Grassroots Action

These are some of the independent campaigns we’re currently aware of.

1. The First Nations of the Broughton area occupied several farms to underline their steadfast resistance to farming in their territories.

2. A petition calling for an end to Broughton leases on behalf of the Musgamagw Dzawada’enuxw garnered over 115,000 signatures.

3. Fifty BC chefs penned a letter to the province asking that farms be removed from wild salmon migration routes.

4. Eddie Gardner, president of the Wild Salmon Defenders Alliance, circulated an open letter to the Premier signed by more than 60 individuals demanding that farms be transitioned to land and citing the devastation they’ve caused to coastal communities.

5. The municipalities of Victoria and Sooke each tendered resolutions to the conference of the Association of Vancouver Island and Coastal Communities, also asking for farms to be transitioned to land. ### municipal councillors voted in favour of the resolutions.

6. Wilderness tourism operators are organizing to send a letter to the Premier.

The Declaration in Defence of Wild Salmon

Living Oceans launched a new campaign in April to get salmon farms out of BC waters. Together with partners Watershed Watch and Georgia Strait Alliance, we host www.SafeSalmon.ca, a site designed to draw together all sectors of society in calling for an end to netpens.

“The amazing thing about this campaign is that it isn’t one campaign,” said Karen Wristen, Living Oceans Executive Director. “Grassroots initiatives are popping up all over the province and all demanding essentially the same things:

- Let the salmon farm leases expire in June, 2018 in the Broughton area, where 20 of the provinces 120 farms are located;
- Remove netpens from any territory where First Nations haven’t agreed to having them;
- Focus on rebuilding wild salmon stocks that are currently in grave danger; and
- Guide the salmon farming industry into land-based, closed containment”

The centrepiece of Living Oceans’ campaign is the Declaration in Defence of Wild Salmon, a document available for sign-on at www.safesalmon.ca. “We’re asking everyone, regardless what other petition or campaign they might have joined, to come together on this site to show the Provincial government the strength and diversity of support for getting salmon netpens out of the ocean,” said Wristen.
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Early signatories to the Declaration include well known individuals from a variety of sectors of society, including former NHL hockey player Willie Mitchell, a son of Port McNeill now operating Tofino Marina + Resort; Dr. Lawrence Dill, Professor Emeritus at SFU who authored a comprehensive review of the published science on salmon farming last year; and Chief Bob Chamberlin who is, among many other things, president of the First Nations Wild Salmon Alliance.

While salmon farms are licensed to operate by the federal government, the sites that they occupy are granted by the Province of BC pursuant to either leases or licences of occupation. These leases can range in length up to 35 years. It happens that 20 of the leases, in the Broughton Archipelago, expire on the 20th of June of this year.

Agriculture Minister Lana Popham served notice late last year that renewal of the leases is not a foregone conclusion; and that the failure of the industry to obtain consent from Broughton area First Nations is a key consideration in the Province’s decision on renewal.

First Nations’ prior and informed consent to the locations of salmon farms within their territories featured among the consensus-based recommendations made by the multi-stakeholder Minister of Agriculture Aquaculture Advisory Committee, whose report was released by government for public comment earlier in April.

“Together, we’ll be sending an amazingly strong and united message to the Premier,” said Wristen. “British Columbians want a wild salmon economy supporting vibrant coastal communities. Salmon farms have to come out of the water before we can hope to rebuild our wild salmon stocks.”
Living Oceans watched the response of Washington State legislators to the escape of 260,000 Atlantic salmon from Cooke Aquaculture’s farm with considerable envy. Barely seven months elapsed from the date of the escape last August, occasioned by poor netpen management, to March 22, 2018 when Governor Islee signed a bill to phase out netpens throughout State waters. Along the way, Cooke was fined $322,000 and forced to buy back those fish that were recovered—largely by Lummi Tribe members, who responded in the absence of any corporate recovery plan. Cooke’s lease for the mangled Cypress Island farm was cancelled outright.

