

FREE
MAGAZINE

Issue 28

THE FOOTPRINT PRESS



Passages from
Silverdale, Mission,
and beyond.

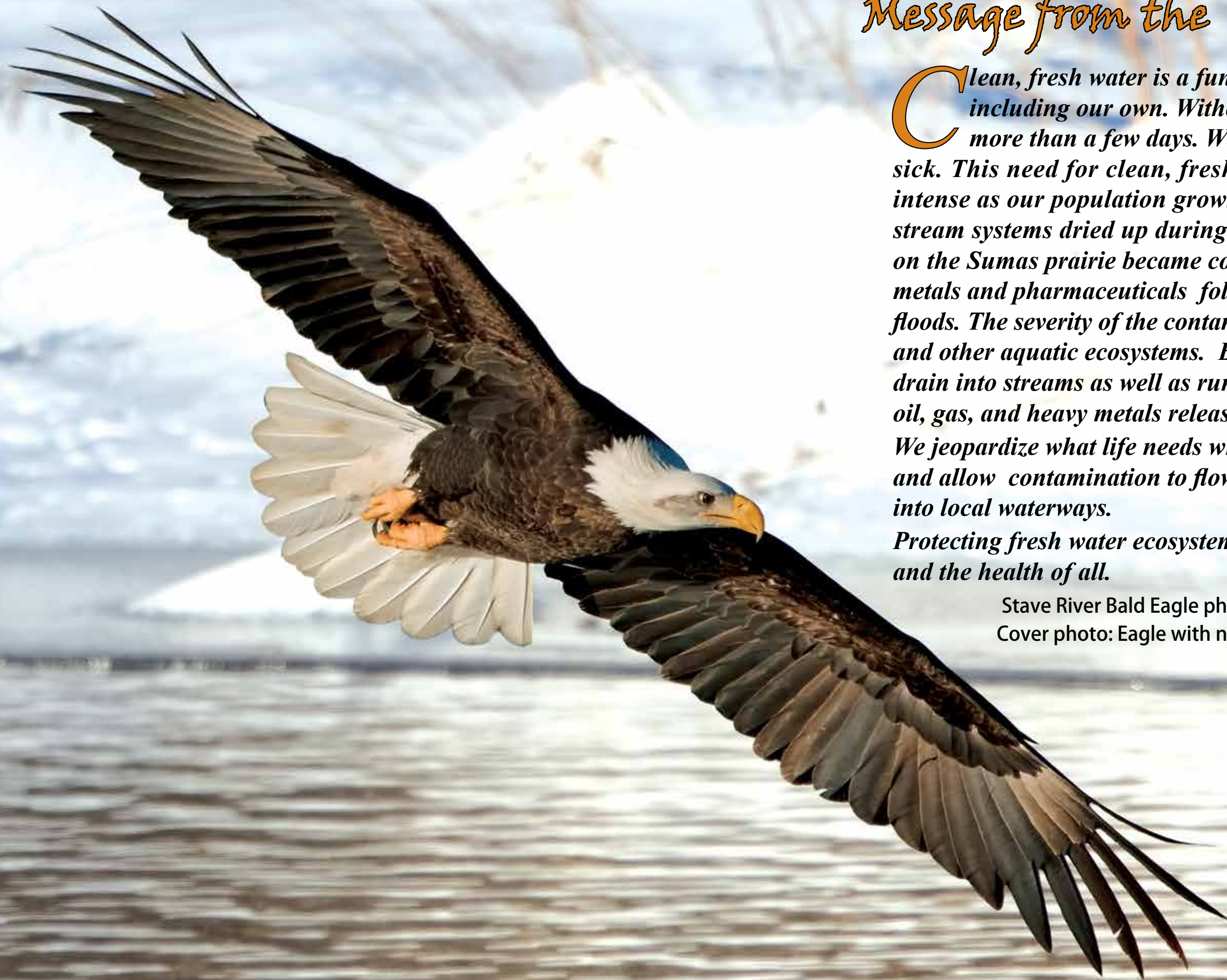
Message from the Editorial Committee

Clean, fresh water is a fundamental need for all life on earth including our own. Without access to water, we cannot live for more than a few days. When water is contaminated, we become sick. This need for clean, fresh water is becoming more and more intense as our population grows and the climate warms. Entire stream systems dried up during the recent drought. Some streams on the Sumas prairie became contaminated with pesticides, heavy metals and pharmaceuticals following last year's atmospheric river floods. The severity of the contamination was enough to impact salmon and other aquatic ecosystems. Brine solutions poured onto roads can drain into streams as well as runoff in the form of sediments, toxins, oil, gas, and heavy metals released by wear on tires.

