification of critical habitat for species present in Oregon waters and as set out in OAR 340-041-0034.

To ensure that the 2300A NPDES General Permit protects beneficial uses from pesticides, NWEA petitions the Commission to adopt the following requirements as new rule OAR 340-041-0033(9)(Toxic Substances):

OAR 340-041-0033(9)(Toxic Substances) To provide support to all designated and existing beneficial uses, no authorization to discharge pesticides into waters of the state will be granted pursuant to an NPDES permit without an applicant’s first having completed a Department-approved survey of fish, amphibians, and aquatic-dependent reptiles and the Department’s having made findings that no

federally-listed threatened, endangered, candidate, or sensitive species or species on Oregon's Sensitive Species List are present or have been present since November 28, 1975.

In order to incorporate into Oregon's water quality standards any RPAs associated with NMFS BiOp Nos. 7 and 8 and any future BiOps issued by the Services concerning the effect of pesticides on Oregon's aquatic and aquatic-dependent species, NWEA petitions the Commission to adopt the following requirements as new rule OAR 340-041-0033(10)(Toxic Substances):

OAR 340-041-0033(10)(Toxic Substances) To provide support to all designated and existing beneficial uses, the Department will propose additions to this division based on any reasonable and prudent alternatives in any biological opinion issued by the National Marine Fisheries Service or the U.S. Fish and Wildlife Service pursuant to the Endangered Species Act that pertain to the effects of pesticides on species present in Oregon within six months of publication of such opinions.

To provide protection for aquatic and aquatic-dependent species including those listed by federal agencies as threatened, endangered, candidate, or sensitive species and species on Oregon's Sensitive Species List, NWEA petitions for a supplement to Oregon's antidegradation policy that incorporates the default pesticide buffers used by the federal district court in *Washington Toxics*,¹⁷⁴ as new rule OAR 340-041-0004(11)(Antidegradation Policy):

OAR 340-041-0004(11)(Antidegradation Policy) Except as provided in OAR 340-041-0004(10), to provide support for all existing beneficial uses and to implement the policies set out in ORS 496.012 to prevent the serious depletion of aquatic-dependent species indigenous to Oregon, no pesticides may be applied on the ground within 60 feet or applied aerially within 300 feet of any water body of the state.

To ensure that the RPAs are explicitly set out in Oregon water quality standards such that they apply to all other agencies that regulate activities that affect water quality within the state and to pesticide applications within the state, and to ensure that the RPAs are readily available to pesticide applicators, NWEA petitions for new rule new rule OAR 340-041-0034(Pesticides) that establishes those RPAs as water quality standards and implementation methods. Where, in lieu of RPAs established as restrictions, the National Marine Fisheries Service established performance-based requirements to allow EPA to establish a suite of risk reduction measures for certain pesticides, and because EPA has failed to establish those measures, the rule language below adopts the default buffers used by the federal court in *Washington Toxics*¹⁷⁵ and allows for use of any future EPA-promulgated measures as well as for the Department to consult with NMFS to establish its own measures consistent with the RPAs of the relevant BiOps.

OAR 340-041-0034(Pesticides) (1) Salmonid habitats for the purpose of this section are defined as freshwaters, estuarine habitats, and nearshore marine

¹⁷⁴ EPA, *Availability of Court Orders in Washington Toxics Coalition v. EPA Litigation*, <http://www.epa.gov/fedrgstr/EPA-PEST/2004/February/Day-17/p3364.htm> (last accessed August 2, 2012), *citing* 69 Fed. Reg. 7478 (Feb. 17, 2004).

¹⁷⁵ *Id.*

habitats including bays within the ranges of threatened and endangered species including migratory corridors. The 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.

(2) For the pesticides chlorpyrifos, diazinon, and malathion, the following restrictions apply:

(a) Apply the following no-application buffers:

(A) Where ground applications are permitted, do not apply pesticide products within 500 feet of salmonid habitats.

(B) Where aerial applications are permitted, do not apply pesticide products within 1,000 feet of salmonid habitats.

(b) Do not apply when wind speeds are greater than or equal to 10 mph as measured using an anemometer immediately prior to application. When applying pesticide products, commence applications on the side nearest the aquatic habitat and proceed away from the aquatic habitat.

(c) For agricultural uses, provide a 20 feet minimum strip of non-crop vegetation (on which no pesticides shall be applied) on the downhill side of the application site immediately adjacent to any surface waters that have a connection to salmonid-bearing waters. This includes drainage systems that have salmonid exclusion devices, but drain to salmonid-bearing waters.

(d) Do not apply pesticide products when soil moisture is at field capacity, or when a storm event likely to produce runoff from the treated area is forecasted by the National Weather Service to occur within 48 hours following application.

(e) Report all incidents of fish mortality that occur within four days of application and within the vicinity of the treatment area to EPA Office of Pesticide Programs (703-305-7695).

(3) For the pesticides carbaryl, carbofuran, and methomyl the following restrictions apply:

(a) Do not apply pesticide products within specified buffers of salmonid habitats (See Table A). Buffers only apply to those salmonid habitats where NMFS concluded jeopardy or the destruction or adverse modification of designated critical habitat for listed Pacific salmonids present in Oregon waters. Buffers also only apply when water exists in the stream or habitat and shall be measured from the water's edge of salmonid habitat, including off-channel habitat, to the point of deposition (below spray nozzle).

(b) Do not apply when wind speeds are greater than or equal to 10 mph as measured using an anemometer immediately prior to application. Because wind conditions may change during application of pesticide products, commence applications on the side nearest the aquatic habitat and proceed away from the aquatic habitat.

(c) For all uses, do not apply pesticide products when soil moisture is at field capacity, or when a storm event likely to produce runoff from the treated area is forecasted by NOAA/NWS (National Weather Service), to occur within 48 hours following application.

(d) Report all incidents of fish mortality that occur within four days of application and within the vicinity of the treatment area to EPA OPP (703-305-7695).

(4) For the pesticides methidathion, naled, phorate, and phosmet the following restrictions apply:

- (a) Follow the restrictions in 2(a) and (c) of this section or apply risk reduction measures to meet the requirements of the biological opinion for these pesticides:
 - (A) If such measures have been established by the U.S. Environmental Protection Agency and approved by the National Marine Fisheries Service, or
 - (B) If such measures have been established by the Department, in consultation with and approval from the National Marine Fisheries Services, consistent with the terms of the biological opinion for these pesticides.
- (b) Do not apply when wind speeds are greater than or equal to 10 mph.
- (c) For all uses do not apply pesticide products when soil moisture is at field capacity, or when a storm event likely to produce runoff from the treated area is forecasted by to occur within 48 hours following application by NOAA/NWS (National Weather Service) or other similar forecasting service.
- (d) Report all incidents of fish mortality that occur within the vicinity of the treatment area, including areas downstream and downwind, in the four days following application of and of these active ingredients to EPA OPP (703-305-7695).
- (5) For the pesticides 2,4-D, diuron, and chlorothalonil the following restrictions apply:
 - (a) Broadcast spray applications of pesticide products containing 2,4-D, diuron, and chlorothalonil shall only be broadcast applied when there is minimal potential for drift to listed salmonid-bearing waters. Do not apply when wind speeds are below 2 mph or exceed 10 mph, except when winds in excess of 10 mph will carry drift away from salmonid-bearing waters.
 - (b) Do not apply pesticide products containing 2,4-D, diuron, or chlorothalonil when soil is saturated, or when a precipitation event, likely to produce direct runoff to salmonid bearing waters from the treated area, is forecasted by NOAA/NWS (National Weather Service) or other similar forecasting service within 48 hours following application.
 - (c) 2,4-D BEE specific requirements: Do not apply pesticide products containing 2,4-D butoxyethyl ester directly to any surface waters accessible to listed salmonids.
 - (d) 2,4-D specific requirements designed to protect native riparian vegetation and designated critical habitat, applicable for species listed in Table B:
 - (A) Do not apply 2,4-D directly to native riparian vegetation except as part of a native riparian vegetation restoration project. Control of invasive plants within the riparian habitat shall be by individual plant treatments for woody species, and spot treatment of less than 1/10 acre for herbaceous species.
 - (B) Apply the following no-application buffers:
 - (i) Where ground applications are permitted, do not apply within 60 feet of salmonid habitats,
 - (ii) Where aerial applications are permitted, do not apply pesticide products within 300 feet of salmonid habitats, or:
 - (iii) Use risk reduction measures to meet the requirements of the biological opinion for these pesticides if such measures are established by the U.S. Environmental Protection Agency and approved by the National Marine Fisheries Service, or
 - (iv) The Department, in consultation with and approval from the National Marine Fisheries Services, establishes such risk reduction measures consistent with the terms of the biological opinion for these pesticides.
 - (e) Diuron-specific requirements within areas designated critical as habitat for the threatened and endangered species in Table B.

- (A) Do not apply diuron directly to native riparian vegetation.
- (B) Do not apply diuron to intermittently flooded low lying sites, marshes, swamps, and bogs that may be seasonally connected to habitats that contain listed salmonids.
- (C) Apply the following no-application buffers:
 - (i) Where ground applications are permitted, do not apply within 60 feet of salmonid habitats,
 - (ii) Where aerial applications are permitted, do not apply pesticide products within 300 feet of salmonid habitats, or:
 - (iii) Use risk reduction measures to meet the requirements of the biological opinion for these pesticides if such measures are established by the U.S. Environmental Protection Agency and approved by the National Marine Fisheries Service, or
 - (iv) The Department, in consultation with and approval from the National Marine Fisheries Services, establishes such risk reduction measures consistent with the terms of the biological opinion for these pesticides.
- (f) Chlorothalonil-specific requirements within areas designated as critical habitat for the specified for the threatened and endangered species in Table B.
- (A) Apply the following no-application buffers:
 - (i) Where ground applications are permitted, do not apply within 60 feet of salmonid habitats,
 - (ii) Where aerial applications are permitted, do not apply pesticide products within 300 feet of salmonid habitats, or:
 - (iii) Use risk reduction measures to meet the requirements of the biological opinion for these pesticides if such measures are established by the U.S. Environmental Protection Agency and approved by the National Marine Fisheries Service, or
 - (iv) The Department, in consultation with and approval from the National Marine Fisheries Services, establishes such risk reduction measures consistent with the terms of the biological opinion for these pesticides.
- (B) Application to conifers will be limited to the following uses: conifer nursery beds; Christmas tree and bough production plantations; tree seed orchards; and landscape situations (ornamental or specimen trees in a residential or commercial landscape).
- (g) Report all incidents of fish mortality that occur within the vicinity of the treatment area, including areas downstream and downwind, and in the four days following application of these active ingredients to EPA's Office of Pesticide Programs.
- (6) For the pesticides oryzalin, pendimethalin, and trifluralin the following restrictions apply as required by Table B:
 - (a) Concentrations of active ingredients in salmon-bearing waters shall at no time exceed the following thresholds: oryzalin 10 µg/L, pendimethalin 1 µg/L, trifluralin 1 µg/L.
 - (A) Pesticide products containing pendimethalin or trifluralin shall not be applied aerially within 300 feet of salmon-bearing waters. This restriction does not apply to granular products, for which an applicator must control any off-target deposition of granular product to ensure it does not enter salmon-bearing waters.
 - (B) Pesticide products containing oryzalin or pendimethalin shall be watered in or soil incorporated when applied to the ground within 300 feet of salmon-bearing waters. Application of these products in anticipation of rainfall meets the

watering-in requirement. This element does not apply to trifluralin, as existing labels already require watering-in or soil incorporation of trifluralin.
(C) Either a 10 foot vegetated filter strip which cannot be treated with these active ingredients or a 20 foot no-treatment zone shall be maintained between salmon-bearing waters and use sites where oryzalin, pendimethalin, or trifluralin are applied. This restriction applies to ground applications.
(b) All incidents of fish mortality occurring within the vicinity of the treatment area in the four days following application of any pesticide products containing oryzalin, pendimethalin or trifluralin, shall be reported to EPA's Office of Pesticide Programs. "Vicinity" includes areas within one mile adjacent to, downwind of, or downstream of the application area which might reasonably be affected by the application.

Tables A and B for OAR 340-041-0034 are set out in Appendix J. Appendix K includes Other Persons Known to the Petitioner to be Interested in the Rule.

XI. Conclusion

Protection of fish, aquatic life and wildlife are paramount interests of the State of Oregon and key beneficial uses to be protected under the federal Clean Water Act. Pesticides are poisonous to aquatic life and wildlife. Because of known adverse effects of pesticides, since 1989 the USF&WS has established mandatory restrictions on certain pesticides in certain areas, since 2004 a federal court order has similarly restricted specified pesticides, since 2008 NMFS has established mandatory restrictions on a subset of those pesticides, and in 2011 NMFS established restrictions on discharges of pesticides into waters on Indian country in Oregon. Despite the scientific analysis underlying these restrictions and the existence of these mitigation measures established by the federal fish and wildlife agencies, neither EPA nor the State of Oregon has taken steps to incorporate those measures into water quality protection programs.