Over 200,000 escaped farmed Atlantic salmon remain unaccounted for. Many of these made their way into Canadian rivers. Dozens of samples from as far north as Port Hardy were delivered to Alexandra Morton’s Raincoast Research facility in Echo Bay. Washington State investigators released a report on the event, citing an excessive buildup of mussels on the Cypress Island nets that added some 110 tonnes of weight to the aging and poorly maintained structure. It found that Cooke management was aware of the problem, but had elected to do nothing about replacing the nets. Cooke’s lease for the mangled Cypress Island farm was cancelled outright.

On B.C. farms, the story of escaped farmed salmon is an interesting one. In 2010, the year that the federal government took over management of salmon farming from the province, it made some changes. One of those was to change the requirement for reporting escapes. The Province had always required reporting of ‘escapes or suspected escapes’ and it enforced that requirement with periodic audits, comparing stocking and harvest numbers. Now, the federal government requires a report when there is ‘evidence that an escape has occurred’. It does not audit those reports against stocking and harvest numbers. The predictable result is that reported escape numbers plunged from the tens and hundreds of thousands per year reported to the province, to single digits.

In place of ‘escapes’, we have the new concept of “unexplained loss” or “trickle loss”, which is how missing fish are reported on Aquaculture Stewardship audits, for those farms that seek certification. Living Oceans did a rough calculation using trickle losses reported at five farms and extrapolating those to the total number of operating farms on the coast—an inexact measure, to be sure, but the best we can do with reported data. The total was north of 400,000 fish per growout cycle—an average of about 18 months.

And the response of our government? Nothing. Because, you see, almost 100 years ago (when native Pacific salmon runs were still, well, runs) people tried to introduce Atlantics here for sport fishing and they didn’t take. Ergo, no real problem. Sure, the escapees might compete for some habitat, destroy some wild salmon redds and eat the odd wild juvenile, but that couldn’t possibly have an appreciable effect on wild salmon survival. Disease transmission isn’t really mentioned.

At Living Oceans, we believe that the evidence supporting the ‘do-nothing’ approach to escaped farmed fish is flimsy and of limited utility in evaluating the impact of 30 years of ‘trickle losses’ of farmed fish on depleting stocks of wild fish. We applaud Washington State regulators for taking the issue of escaped and potentially invasive species seriously and taking precautionary action to prevent impacts on wild salmon.
Kinder Morgan announced this month that it would cease all ‘non-essential spending’ on the Trans Mountain pipeline until Premier Horgan agrees to stop trying to protect B.C.’s environment. The ensuing political theatre has been quite sad to watch, bereft as it is of credible content.

Absence of content is remarkable first at Kinder Morgan, where work seems to be proceeding apace. The company continues to clear forest at the site of the tank farm expansion and is reported to be stockpiling pipeline in Alberta. That’s the thing about ‘non-essential spending’—they get to define what that is and they’re not saying what they’ve stopped doing. Just that they won’t do any more of it until Ottawa “overrides” B.C.’s jurisdiction.

Second yawning absence of content: the federal response. It’s understandable; they can’t override B.C.’s jurisdiction without precipitating a constitutional crisis. That point was driven home by Quebec Premier Philippe Couillard who issued a statement April 12 observing that Ottawa’s stated course was “not a good sign for federalism”.

The federal government is left to bargain by giving, or withholding, the candy that would sweeten the deal. Prime Minister Trudeau has been heard to say that the Oceans Protection Plan is somehow contingent on Kinder Morgan being built. We can only observe that the OPP money is already being spent in dozens of federal government research initiatives, Coast Guard equipment upgrades and stream and estuary rehabilitation projects. There’s not much left with which to bargain.

The only relevant measure in the Plan that could be withheld as ‘punishment’ is the promise to lease a pair of tugs capable of towing a distressed oil tanker. Pulling the plug on that promise, Kinder Morgan or not, would expose Canadian Coast Guard personnel and equipment to the continuing risk of responding to marine crises with underpowered vessels and inadequate towing equipment. Incidents like the near-grounding of the cargo vessel Simushir off Haida Gwaii put lives at risk on both vessels, as crews struggled to attach tow lines in foul and heavy seas, only to have them break repeatedly. It would be beyond cynical, bordering on criminal, to continue to risk lives this way.