We jeopardize what life needs when we drain wetlands, divert streams, and allow contamination to flow from urban and agricultural areas into local waterways.

Protecting fresh water ecosystems is essential for climate resilience, and the health of all.

Stave River Bald Eagle photo courtesy Rick Skerry, Mission
Cover photo: Eagle with nestlings, by Sharron Palmer-Hunt



Rewilding: The low maintenance, low-cost way to attract more wildlife to your yard and increase biodiversity in your neighborhood

We've all heard the adage 'mother knows best.' When it comes to creating spaces that support humans and the environment, you can trust that mother nature knows just what to do. Rewilding is a low-maintenance hands-off approach to gardening by taking a step back and allowing nature to restore damaged ecosystems on its own. Other than removing invasive plants, and ensuring there are no threats to local wildlife in your yard, you can pretty much sit back and enjoy all the benefits of being out in nature without spending hours in the dirt.

Rewilding has many benefits beyond reducing your maintenance time. Incorporating rewilding practices, such as using native plants, can be a cheaper and lower-emission alternative to keeping up with the latest gardening trends or buying annuals grown in plastic pots from big box or chain stores. Choosing to shop at local native plant nurseries supports our economy and is better for your wallet! Best of all, you will attract countless beautiful pollinators to your yard, such as hummingbirds, bumble bees, and butterflies. Your space could even become a safe haven for some of the elusive endangered species of the Fraser

Valley, like the Oregon Forestsnail, the Northern Red-legged Frog, Barn Owls, or the Little Brown Myotis.

Rewilding doesn't demand that you dig up all your non-native plants or remove the aspects of your garden that you love. Rather, rewilding utilizes stewardship practices that balance the needs of nature with the needs of people. Aim to create spaces that give mother nature room to heal and give you room to cultivate what brings you joy. We can all do our parts to incorporate more nature in our backyard, or front yard, or balcony, or wherever you have a tiny pocket of the outside to call your own. Try incorporating these tips and tricks little-by-little, and you will slowly notice your space transforming into a Pacific Northwest paradise.

Plant native species: One of the best practices you can implement to rewild your yard is to get some native species in the ground! There are many nurseries in the Fraser Valley, at which you can buy native plants: Peel's Nursery in Hatzic, Nat's Nursery in Langley, Plan Bee in Langley, or BC Wild Heritage in Chilliwack. Before you start shopping, check out the Fraser Valley Conservancy's online guide "Gardening with Native Plants in the Lower

Native plant artwork accompanying this article was created by Brenna Maag, using her Camera Obscura. "Time spent looking through the Camera Illumina has served to focus my attention and slow me down. In moments of stillness while looking in the camera,

I would always notice the gentle movement of the trees in the image. It dawned on me that the land was constantly moving; I just wasn't paying attention. It is this understanding of the land as alive that led me to call this a *Camera Illumina*."

Brenna Maag, Mission

<https://www.brennamaag.ca/current>



Mainland,” available to view through their website. This helpful guide lists many plants native to the Fraser Valley as well as specifications about how to choose the right plants for your space. The Fraser Valley Conservancy also offers spring and fall native plant sales; follow @fvconservancy on social media to stay up to date!

Take advantage of nature’s best pest control: birds, bats, and beneficial bugs: A rewilding practice you can do with a huge, immediate, positive environmental impact is to not use pesticides. Instead, attract birds, bats, and beneficial bugs to do the job they were designed to do – control the insect population! Add native plants that supply berries, fruit, and nuts, such as Salmonberry, Shore Pine, Sitka Mountain-Ash, Salal, and Thimbleberry. Be sure to plant a mixture of plants that flower and fruit at various time of the year for continuous food options for animals. Large trees like the Bigleaf Maple and the Western Red Cedar provide some nice habitat for bats, birds, beneficial bugs, and other small mammals. You will also want to provide a water source for wildlife, such as a small pond or bird bath.

Work with habitat features already in your yard: Leave dead and dying trees and logs on your property to become a home and food source for many critters like bats, bugs, and frogs. If you’re concerned about a dead

tree falling, cut it down to a safe height and leave the cut-off piece in your yard to rot. If you have a lot of rocks, make those into a rock pile or rock garden to create even more habitat. Are there areas of your yard that consistently remain wet? Set them aside as wetland spaces for frogs to enjoy rather than trying to dry them out. Pay attention to what your space is trying to become and what wildlife you already notice living there.