The Services are not regulatory agencies. They depend upon EPA and the States to incorporate their mandatory restrictions into regulatory programs and regulatory actions to ensure protection of designated and existing uses, including but not limited to threatened and endangered species. In taking action the Commission does not need to develop the expertise that is housed at these preeminent fish and wildlife agencies. The Commission need only adopt the analysis and mitigation measures that these federal agencies have already established, bringing them into Oregon's Clean Water Act regulatory programs to provide the protections promised by that federal law.



Nina Bell, Executive Director
Northwest Environmental Advocates
P.O. Box 12187
Portland, OR 97212

Signed this day, the 9th day of August, 2012.

State of Oregon

Department of Environmental Quality

Memorandum

Presiding Officer's Report

Date: Sept. 17, 2012

To: Environmental Quality Commission

From: Beth Moore

Subject: Presiding Officer's Report for Rulemaking Hearing
Title of proposal: Northwest Environmental Advocates petition to the
Environmental Quality Commission to initiate rulemaking
related to pesticides
Hearing date and time: Sept. 12, 2012, 4:30 p.m.
Hearing location: DEQ headquarters, Room EQC-A, 811 SW 6th Ave., Portland

DEQ convened the hearing at approximately 4:30 p.m. with Beth Moore as the presiding officer. Following introductory remarks, the hearing began at 4:43 p.m. and adjourned at 5:33 p.m.

Twenty-two people attended the hearing; 14 people provided oral comment. DEQ staff asked participants to submit registration forms if they wanted to present comments and informed them that the information session and hearing were being recorded. Before taking comments, Moore introduced Debra Sturdevant from DEQ who briefly explained the petition.

The following is a short list summarizing written and oral comments received at the hearing. A list of people who provided oral comment is provided below. DEQ will also prepare a more detailed Summary of Comments that will include all comments received during the comment period.

Of the 14 people who provided comments, 13 people urged rejection of the petition and one person supported granting the petition.

Reasons cited for rejecting the petition include:

- Negative economic impact to farms
- Elimination of farms
- Compensation needed for impacted farms
- Impact to quality of farm goods and ability to export
- Negative economic impact to the state economy
- Salmon are not impacted

- Science behind the Biological Opinions is flawed
- National Academy of Science is reviewing science
- Premature to act before EPA
- Legal issues are not final

Reasons cited for granting the petition

- Pesticides adversely affect salmonids
- Science is valid
- Science is from national scientific agencies
- Federal government has failed
- Opportunity for Oregon to be a national leader

After oral comments were received, Moore reminded participants that written comments are due on Sept. 18, 2012. DEQ adjourned the hearing at 5:33p.m.

Provided oral comment at the Sept. 12, 2012, hearing	
Name	Representing
Chuck Thomsen	Oregon State Senate and Mi- Columbia growers and shippers
Bill Brewer	Oregon Potato Commission
Sam Smith	-
Blake Rowe	Oregon Wheat Growers League
Tyson Raymond	Oregon Wheat Growers League
Josh Vincent	Northwest Center for Alternatives to Pesticides
Tom Hammer	Tom Hammer Farms
Roger Beyer	Oregon Seed Council, Oregon Small Woodland Association and Oregon Blueberry Commission
Marie Bowers	Bashaw Land and Seed, Inc.
Eric Bowers	Bashaw Land and Seed, Inc.
Eric Geyer	Oregonians for Food and Shelter
Walter Powell	Lewis and Lee Land Inc.
Jim Welsh	Oregon Cattlemen's Association
Katie Fast	Oregon Farm Bureau

Summary of public comment on NWEA's petition to the EQC to initiate rulemaking to regulate pesticides in Oregon

DEQ held a public comment period Aug. 28, 2012, through Sept. 18, 2012, and held one public hearing Sept. 12, 2012. DEQ received comments from about 100 people and organizations, including 14 people who testified at the public hearing. These comments are summarized in this document. Please see the Presiding Officer's report in attachment B for the 14 comments received at the Sept. 12, 2012, hearing.

DEQ received comments urging denial of the petition, in support of granting the petition, related to the request to re-open a specific permit for reevaluation and on the request that EQC petition the Department of Agriculture and the Board of Forestry to adopt rules. These four types of comments are reflected below in summary format. The full text of all comments received is available upon request.

1. Comments urging denial of the petition

I. The proposed regulations will harm the ability to farm; will cause economic hardship for farmers and others.

1. The regulations will hurt Oregon farmers, employees, landlords and customers.
2. The proposed rules would devastate Oregon's economy and severely limit its ability to protect public health and control invasive species.
3. There are innumerable waterways in western Oregon. The wide buffers will make it difficult for many agriculture folks to operate.
4. The buffers would put me out of business.
5. There are no viable means to grow cranberries without the use of commercial chemicals.
6. Buffers of this size can completely remove the use of some crop protection tools for many operations.
7. This would cripple our industry (Hood River Valley fruit growers). It would be a 'taking' of major proportions. The buffers would eliminate almost one-third to one-half of our production acreage.
8. There was no analysis of impacts to the agricultural economy. If growers can't control pests on large swaths of land, yields and quality will suffer, forcing production to move out of state or offshore with no corresponding improvement in water quality or species protection.
9. My multi-generation family farm produces vegetables for food processing, onions, wheat and grass seed. We produce wholesome tasty food, provide jobs and income to land owners, and we care for and respect the environment.

- a. In Western Oregon, you can't get far from a stream. 1000 ft buffers would prevent the use of pesticides on over half of some of our fields.
 - b. Customers won't accept vegetables with insect damage; landlords won't accept uncontrolled weeds.
 - c. Some of the pesticides listed are critical to cauliflower production and also needed for beans, corn, onions and grass seed.
10. The rules would set Oregon apart from all other state and place Oregon's producers at a competitive disadvantage. Keep Oregon agriculture on a level playing field with other states.
 11. The only consequences certain to result from adopting the proposed rules would be the imposition of additional administrative burdens on DEQ and wholesale damage to Oregon's economy, health and environment.
 12. The establishment of up to 1000 foot buffer zones would be a complete economic disaster to the Oregon potato industry and general farming community. Entire farms could be eliminated from being able to grow a crop because of a pest pressure in the portion of the field within the buffer zone.
 13. The rules would impact crop exports. Fifty percent of Oregon's potatoes are exported. The export of fresh potatoes to Korea was barred in August due to a virus spread by a pest; other countries are watching. The only known control at this time is chemical. The potato industry is spending millions of dollars on research to develop an alternative. But in the meantime, this market will be lost if potato growers cannot control this pest.
 14. There would be dire consequences to the wheat economy. Pests affect not only the volume of wheat a grower can produce, but also the quality, which determines whether it can be sold in a certain market.
 15. The economic impacts go beyond the grower and weigh heavily on the state. It's not just a rural problem. Wheat is Portland's number one bulk export. This could also affect food prices and other crops: Christmas trees, grass seed, nursery stock, flowers, oil seed crops and others.
 16. The RPA's are not economically or technically feasible for mosquito control and should not be enforced in the state of Oregon.

II. The proposed regulations will harm the ability to manage forest lands; will cause economic hardship.

17. Herbicides are used once or twice in a 50-year forest growth and harvest cycle.
18. Due to burning restrictions, the options for controlling competing vegetation when replanting are limited.
19. Restricting pesticide use could contribute to devastating environmental damage if there is a widespread outbreak of Western Pine Beetle. Large stands of dead or unhealthy forests leads to increased wildfires.

III. The proposed rules are unnecessary; pesticide use is regulated by other laws and agencies.

20. The petition asks the commission to address alleged but unsubstantiated effects from pesticides on species that are fully protected by existing regulatory programs and initiatives.
21. The federal government (EPA) is responsible for regulating pesticide use and has adequate authority. Leave pesticide regulation to the federal agency with the expertise.
22. Adopting the NMFS buffers would step in front of the national agency responsible and place Oregon agencies in contradiction with each other.
23. The petition would fundamentally and negatively change how crop protection products are regulated and used in Oregon.
24. Regulation under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) is clear and robust; it is considered the global gold standard for protection of human health and the environment. The proposed rules would create a mish-mash of confusing and perhaps conflicting use instructions.
25. Pesticides are already heavily regulated, especially any application in or near water.
 - a. Pesticides must be approved for use by EPA and ODA under FIFRA and state law respectively.
 - b. Pesticides may not be used in any manner inconsistent with the pesticide-specific use instructions approved by EPA and ODA.
 - c. Under the federal ESA, pesticide registration is subject to consultation and the use of pesticides is subject to prohibitions on harming or “taking” listed species.
 - d. Application of pesticides to waters of the US must also be authorized by a NPDES permit issue by DEQ under the federal CWA if any residual concentration of pesticide remains after it has performed its intended function. These permits must ensure compliance with Oregon’s water quality standards, which prohibit residual concentrations of pesticides that harm public health and aquatic life, including ESA-listed and other sensitive species.
 - e. Other regulatory and non-regulatory programs described in Oregon’s *Pesticide Management Plan for Water Quality Protection* (May 2011).
26. The proposed rules are unnecessary.
 - a. If EPA incorporates the RPAs into the FIFRA label requirements, all pesticides users will be required to comply with the RPAs.
 - b. DEQ and other agencies in Oregon can under their existing regulatory authority require pesticide users to apply the RPAs or other restrictions to implement Oregon’s existing water quality standards. The proposed rules thus provide no additional authority but would limit the agencies’ discretion and force the use of the RPAs regardless of whether they are necessary and appropriate in a particular instance.
27. The Oregon Legislature has given ODA the primary responsibility for implementing state laws regarding the use of pesticides.

28. The petition does not justify the need for the proposed prohibitions and restrictions. It does not identify any specific harm or threat to at-risk species from pesticide use in Oregon that has not been or cannot be effectively addressed through existing regulatory and non-regulatory programs.
29. Existing regulatory and voluntary programs achieve the substantive goals of the petition in a manner that reduces adverse economic impact.
30. The existing threefold regulatory process, which includes the federal registration, the Oregon Forest Practice Rules and the DEQ NPDES permit, ensures that the proper use of pesticides of forest lands will not harm endangered species.
31. In the forty-five years our company has been in business, we have been involved in many water quality studies and sampling. There has never been a problem with water quality as a result of applications where the pesticide label and laws of the state were followed.

IV. EPA and NMFS are still working to resolve differences, including scientific methods and conclusions. Litigation is pending and a scientific review by the National Academy of Sciences has not yet been completed. It is premature for the state to step in.

32. This is premature.
33. EPA has not incorporated the results of the biological opinions into their regulations.
34. The Services' approaches to evaluating risks to species and habitat is the subject of an extensive scientific evaluation now underway, at the joint request of EPA and the Services, by an expert panel appointed by the National Academy of Sciences. The report is due to be completed in early 2013.
35. Two legal procedures are ongoing that will impact the interpretation and implementation of the biological opinions. Decisions on these cases are anticipated in 2013.
36. Adopting the proposed rules now could get the state involve in legal battles.
37. NMFS biological opinions (Opinions) have serious scientific flaws. EPA expressed concerns with the Opinions, yet NWEA requests that Oregon rely on these Opinions.
38. NMFS has ignored monitoring data.
39. NMFS relied on models and default assumptions that overstate exposure and risk. Therefore the NWEA petition seeks to regulate risks that don't exist.
40. The 1000 foot aerial and 500 feet hand spray buffers are not based on real-world science, but relied on flawed modeling.
41. After the National Academy of Science review is complete, the consultation process should be improved.
42. There is no justification for the state to be out ahead of the EPA/federal process.
43. If EPA adopts pesticide requirements that differ from those in the Opinions, then the FIFRA requirements would be inconsistent with the petition's proposed water quality standards.
44. The procedures followed and standards the Services employ in the development of the biological opinions are significantly different from those applicable to decisions on water quality standards under the Clean Water Act. Thus, neither the Commission nor the

Department of Agriculture or the Board of Forestry can simply incorporate a Services finding or recommendation into a state rule. The state agency must make independent determinations, in accordance with state law and the Clean Water Act, sufficient to support its rules.

V. The proposed rules are not required by federal or state law.

45. The petition is incorrect in arguing that the Coastal Zone Act Reauthorization Amendments (CZARA) and the Endangered Species Act (ESA) require the Commission to adopt the proposed rules.
46. Commenter disagrees with the petition's argument that the Commission must adopt the proposed pesticide rules in order to comply with CZARA.
47. The proposed rules are not water quality standards.
48. The state is not required to adopt methods for applying its narrative criteria as part of its standards rules. Federal regulations say only that:
...the state must provide information identifying the method by which the State intends to regulate point source discharges of toxic pollutants *on water quality limited segments* based on such narrative criteria. Such information may be included as a part of the standards or *may be included in documents generated by the state...* (40CFR 131.11 (a) (2))

VI. The proposed rules may have environmental and public health impacts; they will not achieve significantly increased protections for aquatic life and T&E species in Oregon

49. The need to apply pesticides in and near water extends beyond agriculture. Pesticides are used to control mosquitos and other insects that transmit diseases, such as West Nile virus. And pesticides are essential for protecting and restoring watersheds by eliminating or controlling invasive species, including plants, insects, fish and mollusks
50. The petition includes no consideration for the benefits pesticides provide to at-risk species. Any effort to adopt additional pesticide regulations must consider both their benefits and adverse effects.
51. Existing regulatory programs and initiatives, if properly implemented, will protect at-risk species from the misuse of pesticides.
52. The proposed rules would deliver insignificant or nonexistent environmental benefits.
53. The proposed regulations are unlikely to benefit at-risk species.
54. Sampling by ODA shows existing practices are protection water quality and fish.
55. Oregon agriculture has worked voluntarily for years to enhance salmon habitat voluntarily, through cooperative agreements. (References OPB story on ditch fish along the Willamette River.) These types of rules would most likely cause agriculturists to stop doing voluntary project and only do the minimum necessary. This will hurt fish habitat in the long run.

