Areas of Restricted Larvicide and Adulticide Use Due to Presence of Vulnerable Species

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Created: 2002
Last Update: June 16, 2015
Criteria Used

The criteria WDFW uses for denoting species as vulnerable are:

1. State Species of Concern (species listed as state endangered, threatened, sensitive, or candidate as well as species listed or proposed for listing by the U.S. Fish and Wildlife Service or the National Marine Fisheries Service).
2. Current range and distribution of the species was highly localized.
3. The species inhabited freshwater wetlands during most of the mosquito control treatment period.

Six species initially met those criteria:
1) Northern Leopard Frog (*Rana pipiens*)
2) Oregon Spotted Frog (*Rana pretiosa*)
3) Western Toad (*Bufo boreas*)
4) Western Pond Turtle (*Clemmys marmorata*)
5) American White Pelican (*Pelecanus erythrorhynchos*)
6) Yuma Skipper (*Ochlodes yuma*)

WDFW identified areas occupied by the two extant populations of northern leopard frog; two extant western Washington populations of Oregon spotted frog; western toad breeding ponds (for western Washington only); the three remaining western pond turtle populations; the single American white pelican breeding colony; and the one known Washington Yuma skipper population.

Based on the review of published literature, expert advice, and the vulnerability of these rare and endangered animals and their freshwater invertebrate food resources WDFW requested that if mosquito control is deemed necessary in the areas WDFW described in April 2003, that it be restricted to the use of Bacillus based products.

Aerial Applications

An exception to the WDFW request regarding the use of certain larvicides was made for the single American white pelican breeding colony. The colony resides on islands and along the shores of the Columbia River, south of the confluence of the Snake River, in Walla Walla and Benton counties. While bio-chemicals such as methoprene were not of concern for the pelican breeding colony, the method of aerial application was believed to be unacceptably disturbing for their successful breeding. It was agreed that aerial applications would not be made on the pelican breeding areas, whereas less obtrusive methods of mosquito control were acceptable near these sites.

Discussions among several WDFW biologists found that aerial applications of larvicides disturbed work being done in a few wildlife refuge areas around the state. It was therefore agreed that operators making aerial applications over wildlife refuges should notify the appropriate regional WDFW office of their scheduled aerial applications at least 24 hours prior to spraying. The notification can be made by phone or fax.
Area of Impact
Only a few populations of northern leopard frog, Oregon spotted frog, western toad, western pond turtle, and Yuma skipper remain in Washington. The total area occupied by these species in rivers, lakes, ponds, and wetlands is tiny, comprising of portions of 117 sections (<0.18% of Washington State). The areas identified for northern leopard frog (36 Sections) and western pond turtle (13 Sections) are owned or managed by WDFW. A prudent, risk-adverse approach is warranted with vulnerable threatened and endangered species.

WDFW may periodically update this document when new information becomes available.
Grant County
T18N R28E Sections 5-8, 17, and 18, T18N R27E Sections 1-4, 8-17, T19N R27E Sections 33-36, T19N R28E Sections 29-32
Grant County
T21N R27E Sections 1, 12, and 13, T21N R28E Sections 7, 17-20, 28-33
Grant County
T24N R27E and 28E: Area within and near the Sun Lakes Dry Falls State Park wetlands
Kitsap County
T22N R1W Sections 1, 2, 10–12: All water bodies (lakes, ponds, wetlands) in these sections.
Klickitat County
T3N R12E Sections 28, 29, 32, and 33: All water bodies (lakes, ponds, wetlands) in these sections west of the Klickitat River.
Mason County
T23N R2W Sections 11–15, 22 and 23: Water All water bodies (lakes, ponds, wetlands) in these sections.
Pierce and Kitsap Counties
Kitsap T22N R1W Section 11: Carney Lake, Pierce T22N R01W Section 14: Carney Lake
Pierce, Thurston, and Lewis Counties
T15N R4E Sections 8-11, 14-16, 20-24, 26, 28: Alder Lake/Alder Reservoir, T15N R5E Sections 18-20, 28, 29
Pierce County
T20NR2E Sections 26 and 27: Chambers Creek and associated waters
Skamania County
T3N R8E Sections 23–26 and 36, T3N R9E Sections 30 and 31: All water bodies (lakes, ponds, wetlands) in these sections.
Thurston County
T17N R1E Sections 8, 9, 16, and 21: All water bodies (lakes, ponds, wetlands) in these sections.
Thurston County
T16N R1W Section 7, T16N R2W Sections 9-12: Black River watershed, the Beaver Creek drainage, all water bodies (lakes, ponds,
**Thurston County**

T16N R3W Sections 2, 11, 14, 19-23, 30, and 31, T16N R4W Sections 25-27, 31-36, T17N R2W Sections 7, 18, 19, and 30, T17N R3W Sections 10-15, 23-25, 35, and 36: Black River proper from south of Black Lake to the Chehalis River confluence, and the following tributaries, Stony Creek, Dempsey Creek, Salmon Creek, and Blooms Ditch.