Use garden scraps and leaves as fertilizer: There is no need to spend money on chemical fertilizer when you can use the organic waste that your garden produces for free! Stop raking your leaves in the fall and instead let them naturally decompose. Start a compost bin with your food scraps and other yard clippings (don’t include any weeds or invasive species cuttings) to create a nutrient-rich fertilizer for your whole garden. Do some research on the best composting strategies for your area, as each Fraser Valley neighbourhood may have its own needs based on potential wildlife conflicts or municipal bylaws.

Consider an alternative lawn: Instead of growing a typical grass lawn that needs endless amounts of maintenance, pesticides, and water, consider some alternatives. A clover lawn needs little watering, can restore your soil by providing nitrogen, is naturally pest-resistant, and at-



tracts pollinators when it flowers in the spring. Moss is another alternative if you have a shady lawn with acidic soil. You could even buy a wildflower seed mix (try one from West Coast Seeds) to create a beautiful blooming lawn! When it comes to rewilding, even a mix of dandelions and grass is an improvement over a manicured lawn.

Beware of invasive species: Common invasive plants like the Himalayan Blackberry, Yellow Iris, and English Ivy, end up in our yards for many reasons. Invasive seeds may get transported by birds, construction equipment, or even the bottom of your shoes. These plants have the potential to grow so vigorously that they can choke out all the native vegetation in the area, reducing the biodiversity and resiliency of your space. Visit the Fraser Valley Invasive Species Society website for more resources on how to manage and control the spread of invasives in your yard.

Encourage your neighbours to rewild their yards: The more homes in one area that have embraced these

rewilding techniques, the more attractive and safer the area will become for local wildlife. Having neighbours who engage in rewilding can also be helpful for swapping seeds and sharing stories so that both gardens are more plentiful!

Incorporating these simple steps into your outdoor space will create habitats and food for local wildlife, attract pollinators, and increase biodiversity in your area. Taking on rewilding as your stewardship practice allows nature to heal and gives you a beautiful space to enjoy, often with less cost and effort from you! Even if you just plant one native tree in your garden, you are creating a space that is immeasurably better than it was before.

**Andrea Sadowski, Step to It program
Coordinator, Fraser Valley Conservancy**

For more information visit:

fraservalleyconservancy.ca/programs/step-to-it/

Why would you wish to become a Raptor Nest Monitor?



Isuggest it is because you treasure Super Natural British Columbia, and you want to help preserve our resources. What better way than becoming a Raptor Nest Monitor, and getting a CRA Tax Credit to help pay for your bird watching contributions!

Recording raptor nests is easy although it does take a little time, field work, and driving around. I suggest you focus on recording Bald Eagle, Osprey, and Peregrine Falcon nests, but every raptor (e.g., hawk, falcon, eagle) or owl, is protected and needs your help. By recording the nest sites, you initiate the process outlined in the Wildlife Act Section 34, that offers protection to all raptors, their nests, and nest trees. BUT, if no one knows the nest is there, it can get cut down by someone “not knowing”, “not caring” or simply wishing to avoid paying the mitigation costs for removing it. Getting the nest officially recorded is the first step in getting it protected under the Wildlife Act and you can initiate this protection.

The Hancock Wildlife Foundation (HWF) has been recording nest locations in some areas for over 30 years. If these recorded nests are disturbed, anyone can contact the Fish & Wildlife Branch of the Ministry of Forests, Lands and Natural Resource Operations, who have the authority to stop the disturbance and demand a Mitigation Plan be prepared to reduce this disturbance. If necessary the HWF can be called upon to move bald eagle nests to areas where they will not be disturbed.

The Hancock Wildlife Foundation has shown we can often reduce the disturbance of development, or move the nest to a new location where it avoids the disturbance. We have almost 100% success in moving nests, but we first have to know where the nest is. That is what our Raptor Nest Monitors do - they record the GPS of each nest and report it to us. We have found that once developers realize that potential disruptions can be mitigated successfully at minimal cost, most are totally willing to

cooperate. They become the “good guys” - not the irresponsible destroyer of our environment. BUT, for this to work, we need environmental stewards to record the nests.

As a biologist, I also want to understand if our raptors are increasing, holding their own, or declining in numbers. This means following not just where the nests are but how successful the birds are at producing young, which takes several follow up observations during the breeding season to determine the number of young fledged. Nest Monitors revealed that in 2022 there was an 80 percent drop in successful bald eagle fledges from North Shore nests. Avian flu was a prime cause. In the previous year it was heat prostration that killed nestlings during our heat dome. Eagles have also suffered from declines in wild salmon returns and recent efforts to divert food waste and other organics from the landfill. This reduction in their two main food sources has been a calamity for tens of thousands of eagles that have evolved to be scavengers here for half of the year. Becoming a Raptor Nest Monitor enables you to intimately assist in understanding such impacts to our keystone species.