56. Farmers apply small amounts of chemicals, because it costs money, and use new technologies to apply them, such as anti-drip nozzles, GPS and auto-steer guidance to avoid overlap, and GPS run automatic shutoffs.
57. Mosquito control pesticides applied to protect humans from mosquito-borne disease may also confer protection upon wild and domestic animals at risk from the very same disease. Applications that NMFS states hurt Salmon maybe actually protect other listed species like birds, etc. The Services should coordinate development of Opinion's Reasonable and Prudent Alternatives and Measures to ensure they are internally consistent and not contradictory with Services' goals.
58. The rulemaking requested in the petition would restrict the use of pesticides necessary to protect human and animal health in Oregon. Over one million people worldwide die every year from mosquito-borne diseases. In 2012, nearly two thousand people in the United States have tested positive for West Nile virus. Over half of these people experienced neurological symptoms and 87 of the victims died. Oregon has one confirmed human case, and mosquitoes capable of carrying the virus are continuously monitored and controlled by mosquito control programs. Not only can mosquitoes carry and transmit diseases that afflict humans, they also transmit several diseases and parasites that affect wildlife.
59. The buffer zones would eliminate the tools to protect the land from noxious weeds near water ways in Eastern Oregon.
60. The proposed pesticide restrictions would hurt our farming practices (Christmas trees) with no measurable benefit to water quality and endangered species. Extensive testing has been occurring in our area and so far no chemical residues that are of concern have been found in our area.

VII. The proposed rules are overly broad and restrictive.

61. The petition would in many cases prohibit the application of pesticides in the water or within 60 or 300 feet of most if not all waters of the state, including applications for the protection of public health, the prevention of nuisances and control of invasive species.
62. The proposed rules would prohibit the use of several aquatic pesticide products used by irrigation water providers because neither biological opinions have not yet been prepared for those pesticides.
63. The rules do not make exceptions for pesticides that are harmless to at-risk species or that can be applied in a manner that does not create a substantial risk of harm, including pesticides that EPA has concluded would have no effect on ESA-listed species or that NMFS or the USFWS have determined would not likely cause jeopardy or adversely affect habitat. The proposed rules treat all pesticides as unacceptably harmful.
64. There is a huge difference between chemicals that affect animals and those that affect plants; plant killers with significant toxicity to mammals are no longer in use and need not be regulated apart from their influence on vegetation. Data from over 50 years of study make clear that drift from forest applications seldom influences vegetation that is more than 50 feet

from an aerial application. Reports by Dr. Logan A. Norris and myself (Dr. Michael Newton) starting in the mid-1960s make clear that streams employing the current Oregon Department of Forestry buffer widths seldom show more than one part per billion of phenoxy herbicides, the materials with highest application rates, in water, and that concentration decreases to non-detectable within a day, or 1000 meters downstream. Moreover, even these products, having as they do the smallest safety margins of herbicides, have margins of safety in the tens of thousands. There is zero incentive to widen ODF's buffer rules, either for phenoxy or for other registered herbicides used in forests.

65. To the extent that a specific pesticide application would result in residues that harm ESA-listed or other at-risk species, it should be addressed through conditions of the applicable NPDES permit, not through the adoption of a blanket prohibition on the discharge of all pesticides to any water of the state where these species are or were present.
66. We need better funding to do research rather than rely on flawed models.
67. Lack of baseline data is part of our problem.
68. The American Mosquito Control Association strongly supports both the Commission's charter to protect threatened and endangered species from adverse environmental impacts from pesticide use and DEQ's regulatory efforts to help achieve that noble goal. Nonetheless, we also believe that decisions that can profoundly affect the health and well-being of humans and wildlife be made upon the best available evidence and the prudence to enact them in a sustainable manner for all concerned. The current RPA's proposed in the petition do not balance these two critical components of a sustainable environment.
69. In this day and age let's not give in to emotional thinking, but rely on science and facts and continue feeding the hungry in a safe manner.
70. The petition is much too broad and doesn't take into consideration of the golf course industry, which utilizes sound BMP's and follows an IPM program that has been reviewed by the DEQ and the ODA.

VIII. Agency resource issues

71. DEQ lacks the resources to adopt rules each time the services adopt or revise RPAs. In addition, each time DEQ revises water quality standards, they must be submitted to EPA for approval and EPA in turn must consult with NMFS and USFWS. Each step in this process is subject to judicial review.
72. DEQ lacks the resources to implement the proposed rules.

IX. Procedural issues

73. There are procedural deficiencies with the petition and the Commission should deny the request for rulemaking due to a failure to meet procedural requirements.
 - a. OAR 340-011-0046 provides that the filing of petitions for rulemaking and action by the EQC be in accordance with procedures in OAR 137-001-0070.

- b. Some of the suggested rules are amendments and the petition fails to meet the requirements of -0070(2) for proposed rule amendments.
 - c. These omissions are grounds to deny the petition.
 - d. There is no authority in 340-011-0046 for a special interest group to seek the following EQC actions in a petition for rulemaking: to direct DEQ to reopen NPDES permits and the request that the EQC petition the Department of Agriculture and the Board of Forestry to adopt or revise their rules.
74. There was no analysis of impacts to the agricultural economy.
75. The petition does not provide all the required information for the EQC to consider this petition.
76. The public comment period is inadequate and does not offer time to develop comprehensive comments.

2. Comments in support of granting the petition

I. Statements of support

1. The petition provides Oregon the opportunity to be a national leader in protecting our waters. Whereas the federal government has stagnated and failed, Oregon can move forward with meaningful protections.
2. I'm a farmer and forestland owner who has been involved in human, forestry and fisheries health issues for years. I urge the OEQC to grant the petition of Northwest Environmental Advocates to incorporate the restrictions on pesticides established by the National Marine Fisheries Service (NMFS) for the protection of salmon and steelhead into Oregon's water quality standards.
3. The Department of Environmental Quality has an obligation to protect the people of the State of Oregon as well as its precious aquatic resources.
4. It is past time to recognize our mistake of being too hasty in our use of chemicals to control pests. There are natural ways to balance and deal with so called pests that do not compromise our health and the health of the water and the fish that live in it.
5. We are farmers that grow organically and the purity and cleanliness of our crops (not to mention our personal health) are annually threatened by neighboring farms that aerial spray some or all of the various petrochemicals at issue. Frankly, we'd like to see chemical aerial spraying banned altogether as well as ground application. The very idea of buffers is illusory.
6. These chemicals do not pollute in isolation of other pollutants and no one seems to be considering the collective and accumulative effect of continued agro-chemical use. We applaud whatever steps EQC can take to curtail or restrict this activity.
7. Wild salmon is a valuable food source. Oregon is famous for salmon, as well as leadership in environmental concerns. Let's not destroy fishermen's jobs by losing our wild salmon.
8. Oregon's watershed councils are volunteer organizations dedicated to restoring salmon runs to nearer their historic levels by improving habitat. We have made great strides by replacing culverts that block juvenile fish passage, getting tens of thousands of native trees and shrubs planted along streams and rivers to provide shade and filters, and so on. It pains me to see our efforts severely compromised by all the pesticides and herbicides that end up in our waterways.

II. Pesticides harm aquatic life; the science is adequate.

9. Between September 1989 and July 2012, NMFS and FWS (collectively "the Services") prepared seven Biological Opinions (Opinions) exploring the effects of numerous pesticides on various listed fish species. The Services determined that under-regulated pesticide use jeopardizes the survival of several listed species and adversely modifies their critical habitat. The Services proposed protocols for pesticide use and application (reasonable and prudent alternatives, or RPAs) that will help protect listed species and their critical habitat.

10. While EPA and the Services have disagreed on much, they agree that the (pesticides) mentioned in the Opinions adversely affect salmon, pike and steelhead populations in the Northwest. We believe the science is valid. The recommendations are from national scientific agencies, which should have been implemented long ago.
11. NMFS has researched the health issues and made clear the need to restrict these particular pesticide poisons to protect salmon, steelhead and other wildlife, because these poisons are demonstrated to be harming these creatures even when they are applied according to label instructions.
12. I have done testing for pesticides and know they make their way into public waters. Given the scientific uncertainty regarding the impact of these chemicals on human health, together with the certainty that these substances harm endangered species, it should be an easy decision to move forward with the petition.
13. Pesticides are poisons that affect people, fish, and wildlife. Many pesticides are endocrine disruptors which have effects on people and wildlife such as: birth defects, cancer, learning disabilities, masculinization of females, feminization of males, deformation of reproductive organs, reduced fertility, and altered thyroid functions. For example, the Atrazine sprayed on Oregon forests is known to chemically castrate male frogs and turn 10 percent of them into females. NWEA's petition specifically addresses rapidly declining populations of frogs, salamanders, and turtles in Oregon.
14. Sandy River and its riparian area are fragile ecosystem.
15. Pesticides impact non-target species. The health of fish depends on the productivity of the entire food web, including insects, primary producers and fungi.
16. More than 50 percent of all stream samples reviewed by USGS contain five or more pesticides. Studies of Oregon's major rivers and streams document that 90 percent of all fish, 100 percent of all streams, 33 percent of major aquifers, and 50 percent of shallow wells contain one or more pesticides at detectable levels (USGS, 2006). Results of the USGS National Water-Quality Assessment (NAWQA) studies, from 1992-2001, show that pesticides are widespread in streams and groundwater throughout the country. Not surprisingly, USGS also finds that the most heavily used pesticides are the ones found most often in streams and groundwater.
17. Pesticides in water usually occur in mixtures of several compounds rather than individually. Studies indicate that combinations of pesticides, which are not currently regulated, may exhibit additive or, in some cases, synergistic effects.
18. Research suggests that some pesticides may cause health and environmental effects at levels determined allowable by current standards. Several studies of impacts to reproductive organs, behavior and effects are cited.

III. The proposed rules are necessary to meet requirements of federal law.

19. By sanctioning pesticide applications that cause the take of threatened and endangered species, Oregon agencies are liable for taking listed species in violation of ESA Section 9.

20. The narrative criteria in Oregon's water quality standards are too vague to meaningfully regulate pesticide discharges. Federal law requires that when a state adopts narrative criteria, the state must explain how it will regulate point source discharges of toxics in water quality limited segments based on the narrative criteria. Oregon's narrative criteria pertaining to pesticide discharges includes nice goals, but provides no practical guidance for ensuring that pesticides will not impair beneficial uses of Oregon's waterways.

IV. Pesticides and human health.

21. Commenter has Parkinson's disease, a progressive neurological disorder thought to be linked to exposure to chemicals. Don't know source of exposure, but one wonders how many others are headed down this path due to unregulated pesticide discharges.
22. Restrictions will also protect human health. Concern about growing rates of cancer.
23. The petition is also about the health and safety of people. Pesticides, such as 2,4-D and Atrazine, are widely sprayed by timber companies and are showing up in the urine of Oregonians in the Triangle Lake area near Eugene. Atrazine is banned in the European Union because it causes breast and prostate cancer.

V. Procedural issues

77. NWEA petitioned the Oregon Environmental Quality Commission for new rules, not rule amendments. The petition contains no proposed changes to any existing rules of the Department of Environmental Quality. Perhaps because NWEA has proposed precisely *where* the rule additions should be inserted into the DEQ's current rule structure, DEQ has interpreted all of the proposed new rules in the petition as rule amendments. We strongly disagree with this interpretation and note that presumably if these very same new proposed rules had been submitted without proposed locations they would not have been treated as rule amendments by DEQ. For these reasons, it is NWEA's view that OAR 137-001-0070(2), which pertains to requests for "amendment or repeal of an existing rule," does not apply. Moreover, attempting to comply with the terms of OAR 137-001-0070(2) is a nonsensical exercise because its provisions are not relevant to a proposed rule that makes no changes to the underlying existing rules.
78. Notwithstanding the above comment, NWEA provided information intended to address the requirements of a petition for rule amendment.
79. Pacific Rivers Council provided information intended to meet the requirements of OAR 137-001-0070(2).

3. Comments on the request to re-open the pesticide permit (2300-A)

1. Oregon Water Resources Congress and other agricultural interests urge denial.
2. Directing DEQ to reopen the permit to incorporate the NMFS RPAs would be unwarranted and inappropriate.

