

Recent Court-Orders and Injunctions on Pesticide Use for the Protection of Endangered Species



Leopoldo Moreno
Dept of Pesticide Regulation
Endangered Species Program
10/6/2011



EARTHJUSTICE

Because the earth needs a good lawyer

Salmonid Court Order

- Lawsuit brought about by Washington Toxics Coalition represented by Earthjustice.
- US Western District Court ruled in favor of plaintiffs.
- Imposes prohibitions for use of 38 active ingredients 100 yds by air, and 20 yds by ground from Salmon Supporting Waters (SSW)
- Effective date 2/5/04.

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01-CV-00132-ANS

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

WASHINGTON TOXICS COALITION,
NORTHWEST COALITION FOR
ALTERNATIVES TO PESTICIDES, PACIFIC
COAST FEDERATION OF FISHERMEN'S
ASSOCIATIONS, and INSTITUTE FOR
FISHERIES RESOURCES,

Plaintiffs,

v.

ENVIRONMENTAL PROTECTION AGENCY,
and MIKE LEAVITT, ADMINISTRATOR,

Defendants,

v.

AMERICAN CROP PROTECTION
ASSOCIATION, et al.,

Intervenor-Defendants.

CASE NO. C01-0132C
ORDER

This matter is before the Court on Plaintiffs' motion for further injunctive relief. Having considered the briefs and arguments of the parties, and the entire record in this matter, and based on the Court's orders dated July 16, 2003 and August 8, 2003, and the oral argument held on August 14, 2003, the Court finds that further injunctive relief is appropriate to prevent potential adverse effects of certain

Salmon-Supporting Waters...



- For purposes of this legal action, the court has determined that "salmon supporting waters" are the area below the ordinary high water mark of all streams, lakes, estuaries, and other water bodies where salmon are ordinarily found at some time of year."

Species Included in California



Active Ingredients Under Court Order

- 1,3-dichloropropene
- 2,4-D BiOp 4
- Acephate
- Azinphos-methyl BiOp 3
- Bensulide BiOp 3
- Bromoxynil
- Captan BiOp 4
- Carbaryl BiOp 2
- Carbofuran BiOp 2
- Chlorothalonil BiOp 4
- Chlorpyrifos BiOp 1
- Coumaphos
- Diazinon BiOp 1
- Diflubenzuron
- Dimethoate BiOp 3
- Disulfoton BiOp 3
- Diuron BiOp 4
- Ethoprop BiOp 3
- Fenamiphos BiOp 3
- Fenbutatin-oxide

Ongoing
Consultation

No Effects

Some Effects to
Salmon Habitat or Prey

Definite Effects
to Salmon

Undergoing
Cancellation

Active Ingredients Under Court Order (continued)

- Lindane
- Linuron BiOp 4
- Malathion BiOp 1
- Methamidophos BiOp 3
- Methidathion BiOp 3
- Methomyl BiOp 2
- Methyl parathion BiOp 3
- Metolachlor
- Metribuzin
- Naled BiOp 3
- Oxyfluorfen
- Pendimethalin
- Phorate BiOp 3
- Phosmet BiOp 3
- Prometryn
- Propargite
- Tebuthiuron
- Triclopyr (BEE) BiOp 4
- Trifluralin

Ongoing
Consultation

No Effects

Some Effects to
Salmon Habitat or Prey

Definite Effects
to Salmon

Undergoing
Cancellation

Pesticide Programs Excluded

- Public Health Vector Control Programs.
- Noxious Weed Programs**
- NMFS-Authorized Programs

** some safeguards required

Safeguards Required Noxious Weed Programs

- Aerial application cannot occur within 100 yards of salmon supporting waters (SSW);
- Broadcast spraying cannot occur within 20 yards of SSW or when wind speed > 5 mph;
- Chemical spraying cannot occur within 15 feet of SSW or when wind speed > 5 mph;
- Only those pesticides registered for aquatic application can be used within 15 feet of SSW;

More...

Safeguards Required Noxious Weed Programs (cont.)

- Pesticides cannot be used when precipitation is occurring or is forecast to occur within 24 hours;
- All spraying operations must be overseen by a certified applicator;
- For 2,4-D and triclopyr, only the amine formulations can be used.

Court Orders: Terminating Events

- As EPA goes through formal consultation with the Services (NMFS or USFWS) on each of the active ingredients, and the Service issues a Biological Opinion (B.O.); they in turn will be removed from their corresponding list.
- If a Service finds jeopardy, the B.O. must include Reasonable and Prudent Alternatives (RPAs) or Reasonable and Prudent Measures (RPMs) to protect the species in question.

NMFS Biological Opinion on
Chlorpyrifos, Diazinon and Malathion
November 18, 2008

Salmonid Injunction - Consultation

- Consultation for Chlorpyrifos, Diazinon and Malathion completed in October 2008.
- NMFS' Biological Opinion proposed buffers of 500' for ground applications and 1000' for aerial apps. plus other requirements for fish kill reporting, monitoring, runoff prevention, etc.
- DPR expressed disagreement with Draft Biological Opinion, posted comments on Public Docket.
- U.S. EPA also disagreed with NMFS.