All that is required to become a Raptor Nest Monitor is a few hours once or twice a month. Some keeners, who follow many species, like to go out weekly, particularly now that the CRA gives a tax credit. The bottom line is, to quality for such fun and contributing to con-

servation, all you have to do is keep a few written records. I can easily guide you through this record keeping which can be done on paper, or onto a free chart I provide which you can download onto your Apple, PC or cell phone. You do need binoculars, or a scope, and preferably a cell phone to take pictures and record the GPS location of the nest. I then assign an official Nest Number. If the nest is not already known to us, you simply give us the observations that the nest exists and describe what the parents and young are doing. The Nest Monitor then makes periodic assessments of how that year is progressing. Did the territory get occupied this year? Did the eagles likely sit on eggs, hatch young, and finally fledge chicks? We hope for a minimum of 5 visits during the nesting season. Twenty-five is better! We need volunteers to record these nest sites throughout the Province. If you are interested in becoming a Raptor Nest Monitor, and either know of a nest or wish to know of some in your area that you could Monitor, please drop me a line. While we focus on British Columbia nests, we assist other nest watchers around the continent. If you are already a birder, you know the benefits of this work. If this is a new adventure, you will be readily rewarded with pleasure at seeing these wondrous creatures and contributing to their success.

David Hancock, Eagle biologist,
Hancock Wildlife Foundation



For more information or to become a Raptor Nest Monitor

call David Hancock,
Hancock Wildlife Foundation 604 761-1025
or email davidhwf@gmail.com

To visit live streaming nest CAMS or follow our
Tracked Eagles as they navigate the continent,
go to: www.hancockwildlife.org and drop screens
“Live Cams” and “Live Tracking”.

Osprey photos courtesy Mike Stefiuk
Eagle and chicks photo
courtesy Sharon Palmer-Hunt

Sprawl report: A call for protection of wild salmon habitat in the Lower Stave River estuary, Mission

As the realities of climate change confront us, we are starting to hear reports of the alarming loss of species abundance globally. In Canada, audits by the Office of the Auditor General's Commissionaire of the Environment and Sustainable Development, report a 50-fold increase in at-risk species in Canada since 1978. The causes of this decline are well known. The World Wildlife Federation identifies change of land use, over-exploitation, and climate change as causing about a 70% decline in vertebrates globally (including mammals, birds, amphibians and fish) in just the last 50 years. During the same time period, the human population more than tripled from 2.5 to 8 billion people. The UN and others have stated that loss of biodiversity will likely accelerate in the coming decades due to climate change. These shocking and grim statistics represent a mass extinction trajectory and urgent need to conserve natural spaces to combat the biodiversity crisis.

Of major concern locally are precipitous declines in Fraser basin wild salmon, whose numbers have steadily declined since colonization. Consequently, four species of salmon are now considered threatened or endangered according to the Committee on the Status of Endangered Wildlife in Canada. This population collapse is of great concern because wild salmon are a keystone species and the lifeblood of local ecosystems. Thus, declines in salmon distribution and abundance can affect numerous species. The largest gathering of bald eagles on the planet occurs at Harrison Bay as a result of the salmon migration. Bears, waterfowl, and countless other species also depend on the salmon. Even our forests benefit from the influx of nutrients in the form of “fish fertilizer”. This accelerates the growth of trees three times faster than that of trees located away from salmon habitat. The collapse of wild salmon populations has been devastating to local First Nations people and all the wildlife that depend on salmon.

When there is a loss of salmon habitat, this equates to a loss of genetic diversity. The fish that do return are coming from fewer and fewer stream systems. Loss of genetic diversity increases vulnerability to the extreme

weather of climate change, including heat, cold, and storm water runoff which can contaminate streams. Our recent drought caused entire streams to dry up and large numbers of salmon died before they could spawn. That is why preserving a multitude of creeks, streams, and wetlands, that support salmon populations, is so important. Numerous creek systems increase salmon genetic diversity and resilience as well as create sanctuaries for a host of at-risk plant and animal species.

To save wild salmon in existing urban watersheds, our aim should be to ensure salmon habitat is hospitable for the spawning and rearing of salmon, and also to ensure there is enough clean water for freshwater ecosystems. However, over the past few decades, Fraser Valley communities have developed rapidly, parkland dedication has not kept up, and there is intense pressure to develop environmentally sensitive areas. To reverse this extinction trajectory requires all levels of government to identify natural areas with high ecosystem values for preservation.