3. It is also inappropriate for DEQ to incorporate the RPAs into any other individual or general NPDES permit issued to authorize the discharge of pesticide residuals.
4. There is current litigation by different parties seeking different results related to the NMFS reasonable and prudent alternatives.
5. If EPA incorporates the RPAs into its pesticide registrations, pesticide users will be required to comply with those under the existing state permit. But if EPA includes different requirements, then a state permit that has incorporated the RPAs would be inconsistent with the FIFRA requirements.
6. Each time there is a new or revised biological opinion, DEQ would need to reopen and modify the general permit, creating potential inconsistencies and a large staff resource expenditure.
7. DEQ provided extensive opportunity for comment on the permit.
8. The petition presents no evidence of any specific instance in which a pesticide application authorized by and consistent with the requirement of the permit harmed an ESA listed or other sensitive species.
9. Oregon should re-open and revise the NPDES 2300A pesticides general permit, and any individual permits regulating pesticides that use similar language. The 2300A permit fails to include clear limits on pesticide discharges. The only 'restriction' in the 2300A permit is that discharges "must not cause or contribute to the violation of water quality standards." In practice, DEQ is hard pressed to determine what this 'limit' actually means or when it is being exceeded.

4. Comments on the request that EQC petition the Department of Agriculture and the Board of Forestry to adopt rules

1. A petition from the EQC to ODA to adopt rules must allege with reasonable specificity that the existing rules are not adequate to achieve compliance with applicable state and federal water quality standards.
2. The petition does not identify any specific instance or waterbody in which current Oregon agricultural uses of pesticides are harming listed or at-risk aquatic species or otherwise violating water quality standards because the FIFRA pesticide use restrictions and ODA's existing rules are inadequate to prevent that harm.
3. The petition does not provide required information; therefore, there is no legal basis for the requested petition to the Board of Forestry to adopt rules. State statute requires that a water quality rulemaking petition to the Board of Forestry "must allege with reasonable specificity that nonpoint source discharges of pollutants resulting from forest operations being conducted in accordance with best management practices are a significant contributor to violations of such standards."
4. To deal comprehensively with the threats that pesticides pose to listed species, Oregon agencies including the Oregon Department of Agriculture (ODA) and Oregon Department of Forestry (ODF) must also revise their regulations and practices.



State of Oregon
Department of
Environmental
Quality

Evaluation of a Petition to Initiate Rulemaking and Take Actions Related to Pesticide Use in Oregon

By: Debra Sturdevant, et al
Date: Oct. 11, 2012



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Chapter 1

Introduction

On Aug. 9, 2012, Northwest Environmental Advocates submitted a petition to the Oregon Environmental Quality Commission requesting that the commission initiate rulemaking and take other actions to protect existing and designated uses of fish and wildlife from pesticides in Oregon.

This report summarizes the petition requests, the process the Department of Environmental Quality used to evaluate the petition, and DEQ's analysis and recommendations.

The Process to Evaluate and Respond to the Petition

The rules of the commission (OAR 340-011-0046) and the Attorney General (OAR 137-001-0070) provide the authority for an interested person to petition the commission to adopt, amend or repeal rules and the administrative procedure the petitioner must follow to submit such a petition. These rules also state the procedures for the commission or DEQ on its behalf, to respond to the petition. These rules are provided in full in Appendix 1.

A petition to initiate rulemaking must include the following information:

- a) The proposed rule language;
- b) Facts or arguments in sufficient detail to show the reasons for and effects of adoption, amendment, or repeal of the rule; and
- c) All propositions of law to be asserted by petitioner.

A petition requesting the amendment or repeal of an existing rule must also contain comment on:

- a) Options for achieving the existing rule's substantive goals while reducing the negative economic impact on businesses;
- b) The continued need for the existing rule;
- c) The complexity of the existing rule;
- d) The extent to which the existing rule overlaps, duplicates, or conflicts with other state or federal rules and with local government regulations; and
- e) The degree to which technology, economic conditions, or other factors have changed in the subject area affected by the existing rule, since the agency adopted the rule.

If a petition requests the amendment or repeal of a rule, before denying a petition, the commission must invite public comment upon the rule. The commission must respond in writing within 90 days after receipt of the petition to either deny the petition or initiate rulemaking proceedings. The commission may:

1. Grant the petition and begin a formal rulemaking process. Although the commission must commence rulemaking based on the rules proposed in the petition, it may ultimately decide not to adopt the rules or to adopt rule language that has been amended in response to public comment.
2. Deny the petition and take no further action.
3. Deny the petition and direct DEQ to take other action related to pesticide protection measures.

The above rules are not applicable to requests that may be made of the commission other than a petition to initiate rulemaking. As a result, the commission is not required to seek public comment or to take formal action to respond to the petitioner's additional requests that DEQ amend the 2300A general permit and any individual NPDES permits that authorize the discharge of pesticide residue or the request that the Commission petition the Department of Agriculture and the Board of Forestry to adopt pesticide use regulations.

DEQ sought public comment on behalf of the commission from Aug. 28 to Sept. 18, 2012. DEQ held a public hearing Sept. 12, 2012. All comments received and a summary of the comments will be provided to the commission.

DEQ evaluated the rulemaking petition requests, considered the public comment and will present recommendations to the commission at its meeting on Oct. 25, 2012, in Bend, Oregon.

Summary of the petition

The petition requests that the Environmental Quality Commission take the following actions:

1. Initiate rulemaking to adopt pesticide use regulations into Oregon's water quality standards rules.
2. Direct DEQ to amend the 2300A General Permit and any individual NPDES permits that authorize the discharge of the listed pesticides in, over or near the water to include additional requirements.
3. Petition the Oregon Department of Agriculture to adopt the proposed pesticide use regulations and to consider prohibiting the sale or use of certain pesticides in the state.
4. Petition the Department of Forestry to amend its rules to incorporate proposed pesticide use regulations.

Each of these petition requests is summarized briefly in this chapter and discussed in more detail in Chapter 4.

On the first request, NWEA proposes that DEQ initiate rulemaking to revise Oregon's water quality standards rules as follows:

1. Amend the antidegradation policy in OAR 340-041-0004 to add provisions: a) requiring that the use of pesticides conform to the reasonable and prudent alternative measures (RPAs) set out in Biological Opinions published by the National Marine Fisheries Service and the U.S. Fish and Wildlife Service, and b) prohibiting the application of any pesticides within 60 feet (ground application) or 300 feet (aerial application) of any waterbody;
2. Amend the water quality standards for toxic substances in OAR 340-041-0033 to add provisions requiring that: a) the use of pesticides conform to RPAs in published Biological Opinions, b) DEQ adopt the RPAs from any future Opinions within 6 months, and c) permittees conduct biological surveys before they may be covered by an NPDES permit; and
3. Adopt a new rule in OAR 340-041 that regulates the use of specified pesticides.

NWEA states that the objectives for the proposed rules are to fully protect beneficial uses of the state's waters by protecting fish, aquatic life and wildlife from potential harm from current use pesticides. Because there are no numeric water quality criteria for most of these chemicals, NWEA's petition proposes that DEQ adopt pesticide use restrictions into Oregon's water quality standards. The petition proposes that the pesticide use restrictions serve as implementation methods for Oregon's narrative criteria for toxic substances.

The pesticide use restrictions proposed by NWEA include the Reasonable and Prudent Alternatives, or RPAs, recommended in Biological Opinions developed by the National Marine Fisheries Service and U.S. Fish and Wildlife Service. The Services prepared these Opinions during Endangered Species Act consultation with the Environmental Protection Agency on its pesticide registrations and product label requirements promulgated under the Federal Insecticide Fungicide and Rodenticide Act. The RPAs were recommended by the Services to reduce risk to endangered and threatened species.

The petition also requests three actions that do not pertain to rulemaking. First, NWEA requests that the commission direct DEQ to immediately re-open and revise the 2300A General Pesticide Permit and any individual permits authorizing the discharge of pesticide residue. The petitioner requests that the permits require the pesticide applicator follow the RPAs set out in the Biological Opinions on the pesticide registrations and on EPA's general pesticide permit.

Second, NWEA requests that the commission petition the Oregon Department of Agriculture pursuant to OAR 340-041-0061(11) to adopt the RPAs into ODA's Agricultural Water Quality Management Area Rules, prohibit the sale or use of the listed pesticides in the state, and/or add restrictions at the point of sale, through state regulation or through state notification procedures for the listed pesticides.

Third, NWEA requests that the commission petition the Board of Forestry pursuant to ORS § 183.390 and ORS § 527.765(3) to adopt changes to the Board's rule on the use of pesticides on forest land at OAR 629-620-0000(5) to incorporate the RPAs and more broadly add the statement that forest operations are subject to "restrictions established by federal agencies to protect threatened and endangered species."

Finally, NWEA suggests that the requested actions are necessary in order for EPA to approve Oregon's Coastal Nonpoint Source Pollution Control Program. Without such approval, the state can lose federal nonpoint source program funding.

Chapter 2

Background Information

Statutory Background

Because several federal statutes are referred to in the NWEA petition and in this report, a brief description of each as it pertains to petition is provided here for background information.

Clean Water Act

DEQ and the commission have the primary responsibility to implement the Clean Water Act for the state of Oregon. The Clean Water Act requires or authorizes the state to adopt water quality standards that protect designated beneficial uses of the states waters, regulate the discharge of pollutants (wastes) into waters of the state through a permitting program, develop Total Maximum Daily Loads that lead to attainment of water quality standards, certify that federal permits and licenses will meet water quality standards, and oversee the nonpoint source grant funding program. EPA oversees state Clean Water Act programs for compliance with federal requirements and issues guidance and scientific information for use in state programs.

Endangered Species Act

The Endangered Species Act requires that EPA consult with the Services on federal actions that may affect threatened or endangered species. Some EPA actions that may require consultation include approval of the state's water quality standards, promulgation of water quality standards by EPA, pesticide registration and label requirements issued by EPA and the EPA general permit for pesticides when applicable to states that are not authorized to issue such permits. Where the Services conclude that a proposed federal action will jeopardize the continued existence of a threatened or endangered species, they must identify Reasonable and Prudent Alternatives to the action. The RPAs referred to repeatedly in this document were recommended by the National Marine Fisheries Services in five Biological Opinions released since 2008 and by the U.S. Fish and Wildlife Service in a 1989 Opinion on EPA pesticide registrations.

Federal Insecticide Fungicide and Rodenticide Act

The Federal Insecticide Fungicide and Rodenticide Act is the primary federal statute that regulates pesticides. FIFRA requires EPA to register pesticides prior to a pesticide product entering the marketplace. The registration process includes the submission of information and data on potential ecological and human health risks posed by the pesticide ingredients in the products. This information provides EPA with the basis for pesticide use and management requirements, including environmental protection measures, that are included on the pesticide product label. The product label requirements are legally enforceable.

Coastal Zone Act Reauthorization Amendments

In order to continue to receive certain types of federal funding, the Coastal Zone Act Reauthorization Amendments, or Coastal Zone Management Act, requires coastal states to prepare a Coastal Nonpoint Source Pollution Control Program to restore and protect coastal waters from nonpoint source pollution. EPA and the National Oceanic and Atmospheric Administration administer the program. Based on guidance published by EPA, the state's program must address 56 management measures separated into six areas: agricultural activities, forestry activities, urban areas, marinas, hydro-modification activities and protecting wetlands.

Several of these management measures contain elements requiring Oregon to address pesticide management.

In Oregon, DEQ and the Department of Land Conservation and Development have worked together to develop the state's program. Oregon has received interim approval on all but three management measures. Under the current schedule DEQ and DLCD will submit the remaining three management measures to NOAA and EPA in 2013.

Water Quality Standards and Current Use Pesticides

Oregon's water quality standards include numeric and narrative water quality criteria to protect aquatic life and other beneficial uses of the state's waters. The numeric water quality criteria for toxic substances, such as pesticides, are based upon EPA's analysis of scientific information and subsequent recommended values. Oregon relies on EPA to develop recommended toxics criteria due to the resources required to develop and evaluate the necessary scientific information. One reason EPA has not developed criteria for more pesticides is that the required data is not available. As a result, there are many current use pesticides for which Oregon has not adopted numeric criteria.

Oregon has a narrative criterion for toxic substances that can be used to regulate discharges containing pesticides and other toxic pollutants. Currently, DEQ implements the narrative toxics criterion by requiring whole effluent toxicity testing for major NPDES permit holders, setting numeric effluent limits for discharges that contribute to or cause water quality criteria to be exceeded and including requirements in NPDES permits that authorize the discharge of pesticide residue in, over or near waters of the state. In addition, DEQ's pesticide permit does not authorize the discharge of pesticide residue to waters that are impaired by the same pesticide.