U.S. EPA Implementation

- U.S. EPA decided to impose variable buffers depending on application rate (lbs A.I./acre) + droplet size + size of adjacent body of water. For aerial apps. still almost 1000'. For ground, the minimum is 100'.
- U.S. EPA produced 40 DRAFT County Bulletins for California; specific for Chlorpyrifos, Diazinon and Malathion.
- Bulletins reviewed by DPR (11/09 and 01/10) and comments sent to U.S. EPA.
- DPR recommended Bulletins should include language providing exemptions to vector control and noxious weed programs just as in the injunctions.

U.S. EPA Bulletins *Live!* Web site



Bulletins Live!

Quick Resources

- Search by active ingredient or by State

Protecting Endangered Species



Choose a state

Choose a county

Directions: To access your Endangered Species Protection Bulletin, either use the drop-down menu to select your state and county OR use the map to select the state you wish to view.

US EPA County Bulletin – sample map for salmon



Contra Costa County, California



1 On the *county map*, areas where pesticide use must be limited are identified by colors or patterns. Each color or pattern corresponds to a species needing protection. Find the specific colors or patterns on the map that cover or are close to the area where you intend to apply pesticides. The *Species Protection Key* will further identify the specie(s) and areas of concern represented by these colors and patterns.



U.S. EPA County Bulletin Buffer Calculator

2

Look at the table of *Pesticide Active Ingredients*. This column lists the pesticide active ingredients and uses of a pesticide for which there are use limitations to protect certain species. Locate the active ingredient(s) in the pesticide you intend to apply. Note that there may be more than one row for each active ingredient.

Pesticide Active Ingredients

Chlorpyrifos(Any Form)
Any Use

Diazinon(Any Form)
Any Use

Malathion(Any Form)
Any Use

3

Look in the *Pesticide Limitation Codes* column to the right of each row for your active ingredient(s) and use pattern(s). Locate the code(s) for all species within the geographic area in which you intend to apply the pesticide (see map and species key). These codes indicate the specific limitation(s) necessary to protect the species.

Pesticide Limitation Codes

Fish
All key species

99, 22, 21, 20

99, 22, 21, 20

99, 22, 21, 20

4 The limitations that apply to each code are described in Codes and Limitations. Follow the limitations for all codes that apply.

If your product contains multiple active ingredients for which there are use limitations, you must follow all the limitations for each active ingredient for your pesticide use. If multiple codes address the same type of limitation (i.e., buffer distance, wind speed, etc.) follow the most restrictive code.

Codes and Limitations

- 20 Do not apply when wind speeds are greater than or equal to 10 mph as measured using an anemometer immediately prior to application. Begin applications nearest to the aquatic habitat and proceed away from the aquatic habitat.
- 21 Do not apply when soil moisture is at field capacity. Do not apply when a storm event likely to produce runoff from the treated area, is forecast by the National Weather Service, to occur within 48 hours following application.
- 22 Report all incidents of fish mortality that occur within four days of application, in waters adjacent to the application site, to the pesticide manufacturer using the contact information provided on the product label.
- 99 Do not apply this pesticide except in accordance with a calculated buffer from salmonid habitats (use the to determine the appropriate buffer distance).

Click on this button

[Printable Bulletin](#)

Buffer Calculator – Select Application Data

Any Use

99, 22, 21, 20

4 The limitations that apply to each code are described in Codes and Limitations. Follow the limitations for all codes that apply.

If your product contains multiple active ingredients for which there are use limitations, you must follow all the limitations for each active ingredient for your pesticide use. If multiple codes address the same type of limitation (i.e., buffer distance, wind speed, etc.) follow the most restrictive code.

Codes and Limitations

20 Do not apply when wind speeds are greater than or equal to 10 mph as measured using an anemometer immediately prior to application. Begin applications nearest to the aquatic habitat and proceed away from the aquatic habitat.

21 Do not apply when soil moisture is at field capacity. Do not apply when a storm event likely to produce runoff from the treated area, is forecast by the National Weather Service, to occur within 48 hours following application.

22 Report all incidents of fish mortality that occur within four days of application, in waters adjacent to the application site, to the pesticide manufacturer using the contact information provided on the product label.

99

Buffer Calculator

Application Type:

Spray Droplet Size:

Application Rate (lbs/acre):

Type of Water Body:

Width at ordinary high water level:

Done

habitats (use the to

[Printable Bulletin](#)

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U.S. EPA Buffer Calculator - Results

Codes and Limitations

- 20 Do not apply when wind speeds are greater than or equal to 10 mph as measured using an anemometer immediately prior to application. Begin applications nearest to the aquatic habitat and proceed away from the aquatic habitat.
- 21 Do not apply when soil moisture is at field capacity. Do not apply when a storm event likely to produce runoff from the treated area, is forecast by the National Weather Service, to occur within 48 hours following application.
- 22 Report all incidents of fish mortality that occur within four days of application, in waters adjacent to the application site, to the pesticide manufacturer using the contact information provided on the product label.
- 99 Do not apply within 150 feet of salmonid habitats. This buffer was calculated based on a stream width of 35-59 feet, ground application at a rate of 10 lbs/acre, and a ASAE fine to medium/coarse spray droplet spectra. If these inputs change for your application, you must recalculate this buffer. Salmonid habitats are defined as freshwaters, estuarine habitats, and nearshore marine habitats including bays. Freshwater habitats include: intermittent streams and other temporally connected habitats to flowing waters; off-channel habitats; and drainages, ditches, and other man made conveyances to salmonid habitats that lack salmonid exclusion devices.