One such place in Mission is Silvermere Lake and Island, located in the Lower Stave River. The Lower Stave River basin has great archeological significance. Artifacts dating over 10,000 years old have been found at the “Hayward connector site” near the Stave River, making it one of the oldest dated archeological sites in BC. The area was occupied by the Whonnock peoples whose name is an Anglicized version of a Halkomelem word which means, “Place where there are (always) Pink salmon”. Tragically the Whonnock people were almost wiped out by viruses brought in by European settlers. Some were laid to rest in three large burial mounds under what is now Silvermere Lake.

The Lower Stave River basin is a freshwater tidal estuary with substantial environmental values within a relatively small geographic area. The estuary, of which Silvermere is part, supports the largest wild salmon spawn this close to a major North American urban centre, peaking at 500,000-1 million Chum salmon returns. Exceptional juvenile Coho salmon rearing habitat exists in Silvermere Lake.





Bald Eagle feasting on salmon in the Lower Stave River,
photo courtesy
Caroline Langbroek, Abbotsford



Due to the abundance of food, in the form of spawned-out salmon, and availability of large trees suitable for nesting, the Lower Stave estuary is also prime Bald Eagle habitat. Eagles have constructed seven nests in the Stave River basin, including three nests on Silvermere Island and one in the trees above the Ruskin Dam. Daytime and overnight roosting areas are on the island and north causeway, where dozens of eagles can be seen when the salmon spawn. Hundreds of ducks, swans, cormorants, and other waterfowl roost on Silvermere Lake. In addition to prime salmon and eagle habitat, Environment Canada has identified Silvermere Lake and Island as critical habitat for endangered Western Painted turtles and has posted a draft recovery strategy. Silvermere supports all stages of life necessary for the turtles including foraging, nesting and overwintering habitat.

Despite the Lower Stave estuary's extreme environmental sensitivity and archeological importance, Silvermere Island remains at risk from development. Over the years,

settlers, governments, and developers have degraded the habitat, beginning with large scale logging, construction of the Ruskin Dam, and the building of two causeways across the Stave River to Silvermere Island to form Silvermere "Lake". More recently, land clearing activities within Silvermere's designated riparian zone have occurred without reparations, and other land clearing and rearrangement activities for causeway maintenance are ongoing. Clearly our current systems are failing to protect sensitive ecosystems like Silvermere, and the extinction trajectory we are on is proof of that.

Permanent protection is urgently needed for the Lower Stave River estuary, including Silvermere Island, and other important wild salmon habitat. In the short term, in Mission, and elsewhere, that means the removal of barriers to salmon migration, better tree protection, and larger setbacks from streams, to prevent contamination from storm water runoff and road maintenance activities, from entering waterways. In the long term we need a change in our mindset- to decolonize our thinking away from a purely monetary focus, to one that explicitly recognizes ecosystem values and ensures they remain for future generations.

Tracy Lyster,
Citizens Against Urban Sprawl Society, Mission

Lower Stave River flying Eagle photos courtesy

Rick Skerry, Mission

The rare and amazing Pacific water shrew



Not all animals get to hide away from the cold of winter in the ways we humans get to enjoy. Unable to hibernate or migrate, one creature in particular had to devise a way to survive the harsh winter months - the Pacific water shrew (*Sorex bendirii*). Found nowhere else in Canada, this small, mouse-like creature is red-listed federally, and at risk of disappearing from our backyards.

Pacific water shrews average 15cm in length, including the tail, and weigh no more than two to four loonies. They are covered in a dark brown to grey fur which is lighter coloured on their bellies. You can distinguish them from mice by their tiny, almost invisible, ears and long upturned snout. With their small body size they have an extremely high metabolism and need to eat constantly to survive. They eat more than their own weight each day and 3 hours without food can be fatal! These voracious carnivores hunt down insects and small invertebrates like slugs, snails, and earthworms.

Most shrews are land-based creatures but due to the lack of available food in the winter, these shrews had to turn to another environment - the underwater world. The water shrew is the world's smallest diving mammal and this opened up a whole new buffet. Many of the insects that we see flying around in the summer actually spend the majority of their life cycle - including winter - as nymphs underwater in our rivers and streams.

To catch these tasty bugs the water shrew needed to develop some special adaptations. Their fur has similar properties to that of the beaver, it both repels water and traps tiny air bubbles to help retain heat. They have a fringe of hair on their hind feet that also traps air bubbles and helps to propel them as they swim. These hairs also give them the unique ability to run across the surface of water! Their whiskers are used to detect movements and waves underwater to help track down prey.