Canada needs towing capacity now, to deal with the increasing size of modern ships of every sort.

Of course, there’s always the North and Central Coast oil tanker moratorium to continue to dangle in limbo. Bill C-48 has passed Committee but has not yet been scheduled for a vote. Much time has passed since Dominic LeBlanc assured us in a private meeting last fall that “the Boss” is fully committed to enacting the Bill. It would be sad to see that initiative fail again, after so many attempts to keep those dangerous waters clear of tanker traffic (and Kitimat clear of pipeline proposals!). Still, it seems unlikely that the federal government would be foolish enough to think it could stifle pipeline opposition by threatening not to do that which it has not done. Even less likely that they would calculate on moving Premier Horgan with such a threat.

Then there’s the Alberta content to consider: dark rumblings of trade consequences to come. The economies of B.C. and Alberta are so deeply integrated that two can play, and lose, at that game.

I imagine Rich Kinder kicking back with a cold one and waiting to see how much more money Canada and Alberta offer to throw at him. He’s made it this far on other peoples’ money, but has come up about $2 billion short. So why not call that the fault of uncertainty created by governments’ failures, rather than the failure of the investment community to see this pipeline as a good investment?
In fresh water, we have the evidence of the Kalamazoo River spill, where unquestionably, the oil sank. And now, we have the federal government of Canada asserting otherwise.

or brackish water would float for perhaps a day, but then begin to submerge or sink. In fresh water, we have the evidence of the Kalamazoo River spill, where unquestionably, the oil sank. And now, we have the federal government of Canada asserting otherwise.

A federal scientist working with Ocean Protection Plan funding at the Devon lab outside Calgary has taken her recent experimental results from laboratory tank tests directly to the media rather than publishing, telling the Globe and Mail in January, “The misinformation is that diluted bitumen will sink. But it’s not sinking.” Dr. Heather Dettman also outlined her results at a federal symposium in March, where she explained that the dilbit in her tank tests had formed a sludge ‘several centimetres thick’ that remained floating for three weeks before it began to sink. Plenty of time for cleanup and look, it was so gooey we could pick it up with forceps in the lab.

Herein lies the problem of using laboratory tank tests to predict what will happen in the world: you really have to try hard to mimic the conditions that the world has to offer and you’ll usually fail in some respect. Acknowledging the shortcomings of the experiment is generally part and parcel of the scientific method.

In the real world, when oil spills on an unconfined space like, say, the ocean, it doesn’t stay ‘several centimetres thick’. It spreads out. According to Dr. Jeff Short, who has studied all of the major spills of heavy oil in water since the Exxon Valdez, it spreads to about 0.4 mm thick.

It’s important how thick the spill is, because it’s the surface area of the dilbit that’s where all the action is. Evaporation takes place at the surface, so the thinner the oil slick, the faster the toxic condensate evaporates. (Imagine how long a full glass of water would take to evaporate. Now imagine spilling it on the floor.) The surface is also where the interaction with sediments and organic material in the ocean takes place— if the surface area is larger, there is more opportunity for the sticky, viscous residue of the bitumen blend to bond with elements that are heavier than water. Then it submerges, so that it can’t be tracked by responders; and eventually, it sinks, forming tarballs on the ocean floor.

In Dr. Dettman’s experiment, the bitumen ‘spill’ was created to be many times thicker than a real world spill. This slows the evaporation rate, reduces the uptake of sediments and, no surprise, slows the rate of sinking.

To be fair, lab instruments probably couldn’t measure the extremely small amount of dilbit that it would take to create a realistic spill in a lab tank. But acknowledging that shortcoming of the experiment and discussing its implications for the length of time a spill would float, and be available to responders for cleanup, is a key part of doing good science.