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Use Limitation 99 shows corresponding buffer depending on chosen parameters



Valid For: FEB 2010

Alameda County, California



1 On the county map below, general a use must be limited are identified by col or patterns correspond to species needi colors or patterns on the map that cover where you intend to apply pesticides. Th Key will identify the species represented patterns.



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Printable Bulletin

Species Protection Key

- Fish
 Steelhead (Central California ESU) - *Oncorhynchus* (=Salmo) *mykiss*
 Steelhead, (California Central Valley ESU) - *Oncorhynchus* (=Salmo) *mykiss*

2 Look at the table of *Pesticide Active Ingredients*. This column lists the pesticide active ingredients and uses of a pesticide for which there are use limitations to protect certain species. Locate the active ingredient(s) in the pesticide you intend to apply. Note that there may be more than one row for each active ingredient.

3 Look in the *Pesticide Limitation Codes* column to the right of each row for your active ingredient(s) and use pattern(s). Locate the code(s) for all species within the geographic area in which you intend to apply the pesticide (see map and species key). These codes indicate the specific limitation(s) necessary to protect the species.

Pesticide Active Ingredients	Pesticide Limitation Codes
	Fish All key species
Chlorpyrifos(Any Form) Any Use	20
Any Use	21
Any Use	22
Any Use	99
Diazinon(Any Form) Any Use	20
Any Use	21
Any Use	22
Any Use	99
Malathion(Any Form) Any Use	20
Any Use	21
Any Use	22
Any Use	99

This document contains legal requirements for the use of certain pesticides. Do not modify any text, graphics or coloration or otherwise alter this document.

4 The limitations that apply to each code are described in Codes and Limitations. Follow the limitations for all codes that apply.

If your product contains multiple active ingredients for which there are use limitations, you must follow all the limitations for each active ingredient for your pesticide use. If multiple codes address the same type of limitation (i.e., buffer distance, wind speed, etc.) follow the most restrictive code.

Codes and Limitations

- 20 Do not apply when wind speeds are greater than or equal to 10 mph as measured using an anemometer immediately prior to application. Begin applications nearest to the aquatic habitat and proceed away from the aquatic habitat.
- 21 Do not apply when soil moisture is at field capacity. Do not apply when a storm event likely to produce runoff from the treated area, is forecast by the National Weather Service, to occur within 48 hours following application.
- 22 Report all incidents of fish mortality that occur within four days of application, in waters adjacent to the application site, to the pesticide manufacturer using the contact information provided on the product label.
- 99 Do not apply within 1000 feet of salmonid habitats. This buffer was calculated based on a stream width of 35-59 feet, aerial application at a rate of 10 lbs/acre, and a ASAE fine to medium spray droplet spectra. If these inputs change for your application, you must recalculate this buffer. Salmonid habitats are defined as freshwaters, estuarine habitats, and nearshore marine habitats including bays. Freshwater habitats include: intermittent streams and other temporally connected habitats to flowing waters; off-channel habitats; and drainages, ditches, and other man made conveyances to salmonid habitats that lack salmonid exclusion devices.

Bulletins - Implementation...

- EPA asked registrants to voluntarily modify labels for Chlorpyrifos, Diazinon and Malathion or face cancellation proceedings.
- Restrictions would be voluntary until labels were modified within a period of 18 months.
- DPR hasn't received confirmation if bulletins will include exemptions

Implementation...NOT

- Registrants charged EPA and NMFS with a lack of transparency and opportunity for input in the consultation process.
- Registrants' complaint was dismissed in District Court of Maryland (7/29/09)
- EPA requested a response by May 13, 2010, indicating whether registrants would adopt all or some of the use limitations.

...the latest

- Registrants through their counsel responded they were not prepared to make any of the registration revisions requested by EPA.
- Dow Agrosiences, Makteshim Agan NA and Cheminova filed an appeal against NMFS' Bio Op (10/27/10), judge agreed to remand for review (03/02/11).
- Northwest Center for Alternatives to Pesticides, *et al.* filed a Memorandum in Support of NMFS Bio Op (08/22/11)

EPA Request for Expert Panel - NAS



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

MAR 10 2011

THE ADMINISTRATOR

Ralph J. Cicerone, Ph.D.
President, National Academy of Sciences
Chairman, National Research Council
500 5th Street, NW
Washington, D.C. 20001

Dear ~~Dr. Cicerone~~ *Ralph*:

I would like to confirm the request from me and the secretaries of the departments of Agriculture, Commerce and Interior that the National Research Council convene a committee of independent experts to review scientific and technical issues that have arisen as our departments and agencies seek to meet their respective responsibilities under the Endangered Species Act and the Federal Insecticide, Fungicide and Rodenticide Act.