Pacific water shrews make their homes in riparian areas - the transition zone between streams and the forest. Though these creatures are rarely spotted, they are almost always found within 50 meters of a water body. They prefer mature coniferous forests with a dense understory and an abundance of large woody debris. These large downed logs are perfect nesting sites, made more comfortable by adding shredded bark, mosses, and grass. They are found at elevations below 500m from the Northern tip of California to Southwest British Columbia, where they are only found in the Lower Mainland region. Unfortunately the Pacific water shrew has the same home range preferences as humans - low lying valleys near water sources. One of the main threats to this species is habitat loss due to developments in these areas as well as past effects of logging which has removed much of the large woody debris in streamside locations. With the additions of housing and industrial areas in this habitat comes water pollution, which reduces the number of available aquatic invertebrates as they are sensitive to changes in water quality. Road mortality and predation by domestic animals such as cats are also looming threats. Many shrews also fall victim to scientific research methods such as minnow traps that are used to identify presence of salmonids in water bodies.

Further research is needed to understand the mysterious life histories of these rare and amazing creatures. Although they are listed as endangered in British Columbia, our population of Pacific water shrew is at the northern tip of its range and has shown remarkable adaptation to a possibly harsher climate than its southern relatives. We cannot always control how our rapidly changing communities will handle developments but there are a few things we can do to help protect species such as the water shrew. Practice eco-friendly landscaping by planting native plants and leaving streamside vegetation in place. Reduce or eliminate the use of herbicides and pesticides. Keep pet predators indoors, on a leash, or in an outdoor enclosure. Most importantly, always stay curious, observe nature, and continue to learn about the amazing ecology that calls British Columbia home!

Rebecca McMurray, BSc Ecology

**Pacific water shrew painting by
Carrielynn Victor**

**photo courtesy
South Coast Conservation Program**

Amazing and beautiful Hair Ice



Take a calm humid night just below freezing, rotten broadleaf wood, and the presence of a specific fungus and it may produce an uncommon phenomenon known as hair ice. The night of December 11/12, 2020 produced these conditions on the crest of Silverhill (Mission, BC) and for a few hours in the morning, fascinating hair ice sculptures were visible everywhere.

Hair ice, often called ice wool, is made of micro-thin strands of ice crystals less than 0.02 mm thick, seen in beautiful curls or waves of parallel, but separate, lustrous ice hairs. Time lapse video shows that hair ice growth is simultaneous across the wood surface. The ice strands grow at a rate of about 1 cm per hour, and can reach lengths up to 20 cm. Hair ice grows when temperatures are between -5°C and 0°C. Moisture content in the wood determines the length of the hairs. Once the wood dehydrates, ice growth ceases.

Under normal conditions when wet wood freezes, ice crystals coalesce, growing larger over time and an ice crust is formed. What makes hair ice different is the presence of a microscopic fungus called *Exidiopsis effusa*. *E. effusa* is a winter-active fungus which breaks down nutrients in the wood, releasing complex molecules such as lignin and tannins. Consequently, opening radial ray channels, these pores extend from the wood core to the exterior. As temperature drops, liquid water at the wood surface is pulled up the ray channels and freezes on exposure to the cold air. Ice segregation then acts by extracting pore water from the wood, which freezes at the wood surface. Hair ice grows from the hair base, rather than the hair tip. The fungus acts

as a recrystallization inhibitor (like anti-freeze), and instead of a crust of ice, a continuous strand of ice, with a near constant diameter is produced. The shape of the hairs is determined by the shape of the pore opening at the mouth of the ray channel.

The exact process that *E. effusa* uses to prevent recrystallization and to extrude stable micro-thin hairs of ice is still a mystery. Lignin a known recrystallisation inhibitor may play a role. However, under experimental conditions, regardless of the presence of lignin, the application of heat or fungicide to destroy the fungus, prevents hair ice growth. Clearly live fungus is needed for hair ice formation.

Curls in the ice strands result from uneven speed of freezing across the wood surface. Faster growth on one

side causes the hairs to bend towards the slower side. Temperature controls the speed of freezing. A slight difference in temperature on one side, results in the hair ice curving toward the slower growing side. Hair ice grows faster on the cooler side, resulting in curving towards the warmer side.

Hair ice is found globally in deciduous broadleaf forests. Generally found in a narrow geographic band at latitudes between 45–55 °N, but can occur as far north as Tromsø, Norway at 70°N. This range matches the biophysical distribution of the fungi *E. effusa*.

