Volunteers in Parks



How Restoration Sites Are Selected

by Nadine Collison

A volunteer recently asked how we go about choosing the sites for our general restoration events and it occurred to me that many of you would likely be interested in knowing more about our process.

Several criteria are considered when sites are selected:

1) Historical Context

Some regional parks have been worked on for many years and, due to that, some beautiful and rare species are coming back to the environment. Mill Hill Regional Park is a prime example of this. Since it's where our Regional Parks
 Headquarters is located, it's seen as our "flagship" park. Staff and volunteers have been working intensively there for many decades and now there are large populations of some rare flowers that are more prevalent there than at any other park in the Greater Victoria area.

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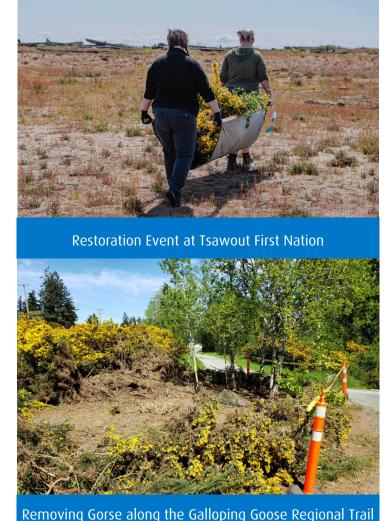


 When an area is restored, it unfortunately doesn't stay restored. (Broom has a seed bank of up to 80 years!) So we need to spend time maintaining it. That's why it may seem as though some regional parks are overrepresented. A lot of time and resources have already been invested and those restoration gains need to be maintained.

2) Access

Access is a layered factor in itself. Some factors include:

- Easy access for volunteers to get to and park.
 For instance, Thetis Lake is a more popular location for volunteering than Sooke Hills
 Wilderness.
- Easy access to get to the site. There is no point spending 45-60 minutes just hiking to the site.
- Ease of biomass removal. There needs to be a spot for a bin or an easy way to take biomass off-site.
- Ease for volunteers to remove the species. Some species are toxic and have higher risks for removal and some, like gorse, are just too difficult for a volunteer crew to remove.



- Safety of volunteers. Some sites are on steep or slippery terrain and are not safe for volunteers.
- Archaeological factors. Some sites have restrictions due to archaeological and cultural factors and active relationships with the respective nations.

3) Ecological Needs

- Species that are higher on status lists are prioritized, including the Capital Region Invasive Species Partnership Status List. Naturally, a lot of time in our parks is spent on the "Big 5," daphne, broom, ivy, holly and blackberry, but there are always emerging species we do our best to eradicate so they don't get a foothold in the region like shiny geranium or poison hemlock. We try to prioritize those sites over ones that are a lower priority.
- There are also needs around protecting plant and animal species at risk. It's a priority for us to remove any invasive species in an areas of high ecological value where species at risk are present. An example of a species at risk is the contorted pod evening primrose at Island View Beach. A fence is in place to protect it from being trampled by visitors and dogs, but we will also try to keep broom and other invasives out of that area so it can thrive.

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Broom Removal at Island View Beach Regional Park Photo: M. Howe



Broom Removal at Witty's Lagoon Regional Park Photo: M. Howe



Invasive Species Removal along Galloping Goose Regional Trail

4) Existing Volunteer Groups

• If there is an established stewardship group already working in a park, the park is not prioritized for general restoration events. For instance, we don't do general restoration events in Devonian Regional Park very often, as there is a very dedicated stewardship group that has been working there for over two decades.

5) Species Rotation

- Some species can't be worked on year-round due to seeding. It can't be removed once it starts to seed or we risk potentially spreading the seed. There are other factors as well such as bird nesting. We switch to other species and chip away at certain areas year after year.
- We also want to prevent volunteer boredom from having to work on just one species all the time.

6) Focus Parks

 As of 2025, it was decided to pick two regional parks each year that will receive the focus of a more concentrated approach, not only for invasive species removal, but species at risk and protecting other ecological values. For 2025, the two focus parks are Witty's Lagoon and Island View Beach regional parks as they have similar ecosystems and needs. Perhaps you have noticed the increase in events in those regional parks.

7) Other Factors

 Sometimes there are other factors that lead us to prioritize invasive species removal, even if it is just staff removing it. For example, we were asked to remove the gorse along sections of the Galloping Goose Regional Trail a few years ago, as it was becoming a fire hazard for the surrounding neighbourhood.

Ultimately, there are consistently too many invasive species to tackle and, without having unlimited resources, there needs to be a mechanism for choosing sites. That's why a prioritization matrix is being developed to help codify the decision making process. Hopefully this gives you some insight into the nuances of site selection as we develop this future tool.

Species Spotlight: Blue-Green Algae



Blue-green algae seems to be a perpetual problem for many lakes in the area, including Elk Lake and Beaver Lake. Perhaps many of you heard that the swimming portion of the recent Ironman triathlon had to be cancelled due to concerns with blue-green algae. So what is blue-green algae and why is it such a persistent problem at Elk/Beaver Lake Regional Park?