Regulation of Pesticide Use in Oregon

The Federal Insecticide Fungicide and Rodenticide Act is the primary federal statute that regulates pesticides, as described above. EPA implements FIFRA nationally and the Oregon Department of Agriculture implements FIFRA and the Oregon Pesticide Control Act requirements in the State of Oregon. ODA ensures that pesticide products are properly registered in the state and investigates possible violations of the product labels, including those relating to environmental protection. ODA also requires state agencies responsible for pest control to use integrated pest management, and ODA recently adopted regulations on integrated pest management in schools.

In addition, the Oregon Department of Forestry enforces the State Forest Practices Act, which includes pesticide management requirements. The Oregon Health Authority implements the Safe Drinking Water Act for public water systems, which includes ensuring drinking water systems meet numeric drinking water standards for certain pesticides. The Oregon Department of Fish and Wildlife reviews and approves pesticide use by vector (i.e. mosquito) control authorities in order to protect sensitive habitat areas and species.

Oregon DEQ implements federal Clean Water Act and state statutes and rules that regulate discharges containing pesticides to water. Most recently, DEQ issued a general water quality permit, NPDES 2300A, that regulates the discharge of pesticide residue from a pesticide application in, over or within three feet of water. The permit requirements apply to certain types of pesticide applications that meet the criteria outlined in the permit. See the section in Chapter 4 regarding NPDES permits for additional information.

Oregon's Current Efforts to Reduce the Impact of Pesticides

DEQ has dedicated a full-time water quality staff person to focus on toxics reduction work, including efforts specifically targeting pesticides. This person is the lead staff for developing DEQ's Toxics Reduction Strategy and participates in interagency planning and programs related to toxics reduction. DEQ, the Oregon Departments of Agriculture and Forestry and the Oregon Health Authority formed a team in 2007 to address pesticide water quality issues. One of this team's primary tasks was to develop and implement an interagency Water Quality Pesticide Management Plan to guide statewide and watershed-level actions intended to protect surface and groundwater from potential impacts of current use pesticides. As part of its cooperative funding agreement with the EPA Region 10 Office of Pesticides under the Federal Insecticide, Fungicide, and Rodenticide Act, the Oregon Department of Agriculture obtained EPA Region 10 approval of this plan in 2011.

The Water Quality Pesticide Management Plan emphasizes collaboration among pesticide applicators, government agencies and others to clarify proper pesticide use and to help reduce pesticides in surface and groundwater. The plan also calls on DEQ and others to use their authorities when voluntary efforts to reduce pesticides aren't sufficient to resolve known pesticide problems or achieve water quality protection goals. As described in the sections above, these authorities are used to enforce existing statutory and rule requirements at the individual pesticide user level.

At the broader watershed level, the objectives of the Water Quality Pesticide Management Plan are primarily achieved through pesticide stewardship partnerships in seven Oregon watersheds. These seven watersheds were chosen because of the presence of strong local partner interest as well as land uses, pesticide use patterns and water quality impairments. The pesticide stewardship partnership approach uses water quality monitoring data to focus the collaborative work of multiple local resource agencies and organizations to reduce pesticide use and improve pesticide and pest management practices, and to measure reductions in stream concentrations and detections of pesticides over time. This approach has been effective in achieving significant water quality improvements. The National Marine Fisheries Service, in an April 6, 2012, letter, recognized the efforts in the Walla Walla Basin by DEQ, the Oregon Department of Agriculture, Oregon State University Extension, grower groups and the watershed council for "significant reductions in the use of pesticides and other toxins near steelhead and salmon habitat."

DEQ and the Oregon Department of Agriculture are actively working to enhance and expand the pesticide stewardship partnerships program to include more watersheds and to build on the water quality improvements achieved thus far. DEQ identified the expansion of the program as a high priority for short-term action in DEQ's Toxics Reduction Strategy. DEQ has proposed to increase funding for the pesticide stewardship partnership in its 2013-2015 budget request to the Governor's Office. This funding would support enhanced work in watersheds with existing projects and allow expansion to other Oregon watersheds.

Chapter 3

General Policy Issues and Questions

There are several general or over-arching policy questions and issues that DEQ considered in evaluating the NWEA petition that relate to multiple requests contained in the petition. In Chapter 4, DEQ considers each of the petition requests in more detail.

1. What role should the federal activities and legal proceedings underway involving EPA and the National Marine Fisheries Service have in DEQ's evaluation of the petition?

There are three major activities underway that EPA and the National Marine Fisheries Service are actively engaged in at this time that, upon completion, could substantially alter the pesticide registrations for the pesticides listed in the petition. DEQ evaluated the extent to which it should consider the outcomes of those processes as one important factor in developing its recommendations on the petition.

First, the National Marine Fisheries Service has prepared and continues to prepare Biological Opinions related to EPA's registration of 37 current use pesticides. Six Biological Opinions have been prepared by the National Marine Fisheries Service to date on 28 pesticides. The final Opinion on the remaining pesticides will be completed in early 2013. EPA has not incorporated the RPAs published to date into the relevant registration requirements.

Second, to address scientific differences of opinion between EPA and the National Marine Fisheries Service, these agencies, as well as the U.S. Fish and Wildlife Service and the U.S. Department of Agriculture, have contracted the National Academy of Sciences to review the methods used by EPA and the Services for ecological risk assessment. That review is due to be completed in 2013.

Third, there are the two pending federal court cases challenging different aspects of the ongoing Endangered Species Act consultation on EPA's registration of pesticides. In one case, the plaintiff is seeking to compel EPA to implement the RPAs identified to date, and, in the other case, plaintiffs are challenging the National Marine Fisheries Service on the basis of its risk assessment and associated RPAs. These cases are likely to be decided in 2013.

EPA intends to utilize the National Academy of Sciences report, due in 2013, to develop its approach for addressing the Reasonable and Prudent Alternatives in the recent National Marine Fisheries Service Biological Opinions as well as any future Service Opinions. Service RPAs represent recommendations to prevent likely jeopardy and are therefore not binding limitations. Action agencies like EPA retain the discretion to consider alternative approaches to their actions so long as such alternatives prevent likely jeopardy. It is important to understand, however, that both the National Marine Fisheries Service and EPA are engaged in litigation regarding the recent Biological Opinions and that the outcome of that litigation may impact both the National

Marine Fisheries Service's and EPA's efforts to address their Endangered Species Act obligations for threatened and endangered Pacific salmonids.

The rulemaking petition proposes specific water quality standards rule amendments to incorporate the specific management practices contained in the RPAs published to date and proposes that DEQ require itself to similarly incorporate future RPAs. Adopting the proposed rules is premature due to the significant activities underway that will produce additional information in 2013. The state should allow the litigation and issues related to the FIFRA to be resolved at the federal level before the commission determines whether additional regulation is needed at the state level. The state should also wait until EPA determines whether and how to revise its pesticide requirements, which may or may not incorporate the RPAs. EPA's pesticide label requirements automatically apply to pesticide users nation-wide. If Oregon adopts the RPAs as requested by the petition and EPA adopts different requirements, pesticide users in Oregon would be faced with conflicting federal and state regulations, creating confusion and probably the need for additional state rulemaking to reconcile the inconsistencies.

This rationale applies similarly to the other non-rulemaking requests contained in the petition. If EPA revises the pesticide registration requirements upon resolution or conclusion of these pending activities, the entities covered by DEQ's pesticide general permit would automatically be required to comply with the revised label requirements. Therefore, a commission petition of the Department of Agriculture and the Board of Forestry requesting rule revisions prior to resolution of these issues among the federal agencies is similarly premature.

2. Are the rules proposed in the petition water quality standards or otherwise appropriate regulations under the Clean Water Act?

Under the Clean Water Act, states adopt water quality standards that establish the desired conditions of the water bodies throughout the state. In doing this, water quality standards describe the uses of the water bodies and the water quality necessary to protect those uses. States are also required to include an antidegradation policy in their water quality standards, which ensures that the water quality achieved over time is maintained and protected.

The rulemaking petition proposes specific water quality standards rule amendments to incorporate specific best management practices that would prescribe how and where pesticides can be used. The proposed rules are not water quality standards because they do not describe waterbody conditions or goals. The petitioner suggests that the proposed rules are implementation methods needed in order for DEQ to meaningfully apply Oregon's narrative toxics rule. Implementation methods provide further explanation of how water quality standards should be considered and used in situations such as developing permit limits. DEQ does not consider prescriptive practices for specific activities such as those proposed appropriate for inclusion in its water quality standards rules. DEQ would not take such an approach for any other potential source of pollutants and similarly does not view adoption of prescriptive pesticide application requirements as proposed to be appropriate. Consequently, DEQ does not agree that the proposed rule provisions are required to meet federal regulations.

While the commission likely has the authority to adopt such rules, regardless of the division of rules they reside in, Oregon state law has established that the Oregon Departments of Agriculture and Forestry are the primary regulators of farm and forest practices related to water quality. DEQ should primarily rely on the Departments of Agriculture and Forestry to regulate pesticide use under the federal Fungicide, Insecticide and Rodenticide Act. In addition, DEQ should work with

these agencies and to make any improvements in agricultural and forest practices needed to protect water quality and aquatic life. DEQ has developed agency partnerships to further these efforts, as described in Chapter 2 above and addressed further in questions five and six below. In instances where data and information indicate water quality issues remain that are not being addressed by these other mechanisms, DEQ has authorities it can use to address water quality issues related to pesticides.

3. Is there a gap in Oregon's water quality standards related to pesticides?

A major premise in the petition's request for rulemaking is that Oregon's water quality standards are insufficient to address potential water quality issues related to pesticides. Oregon's water quality standards include numeric criteria for all but a few recently published EPA recommendations. That said, there are many current use pesticides and other chemicals in use today for which DEQ does not have numeric criteria since EPA has not developed criteria recommendations for these pollutants. As EPA develops additional criteria recommendations, DEQ will adopt those numeric criteria into the water quality standards rules.

Oregon has a narrative toxics standard that may be used to protect water quality and aquatic life from pollutants that do not have numeric criteria. To date, DEQ's methods for implementing this narrative standard have focused on whole effluent toxicity testing by permitted point source dischargers, setting numeric limits in permits, issuing pesticide permits, not permitting pesticide discharges to water quality limited water and listing waters as impaired based on fish consumption advisories. In addition, DEQ has relied on interagency efforts and the roles of EPA and the Oregon Departments of Agriculture and Forestry as the main agencies for overseeing the use of pesticides.

DEQ agrees that pesticide effects on water quality is an issue it must continue to monitor and make progress on when it has credible information indicating that pesticides are causing impacts to water quality. Should DEQ learn that there are aquatic species being harmed from pesticide residuals in the waters, there are several alternatives available to address this problem, including the narrative toxics criteria, other the other regulatory mechanisms and inter-agency actions discussed in Chapter 2 and in questions five and six below.

4. Is the proposed rulemaking a priority use of DEQ resources?

DEQ has been working to identify how to most effectively address toxics issues and to prioritize its water quality efforts given resource limitations and other constraints, but also recognizing the opportunities available through partnership and collaboration. As described in more detail in Chapter 2 above, DEQ has taken on several efforts to address toxics. DEQ staff will present the agency's Toxics Reduction Strategy to the commission at its December meeting. The Toxics Reduction Strategy includes recommendations related to pesticides, and it has gone through an extensive public involvement process. The DEQ Toxics Reduction Strategy and the inter-agency Water Quality Pesticide Management Plan propose expanding the pesticide stewardship partnership program. These efforts and proposed actions should be allowed the time and resources to be implemented and to build on their success before DEQ considers shifting the agency's focus and resources to a regulatory approach.

In order for DEQ and the commission to conduct the requested rulemaking process and to implement and enforce the proposed rule provisions, DEQ would need to stop other important

work and shift staff resources away from identified priorities. DEQ concludes that it is not in the interest of the resource or the public to shift priorities and stop important work in order to initiate the requested rulemaking at this time, particularly given the litigation and scientific review still pending at the federal level. Adopting the RPAs into state rule prior to resolution at the federal level is not an efficient use of resources. If EPA adopts the RPAs, DEQ would not need to duplicate those regulations. If DEQ adopts the proposed rules and EPA adopts different regulations, the state may need to do a second rulemaking to revise its rules for consistency. In addition, valuable information may be generated through the National Academy of Sciences review underway.

5. Does DEQ's *Toxics Reduction Strategy* include recommendations related to the pesticides listed in the petition? If so, what is the status of implementing those?

The DEQ Toxics Reduction Strategy uses a "Focus List" to help prioritize and direct the actions included in the strategy. This list contains 15 current use pesticides, 10 of which are included in the National Marine Fisheries Service Biological Opinions on pesticides. Nearly all of the 15 are included on the "Pesticides of Interest" list established for the Oregon Water Quality Pesticide Management Plan developed by an interagency team. The strategy is designed to address toxics affecting air, water and land quality and to optimize the effectiveness and efficiency of agency resources. As a result, rather than including actions focused on specific pesticides, the strategy's recommended actions address larger groups of chemicals.