In biological systems, energy is rarely expanded without purpose. Dr. Christian Matzler, expert and co-author of two definitive research papers on hair ice, indicated that

hair ice is beneficial for defoliating the bark and exposing more wood surface for fungus colonization. Fungi help break down wood and recycle carbon and nutrients that are vital to the health of forest ecosystems.

Hair ice sculptures are amazing to witness. Personal observation has shown that moving the wood even as much as half a meter can cause hair ice to decay. If you find hair ice, leave the wood in place, remember the location and recheck the wood when weather conditions are similar. Hair ice will regrow on the same piece as long as the fungal environment is maintained.

Patricia Marlowe



From Grief to Activism

In 1994 my eldest son Jeffrey died at 9 years old. Twelve years later, my 19-year-old son, Paul, drowned while on a camping trip with friends. These losses put me in a very dark place for a very long time. What helped me heal, was connection with a friend, and purchase of a book, that became a constant companion for a few years. It reminded me that perception is the way we choose to see the world, and that people, and the natural world, offer the necessary connections for happiness. I had often marvelled at how, when in an amazing place in nature, you can feel so small and yet such joy in connection; but after losing my sons, this feeling developed into a more profound truth.

My awareness evolved into a need to understand the causes of the universal grief many of us were feeling as it related to social justice and the climate crisis. It became clear that free market capitalism or “neoliberalism” was a major cause of our climate grief.

The fossil fuel industry is the biggest player in this economic system. It had been aware of the immense danger these fuels pose to the liveability of the earth before many of us, yet continued to poison the very air

we breathe, the water we drink and the soil we require to grow our food. This industry spends an enormous amount of money on media campaigns that deny negative impacts and promotes itself as providers of jobs and the necessities in life.

I know most of you do not need to be reminded of the extremely unseasonably warm autumn and drought we have had, right to the end of October, the annual multitude of wild fires, the “heat dome” of 2021 that killed over 600 people in B.C., and the “atmospheric rivers” that happened last year. Our vocabulary is changing to describe unprecedented climate change.

Globally, climate change fueled disasters have cost insurers more than \$100 billion, six times since 2011, according to a report in Time magazine. “Insured losses, which account for just a portion of disaster costs, have been increasing over time in Canada. In 2020 alone, they amounted to \$2.4 billion – a figure that does not include the cost of ecosystem destruction, deaths, losses not covered by insurance, lost income, or the lasting mental health toll of extreme events” (Ainslie Cruikshank, The Narwhal). In BC, the costs for the atmospheric river di-

saster, considered the fifth most-expensive climate event of the year, cost \$7.5 billion in insured losses. Again, this is only a portion of the costs. Following the storm in Mission, one lane on the 8100 Block of Wren Street dropped one meter, for 100 meters, requiring the repair of a sanitary line and extensive slope stabilization, costing taxpay-

ers a total of \$2,800,000. A large portion of this was paid by Disaster Financial Assistance from the government of BC, but the repair was not completed for the better part of the year and cost Mission’s Insurance Reserve \$280,000. Compare these costs, paid by all three levels of government in Canada and governments around the



world, to the projected \$147 billion profit for the fossil fuel industry in 2022. Currently, taxpayers are expected to pay 100% of the costs of dramatic climate events. Is this fair?

Awareness, of all of this, is not enough. Voting for politicians that support efforts to protect the environment is not enough. Activism by people who can afford the time, need to stand together and demand change.

This led me to an environmental group in Mission, with very supportive and encouraging people, who care deeply about protecting our world. We decided to follow the lead of West Coast Environmental Law and join a class action lawsuit against the fossil fuel industry. This has been done successfully in the Netherlands, where the courts have ordered Shell to reduce emissions 45% by 2030. We want Big Oil to pay their share of the costs that the use of these fuels has created. We want Mission to join the class action suit against Big Oil as the City of Vancouver recently has. We see this as one of the most obvious ways to make a significant impact.

For the City of Mission to join the class action suit, we need to get city council on side and willing to contribute one dollar for every citizen in Mission. Relative to the astronomical costs of climate disasters, this is not a significant amount of money. We hope this class action suit will get the attention of the fossil fuel industry, make it realize that the game is up, and that it best put its drive and intelligence in the direction of sustainability. Our grief will resolve when we all begin to agree that this is the only sane direction.