The recent experience of completing consultations under the ESA for FIFRA-related actions affecting Pacific salmon has illustrated a number of scientific issues. The scientific and technical topics on which we seek advice pertain to the approaches utilized by the EPA, the Fish and Wildlife Service of the Department of Interior and the National Marine Fisheries Service of the Department of Commerce's National Oceanic and Atmospheric Administration in assessing the effects of proposed FIFRA actions on endangered species and their habitats. These topics include the identification of best-available scientific data and information; consideration of sub-lethal, indirect and cumulative effects; the effects of chemical mixtures and inert ingredients; the use of models to assist in analyzing the effects of pesticide use; incorporating uncertainties into the evaluations effectively; and the use of geospatial information and datasets that can be employed by the departments and agencies in the course of these assessments.

These issues are scientifically complex and of high importance. A concerted, closely coordinated effort to address them openly and actively will assist in the proper execution of the statutory responsibilities under the ESA, FIFRA and other applicable laws.

The EPA and the departments of Agriculture, Commerce and Interior stand ready to work with your designees to refine the scope of the effort as appropriate and otherwise assist in the execution of this review.

NAS Expert Panel Established 6/1/2011

Expect to Issue Report on Fall 2012

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Project Information

Project Title:	Ecological Risk Assessment Under FIFRA and ESA
PIN:	DELS-BEST-11-01
Major Unit:	Division on Earth and Life Studies
Sub Unit:	Board on Environmental Studies & Toxicology
RSO:	Policansky, David
Subject/Focus Area:	Environment and Environmental Studies

Printer Friendly Version

Committee Membership

Committee Membership

Meetings

Reports

Reports having no URL can be seen at the Public Access Records Office

Project Scope

A committee of the National Research Council (NRC) will examine scientific and technical issues related to the methods and assumptions used by the U.S. Environmental Protection Agency (EPA), the U.S. Fish and Wildlife Service (FWS), and the National Oceanic and Atmospheric Administration (NOAA) to conduct scientific assessments of ecological risks from pesticides registered by EPA under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) to species listed under the Endangered Species Act (ESA). The range of scientific studies needed to make such assessments will be considered, including ecological, agricultural, hydrological, toxicological, and exposure studies. The committee will develop conclusions reflecting the use of scientific principles and to facilitate a more holistic approach to assessing risks across the agencies, considering the intent of the ESA and of FIFRA. The expectation is that the NRC's conclusions would also be applied to the methods and assumptions used for scientific assessment of federal actions under the Clean Water Act to species listed under the ESA. Policy issues related to decision making will not be addressed. Specific topics that the committee will consider to the extent practicable include the following:

- Best available scientific data and information. The Services and EPA approach the identification of "best available scientific information" using a variety of differing protocols pertaining to the type and character of scientific information that may be appropriate for these evaluations. Some of these approaches pertain to the character of the information as consensus information, peer-reviewed information, regulatory studies supporting pesticide registrations, or other published and unpublished information. The NRC will evaluate those protocols with respect to validity, availability, consistency, clarity, and utility.
- Sub-lethal, indirect, and cumulative effects. The ESA requires the consideration of direct, indirect, and cumulative effects on listed species and habitats in the consultation process. The Services and EPA have used differing approaches on how to characterize indirect, sub-lethal, and cumulative effects. The NRC will review the best available scientific methods for projecting these types of effects and consider options for the development of any additional

What to do now...

- Until a final decision is made on any of the 38 active ingredients under this injunction, follow the Court Ordered no-use buffers of 100 yards (aerial application) or 20 yards (ground application) from Salmon Supporting Waters.
- If you are part of a public Vector Control or Noxious Weed Eradication program check for your exemptions under this injunction.
- Check U.S. EPA's Web site often for updates on this and other injunctions at:

<http://www.epa.gov/oppfead1/endanger/litstatus/eslitig.htm>

Another Option

- Public Health Vector Control Programs.
- Noxious Weed Programs
- **NMFS-Authorized Programs**

Pesticides: Endangered Species Protection Program



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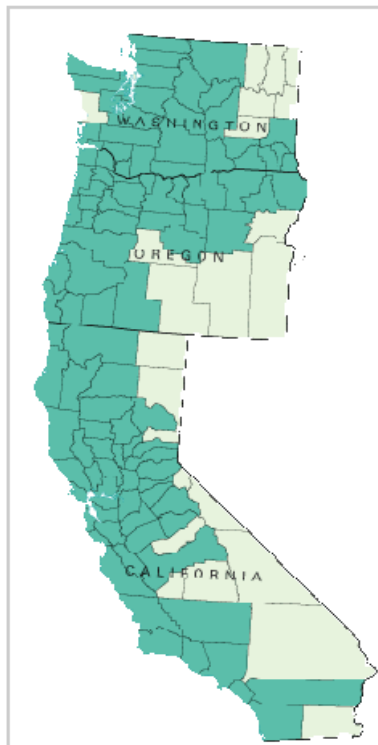
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Court Ordered Buffers Around Pacific Salmon-Supporting Waters

Shaded Counties on the map below, are those that support threatened and endangered salmon or steelhead habitat, and in which pesticide use buffers may have been ordered by the court. If you plan to use any of the [pesticides subject to the court order](#) in a shaded county **YOU SHOULD FIRST READ THE BACKGROUND** section. Pesticide users are urged to check this site, before, but close to the time of application of the pesticide, since the buffers may become unnecessary as EPA continues its review of the pesticides subject to the court order.