Several recommended actions in the Toxics Reduction Strategy address current use pesticides as a group, or as part of a larger group of toxic chemicals, including:

- Expand and enhance pesticide stewardship partnership and related technical assistance programs
- Develop and implement a plan to fund and conduct regular agricultural pesticide waste collections
- Use existing rural planning and resource management programs to reduce loading of toxics including pesticides into waters of the state
- Assess opportunities to improve management of Focus List chemicals through use of existing state product or chemical reporting, notification, registration and licensing mechanisms
- A range of toxics assessment recommendations that include current use pesticides along with all other Focus List chemicals

6. What is DEQ's current strategy for protecting water quality from pesticides?

The primary strategies for DEQ to protect water quality from pesticides are to implement and expand the Pesticide Stewardship Partnerships and, on a broader scale, to work with other state agencies to implement the Oregon Water Quality Pesticide Management Plan. The pesticide stewardship partnerships are the main collaborative mechanism for implementing the Water Quality Pesticide Management Plan at the watershed level. The partnerships use water monitoring data to identify streams with elevated levels of pesticides relative to standards or benchmarks, and use that data to help focus technical assistance and stewardship activities that will produce measurable water quality improvements. Given the demonstrated effectiveness of this approach in certain watersheds, DEQ, the Department of Agriculture and other partnering

organizations are currently working on expanding the partnerships to encompass additional watersheds and water media and provide more intensive outreach and technical assistance in complex watersheds with multiple land uses. In addition, the Water Quality Pesticide Management Plan outlines criteria for determining when existing regulatory authorities should be invoked to address pesticide water quality impacts if the voluntary collaborative approaches are not sufficiently effective. DEQ also issues and enforces a pesticides general permit, NPDES 2300-A, under its Clean Water Act authority that includes requirements for biological and chemical pesticide applications that leave a residue of the pesticide in, over or near waters of the state. DEQ issued this permit in 2011, based largely on the EPA general permit for pesticide applications.

7. What is the relationship between the state's obligations under the Coastal Zone Act Reauthorization Amendments and the commission's action on the petition?

As described in Chapter 2 above, the federal Coastal Zone Act Reauthorization Amendments require coastal states to develop a Coastal Nonpoint Source Pollution Control Program in order to continue to receive certain types of federal funding. The NWEA petition alleges that Oregon's program fails to demonstrate compliance with the Management Measures that include pesticide elements. The petition cites the National Oceanic and Atmospheric Administration and EPA's reference to the default practices required by the Washington Toxics¹ case injunction as part of their interim approval of Oregon's Management Measures in 2004. The petition alleges that the National Oceanic and Atmospheric Administration and EPA will not be able to grant final approval of Oregon's Coastal Nonpoint Pollution Control Program anticipated in 2013 because the Washington Toxics injunction has expired. NWEA asserts that without the default practices required by the injunction or the petition's proposed rules, Oregon's Management Measures with pesticide elements are inadequate.

DEQ does not agree that it is necessary for DEQ or the Departments of Agriculture or Forestry to adopt the rule provisions proposed in the petition in order for Oregon to have an approvable Coastal Nonpoint Pollution Control Program. DEQ and the Departments of Agriculture and Forestry have existing regulations and programs that address pesticides. These programs include the formation of the Water Quality Pesticide Management Team in 2007 by DEQ, the Departments of Agriculture and Forestry and the Oregon Health Authority. One of the team's primary tasks was to develop and implement an inter-agency Water Quality Pesticide Management Plan (<http://www.oregon.gov/ODA/PEST/docs/pdf/wqpmtpmp.pdf>) to guide statewide and watershed-level actions intended to protect surface and groundwater from the potential impacts of current use pesticides. Although the plan was not developed in direct response to Coastal Zone Act requirements or Biological Opinions, it addresses protecting water quality and beneficial uses, including threatened and endangered species, from pesticide use. EPA has not yet indicated its position on the approvability of Oregon's program.

As part of the Oregon Department of Agriculture's cooperative funding agreement with the EPA Region 10 Office of Pesticides on implementation of the federal Insecticide, Fungicide and Rodenticide Act in Oregon, the Department of Agriculture submitted Oregon's Water Quality Pesticide Management Plan to EPA. EPA approved the plan in 2011. This plan focuses on the use of water monitoring data as the driver for management actions. A continuum of management responses is outlined in the plan based on the monitoring data, with an emphasis on collaborative

¹ Washington Toxics V. EPA, No. C01-132C, Order at 4-10 (W.S. Wash. Jan. 22, 2004).

solutions in the short-run to address areas of concern highlighted by the data. Regulatory actions are to be used with existing agency authorities under federal law, such as Fungicide, Insecticide and Rodenticide Act and the Clean Water Act, or state law, if the water quality concerns are not resolved through collaborative efforts.

EPA and the National Oceanic and Atmospheric Administration plan to accept public comment on Oregon's interim approved management measures on or before Nov. 15, 2013, and then publish their final decision to approve or disapprove Oregon's program on or before May 15, 2014. If Oregon's program is disapproved, this could result in mandatory withholding of federal grant funds for nonpoint source management under the federal Clean Water Act administered by DEQ and for coastal zone management under the federal Coastal Zone Management Act administered by the Oregon Department of Land Conservation and Development.

Chapter 4

Analysis and Evaluation

Request to amend Oregon's Antidegradation Policy (340-041-0004)

Summary of request

The NWEA petition requests that the commission amend Oregon's antidegradation policy rule (OAR 340-041-0004) to add two provisions. The first proposed provision requires that the use of pesticides authorized under FIFRA conform to the Reasonable and Prudent Alternatives set out in Biological Opinions published by National Marine Fisheries Service or the U.S. Fish and Wildlife Service as they pertain to preventing jeopardy or adverse modification of critical habitat for species present in Oregon waters. The second proposed provision prohibits the use of any pesticide within specified distances of any water body.

Summary of NWEA supporting arguments

NWEA claims that the proposed rule amendments are necessary because the Services' findings of jeopardy and adverse habitat modification demonstrate that the use of the pesticides as allowed by FIFRA labels may not protect existing uses. NWEA alleges that in order to avoid violating Clean Water Act requirements to fully support designated and existing uses and to meet water quality standards, Oregon must either ban the use of the listed pesticides, adopt the RPAs to ensure at a minimum that they do not cause jeopardy or adverse modification of critical habitat or adopt more stringent restrictions than the RPAs.

NWEA states that the federally required antidegradation policy includes the protection of beneficial uses actually attained in the water body on or after Nov. 28, 1975, and the maintenance and protection of the level of water quality necessary to protect those uses. NWEA further states that federal law requires Oregon to adopt implementation methods for the state's antidegradation policy.

The petitioner asserts that the "finding of jeopardy or adverse modification of habitat in the NMFS biological opinion is *prima facie* demonstration that designated and existing uses are not supported and therefore use of the pesticides based on existing EPA-approved labels under FIFRA will violate water quality standards...."

DEQ evaluation

DEQ disagrees with key aspects of the petitioner's view of what is required of the state related to the antidegradation policy and implementation methods. The Clean Water Act refers to the antidegradation policy in Section 303(d)(4), which relates to the revision of effluent limitations. The CWA definition of an effluent limitation is any restriction on the quantity, rate and concentration of pollutants discharged from point sources into navigable waters.

EPA regulations under the CWA require that states adopt a statewide antidegradation policy and identify the methods for implementing such policy (40 CFR 131.12). The primary objective of the antidegradation policy is to prevent or limit the degradation of water quality from "existing" conditions, the best conditions that have existed since 1975, if that lowering of water quality

would impair beneficial uses. Federal regulations state that “[e]xisting instream water uses and level of water quality necessary to protect the existing uses shall be maintained and protected.” This means that the uses that have been attained in the waterbody since November 1975 and the water quality conditions that have been attained associated with that level of use cannot be further degraded. This existing use requirement serves as the floor of water quality to ensure maintenance of the best conditions achieved since 1975 and prohibit degradation of water quality below this level.

The antidegradation policy is not interpreted to mean that, because a use is present, any discharge of a pollutant is a violation of the policy. If the water quality of a stream is higher than needed to protect designated uses, the state can allow some lowering of the water after conducting an antidegradation review and finding that the benefits of the proposed discharge outweigh the impacts of the new or increased pollutant load.

DEQ does not agree that the state is required to adopt the RPAs as antidegradation implementation methods. The biological opinions and proposed rule amendments represent a very broad brush approach. The proposed rules would apply statewide regardless of whether they represent degradation from the level of water quality or use support that has existing since 1975. In addition, the antidegradation policy is intended to apply when there is a new or increased discharge of a pollutant, such as when a facility requests to discharge a new or increased load of pollutants, and is not typically implemented through statewide rules.

DEQ recommendation

DEQ recommends that the commission deny the petition to adopt the proposed amendments to Oregon’s antidegradation rule. DEQ does not agree that the proposed rules are required in order for DEQ to comply with the antidegradation policy requirements of the Clean Water Act. In addition, as discussed in Chapter 3 above, DEQ finds that it is premature for Oregon to consider adoption of water quality regulations based on the Biological Opinions until the federal agencies resolve issues at the federal level and EPA determines whether and how they will incorporate the recommended RPAs into their pesticide regulations.

Request to amend the Toxics Standard Rule (OAR 340-041-0033)

Summary of request

The NWEA petition requests that the commission amend Oregon’s toxics substances water quality standards rule add the following three provisions (summarized):

1. **OAR 340-041-0033(8)**; use of pesticides must conform at a minimum to the RPAs set out in the Biological Opinions² published by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service (NMFS).
2. **OAR 340-041-0033(9)**; cannot discharge pesticides into waters of the state without an applicant’s first having completed a Department-approved survey of fish, amphibians, and

² NMFS found jeopardy to Oregon threatened and endangered species for the following 16 pesticides: Biological Opinion **No. 1**: Chlorpyrifos, diazinon, malathion ; **No. 2**: carbaryl, carbofuran, methomyl; **No. 3**: methidathion, naled, phorate, phosmet; **No. 4**: 2,4-D and diuron, chlorothalonil; **No. 5**: oryzalin, pendimethalin, trifluralin

aquatic-dependent reptiles. Pertains to 2300A Pesticide General Permit and other individual NPDES permits.

3. **OAR 340-041-0033(10)**; within six months of publication of future Biological Opinions, DEQ will propose additional changes based on these RPAs.

Summary of NWEA supporting arguments

NWEA asserts that the proposed rules are needed to fully protect threatened and endangered species as existing and designated uses of the state's waters. The petition includes the following supporting arguments:

- The lack of EPA criteria for current use pesticides. EPA has recommended criteria for only six current-use pesticides: acrolein, atrazine, carbaryl, chlorpyrifos, diazinon, and malathion.
- It is an incorrect assumption that the protection of salmonids in Oregon's water quality program will result in protection of other sensitive species, including non-fish species, particularly with regard to species that are in a state of rapid decline.
- EPA has not established any recommended criteria for the protection of aquatic-dependent wildlife, with the exception of a handful that apply only in the Great Lakes. As a result, states such as Oregon have no numeric criteria for the protection of wildlife and rarely, if ever, use their narrative toxic criteria to provide that protection in regulatory actions.
- Because there is only the 1989 Biological Opinion from the U.S. Fish and Wildlife Service, there is a hole in terms of protections for all non-anadromous fish and aquatic species in Oregon (e.g. Bull Trout), including species that are imperiled but not yet listed as threatened or endangered.
- Meeting the RPAs does not necessarily mean that the species is fully protected. According to the National Marine Fisheries Service opinions, the RPAs allow for some incidental "take" of species. To meet the requirements of the Clean Water Act the commission should instruct DEQ to go further than the RPAs to create a greater assurance that the listed pesticides will not enter Oregon's waters and cause adverse effects to the listed species.

DEQ evaluation

1. Including Reasonable and Prudent Alternatives from NMFS's Biological Opinions into Oregon Water Quality Standards Rules

NWEA suggests incorporating specific pesticide use restrictions from the National Marine Fisheries Service's Biological Opinions into Oregon's water quality standards rules to function as methods for implementing Oregon's narrative criteria. Oregon has narrative criteria that may be used to protect water quality and aquatic life from pollutants that do not have numeric criteria. The narrative criterion specific to toxic substances is contained in OAR 340-041-0033(2). Additional relevant narrative criteria are contained in OAR 340-041-0007(1), OAR 340-041-0007(11), and OAR 340-041-0007(12)³. However, this issue is broader than protecting aquatic

³ OAR 340-041-0033(2): Toxic substances may not be introduced above natural background levels in waters of the state in amounts, concentrations, or combinations that may be harmful, may chemically change to harmful forms in the environment, or may accumulate in sediments or bioaccumulate in aquatic life or wildlife to levels that adversely affect public health, safety, or welfare or aquatic life, wildlife, or other designated beneficial uses.

