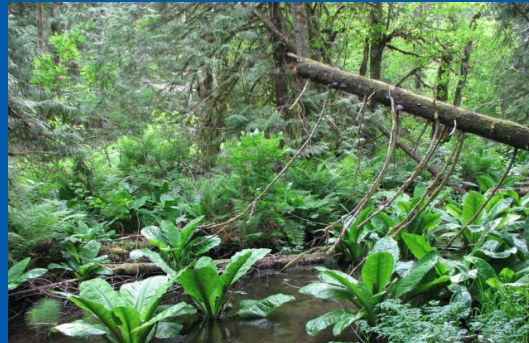


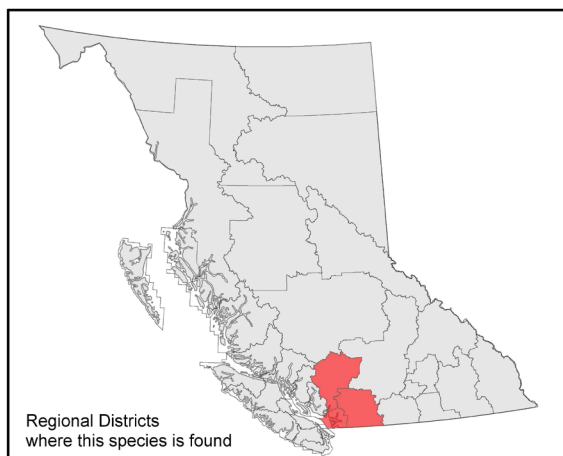
Environmental Guidelines for Urban and Rural Land Development in British Columbia



Are you planning any development on your property? If your property includes, or is within 100 meters of a stream or wetland it may support critical habitat features for the Pacific Water Shrew. This fact sheet will provide you with important information about complying with the law and protecting this species while still benefiting from the enjoyment and value of your property.

The Pacific Water Shrew (*Sorex bendirii*) has velvet-like dark brown to black fur with a dark brown tail and is also known as the Marsh Shrew. These shrews are excellent swimmers; air bubbles trapped by the fringe of hairs on their feet provide enough buoyancy to enable them to run on the surface of the water for up to five seconds! They eat aquatic insects, worms, and mollusks found in aquatic and riparian areas, using their sensitive whiskers and flexible snout to find food and explore their environment. They often nest in fallen logs, either under the bark or in old cavities.

Pacific Water Shrews are found throughout the lower Fraser River valley and associated watersheds from Hope to Squamish.



Regional Districts
where this species is found

AT RISK

Human activities, especially urban and rural development, are leading to the loss and degradation of suitable habitat for this shrew. Land development activities including logging in riparian areas, removal of snags and downed wood, and removal of riparian vegetation all have the potential to damage or destroy Pacific Water Shrew nests. You can help these unique creatures by carefully planning development activities near streams and wetlands.

LEGALLY PROTECTED

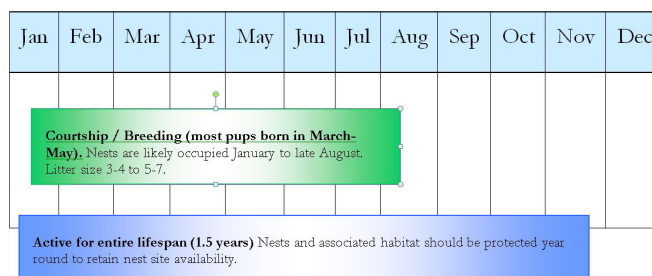
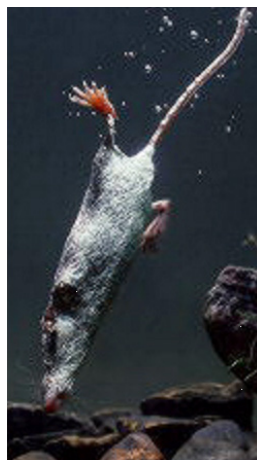
The Pacific Water Shrew is an [Endangered](#) species under the federal *Species at Risk Act* (SARA), and is also protected under B.C.'s *Wildlife Act*. It is illegal to kill, harm, harass, capture, or take this species. The federal Fisheries Act prohibits the harmful alteration, disruption or destruction of fish habitat, some of the same habitat that the Pacific Water Shrew depends on. Modifications to features that affect Pacific Water Shrew habitat may require authorization under one or more Acts. Contact the Regional Species at Risk Biologist if you are planning any activities in or near Pacific Water Shrew habitat.

DEVELOPMENT GUIDELINES

The Best Management Practices Guidelines for Pacific Water Shrew (Working Draft) provides the best available science for the species. Following these practices demonstrates due diligence in preventing habitat destruction and further population loss of this species.

- ☑ Report any sightings, specimens, or observations of activities threatening Pacific Water Shrew habitat to the regional Species at Risk Biologist.
- ☑ Identify known and potential Pacific Water Shrew habitat by consulting the [Conservation Data Centre](#) and the [Pacific Water Shrew Recovery Strategy](#). Design and locate your development to avoid disturbing these sites.
- ☑ Identify and set aside buffers to protect Pacific Water Shrew habitat, including riparian (streamside) forests, downed wood, and wetland margins.
- ◆ Core zones should extend 100 m from the top of banks, where habitat is still available or can be restored. Protection of this survival/recovery habitat is essential to retain habitat conditions, critical habitat features, residence, and to mitigate the “edge effect”.

The Common Water Shrew (*Sorex palustris*), a similar but more abundant species, is bicoloured with the belly and underside of its tail a silvery-grey. The Pacific Water Shrew has a uniform dark brown coat. It occurs from sea level to about 800 m elevation. Both species have hind feet with stiff fringe hairs ~1 mm



- ◆ Maintain or restore habitat connectivity where possible. Shrews tend to have very linear territories that follow the length or perimeter area around streams and wetlands.
- ☑ Maintain critical habitat features. Conserve structural diversity and retain understorey plant communities that are used by shrews for foraging. Maintain or restore native trees, shrubs and coarse woody debris in the riparian zone and in road rights-of-way adjacent to waterbodies, to minimize erosion and sedimentation effects.
- ☒ Avoid or minimize stream and wetland crossings.
- ◆ Move crossings and all associated roadways and structures away from known or potential Pacific Water Shrew habitat.
- ◆ Using bridges over streams and wetlands instead of culverts. Bridges (including pilings) should have no impact on the stream or wetland within 30–60 m of the waterbody.
- ☑ Retain the natural hydrology of the site during and after development.
- ☑ Fence off shrew habitats to help reduce predation by cats.
- ☑ Apply best practices to construction. Delineate buffers and fence “no disturbance” areas before starting work. Be particularly careful not to allow sediment and runoff from construction sites to enter nearby streams and wetlands.

For more information:

Develop with Care 2014: Environmental Guidelines for Urban and Rural Land Development in British Columbia
<http://www.env.gov.bc.ca/wld/documents/bmp/devwithcare/>

Working Draft Pacific Water Shrew Best Management Practices Guidelines <http://www.sccp.ca/species-habitat/pacific-water-shrew>

Recovery Strategy for the Pacific Water Shrew (Sorex bendirii) in British Columbia http://www.env.gov.bc.ca/wld/documents/recovery/rcvyrstrat/pacific_water_shrew_rcvry_strat040609.pdf

Riparian Areas Regulation: http://www.env.gov.bc.ca/habitat/fish_protection_act/riparian/riparian_areas.html

Conservation Data Centre <http://www.env.gov.bc.ca/cdc/>

Regional Species at Risk Biologist: Phone 604-582-5200