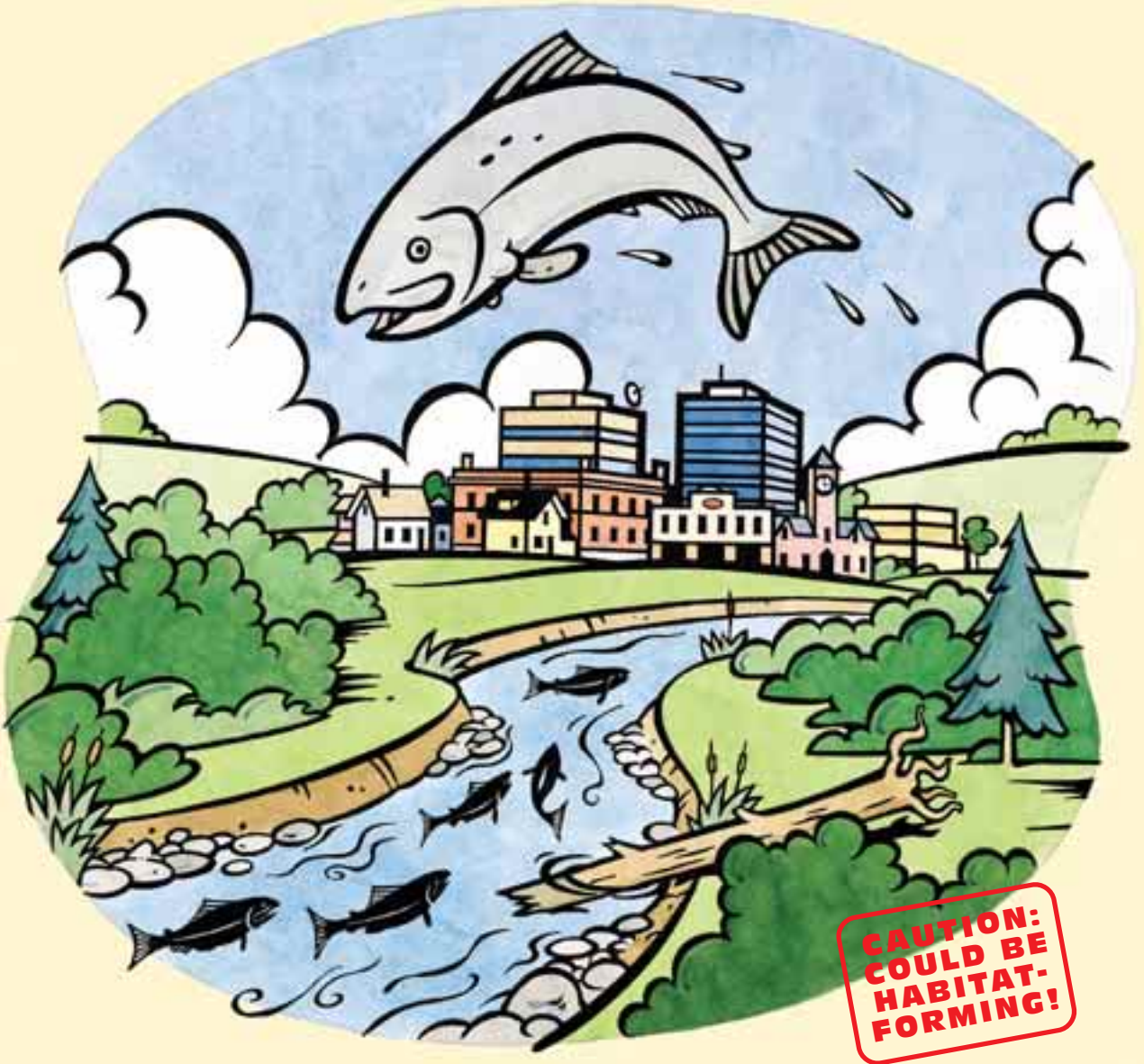


ZONED RS-1

(Residential Salmon-1)

BYLAW NO. 1234, 2007

A bylaw to regulate the preservation, maintenance and repair of salmon residential areas in Everytown



David
Suzuki
Foundation

SOLUTIONS ARE IN OUR NATURE



Zoned RS-1 (Residential Salmon-1)

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Introduction: Gimme shelter!

The David Suzuki Foundation applauds the Union of B.C. Municipalities' commitment to build vibrant, integrated communities that embrace social, economic, environmental and cultural sustainability.

A commitment to sustainability means taking care of nature, preserving our natural capital and learning to live within the limits of the ecosystems that support us. It's in all of our interests to see wild salmon flourish and fill their place in the food web, our culture and our economy. That means protecting our salmon citizens where they live: in our backyards.

Trying to protect wild salmon stocks without protecting where they spawn and grow is like trying to raise a family without a safe place to live. Many of our salmon neighbourhoods are in decay and in need of protection.