Blue-green algae (also known as cyanobacteria) are microscopic, plant-like organisms that occur naturally in ponds, rivers, lakes and streams. Normally blue-green algae are not visible in the water; however, under the right conditions, algae can form blooms on the water's surface.

Some – but not all – species of blue-green algae are known to produce cyanotoxins, which can cause health effects in humans and other animals such as dogs and horses. Ingesting or coming into contact with water that contains toxins may cause a range of symptoms including skin irritation, headaches, vomiting and abdominal pain in humans, and can lead to lethal liver damage in pets and livestock.

Blooms usually produce a visible blue-green sheen which appears as surface scum. Blooms may look similar to paint floating on the surface of the water and can be blue-green, olive green, brown or red. Algae blooms are unpredictable and may occur at any time. They may last for a few days, months or all year long. In deeper lakes (like Elk Lake), blooms can occur in the winter months, particularly after storm events or during the lake turnover when deep-water nutrients are mixed with surface waters. In shallow lakes (like Beaver Lake), blooms may occur year-round because nutrients are continually available at surface waters.

Blooms in lake water are primarily caused by high levels of nutrients (particularly phosphorus) that support the growth of blue-green algae. Adequate sunlight, calm water conditions and warm temperatures also support rapid algae growth. So what causes the blooms in Elk/Beaver Lake? This occurs due to a combination of external and internal factors. External factors such as stormwater run-off, agriculture run-off (including manure and fertilizers), invasive wildlife (like Canada Geese), pet waste, leaking septic tanks and even compost contribute approximately one quarter of the nutrient load at Elk/Beaver Lake. The remaining three fourths comes from internal nutrients coming from non-native fish and invasive plants (like Eurasian Milfoil).

The CRD undertakes seasonal mechanical removal of 300-450 tonnes of these invasive aquatic species each year, but the weed harvester is not able to completely remove the plants. In addition, and thanks to funding from the province of BC, an oxygenation system was installed in Elk Lake last year in the hopes that it will help to improve dissolved oxygen levels in the lake, thereby reducing phosphorus levels. The lake itself falls under the jurisdiction of the province, and water related activities on the lake are governed by Transport Canada.

If you'd like to learn more about what the CRD and other partners are doing to increase the health of the watershed around the lake, you can find more information at the <u>Elk/Beaver Lake Watershed Management Plan</u> that was completed in 2020.

Tsawout Restoration Partnerships: Reconciliation in Action

by Nadine Collison



In 2024 we were approached by Tsawout First Nation to help them remove Scotch broom and other invasive species from Tsawout Reserve land north of what is currently called Island View Regional Park and, on a sunny and very hot day in September, Tsawout First Nation and CRD Regional Parks hosted our first Tsawout Restoration event with the help of many other community partners.

The first event had about 50 participants. We were honoured to receive teachings from two elders, Mavis and Barry Underwood, and then a combination of CRD staff and members from Tsawout Fisheries, Tsawout First Nation and other community organizations pulled over 1,500 pounds of Scotch broom in that first session.

Since then we have held restoration sessions in October, February, April and May, with an average of about 750 pounds removed per session, removing very mature broom and carrying it across the sand to an invasives bin waiting for us in Island View Regional Park. We have been lucky to have significant participation in these events from other community partners too, including Pauquachin First Nation, Tsartlip First Nation, Parks Canada, Habitat Acquisition Trust, The Land Conservancy and Peninsula Streams Society.

Along with the main restoration events, we also hosted three sessions with Indigenous Youth attending Tsawout programs during spring break. Under the guidance of our Indigenous Cultural Programmer, Leslie McGarry, they played traditional games, heard stories, and participated in activities designed to learn about invasive and native species. The oldest group, a collection of about eight pre-teen and teenage girls, persevered through rain and wind to remove almost 400 pounds of Scotch broom!

At each restoration event Elders have shared their teachings and blessings with the attendees, followed by two hours of restoration and then ending in well-deserved snacks and drinks to celebrate our hard work. With very hot weather already here, we have stopped our activities for the season but are already planning our next event in the fall. If this is something you are interested in participating in, please keep your eye out for emails about each event. This collaborative work truly is an act of reconciliation as we remove colonial invasive species from this precious place that has existed since time immemorial.

If you want to learn more about Tsawout First Nation and all they do, please check out their website at <u>tsawout.ca</u>.

Staff Profile: Rob Shoemaker, Conservation Technician

Tell us a bit about yourself:

I work as a Conservation Technician for CRD Regional Parks, and I'm lucky to spend most of my time in the field, focusing on wildlife monitoring and ecological restoration projects across our parks. My job includes monitoring large carnivores (black bears, cougars, wolves), surveying endangered turtle populations, doing beaver habitat assessments, surveying rare plants and implementing ecological restoration initiatives. No two days are ever the same, and there are always interesting projects to work on in our parks.



Rob finding rare plants at work. Photo: R. Shoemaker

What do you enjoy most about working in regional parks?