OAR 340-041-0007(1): Notwithstanding the water quality standards contained in this Division, the highest and best practicable treatment and/or control of wastes, activities, and flows must in every case be provided so as to maintain dissolved oxygen and

life from pesticides where no numeric criteria exist. The toxic substances narrative criterion may also be used to address other toxins, such as endocrine disrupters, pharmaceuticals and sediments containing toxics, where neither Oregon nor EPA have specific water quality criteria. The narrative criterion also pertains to adverse impacts to human health, in addition to aquatic life. Currently, the focus of DEQ's implementation of the narrative toxics criteria is through whole-effluent toxicity testing requirements for major NPDES permit holders. This type of testing refers to the aggregate toxic effect to aquatic organisms from all pollutants contained in a facility's wastewater or effluent. Additionally, water quality standards apply to many different programs, so any implementation methods or policies for the toxics narrative criteria should consider the implications to all relevant programs.

DEQ concludes that it would be premature for the state to consider adopting RPAs into rule prior to the resolution of pending litigation and scientific review by the National Academy of Sciences. EPA has not yet determined whether and how it will respond to the RPAs. The RPAs outlined in the first and second biological opinions could be modified as long as the action prevents likely jeopardy. If EPA is directed by the court to implement the RPAs or some modification of these practices, the Oregon Department of Agriculture will be required to enforce these requirements in Oregon without the added burden of developing specific state regulation. Overall, taking action ahead of EPA is not necessary, could result in conflicting state and federal pesticide application requirements and would negatively affect the state's ability to focus on priority work by shifting resources to this rulemaking and its subsequent implementation.

On the broadest scale, the proposed rules are not water quality standards since they are not descriptions of waterbody conditions or goals. Rather, the proposed rules are prescriptive requirements for where and how pesticide applicators could apply pesticides to crops on the land. As described in Chapter 2, such prescriptive requirements for any source of pollutant are not appropriate for DEQ's water quality standards rules.

Note that following EPA action on Oregon's 2004 aquatic life criteria, DEQ expects to conduct rulemaking to address jeopardy concerns related to NMFS's biological opinion on several toxic pollutants, as well as other potential deficiencies identified by EPA. As part of this rulemaking, DEQ expects to propose new pesticide criteria to align with EPA's latest national recommended criteria for acrolein, carbaryl, diazinon, and nonylphenol.

2. Including Reasonable and Prudent Alternatives into Water Quality Standard rules to protect non-fish species

DEQ designates all water bodies in Oregon for the protection of aquatic life as a beneficial use. Aquatic species are defined in 340-041-0002(6) as "plants or animals that live at least part of their life cycle in waters of the state." To protect aquatic species, levels of toxic substances in waters of the state may not exceed the applicable aquatic life criteria for toxics. The petition alleges that criteria derived for the protection of aquatic life that generally focuses on fish species are not adequate for protecting some non-fish species, such as certain frogs and turtles or species

overall water quality at the highest possible levels and water temperatures, coliform bacteria concentrations, dissolved chemical substances, toxic materials, radioactivity, turbidities, color, odor, and other deleterious factors at the lowest possible levels.
OAR 340-041-0007(11): The creation of tastes or odors or toxic or other conditions that are deleterious to fish or other aquatic life ... may not be allowed.
OAR 340-041-0007(12): The formation of appreciable bottom or sludge deposits or the formation of any organic or inorganic deposits deleterious to fish or other aquatic life ... may not be allowed.

that are not federally listed as threatened or endangered, but are in population decline or otherwise considered sensitive. The petition suggests that by incorporating pesticide protection measures from the NMFS's Biological Opinions into Oregon's water quality standard rules using the toxics narrative provision that these non-fish species would be afforded greater protection than current water quality standards for pesticides, including pesticides where no criteria exist.

Given limited state resources to independently assess toxicological data and derive criteria, DEQ has generally adopted EPA's national recommended toxics criteria, including pesticide criteria. To date, EPA has published few water quality criteria for current-use pesticides. EPA prioritizes criteria development based on both the frequency of chemical occurrence and the chemicals that pose the greatest potential risk to aquatic life. Although EPA requires a broad spectrum of aquatic species data to assess toxicity of chemicals, EPA generally does not have toxicity data to fully represent all aquatic species and exposures to all chemicals and mixtures. Rather, the criteria derived through this methodology are intended to protect the most sensitive aquatic species while accounting for variability and uncertainty in the available data by including a safety factor.

As additional information becomes available, should DEQ become aware that there are aquatic species being harmed by pesticide residuals in the water, there are several alternatives available to address that issue, including the narrative toxics provision and the current efforts to address pesticides that are discussed elsewhere in this report.

3. Proposed requirement to conduct biological surveys for discharge of pesticides

The petitioner requests that DEQ adopt a water quality standards rule to require permittees covered under the pesticide general permit to conduct a DEQ-approved survey of fish, amphibians and aquatic dependent reptiles. The requested rule directs specific actions by permittees that are covered under a separately issued general permit. There are two key issues associated with the proposed requirement. First, such rules are not water quality standards, and as such, are not appropriate for inclusion in Oregon's standards. Second, any requirements targeted at a specific group of permittees should be considered as part of the permit development process, should DEQ agree that such an activity is necessary to meet the permit's intent and requirements.

DEQ recommendation

DEQ recommends that the commission deny the petition to amend the state's toxics substances water quality standards rule. For the reasons discussed in Chapter 3 and in this section, DEQ concludes that it would be premature for the state to adopt RPAs into rule prior to the resolution of pending litigation, the National Academy of Sciences review and action by EPA under the Federal Insecticide Fungicide and Rodenticide Act. In addition, adopting the proposed rules at this time is not required by the Clean Water Act. Taking action ahead of EPA could result in Oregon requirements that conflict with the federal requirements and those that apply in other states and may require additional rulemaking following resolution of issues at the federal level. Finally, it would not be a good use of limited resources to shift DEQ staff to this rulemaking rather than completing the priority work in progress.

Request to adopt a new pesticide use rule in Division 41

Summary of request

The petitioner proposes to incorporate the RPAs set out in five National Marine Fisheries Service biological opinions as a new pesticide rule in Division 41, Oregon's water quality standards rules. NWEA suggests that this rule would establish the RPAs as water quality standards and implementation methods and ensure that the RPAs apply to all other agencies that regulate activities that affect water quality within the state and to pesticide applications within the state.

The RPAs were developed to apply to Oregon, Washington, Idaho and California. The pesticides that National Marine Fisheries Service concluded would cause jeopardy to Oregon listed species include: (1) chlorpyrifos, (2) diazinon, (3) malathion, (4) carbaryl, (5) carbofuran⁴, (6) methomyl, (7) methidathion⁵, (8) naled, (9) phorate, (10) phosmet, (11) 2,4-D, (12) diuron, (13) chlorothalonil, (14) oryzalin, (15) pendimethalin, and (16) trifluralin.

Summary of NWEA supporting arguments

The petitioner claims that:

“As a result of EPA's inaction under the Federal Insecticide, Fungicide and Rodenticide Act and the Endangered Species Act, Oregon cannot rely on EPA to provide protection from pesticides for the threatened and endangered species in the state, nor to protect designated and existing uses from those chemicals. This EPA inaction, taken together with the significant limitations of EPA's evaluations of pesticides on aquatic life in the context of the Clean Water Act and the findings and RPAs in the Services' Biological Opinions, demonstrates the importance of Oregon's acting under its Clean Water Act authorities and augmenting the FIFRA-authorized labels on pesticides used in the state.”

DEQ recommendation

DEQ recommends that the commission deny this element of the petition. The main argument put forth by the petitioner is that due to the failure of EPA to incorporate the RPAs into its registration process, it is incumbent on the state to remedy the situation. As described in Chapter 3 and in preceding sections, DEQ concludes that it is both an inappropriate role for the state to step into the disputed action of federal agencies and premature to consider adoption of the requested rules in advance of the resolution of litigation on the RPAs, scientific review by the National Academy of Sciences, and subsequent implementation by EPA. The RPAs outlined in the first and second biological opinions are not necessarily final and could be modified, as long as any modification prevents likely jeopardy. If EPA is directed by the court to implement the RPAs or some modification of these practices, Oregon Department of Agriculture will be required to enforce these requirements in Oregon without the added burden of developing specific state regulation. Overall, taking action ahead of EPA is not necessary, it could result in pesticide application requirements that are different in Oregon compared to other states and it

⁴ EPA cancelled its registration for carbofuran in 2009. See:
http://www.epa.gov/oppsrrd1/reregistration/carbofuran/carbofuran_noic.htm

⁵ Per NMFS in **Attachment B NMFS RPA** of NWEA petition, “NMFS recognizes the registration of methidathion is canceled and exposure to this a.i.s will decline accordingly. However, the terms of the cancellation for this a.i.s have provisions allowing for pesticide product sales and use to continue for several years, with no specific end date. The RPA therefore applies to methidathion...”

would impact state resources by shifting resources to this rulemaking and its subsequent implementation, rather than focusing on priority work.

Request to amend pesticide permits

Summary of request

NWEA requests that the commission direct DEQ to immediately re-open and revise the 2300A General NPDES Permit and any individual NPDES permit for the discharge of pesticides. The requested revisions would explicitly incorporate RPAs set out in Biological Opinions on EPA's pesticide registrations as well as EPA's Pesticide General Permit. NWEA further requests that prior to the permit revisions, the commission direct DEQ to post those same restrictions on its website as guidance to permittees.

Summary of NWEA supporting arguments

The petition asserts that a permit that allows discharges that are not consistent with the RPAs constitutes a violation of water quality standards and a take under the ESA and should be interpreted by DEQ as a violation of Oregon's existing water quality standards for protection of existing and designated beneficial uses, including the narrative criteria.

The petitioner expresses a concern that the narrative permit condition stating that the "discharge must not cause or contribute to the violation of water quality standards" does not have any practical association with the RPAs set out in the Biological Opinions. The petitioner states that there is nothing in the permit that establishes effluent limits under the 2300A General Permit that are consistent with the RPAs.

DEQ evaluation

A federal court decision in January 2009 determined that biological pesticide and chemical pesticide applications that leave a residue of pesticide in, over or near waters need a water quality permit under the Clean Water Act. The court decision affected EPA's permit program as well as states, such as Oregon, that are authorized by EPA to issue water quality NPDES permits.

EPA issued an NPDES general permit to regulate pesticide residue in 2011. DEQ followed EPA's lead as well as state requirements to develop the state's 2300A general permit. DEQ provided a 45-day public comment hearing on the proposed general permit and conducted three hearings around the state. DEQ responded to comments received from approximately 180 individuals and organizations. The permit was in effect and provided immediate coverage by the court ordered deadline on Oct. 31, 2011. It expires on Sept. 30, 2016, and will be renewed at that time.

The state general permit assumes that all pesticide applications will leave a residue.

The permit covers five pest control categories:

- insect control such as mosquito control,
- weed and algae control,
- nuisance animal control,
- forest canopy and
- large area-wide pest control.

These are pesticide applications used to achieve vegetation management objectives, prevent economic impacts, ensure habitat conservation, control diseases, restore streamside areas, protect

watershed health and public health, ensure nuisance control, promote aesthetics and maintain areas of right of way for safety and drainage.

DEQ has also issued 10 individual permits for pesticide application in irrigation systems. Future coverage for irrigation systems will be provided through a new general permit 2000J. The public comment period for the general permit 2000J closed Sept. 28, 2012. DEQ will evaluate and respond to comments received during the public comment period before the permit is issued.

Pesticide applicators covered under DEQ permits must comply with all applicable federal and state requirements in addition to the terms and conditions in the permits. DEQ permits do not authorize the permittee to conduct activities that are inconsistent with other applicable regulation, including Federal Insecticide, Fungicide and Rodenticide Act requirements, and Oregon Department of Agriculture applicator licensing requirements.

Individual and general NPDES permits that regulate pesticide waste or residues in water include an overarching narrative condition 'to not cause or contribute to the violation of water quality standards' in addition to technology-based effluent limits to protect water quality. In addition, there are numeric limits for acrolein-, copper-based and xylene-based pesticides in individual permits, as well as the proposed 2000J general permit for irrigation systems. Consistent with narrative requirements to ensure that pesticide discharges do not contribute to water quality standards violations, discharges of pollutants to water quality limited waters impaired for that same pollutant are prohibited under the 2300A general permit and the proposed 2000J general permit.

It is illegal to use a registered pesticide inconsistent with its labeling. If permittees are found to have applied a pesticide in a manner inconsistent with any water quality-related federal label requirements, DEQ will presume that the effluent limitation to minimize pesticides discharges has been violated. DEQ considers many provisions of the federal Insecticide, Fungicide and Rodenticide Act labels - such as those relating to application sites, rates, frequency and methods, as well as provisions concerning proper storage and disposal of pesticide wastes and containers -- to be narrative permit requirements that affect water quality.

DEQ recommendation

DEQ recommends that the commission take no action on the request to direct DEQ to revise the state's pesticide permits. Changes in federal pesticide label requirements may occur at any time during the NPDES permit cycle and federal label revisions that incorporate RPAs will be effective immediately and independently of NPDES permit requirements. NPDES permits are intended to be updated and renewed every five years to reflect new information; the 2300A general pesticide permit is scheduled for renewal in 2016. The 2000J general permit for irrigation systems will likely be issued in late 2012 or early 2013 and renewed five years later. The 2000J general permit will replace current individual permits for irrigation systems.

