



## AQUATIC LANDS HABITAT CONSERVATION PLAN — Species Spotlight

### Western Toad — *Bufo boreas*

**Protection status:** *State candidate in Washington State*

*(Possible listing as State Endangered, Threatened, or Sensitive upon further review)*

The historic and current range of the western toad extends throughout the entire state of Washington, except for the south-central portion of the state, where they appear to be absent.

#### Life history

Adult western toads reach lengths of 2 to 5-1/2 inches (5 to 14 cm) and live to be about 10 years old, with sexual maturity occurring at 2 to 6 years. Females lay an average of 5,200 eggs per spawning event, in double-stranded strings. The embryos hatch within 3 to 10 days, and tadpoles undergo metamorphosis during their first summer.



Western toad. Photo: Kelly McAllister

Little is known about the migration behavior of this species, but researchers have observed females as far as 1.6 miles (2,600 m) from breeding sites, while males range for shorter distances. Adults feed primarily on insects, but they also eat spiders, centipedes, sow bugs, crayfish, and earthworms.

Tadpoles graze on algae and detritus. Hibernation typically occurs from November through April, but the extent varies with location and temperature. Observations of some toads reveal they hibernate in terrestrial locations, yet little information is available about hibernation.

#### Habitat use

In Washington, spawning and incubation occur in almost any standing water from February through July. Strings of eggs are attached to submerged and emergent vegetation or laid directly on the substrate in shallow ponds, lakes, slow-moving reaches of streams, springs, reservoirs, stock ponds, canals, and roadside ditches.

When not breeding, this species lives in terrestrial habitats including grasslands, scrublands, woodlands, and forests, as well as mountain meadows, and can also occur in low-density urban habitats with irrigated landscaping. Western toads depend on loose soils for protection from predators and dehydration and also use the burrows of other animals for protection.

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## Why are Western toads included in the Aquatic Lands HCP?

The Aquatic Lands Habitat Conservation Plan (HCP) addresses 29 species of animals that depend on submerged or intertidal lands for either all or a significant portion of their life history. Specific threats that warrant protection of the Oregon spotted frog include:

- Changes in habitat structure.
- Increase in predation.
- Decline in water and sediment quality.
- Physical harm or harassment from covered activities.

## The Aquatic Lands Habitat Conservation Plan

The Washington State Department of Natural Resources (DNR) is the steward of more than 2.6 million acres of state-owned aquatic lands beneath Washington's navigable lakes, rivers, marine waters, and estuaries. DNR sustainably manages these aquatic lands on behalf of the people of the state—to protect fish and wildlife and to provide opportunities for commerce, navigation, and public access.

The increased demand for the use of aquatic lands can be harmful to aquatic habitats and species. To encourage a balanced approach to managing and protecting these lands, DNR is developing an Aquatic Lands **Habitat Conservation Plan** (HCP). The HCP will provide a framework for managing the aquatic lands under DNR's stewardship to ensure the continued health of our state's marine and fresh waters and the species that inhabit them.

### Learn more

For more information about DNR's Aquatic Lands HCP and the other species that are covered in the plan, visit: [www.dnr.wa.gov/aquaticHCP](http://www.dnr.wa.gov/aquaticHCP).

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