I'm a certified professional wildlife tracker through Tracker Certification North America and tracking is by far my favourite part of the job. There's something really special about following subtle signs in the landscape and getting a glimpse into the hidden lives of animals. One of the best parts of the job is getting to explore remote and rarely visited areas of the parks.

Whether it's finding cougar tracks or finding a black bear den tucked away in the forest, there's always something new to discover. Every day out in the field is a chance to learn something new and deepen my connection to the natural world.

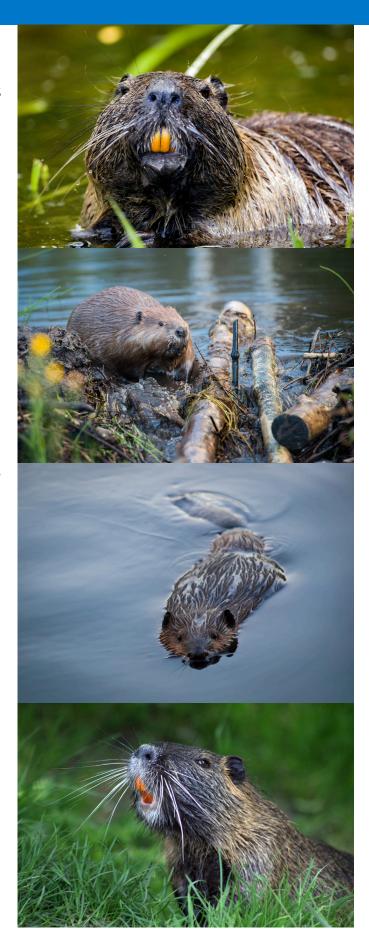
Outside of work, I love spending time with my wife and our three dogs, and getting out hiking, paddling, camping, and traveling.

10 Fun Facts About Beavers

by Nadine Collison

Many of you attended our latest Continuing Education Session on beavers in early May. In the early evening about 20 of us went for a Walk-and-Talk with beaver expert Frances Backhouse around the beaver ponds at Elk/Beaver Lake Regional Park. I made the disappointing discovery that many things I know about beavers were erroneously learned from cartoons. So perhaps, like me, you will find these facts enlightening:

- 1) A beaver's home is not in its dam, but is in a lodge which is very separate from the dam.
- 2) Beavers are a keystone species, in that they are marvelous water engineers and change their environment and create habitats for other animals.
- 3) They don't actually pack mud in with their tails, they use their front paws. They use their tails as a rudder for swimming, as a tri-pod on land, and for slapping the water to alert others to danger.
- 4) They are herbivores and do not eat the fish from the lakes they inhabit.
- 5) The Niitsitapi (members of the Blackfoot Confederacy) avoid killing beavers as they revere their role as water engineers.
- 6) Beavers just keep growing, so a very old beaver could be up to 100 pounds.
- 7) They are a semi-aquatic rodent and they can swim twice as fast as the average human.
- 8) They have a third eyelid to help them see underwater, like built-in goggles!
- 9) As they were almost eradicated by the fur trade, many people in North America are not used to sharing spaces with beavers and often treat them as a nuisance or pest.
- 10) AND MY FAVOURITE FACT their teeth are orange because they are covered in an iron-based enamel which makes their teeth stronger and sharper for eating wood.



Park Updates





Trail and parks OPEN by last year's fire site.

- A new Mobi-Mat has been installed at Island View Beach Regional Park. Mobi-Mats are firm roll-out beach access mats that create safe, accessible beach access walkways over soft sand surfaces. The Mobi-Mat at Island View Beach is the first instance of the CRD using one at a saltwater beach access. Other Mobi-Mats are currently located at the Thetis Lake Regional Park main beach and Elk/Beaver Lake Regional Park, Hamsterly Beach.
- Two new FLO SmartTWO Level 2 EV Charging Stations have been added at Witty's Lagoon Regional Park for use by the public. These add to the two that were added at Beaver Beach in Elk/Beaver Lake Regional park in 2024. Visitors who wish to use the new EV chargers (\$1/hr) will need to have a Flo, BC Hydro, or Charge Point account, and can use the mobile app of their choice or an access card to activate the chargers. The CRD currently has 10 other publicly available EV chargers installed at CRD recreation centres and more than 60 EV chargers for electric CRD fleet vehicles at worksites across the region.
- Infrastructure improvements to the parking lot and bathrooms at East Sooke Regional Park, Aylard Farm access are largely complete. Ninety-three new parking stalls have been added, including six accessible stalls.
- The final five kilometres of the Galloping Goose Regional Trail, as well as Kapoor Regional Park, reopened in early May after having been closed since the Old Man Lake Wildfire in 2024. Signage has been added to remind the public to stay out of the sensitive areas that are actively regenerating forest understorey.
- Loaner personal floatation devices, or PFDs, have been redeployed at Thetis Lake Regional Park Main Beach and Hamsterly Beach in Elk/Beaver Lake Regional Park for the 2025 summer season. After a successful pilot season last summer with child and youth sized PFDs, the CRD will continue to supply loaner PFDs in child, youth and adult sizes at these locations annually between June and October.