Quick Resources

- [Court Ordered Limitations](#)
- [Effects Determinations and Consultations](#)



BACKGROUND

A citizen suit was filed under the Endangered Species Act against EPA by a group of environmental organizations (Washington Toxics Coalition, et al. v. EPA). In response, the United States District Court for the Western District of Washington issued on January 22, 2004, an order that establishes pesticide buffer zones. Buffer zones are areas adjacent to certain streams, rivers, lakes estuaries and other water bodies, in which the court is ordering certain pesticides not be used. Generally, the buffers established by the Court are 20 yards for ground application and 100 yards for aerial application, adjacent to certain "salmon-supporting waters" in Washington, Oregon and California. The order applies to pesticide use in these three states, for any product containing one or more of the [pesticides subject to the court order](#).

The Court Order which became effective on February 5, 2004, defines salmon-supporting waters as certain water bodies below the "normal high water mark" and thus, any buffer should be measured from that normal high water mark. The buffers apply to the waters indicated on our interactive mapper, and to estuaries relevant to each of the salmon and steelhead. An estuary is a water passage where a tide meets a river current.

Failure to comply with the court order is not a violation of the [Federal Insecticide and Fungicide Act \(FIFRA\)](#). [EXIT Disclaimer](#) However, EPA recognizes the legal effect of the Court's order and is providing the information on this Web site and linked sites, to assist pesticide users in understanding the specific provisions of the Court's order.

There are several general exceptions to the buffers in the court order and many pesticide specific variations. You should read the [general exceptions](#) to determine if any buffers apply to your use of the pesticides subject to the order.

If the general exceptions do not apply to you, consult our interactive map to determine whether a specific buffer applies to your use of a pesticide, and the waters to which that buffer applies.

Enter our [interactive map](#) site to determine how the Court's order applies to a pesticide use you intend to make.

GENERAL EXCEPTIONS

Below are descriptions of specific [uses for which there is no buffer](#) for any of the pesticides subject to the court

DPR's Ongoing Efforts

- DPR has provided comments to the Biological Opinions (BiOp) issued thus far.
- DPR is working cooperatively with U.S. EPA and National Marine Fisheries Service to help refine the Reasonable and Prudent Alternatives (RPAs) and Reasonable and Prudent Measures (RPMs) resulting from each BiOp.
- As U.S. EPA officials inform DPR of their actions, DPR will make that information available through our Web site.

Stipulated Injunction and Order for Protection of California Red-Legged Frog



- The suit by the Center for Biological Diversity alleged that U.S. EPA failed to solicit U.S. Fish & Wildlife Service (FWS) formal consultation on the risks from 66 pesticides to California red-legged frog (CRLF).
- Imposes prohibitions for use of 64 (two registrations have been cancelled since) active ingredients 200 feet by air, and 60 feet by ground from California red-legged frog's aquatic and upland habitats occurring in 33 counties.
- Effective date 10/20/06.

Active Ingredients Affected (CRLF)

- 1,3-dichloropropene
- 2,4-D
- Acephate
- Alachlor
- Aldicarb
- Atrazine
- Azinphos-methyl
- Bensulide
- Bromacil
- Captan
- Carbaryl
- Chloropicrin
- Chlorothalonil
- Chlorpyrifos
- Chlorthaldimethyl
- Diazinon
- Dicofol
- Diflubenzuron
- Dimethoate
- Disulfoton
- Diuron
- Endosulfan

Active Ingredients Affected (CRLF)

- EPTC
- Esfenvalerate
- Fenamiphos*
- Glyphosate
- Hexazinone
- Imazapyr
- Iprodione
- Linuron
- Malathion
- Mancozeb
- Maneb
- Metam Sodium
- Methamidophos
- Methidathion
- Methomyl
- Methoprene
- Methyl parathion
- Metolachlor
- Molinate*
- Myclobutanil
- Naled
- Norflurazon

* Registration was cancelled

Active Ingredients Affected (CRLF)

- Oryzalin
- Oxamyl
- Oxydemeton-methyl
- Oxyfluorfen
- Paraquat dichloride
- Pendimethalin
- Permethrin
- Phorate
- Phosmet
- Prometryn
- Propanil
- Propargite
- Propyzamide
- Rotenone
- Simazine
- SSS-tributyl phosphorithiolate
- Strychnine
- Thiobencarb
- Triclopyr (BEE + TEA)
- Trifluralin
- Vinclozolin
- Ziram



Counties Impacted by this Injunction

Alameda, Amador, Butte, Calaveras, Contra Costa, El Dorado, Fresno, Los Angeles, Marin, Mendocino, Merced, Monterey, Napa, Nevada, Placer, Plumas, Riverside, San Benito, San Bernardino, San Francisco, San Joaquin, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, Santa Cruz, Solano, Stanislaus, Tehama, Tuolumne, Ventura, and Yuba.

