

# Law Suits and Laws Related to Buffers for Aerial Application in the PNW

2007 Aerial Applicator's Short Course

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# It's the Water

Olympia Brewing Company said it all!

The Clean Water Act is the route to the courts.

# It's the Water

- Clean Water Act allows 'citizen suits'
- No such provision under the Fungicide Insecticide and Rodenticide Act (FIFRA) exists
- Regulation through court action is the aim of the environmentalists
- First the good news!

# EPA Ruling on NPDES

- November 2006 EPA issued a final rule clarifying two specific circumstances in which a Clean Water Act (CWA) permit is not required to apply pesticides to or around water.
  - 1) the application of pesticides directly to water in order to control pests; and
  - 2) the application of pesticides to control pests that are present over or near water, where a portion of the pesticides will unavoidably be deposited to the water in order to target the pests.
- Pesticides legally registered for application to or near aquatic environments, and legally applied to control pests at those sites, are not subject to NPDES permit requirements.
- What's an NPDES Permit?

# EPA Ruling on NPDES

- NPDES – National Pollutant Discharge Elimination System
- NPDES is required under the CWA for
  - A pollutant discharged into the waters of the US from any person or a point source
  - NPDES permits are only required under CWA for pollutants being discharged into the waters of the US from a point source
  - Applications that result in residual pesticides do not require an NPDES since the pesticide was not considered a pollutant at the time of application

# EPA Ruling on NPDES

- All decisions have depended on the definitions of a *pollutant* and a *point source* according to the CWA.
- NPDES permits are required under CWA only for point source discharges that are pollutants to the waters of the US.
- CWA defines pollutant to mean:
  - dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, **chemical wastes**, biological materials, radioactive materials, heat, wrecked or discarded equipment, municipal and agricultural waste discharged into water

# EPA Ruling on NPDES

- The ruling does not address pesticide drift into waters of the US resulting from terrestrial applications
- A workgroup is considering pesticide drift and will provide advice to EPA

# EPA Ruling on NPDES

- Applications affected to different degrees
  - Forestry
    - League of Wilderness Defenders vs. Forsgren
  - Agriculture
    - These have never been challenged under CWA
  - Vector Control
    - Altman vs. the Town of Amherst
  - Irrigation Districts
    - Headwaters vs. Talent Irrigation District
    - Still a gray area

# Recent Court Findings

- Talent Irrigation District vs. Headwaters Inc. 2001
  - Applied toxic algaecide (Magnacide H) into irrigation ditches
  - Premature release of the water with the residual pesticide into Bear Creek resulted in a fish kill
  - Courts ruled that the pesticide was a Clean Water Act pollutant by definition since a residual is a chemical waste
  - NPDES was required for application of a pollutant to the waters of the US
  - 9<sup>th</sup> Circuit Court of Appeals upheld lower court
    - Washington, Oregon, California, Idaho and Nevada are affected by jurisdiction

# Recent Court Findings

- League of Wilderness Defenders vs. Forsgren 2002
  - BT application for Gypsy moth in Idaho was challenged under CWA
  - Considered whether a discharge from a boom was from a point source
  - It was ruled a point source
- Fairhurst vs. Hegener 2005
  - Pesticide application to kill trash fish in a Montana lake
  - 9<sup>th</sup> Circuit Court determined application of a pesticide directly to water to control a pest does not constitute chemical waste where there are no chemical residues
  - Pesticide is applied under FIFRA

# Recent Court Findings

- Altman vs. the Town of Amherst
  - Second Circuit Court remanded the case back to the district court to further develop the record of decision
  - EPA was required to clarify whether a properly applied pesticide under FIFRA rules constituted a pollutant and required an NPDES

