

PESTICIDES SUBJECT TO BUFFER ZONES IN WASHINGTON STATE
Pesticide/ESA Effects Determinations Listed by Evolutionary Significant Unit (ESU)¹

Buffers required - "may affect" determination

No buffers - "no effect" or "may, but not likely to adversely affect" determination

Click on the waterbody name for a specific ESU in the following table to view a detailed map in Adobe Acrobat PDF Format. The maps, produced by NOAA Fisheries, show the ESU geographic boundaries. WSDA has developed [county-specific maps](#) to identify salmon-bearing streams within the ESUs and provided a [list of exceptions](#) to the buffers required by the final ruling in Washington Toxics Coalition, et al., v. EPA. The effects determination analysis and supporting documentation for each active ingredient may be viewed at epa.gov/oppead1/endorse/effects/.

Active Ingredient Information		Evolutionary Significant Units (ESUs)											
		Chum	Chinook (Spring-run)	Steelhead	Steelhead	Chinook	Steelhead	Chum (Summer-run)	Sockeye	Chinook	Chinook (Fall-run)	Chinook (Spring/Summer-run)	Steelhead
Chemical	Product Names	Columbia River	Upper Columbia River	Upper Columbia River	Middle Columbia River	Lower Columbia River	Lower Columbia River	Hood Canal	Ozette Lake	Puget Sound	Snake River	Snake River	Snake River
1, 3-dichloropropene	Inline, Telone, Tri-Cal, Tri-Form												
2, 4-D ²	Amine 4, Curtail												
acephate	Orthene												
alachlor	Lasso												
atrazine	Aatrex, Atrazine												
aziphos-methyl	Guthion												
bensulide	Prefar												
bentazon	Basagran												
bromoxynil	Buctril												
captan	Captan												
carbaryl	Sevin												
carbofuran	Furadan												
chlorothalonil	Bravo, Daconil												
chlorpyrifos	Dursban, Lorsban												
coumaphos	Co-Ral, Prozap												
diazinon	several												
dicamba	Banvel												
dichlobenil	Casoron												
diflubenzuron	Dimilin												
dimethoate	Digon, Dimate												
disulfoton	Di-Syston												
diuron (crop) ³	Direx, Karmex												
diuron (non-crop) ⁴	Direx, Karmex												
ethoprop	Mocap												
fenamiphos	Nemacur												
fenbutatin-oxide	Vendex												
iprodione	Rovral												
lindane	Lindane												

¹ An Evolutionarily Significant Unit or "ESU" is a distinctive group of Pacific salmon or steelhead.
² "No effect" determination based on crop use of 2, 4-D. When used to control aquatic weeds, 2, 4-D "may affect" all ESUs.
³ Only high application rate crops with use during the winter or late winter seasons (peaches, filberts and walnuts) exceed levels of concern. Diuron use on other crops will have no effect on listed salmon and steelhead.
⁴ There is believed to be a large amount of diuron use on rights-of-way and other non-crop sites in Washington. The "may effect" determination is based on the high label application rates, the potential direct and indirect effects of diuron at high rates, and the uncertainty of exposure.

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linuron	Linex, Lorox												
malathion (crop)	several												
malathion (non-crop) ⁵	several												
methamidophos	Monitor												
methidathion	Supracide												
methomyl	Lannate												
methyl parathion	Penncap-M, Declare												
metolachlor	Dual, Bicep												
metribuzin	Axon, Sencor												
molinatate	Hydram, Molinate, Ordram												
naled	Dibrom												
norflurazon	Evital, Solicam, Zorial												
oryzalin	Surflan												
oxyfluorfen	Goal												
paraquat dichloride	Cyclone, Gramoxone												
pebulate	Tillam												
pendimethalin	Prowl												
phorate	Thimet												
phosmet	Imidan												
prometryn	Caparol, Prometryne												
propargite	Omite, Comite												
simazine	Princep, Simazine												
tebuthiuron	Spike												
terbacil	Sinbar												
thiobencarb	Saturn, Bolero												
thiodicarb	Larvin												
triclopyr BEE	Garlon 4, Crossbow												
triclopyr TEA	Garlon 3A, Redeem												
trifluralin	Treflan, Trilin												

⁵ Home owner uses make up a large portion of the non-crop malathion use. However, few states track home owner use data and many labels do not specify numeric application rates and/or intervals. The "may effect" determination for non-crop use is based on concern from home owner use.