Current Status: CRLF and Bay Area

U.S. ENVIRO

Pesticides: Endangered Species Protection Program

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Effects Determinations for the California Red-legged Frog and other California Listed Species

2,4-D	Acephate	Aldicarb	Alachlor	Aluminum Phosphide	Atrazine	Azinphos methyl	Bensulide	Bromacil
Bromethalin	Carbaryl	Carbofuran	Captan	Chlorophacinone	Chloropicrin	Chlorpyrifos	Chlorothalonil	DCPA
Diazinon	Dicofol	Diflufenzuron	Dimethoate	Diuron	Diphacinone	Disulfoton	Diquat Dibromide	Endosulfan
EPTC	Esfenvalerate	Fenamiphos	Glyphosate	Hexazinone	Imazapyr	Iprodione	Linuron	Magnesium Phosphide
Malathion	Mancozeb and Maneb	Mancozeb	Maneb	Metam sodium	Methamidophos	Methidathion	Metolachlor	Methomyl
Methoprene	Methyl parathion	Molinate	Myclobutanil	Naled	Norflurazon	Oryzalin	Oxamyl	Oxydemeton Methyl
Oxyfluorfen	Paraquat	Permethrin	Pendimethalin	Phorate	Phosmet	Potassium	Prometryn	Propargite
Propanil	Propyzamide	Rotenone	S-Metolachlor	Sodium Nitrates	Simazine	Strychnine	Telone	Thiobencarb
Trifluros	Triclopyr	Trifluralin	Vinclozolin	Zinc Phosphide	Ziram			

Effects Determination for 2,4-D and the California Red-legged Frog and Alameda Whipsnake

[Transmittal Letter \(PDF\)](#) (2 pp, 125K) from Arthur-Jean B. Williams, Associate Director, Environmental Fate and Effects Division to Bryan Arroyo, Acting Assistant Director for Endangered Sp U.S. Fish and Wildlife Service (2/20/09)

[Effects Memorandum \(PDF\)](#) (2 pp, 104,53K) from Christine Hartless, Environmental Fate and Effects Division to Arthur-Jean B. Williams, Associate Director, Environmental Fate and Effects Division (2/20/09)

[2,4-D Analysis \(PDF\)](#) (184 pp, 2,084K) Risks of 2,4-D Use to the Federally Threatened California Red-legged Frog and the Alameda Whipsnake (2/20/09)

- Appendix A: [Multi-ai Analysis \(PDF\)](#) (7 pp, 83,54K)
- Appendix B: [Supplemental Fate Information \(PDF\)](#) (50 pp, 378K)
- Appendix C: [Detailed DPR PUR Data \(PDF\)](#) (5 pp, 109K)
- Appendix D: [PRZM/PE5 Output Files \(PDF\)](#) (15 pp, 26,7K)
- Appendix E: [Review of Dioxin Contamination \(PDF\)](#) (4 pp, 62K)
- Appendix F: [Ecological Effects Data \(PDF\)](#) (32 pp, 289K)
- Appendix G: [ECOTOX Literature \(PDF\)](#) (398 pp, 7,074K)
- Appendix H: [EHS Incident Data \(PDF\)](#) (57 pp, 81,7K)
- Appendix I: [RQ Methods and LOC Definitions \(PDF\)](#) (3 pp, 20K)
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[Effects Memorandum \(PDF\)](#) (2,102,5K) from Donna Randall, Environmental Fate and Effects Division to Arthur-Jean B. Williams, Associate Director, Environmental Fate and Effects Division

[Acephate Analysis \(PDF\)](#) (133 pp, 2,094K) Risks of Acephate Use to the Federally Threatened California Red-legged Frog and Whipsnake (7/19/07)

- EPA proceeding with effects determinations on multi-species process to address both injunctions.
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Bay Area Stipulated Injunction and Order



Bay Area Stipulated Injunction and Order

- Suit by Center for Biological Diversity charges U.S. EPA with failure to consult U.S. Fish & Wildlife Service (FWS) on the risks from 75 pesticides (active ingredients) to 11 listed species in the San Francisco Bay Area.
- Eight counties affected: Alameda, Contra Costa, Marin, Napa, San Mateo, Santa Clara, Solano and Sonoma.
- Imposes different "no-use" buffers for the 75 pesticides, depending on species.

Species Included



California clapper rail



California freshwater shrimp



California tiger salamander



Salt marsh harvest mouse



Tidewater goby

Species Included



San Joaquin kit fox



Alameda whipsnake



San Francisco garter snake



Valley elderberry
longhorn beetle



Bay checkerspot butterfly



Delta smelt

Active Ingredients Affected

- Acephate
- Acrolein
- Alachlor
- Aldicarb
- Aluminum phosphide
- Atrazine
- Azinphos-methyl
- Bensulide
- Beta-cyfluthrin
- Bifenthrin
- Brodifacoum
- Bromadiolone
- Bromethalin
- Carbaryl
- Carbofuran
- Chlorophacinone
- Chlorothalonil
- Chlorpyrifos
- Cholecalciferol
- Cyfluthrin
- Cyhalothrin (lambda)
- Cypermethrin
- 2,4-D
- Deltamethrin
- Diazinon
- Difethialone
- Difenacoum

Active Ingredients Affected (cont.)