When Dr. Dettman was questioned at the symposium about conflicting studies, she suggested dealing with the questions outside the symposium and said she’d be available in the lobby right after her presentation. Living Oceans’ Karen Wristen spent the rest of the afternoon looking for her, to no avail.

It’s no secret, this business about the importance of slick thickness in experiments to see how dilbit will perform during a spill. Living Oceans retained Dr. Short to provide written evidence to the NEB for the Kinder Morgan application and Dr. Short has published extensively in peer-reviewed journals on the fate and behaviour of heavy oils. We assume Dr. Dettman is aware of his work and in particular, of his criticism of the very similar lab tests done by both Enbridge and Kinder Morgan to shore up their pipeline project applications.

Dr. Thomas Sisk put it best in his opinion editorial April 13: “...the showdown over Kinder Morgan’s proposed Trans Mountain pipeline has exposed the fact that science has become a casualty of the policymaking process.”

It’s little wonder the B.C. government announced its own investigation into dilbit’s properties, with all of the conflicting information emerging. Our expectation is that Premier Horgan’s enquiries will be informed by peer-reviewed science interpreted by qualified individuals; and that the spill response regulations his government eventually passes will be adequate to the task of removing this toxic substance wherever it spills on provincial lands and waters.
“Responsibly” Certified-ish?

When we purchase an organically-certified apple, we can safely assume that no synthetic pesticides were used for the entire farming process that produced that apple. But what if the organic certification standard allowed for periods of the farming timeline to be omitted from consideration? And during these periods, spraying of synthetic pesticides was undertaken - yet the farm still achieved its ‘organic’ certification status. “What a ludicrous loophole that would be,” we hear you say? While it certainly would not fly for organic standards, such a loophole is allowed for “responsibly sourced” farmed salmon under the Aquaculture Stewardship Council (ASC) certification.

Considered the ‘gold standard’ certification for sustainable seafood, the ASC’s Salmon Standard requires (at least in theory) a certified farmed salmon to meet 154 environmental and social indicators. These include meeting specific thresholds for marine mammal deaths, sea lice pesticides and antibiotics, for example. Given that these and other environmental impacts of salmon farming can occur at any stage of the production cycle, it would be expected that an ASC eco-labelled farmed salmon would have been assessed according to the Salmon Standard criteria from hatchery to harvest. This is not the case.

The production cycle of a B.C. farmed salmon commonly includes an open-net pen intermediary farm that is typically used between the hatchery and final grow-out farm. In fact, up to a year of production time could be excluded from the production cycle assessed in an ASC compliance audit, as auditors do not assess the intermediary farm stage. During this time any marine mammal deaths, pesticides, antibiotics or other impacts are simply ignored. One B.C. salmon farming company moved their fish from an intermediary farm to an ASC-certified grow-out site just three months before going to market with the eco-label. The ASC recently condoned the omission of intermediary farms from compliance with the Standard, stating they are “out of scope”.

In addition, most salmon farm ASC audits exclude the end of the production cycle from assessment. Our report, What’s Behind the Label? found that this was due to auditors conducting early audits, rather than waiting until the farm achieves “peak biomass” (i.e., the fish are harvest size). This practice allows the company to market their current cohort of fish with the ASC eco-label.

First-time farms are also given a pass, excluding part of the production cycle. Most recently, Marine Harvest Canada’s Alexander Inlet farm was granted ASC certification when it had been operating for only 12 months, despite the ASC requirement for at least 18-months of production cycle data. Such early audits do not allow enough time to assess the full production cycle’s environmental impact.

All told, farmed salmon take up to 36 months to grow from egg to harvest size. By excluding portions of the production cycle from assessment, the ASC audit might actually evaluate as little as 12 months of that cycle; we have certainly seen audits that cover only 15 months.