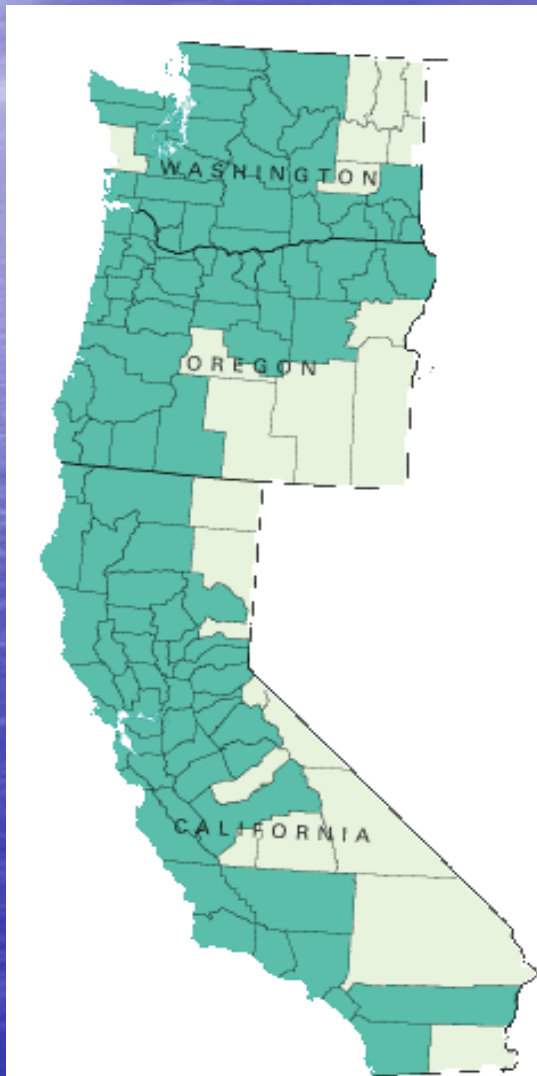
# Washington Toxics Vs. EPA

Additional Buffers on Certain  
Chemicals Required

# WTC Vs EPA

- Washington Toxics Law Suit - January 22, 2004
- 53 active ingredients were found to have not gone through consultation – EPA and NOAA Fisheries
- WTC applied for injunctive relief until the consultations can be made.
- Requires buffers for aerial and ground application for some active ingredients adjacent to salmon supporting waters.
- These supporting waters are considered critical habitat for 26 species of T&E salmon and steelhead
- What waters and active ingredients require buffers?

# Court Ordered Buffers Around Pacific Salmon-Supporting Waters



- Shaded Counties on the map, are those that support threatened and endangered salmon or steelhead habitat, and in which pesticide use buffers may have been ordered by the court.
- Consult ODA Website for specific waters affected:

<http://egov.oregon.gov/ODA/PEST/buffermaps.shtml>

# 26 Pesticides Currently Affected

Active Ingredient	Sample Trade Names*	Active Ingredient	Sample Trade Names*
2,4-D	Various names	Fenbutatin-oxide	Vendex
Azinphos-methyl	Guthion	Lindane	Lindane
Bensulide	Prefar	Malathion	Various names
Bromoxynil	Buctril	Methidathion	Supracide
Carbaryl	Sevin	Methomyl	Lannate
Carbofuran	Furadan	Methyl parathion	Pennacap-M
Chlorothalonil	Bravo	Metolachlor	Dual
Chlorpyrifos	Lorsban, Dursban	Naled	Dibrom
Diazinon	Various names	Phorate	Thimet
Dimethoate	Cygon	Prometryn	Caparol
Disulfoton	Di-Syston	Propargite	Omite, Comite
Diuron	Direx, Karmex	Triclopyr (ester)	Garlon 4
Ethoprop	Mocap	Trifluralin	Treflan

\*This table may not include every trade name for each active ingredient. Always check the active ingredient list on the label to verify presence of the above ingredients.

# WTC Vs EPA

- Aerial broadcast buffer = 100 yards
- Ground broadcast buffer = 20 yards
- Ground spot treatments = 1 yard
  - Localized spot treatments using hand-held, ready-to-use devices, as long as the area treated is limited to 10 percent of the treated right-of-way, roadside, pasture, lawn or forestry site
  - basal bark applications to individual plants
- Buffers are measured from the mean high water mark of protected streams

# WTC Vs EPA

- What products require buffers?
  - Triclopyr BEE (ester formulation) and 2-4-D must adhere to buffer requirements.
  - Garlon 4 contains ester formulation
  - Crossbow (contains 2,4-D ester and Tricolpyr BEE)
  - Triclopyr amine (Garlon 3A) is exempt from buffer requirements
- NOAA Fisheries announced a no-list for Oregon Coastal Coho in March!

# WTC Vs EPA

- On March 10, 2005 the Coastal Coho was removed from the T&E list
- The action effectively removes all waterways in Coos, Douglas, Lincoln and Tillamook completely from the original order and removes certain waterways in Benton, Clatsop, Columbia, Curry, Lane, Polk, Yamhill and Washington Counties

# Washington and Oregon Chemical Rules

## Required Buffers

# Oregon Forest Practices Act Chemical Buffers

- Definitions

- Type D are streams segments within 100 feet of a domestic water intake
- Type F streams are fish bearing
- Type N streams are non-fish bearing

# Oregon Forest Practices Act Chemical Buffers

All buffers are measured horizontal distance from the high water mark	Type Of Area To Be Protected	Herbicides, Rodenticides, Biological Insecticides, and All Other Chemicals Except Fungicides, Non-biological Insecticide, and Fertilizers		Fungicides and Non-Biological Insecticides		Fertilizers	
		Aerial Application	Ground Application	Aerial Application	Ground Application	Aerial Application	Ground Application
	Aquatic areas Of Fish Bearing Streams. No Domestic Use. Most Type F Streams	60 Feet	10 Feet	300 Feet	10 Feet	No Direct Application	No Direct Application
	Aquatic Areas Of Domestic Use Streams. D And Some Type F Streams	60 Feet	10 Feet	300 Feet	10 Feet	100 Feet	100 Feet
	Aquatic Areas Of Other Streams. Type N Streams	No Buffer Specified	No Buffer Specified	60 feet if flowing at time of application	No Buffer Specified	No Direct Application to large and medium streams	No Direct Application to large and medium streams
	Significant Wetlands	60 Feet	10 Feet	300 Feet	10 Feet	No Direct Application	No Direct Application
	Aquatic Areas Of Lakes Larger Than 8 Acres	60 Feet	10 Feet	300 Feet	10 Feet	No Direct Application	No Direct Application
	Aquatic Areas Of Other Lakes With Fish Use	60 Feet	10 Feet	300 Feet	10 Feet	No Direct Application	No Direct Application
	Other Standing Water Larger Than ¼ Acre	60 Feet	10 Feet	300 Feet	10 Feet	No Direct Application	No Direct Application