- Dimethoate
- Diphacinone
- Diquat dibromide
- Disulfoton
- Endosulfan
- EPTC
- Esfenvalerate
- Ethoprop
- Fenpropathrin
- Fipronil
- Fluvalinate
- Imidacloprid
- Magnesium phosphide
- Malathion
- Mancozeb
- Maneb
- Metam Sodium
- Methamidophos
- Methidathion
- Methomyl
- Methoprene
- Methyl bromide
- Metolachlor
- Naled
- Oryzalin
- Oxydemeton methyl

Active Ingredients Affected (cont.)

- Oxyfluorfen
- PCNB
- Pendimethalin
- Permethrin
- Phenotrin
- Phorate
- Phosmet
- Potassium nitrate
- Propargite
- Resmethrin
- S-Metolachlor
- Simazine
- Sodium cyanide
- Sodium nitrate
- Strychnine
- Tetramethrin
- Thiobencarb
- Tralomethrin
- Trifluralin
- Warfarin
- Zeta-cypermethrin
- Zinc phosphide

Depending on the Species, the Active Ingredient,
and method of application (ground or air)...

- Buffers 100' or 400'
- BUFFERS 200'-300' for both
- BUFFERS 200' or 400'
- BUFFERS 700'

Pesticide Programs Excluded*

- Public Health & Vector Control Programs
- Invasive Plant and Noxious Weed Programs
- ESA-Authorized Programs
- Subterranean Termite Treatment
- Structural Rodent Control

* Some conditions still apply to all these

Exempt uses – No buffer imposed

- use in cattle ear tags
- indoor uses
- homeowner applications to household potted plants
- use of the pesticides in flea and tick collars for dogs and cats
- tree injection applications **

** however, the buffers described in the SFB interactive map relative to the Valley elderberry longhorn beetle **continue to apply** if injecting acephate, aldicarb, azinphos methyl, carbofuran, chlorpyrifos, endosulfan or phorate into elderberry trees.

Current Status: CRLF and Bay Area

U.S. ENVIRO

Pesticides: Endangered Species Protection Program

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Effects Determinations for the California Red-legged Frog and other California Listed Species

2,4-D	Acephate	Aldicarb	Alachlor	Aluminum Phosphide	Atrazine	Azinphos methyl	Bensulide	Bromacil
Bromethalin	Carbaryl	Carbofuran	Captan	Chlorophacinone	Chloropicrin	Chlorpyrifos	Chlorothalonil	DCPA
Diazinon	Dicofol	Diflufenzuron	Dimethoate	Diuron	Diphacinone	Disulfoton	Diquat Dibromide	Endosulfan
EPTC	Esfenvalerate	Fenamiphos	Glyphosate	Hexazinone	Imazapyr	Iprodione	Linuron	Magnesium Phosphide
Malathion	Mancozeb and Maneb	Mancozeb	Maneb	Metam sodium	Methamidophos	Methidathion	Metolachlor	Methomyl
Methoprene	Methyl parathion	Molinate	Myclobutanil	Naled	Norflurazon	Oryzalin	Oxamyl	Oxydemeton Methyl
Oxyfluorfen	Paraquat	Permethrin	Pendimethalin	Phorate	Phosmet	Potassium	Prometryn	Propargite
Propanil	Propyzamide	Rotenone	S-Metolachlor	Sodium Nitrates	Simazine	Strychnine	Telone	Thiobencarb
Triflufen	Triclopyr	Trifluralin	Vinclozolin	Zinc Phosphide	Ziram			

Effects Determination for 2,4-D and the California Red-legged Frog and Alameda Whipsnake

[Transmittal Letter \(PDF\)](#) (2 pp, 125K) from Arthur-Jean B. Williams, Associate Director, Environmental Fate and Effects Division to Bryan Arroyo, Acting Assistant Director for Endangered Sp U.S. Fish and Wildlife Service (2/20/09)

[Effects Memorandum \(PDF\)](#) (2 pp, 104.53K) from Christine Hartless, Environmental Fate and Effects Division to Arthur-Jean B. Williams, Associate Director, Environmental Fate and Effects Division (2/20/09)

[2,4-D Analysis \(PDF\)](#) (194 pp, 2.08MB) Risks of 2,4-D Use to the Federally Threatened California Red-legged Frog and the Alameda Whipsnake (2/20/09)

- Appendix A: [Multi-ai Analysis \(PDF\)](#) (7 pp, 83.54K)
- Appendix B: [Supplemental Fate Information \(PDF\)](#) (50 pp, 378K)
- Appendix C: [Detailed DPR PUR Data \(PDF\)](#) (5 pp, 109K)
- Appendix D: [PRZM/PE5 Output Files \(PDF\)](#) (15 pp, 26.7K)
- Appendix E: [Review of Dioxin Contamination \(PDF\)](#) (4 pp, 62K)
- Appendix F: [Ecological Effects Data \(PDF\)](#) (32 pp, 289K)
- Appendix G: [ECOTOX Literature \(PDF\)](#) (398 pp, 7.07MB)
- Appendix H: [EHS Incident Data \(PDF\)](#) (57 pp, 81.7K)
- Appendix I: [RQ Methods and LOC Definitions \(PDF\)](#) (3 pp, 20K)
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Enforcement – All three injunctions

- Only through citizen lawsuits while an injunction is in force.
- Once U.S. EPA AI risk assessment and consultation processes are completed, *and* required protective measures appear in EPA County Bulletins, *and* pesticide product labels refer pesticide users to the *Bulletins Live!* website *then*, government agencies (e.g., U.S. EPA, DPR, CACs) become responsible for enforcement thru FIFRA.