Eco-certifications are supposed to provide eco-conscious shoppers confidence in the products they buy. Certifying farmed salmon as sustainable and responsible for some of the time is not what consumers expect of a credible eco-certification. Living Oceans will continue to monitor the ASC to ensure it raises the bar.
Living Oceans heard from a north Island tourism operator last week that Cape Palmerston is somehow knee-deep in plastic bottles...we've cleaned that beach for 3 consecutive years now and it shouldn't be showing any aged accumulation. Cove Adventure Tours of Port Hardy will host a cleanup May 5; Living Oceans is co-ordinating the pickup and recycling of the debris later in the summer.

Over the winter, we worked with MP Joyce Murray to try to put marine debris removal on the government's radar. We are very pleased to report that Joyce has become an active champion of the issue and has brought forward a policy proposal that will be considered at the upcoming Liberal Party policy convention. The policy resolution asks for a comprehensive national policy and action plan to deal with marine debris.

The problem is, you can't really deal with marine debris without facing the issue of plastic use and abuse on a global scale. Canada is presently awash in over 7 million tonnes of plastics that have nowhere to go. Collected in recycling programmes, these plastics were slated for transport to China, but China has closed its ports to unprocessed plastic waste. And Canada has no processors who are prepared—as yet—to take on the job of grinding it up or melting it down into reusable raw materials that could be exported. Many other nations find themselves in the same predicament and, as a result, we can expect to see ever more plastic making its way into the ocean. Witness the bonanza of bottles at Palmerston.

While we wait in hope that governments will see fit to fund the cleanup of plastics already stranding on our shores, we face yet another season of marine debris removal with inadequate funding to do the job right.

That's why we're so pleased to hear about initiatives like the one Cove Adventure Tours has proposed. We save a great deal of time and money if volunteer groups organize their own cleanups on remote beaches. Living Oceans can provide the equipment and training to do the job right, leaving the debris secured for later pickup by helicopter.

Still, there are all those beaches that are off the trail, where volunteers can't be expected to pack in bulky helicopter bags as well as all their own gear. So once again, we'll be taking a crew into Sea Otter Cove by boat in the latter half of August, to deal with the most remote beaches.

If you'd like to volunteer, you can sign up on our website. Please be sure to tell us a little about your outdoor skills and experience, so we know where best to fit you in. All of our cleanups require at least moderate physical fitness, as some hiking will be required.
Living Oceans Society annual photo contest will be ready to accept submissions via our website as of June 1st, 2018. Every year we invite the public to help Living Oceans Society showcase the beauty of the ocean as we advocate for its protection, by sharing their favorite ocean photos with us. Submissions must fall into one of the three categories to qualify: ‘Below the Surface’, ‘Coastal Wildlife’, and ‘Work or Play on the Ocean’, with 3 prizes available per category. There is also one uncategorized ‘Seahuggers’ Choice’ prize (chosen by total ‘likes’ each photo gets in an album we post on our Facebook page), making a total of ten prizes to be awarded.

Entries must be recent and must be located on, near, or under one of Canada’s three oceans. Photographs are judged on exposure, composition, uniqueness, creativity, technical proficiency and relevance to chosen theme.

Take a look at one of last year’s winning entries: ‘Early Morning Humpback Whale’ by Daniel Hillert!

Ways to Donate

1. Donate directly to Living Oceans, if you do not require a tax receipt.

By cheque: Please make cheque payable to Living Oceans Society and mail to: Living Oceans Society Box 320 Sointula, BC V0N 3E0

2. Donate to the Canadian Coastal Research Society if you would like a tax receipt (minimum $25).

By cheque or credit card: please fill out this form. Cheques must be payable to CANADIAN COASTAL RESEARCH SOCIETY. Please note if you would like to make a one time or monthly donation. Monthly donors will receive annual tax receipts.

3. Online: You can donate directly to Living Oceans or to the Canadian Coastal Research Society using your credit card or Paypal on our web site.

Canadian Coastal Research Society is a registered Canadian charity, no. 82128 1433 RR0001. Canadian Coastal Research Society and Living Oceans collaborate on charitable projects. You will be directed to the Canadian Coastal Research Society web site if you want to make a charitable donation.

www.livingoceans.org/donate