# Washington Forest Practices Act Chemical Buffers

- Definitions

- Type S: designated as shorelines of the waters of the state
- Type F: domestic use or fish bearing streams
  - can be diverted waters for domestic, camp site or fish hatchery use
- Type Np: perennial waters that are non-fish bearing
- Type Ns are seasonal non-fish bearing waters

# Washington Forest Practices Act Chemical Buffers

- RMZ Core Zone
  - 50 foot buffer along Types S and F Western WA
  - 30 foot buffer along Types S and F Eastern WA
- RMZ Inner Zone
  - Area measured Horizontally from the outer edge of the core zone to the outer edge of the inner zone, depending on site class
  - Western WA ranges from 200' for site class I to 90' for site class IV
  - Eastern WA ranges from 130' for site class I to 75' for site class IV

# Washington Forest Practices Act Chemical Buffers

## Buffer on Type F and S Waters

All buffers are measured horizontal distance from the high water mark

### Determining Wind Factor

Favorable

Calm or unfavorable

	Application Height	Buffer On Water	Offset From Inner Zone	Buffer On Water	Offset From Inner Zone
Regular Nozzle*	Low (up to 16 ft.)	Width of the Inner zone	As needed for safety	150 ft or the Inner zone, whichever is greater	N/A
	Medium (17-50 ft.)	WMZ Width of the Inner zone	As needed for safety	250 ft.	N/A
	High (51-65 ft.)	Width of the Inner zone	As needed for safety	325 ft.	N/A
Raindrop Nozzle (or other resulting in same size spray droplets)	Low (up to 16 ft.)	Width of the Inner zone	As needed for safety	Width of the Inner zone	20 ft.
	Medium (17-50 ft.)	Width of the Inner zone	As needed for safety	Width of the Inner zone	20 ft.
	High (51-65 ft.)	Width of the Inner zone	As needed for safety	125 ft. or the inner zone, whichever is greater	20 ft.

- Coarse spray droplets = approximately 9% of spray-droplet volume  $\leq 150 \mu$
- \*\*Ultra coarse spray droplet = approximately 1% of spray-droplet volume  $\leq 150 \mu$

# Washington Forest Practices Act Chemical Buffers

## Buffer on Type A and B Wetlands

All buffers are measured horizontal distance from the high water mark

### Determining Wind Factor

Favorable

Calm or unfavorable

Nozzle Type	Application Height	Buffer On Water	Offset From WMZ	Buffer On Wetlands	Offset From Inner Zone
Regular Nozzle*	Low (up to 16 ft.)	Width of the WMZ	As needed for safety	150 ft	N/A
	Medium (17-50 ft.)	Width of the WMZ	As needed for safety	250 ft.	N/A
	High (51-65 ft.)	Width of the WMZ	As needed for safety	325 ft.	N/A
Raindrop Nozzle (or other resulting in same size spray droplets)	Low (up to 16 ft.)	Width of the WMZ	As needed for safety	Width of the WMZ	20 ft.
	Medium (17-50 ft.)	Width of the WMZ	As needed for safety	Width of the WMZ	20 ft.
	High (51-65 ft.)	Width of the WMZ	As needed for safety	125 ft. or the WMZ, whichever is greater	20 ft

- Coarse spray droplets = approximately 9% of spray-droplet volume  $\leq 150 \mu$
- \*\*Ultra coarse spray droplet = approximately 1% of spray-droplet volume  $\leq 150 \mu$

# Washington Forest Practices Act Chemical Buffers

Buffer on Type Np or Ns waters with surface water present, Type B Wetlands < 5 ac.

All buffers are measured horizontal distance from the high water mark

Determining Wind Factor

Favorable

Calm or unfavorable

Nozzle Type	Buffer	Buffer
Regular Nozzle*	50 ft.	100 ft.
Raindrop Nozzle (or other resulting in same size spray droplets)	50 ft.	70 ft.

- Coarse spray droplets = approximately 9% of spray-droplet volume  $\leq 150 \mu$
- \*\*Ultra coarse spray droplet = approximately 1% of spray-droplet volume  $\leq 150 \mu$

# Fertilizers

- 25 foot buffer on all Type S and F Waters
- Parallel applications to the water course or WMZ edge should avoid application to WMZ
- 200 foot buffer around residences and 100 feet on agricultural lands unless owned by forest landowner