Request to petition Oregon Department of Agriculture

Summary of request

The petition requests that the commission petition the Oregon Department of Agriculture to adopt the Reasonable and Prudent Alternatives into ODA's basin rules and offers alternative pathways by which the commission could make the necessary demonstrations that the current

ODA rules are inadequate to meet water quality standards. NWEA suggests that the petition itself is the necessary demonstration. Alternatively, NWEA suggests that the commission require DEQ to evaluate the ODA rules by a certain date and to use the RPAs to determine whether ODA's rules are sufficient to meet water quality standards.

NWEA also requests that the commission petition ODA to prohibit the sale or use of the listed pesticides in Oregon or require additional regulation at the point of sale as an alternative way to implement the Biological Opinion RPAs.

Summary of NWEA supporting arguments

OAR 340-041-0061(11) requires DEQ to request that the commission petition ODA for a review of part or all of the Agricultural Water Quality Management area plans and rules if DEQ determines that the plans and rules are not adequate to meet water quality standards and ODA will not make needed improvements.

NWEA alleges that ODA's plans and rules are not adequate since most of the rules do not mention pesticides. NWEA argues that Oregon's agriculture program for the Coastal Zone Act Reauthorization Amendments gained approval based on the potential outcome of the injunction issued in Washington Toxics Coalition litigation, which included interim default requirements, such as streamside buffers, for pesticide application. Since the Biological Opinions made the injunction moot and EPA has not implemented the buffers contained in the Biological Opinions and RPAs, NWEA argues that the current use of certain pesticides in Oregon is not protective of the designated uses as required by the Coastal Zone Act Reauthorization Amendments.

DEQ evaluation

Under ORS 568.930, the commission has the authority to petition ODA. When the commission petitions ODA, ODA cannot terminate the review without the commission's concurrence. All petitions, including ones initiated by the commission, must make a case with reasonable specificity that the plans and area rules are not adequate to meet water quality standards. While available data show that water quality issues related to pesticides exist in some parts of Oregon, DEQ has not made a determination that the plans and area rules are not adequate to meet water quality standards. DEQ has determined that methods other than adopting the RPAs from the Biological Opinions into ODA's rules could be and are being used to address pesticides and meet water quality standards.

OAR 340-041-0061, which is consistent with state statute, requires DEQ to provide ODA with comments on what would be sufficient to meet water quality standards or Total Maximum Daily Load allocations and seek resolution of any deficiencies. DEQ is directed to request that the commission petition ODA only if the two agencies cannot agree on a solution. If the commission directs DEQ to determine the sufficiency of ODA rules, DEQ would still need to work with ODA to do the sufficiency analysis. In addition, DEQ would need to develop a method to apply the narrative criterion and conduct that evaluation.

Since awareness of issues related to pesticides uses on agricultural lands was raised during the toxics rulemaking process as well as through participation on Water Quality Pesticide Management Team, ODA has been working with soil and water conservation districts to ensure that area plans address pesticides for which there is water quality monitoring data showing detections above benchmarks or criteria.

DEQ does not agree with NWEA's supporting arguments for addressing pesticide issues through point of sales regulations. There is a general process laid out in the Water Quality Pesticide Management Plan to address pesticide issues through point of sale regulations.

DEQ believes that the Water Quality Pesticide Management Plan and pesticide stewardship partnerships are effective at addressing pesticide water quality issues. Under current federal and state rules, DEQ, ODA and the Oregon Department of Forestry have adequate authority to address pesticides. There may be a need to clarify policy and develop guidance to staff on how to use of some of these authorities, but DEQ has not yet done that evaluation.

EPA asked for and was denied a stay to work on implementing the RPAs until the National Academy of Sciences issued a report on the methods and assumptions used by EPA and NMFS to conduct scientific assessments of ecological risks from pesticides. As a result, EPA may be implementing the RPAs in the near future. Federal action, when taken, could accomplish the results the petitioner requests of the Commission.

DEQ recommendation

DEQ recommends that the commission take no action on the NWEA request that the commission petition the Department of Agriculture to adopt rules. As mentioned above, ODA has been working to ensure that area plans address pesticides where monitoring data show detections above benchmarks or criteria. Petitioning ODA at this point in time would conflict with the commission's policy to encourage DEQ to seek resolution of deficiencies in ODA programs and rules before requesting that the commission petition ODA.

DEQ has ongoing partnerships with the Department Agriculture to work on improving water quality protections related to forest and agricultural practices. In addition, during the biennial review of ODA water quality area plans and rules, DEQ has direct input on improving the plans to achieve water quality standards and meet TMDL load allocations. DEQ recommends that the agency continue to work on toxics issues as prioritized through the Toxics Reduction Strategy development. In addition, DEQ recommends implementing the Water Quality Pesticide Management Plan and pesticide stewardship partnerships, which include a mechanism to increase regulation when needed, as preferred and more targeted approaches to reducing the potential impacts of pesticides and other toxic substances.

Request to petition Oregon Department of Forestry

Summary of request

The petition requests that the commission petition the Board of Forestry to revise the Board's rule pertaining to the use of pesticides at OAR 629-620-0000(5). The proposed revisions would require that the use of chemicals on forest lands be subject to restrictions established by federal agencies to protect threatened and endangered species, and the reasonable and prudent alternatives that the petitioner requests the commission adopt into the water quality standards rule (OAR 340-041-0034).

Summary of NWEA supporting arguments

NWEA asserts that the federal labels do not provide adequate protection for threatened and endangered species, and that the Board of Forestry's additional restrictions under the Forest Practices Act, depending on the location, are not adequate to meet the RPAs set out in the Biological Opinions.

The petition states that the Oregon Department of Forestry rules are based on incomplete and inaccurate information, and uses chlorpyrifos 96LC 50 as an example. In addition, the petition raises the issue of ODF rules not cross-referencing requirements under an NPDES permit for discharging some pesticides.

DEQ evaluation

Under ORS 527.765, the commission has the authority to petition the Board of Forestry. When the commission petitions the Board of Forestry, the board cannot terminate the review without the commission's concurrence or without moving forward with rulemaking. Under the statute, all petitions, including those initiated by commission must make a case with reasonable specificity that nonpoint source pollution from forest practices under the Forest Practices Act are contributing significantly to violations of water quality standards.

Under ORS 527.714, certain findings have to be made in order for the Board of Forestry to adopt new or increased standards for forest practices. It is unlikely that the Board of Forestry would conclude that it could make the required findings based on the Biological Opinions or the petition. Neither does DEQ have the necessary information at this time. While available data show that water quality issues related to pesticides exist in some parts of Oregon, DEQ has not made a determination that Forest Practices Act rules are not adequate to meet water quality standards. DEQ has determined that methods other than adopting RPAs in the Biological Opinions as rule could be and are being used to address pesticides and meet water quality standards.

The petition uses chlorpyrifos as an example of the inadequate information used to establish forest practices. Because chlorpyrifos is not used in forestry, it is understandable why the forest practices rules were not based on its toxicity.

Since awareness of issues related to pesticides uses on forest lands was raised during the toxics rulemaking process, Triangle Lake exposure investigations, as well as through participation on the Water Quality Pesticide Management Team, the Department of Forestry has been working with other state agencies and the Board of Forestry to ensure that forest practices rules or other approaches address pesticides for which there is water quality monitoring data showing detections above benchmarks or criteria.

As mentioned above, EPA asked for and was denied a stay to work on implementing the RPAs until the National Academy of Sciences issued a report on the methods and assumptions used by EPA and NMFS to conduct scientific assessments of ecological risks from pesticides. As a result, EPA may be implementing the RPAs in the near future. Federal action, when taken, could accomplish the results the petitioner requests of the commission.

DEQ recommendation

DEQ recommends that the commission take no action on the NWEA request that the commission petition the Board of Forestry to adopt rules. The Department of Forestry has been an active member of Water Quality Pesticide Management Team, and is working to collect additional monitoring data to determine if benchmarks and criteria are met on forestlands. Petitioning BOF at this point would be in conflict with the commission's policy to encourage DEQ to seek resolution about deficiencies of ODF programs and rules before requesting that the commission petition BOF.

DEQ has ongoing partnerships with the Department of Forestry to work on improving water quality protections related to forest practices. DEQ recommends that it continues to work on

toxics issues as prioritized through the Toxics Reduction Strategy and pursue implementing collaborative efforts, which include a mechanism to increase regulation when needed, including the Water Quality Pesticide Management Plan, and pesticide stewardship partnerships, as preferred and more targeted approaches to reducing the potential impacts of pesticides and other toxic substances.

Appendix 1

Statutes and rules pertaining to petitions

ORS 183.390 Petitions requesting adoption of rules.

(1) An interested person may petition an agency requesting the promulgation, amendment or repeal of a rule. The Attorney General shall prescribe by rule the form for such petitions and the procedure for their submission, consideration and disposition. Not later than 90 days after the date of submission of a petition, the agency either shall deny the petition in writing or shall initiate rulemaking proceedings in accordance with ORS 183.335.

(2) If a petition requesting the amendment or repeal of a rule is submitted to an agency under this section, the agency shall invite public comment upon the rule, and shall specifically request public comment on whether options exist for achieving the rule's substantive goals in a way that reduces the negative economic impact on businesses.

(3) In reviewing a petition subject to subsection (2) of this section, the agency shall consider:

- (a) The continued need for the rule;
- (b) The nature of complaints or comments received concerning the rule from the public;
- (c) The complexity of the rule;
- (d) The extent to which the rule overlaps, duplicates or conflicts with other state rules or federal regulations and, to the extent feasible, with local government regulations;
- (e) The degree to which technology, economic conditions or other factors have changed in the subject area affected by the rule; and
- (f) The statutory citation or legal basis for the rule. [1957 c.717 §5; 1971 c.734 §8; 2003 c.749 §6]

OAR 340-011-0046

Petition to Promulgate, Amend, or Repeal Rule: Contents of Petition, Filing of Petition

The filing of petitions for rulemaking and action thereon by the Commission shall be in accordance with the Attorney General's Uniform Rule of Procedure set forth in OAR 137-001-0070. As used in that rule, the term "agency" generally refers to the Commission but may refer to the Department if context requires.

Stat. Auth.: ORS 183.335 & ORS 468.020
Stats. Implemented: ORS 183.390
Hist.: DEQ 7-1988, f. & cert. ef. 5-6-88

OAR 137-001-0070

Petition to Promulgate, Amend, or Repeal Rule

OAR 137-001-0070 was adopted by the Attorney General as required by ORS 183.390. Agencies must apply this rule without further adoption or amendment.

(1) An interested person may petition an agency to adopt, amend, or repeal a rule. The petition shall state the name and address of the petitioner and any other person known to the petitioner to be interested in the rule. The petition shall be legible, signed by or on behalf of the petitioner, and shall contain a detailed statement of:

- (a) The rule petitioner requests the agency to adopt, amend, or repeal. When a new rule is proposed, the petition shall set forth the proposed language in full. When an amendment of an existing rule is proposed, the rule shall be set forth in the petition in full with matter proposed to be deleted and proposed additions shown by a method that clearly indicates proposed deletions and additions;
- (b) Facts or arguments in sufficient detail to show the reasons for and effects of adoption, amendment, or repeal of the rule;
- (c) All propositions of law to be asserted by petitioner.

(2) If the petitioner requests the amendment or repeal of an existing rule, the petition must also contain comments on:

- (a) Options for achieving the existing rule's substantive goals while reducing the negative economic impact on businesses;
- (b) The continued need for the existing rule;
- (c) The complexity of the existing rule;
- (d) The extent to which the existing rule overlaps, duplicates, or conflicts with other state or federal rules and with local government regulations; and
- (e) The degree to which technology, economic conditions, or other factors have changed in the subject area affected by the existing rule, since the agency adopted the rule.

(3) If a petition requests the amendment or repeal of a rule, before denying a petition, the agency must invite public comment upon the rule, including whether options exist for achieving the rule's substantive goals in a way that reduces the negative economic impact on businesses.

(4) The agency:

- (a) May provide a copy of the petition, together with a copy of the applicable rules of practice, to all persons named in the petition;
- (b) May schedule oral presentations;
- (c) Shall, in writing, within 90 days after receipt of the petition, either deny the petition or initiate rulemaking proceedings.

Stat. Auth.: ORS 183.390

Stats. Implemented: ORS 183.390

Hist.: 1AG 14, f. & ef. 10-22-75; 1AG 1-1981, f. & ef. 11-17-81; JD 6-1983, f. 9-23-83, ef. 9-26-83; JD 2-1986, f. & ef. 1-27-86; JD 5-1989, f. 10-6-89, cert. ef. 10-15-89; JD 7-1991, f. & cert. ef. 11-4-91; JD 6-1995, f. 8-25-95, cert. ef. 9-9-95; DOJ 12-2003(Temp), f. & cert. ef. 10-10-03 thru 4-7-04; DOJ 13-2003, f. & cert. ef. 12-9-03; DOJ 10-2005, f. 10-31-05, cert. ef. 1-1-06