Info Sources: Salmonids

<http://www.epa.gov/espp/litstatus/wtc/index.htm>



U.S. ENVIRONMENTAL PROTECTION AGENCY

Pesticides: Endangered Species Protection Program



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Endangered Species Case - Washington Toxics Coalition v. EPA

You will need Adobe Reader to view some of the files on this page. See [EPA's PDF page](#) to learn more.

Under the Endangered Species Act, EPA must ensure that its registration of a pesticide will not result in likely jeopardy to the continued existence of federally listed threatened or endangered species or destroy or adversely modify their designated critical habitat. In addition the Agency must consult, as appropriate, with the U.S. Fish and Wildlife Service (FWS) or National Marine Fisheries Service (NMFS) if a pesticide's use may affect listed species or designated critical habitat.

This Web page provides information on the Washington Toxics Coalition v. EPA case, related to protection of Pacific salmon and steelhead, and links to the biological opinions issued by the NMFS and EPA's responses.

Background on this court case

On February 17, 2004, EPA announced the availability of the January 22, 2004, ruling of the U.S. District Court for the Western District of Washington in the case of Washington Toxics Coalition (WTC) v. EPA in a [Federal Register](#) notice. The Court established buffer zones around certain water bodies in California, Oregon, and Washington where the court ordered that specific pesticides could not be used. Generally, for ground pesticide applications, the court order establishes a 20-yard buffer zone; for aerial pesticide applications, the court order establishes a 100-yard buffer zone adjacent to salmon-supporting waters. These buffers are in effect until EPA completes its consultation obligations including finding that a pesticide has no effect on the species, receipt of a biological opinion from NMFS, or a finding by EPA that the pesticide is not likely to adversely affect the species with no affirmative rejection of that finding by NMFS.

Chief Judge Coughenour issued this order in response to the WTC's July 16, 2003, motion for injunctive relief to establish buffer zones as an interim measure to reduce the likelihood of jeopardy to 26 species of salmon and steelhead.

The Agency met its December 1, 2004, deadline to complete the review of the 55 pesticides as ordered by the court on July 2, 2002. For 37 pesticides, EPA determined there may be effects to one or more of the listed Pacific salmon or steelhead and therefore initiated consultation with the National Marine Fisheries Service.

Links to the Federal Register Notices and Court Orders:

- [March 24, 2004, Federal Register notice](#) on point of sale notification.
- [February 17, 2004, Federal Register notice](#) announcing the availability of the Court ruling.
- [January 22, 2004, Court Order \(PDF\)](#) (31 pp, 754K)
- [August 8, 2003, Court Order \(PDF\)](#) (22 pp, 957K)
- [July 16, 2003, Court Order \(PDF\)](#) (5 pp, 231K)
- [July 2, 2002, Court Order \(PDF\)](#) (21 pp, 1.03MB)

Quick Resources

- [EPA Seeks Input on NMFS' Draft Measures to Protect Endangered Pacific Salmon from 12 Pesticides](#)
- [NMFS April 20, 2009, Final Biological Opinion under the Endangered Species Act, Issued for Carbofuran, Carbaryl and Methomyl to Protect Salmon and Steelhead in California, Idaho, Oregon, and Washington \(PDF\)](#) (20 pp, 888.73k, about PDF)
- [EPA Plans New Use Limitations on Carbaryl, Carbofuran, and Methomyl to Protect Salmon and Steelhead in California, Idaho, Oregon, and Washington \(PDF\)](#) (20 pp, 888.73k, about PDF)
- [Manufacturers Decline to Adopt Pesticide Use Limitations to Protect Endangered Species \(PDF\)](#) (3 pp, 163k)
- [EPA Gives Pesticide Manufacturers Two Weeks to Commit to Modifications to Protect Endangered Species \(PDF\)](#) (5pp, 100KB)
- [NMFS November 18, 2008, Final Biological Opinion under the Endangered Species Act, Issued for Chlorpyrifos, Diazinon, and Malathion \(PDF\)](#) (484 pp, 11.04MB)

September 11, 2009, Press Release: New Limitations on Pesticide Uses Will Protect Salmon

EPA September 10, 2009,

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Info Sources: California Red-legged Frog

U.S. EPA website with injunction details and county maps of areas affected:

<http://www.epa.gov/espp/litstatus/redleg-frog/steps-info.htm>

Injunction information on DPR Website:

http://www.cdpr.ca.gov/docs/endspec/rl_frog/

Info Sources: Bay Area Injunction

U.S. EPA interactive maps
(printable, include specific buffer zones):

<http://137.227.242.165/sfb/index.html>

U.S. EPA informational website:

<http://www.epa.gov/espp/litstatus/factsheet.html>