Cairn McArthur, Mission

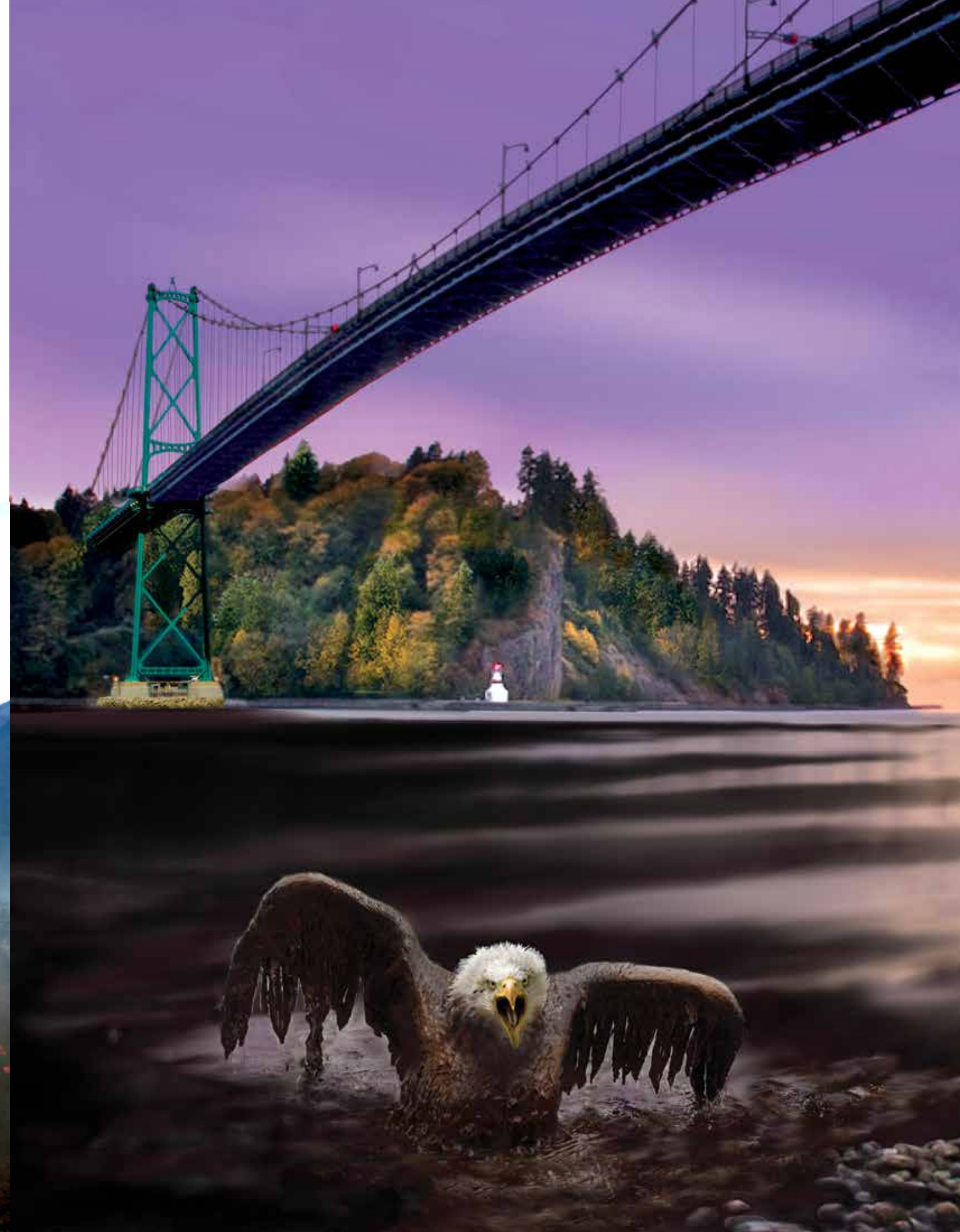
For more information: <https://suebigoil.ca/>

Sign our petition: <https://chng.it/MmMsqqQcSh>

If you are interested in helping us you can connect by email: sboilmission@gmail.com

Oil spill painting courtesy Carl Chaplin

Wildfire photo courtesy Mike Stefiuk





THE FOOTPRINT PRESS

The Footprint press is published by CAUSS, registered nonprofit society.

Articles, artwork and photography are submitted by scientists, local Indigenous and environmental activists, farmers, and others wishing to share their vision of a more just and informed society, and who seek to live harmoniously with nature in a shared environment. Circulation is 3,000+.

Editors- Tracy Lyster, Catherine McDonald, Joanne Long, Hilde Tonkens & Deidre Torrence.

Nik Cuff- graphic design, Moneca and Mazell Kolvyn- binding.

Don Mair- visual editor, Bruce Klassen- photography.

With assistance from Mike Gildersleeve, Darlo Gong, Peter Gong, Richard Heyman & Val Pack.

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b.causs@gmail.com or:

604 820-7592

Lower Stave River Eagle Tree, photo by
Rick Skerry, Mission