Salmon need a voice in the halls of power. You can be that voice by acting on some of the suggestions described in this handbook. Make healthy salmon neighbourhoods part of your community.

To that end we present this model bylaw for your consideration.



CORPORATION OF THE DISTRICT OF EVERYTOWN

ZONED RS-1 (RESIDENTIAL SALMON-1)

BYLAW NO. 1234, 2007

(A bylaw to regulate the preservation, maintenance and repair of salmon residential areas in Everytown)

WHEREAS Section 876 (1) of the *Local Government Act* (the *Act*) empowers municipalities and regional districts to adopt an Official Community Plan;

AND WHEREAS Section 877 (1) (d) of the *Act* requires an Official Community Plan to include restrictions on the use of land that is environmentally sensitive to development;

AND WHEREAS Section 878 (1) (d) of the *Act* empowers local governments to include policies relating to the preservation, protection, restoration and enhancement of the natural environment, its ecosystems and biological diversity;

AND WHEREAS these provisions give local governments the power to help preserve, protect and enhance areas where wild salmon live (“Salmon Neighbourhoods”) for the betterment of all British Columbians;

NOW THEREFORE THE COUNCIL OF the District of Everytown, in open meeting assembled, enacts as follows:

SECTION 1 - GENERAL

1. This bylaw may be cited for all purposes as “Residential Salmon One Bylaw 1234” (multi-species, multi-use)

2. DEFINITIONS

2.1 In this bylaw:

The following words and terms have the following meanings as defined in multiple scientific sources. References can be found in the Oceans Section of the David Suzuki Foundation website:

occupant means wild salmon.

wild salmon means seven species of the Pacific salmon genus (*Oncorhynchus*), five of which are most commonly identified as “salmon”: sockeye, coho, pink, chinook, chum. Trout (steelhead and cutthroat) and char are the other members of the genus.

wild salmon neighbourhoods means creeks, streams, rivers, lakes and estuaries where salmon live in an area from the Pacific shoreline to the shadow of the Rocky Mountains.

buffer zone means an undisturbed area protecting salmon neighbourhoods (also referred to as *riparian zones*).

salmon infrastructure means the water flowing into the vast network of creeks, streams and rivers, supporting salmon neighbourhoods, whether it contains a salmon neighbourhood or not.

joint tenants means other species that depend on thriving wild salmon neighbourhoods, including (but not limited to): trees, grizzly bears, eagles, wolves, insects, humans, future generations of wild salmon.

3. PURPOSE OF BYLAW

- 3.1 This bylaw shall, notwithstanding any other provision herein, be interpreted in accordance with this section.
- 3.2 This bylaw has been enacted for the purpose of preserving existing salmon neighbourhoods from demolition, degradation and damage.
- 3.3 To ensure the abundance of wild salmon for the benefit of coastal communities, fishers of all kinds, the people of British Columbia and future generations.
- 3.4 It is the assumption of the District that all residents, businesses, developers and others recognize wild salmon as an enduring icon of British Columbia's culture and economy.

4. SCOPE AND EXEMPTIONS


- 4.1 This bylaw applies to all positive steps local governments can take to protect wild salmon neighbourhoods, buffer zones, salmon infrastructure and joint tenants, whether they are in an urban or rural area.
- 4.2 This bylaw does not apply to the provincial government, which is responsible for most development and natural-resource extraction activities that affect salmon neighbourhoods in B.C. (including mining, forestry, aquaculture, hydroelectric developments and water extraction) and shares some responsibility for salmon-neighbourhood protection.
- 4.3 This bylaw does not apply to the federal government, which is responsible for conserving salmon neighbourhoods, buffer zones and salmon infrastructure via the Department of Fisheries and Oceans (DFO) using the *Fisheries Act*.

5. PROHIBITIONS

- 5.1 Unless otherwise permitted in this bylaw:
- 5.2 Nothing in this bylaw shall prevent local governments from lobbying both the provincial and federal governments to do their part to preserve existing salmon neighbourhoods for the benefit of the people of British Columbia and future generations.

GIVEN THREE READINGS this 22nd day of October, 2007.

ADOPTED and the Seal of the Corporation of the District of Everytown affixed this 23rd day of October, 2007.


DOTHE RIGHT THING
MAYOR


FORTHE FISH
CITY CLERK

Who are our Salmon Neighbours anyway?

Wild Pacific salmon are among the original residents of British Columbia. They're icons in our art and storytelling. They have a long-standing partnership with First Nations people, one of reverence and respect. In Canada, they include seven different species and thousands of genetically distinct populations spread across a wide range of habitats. They're further divided into extended salmon families (called "stocks"), groups of salmon that live in a particular neighbourhood or who regularly commute there from overseas at the same time (rather like Snowbirds in Eastern Canada).

Salmon are honest, hard-working residents whose economic multipliers are felt throughout the communities in which they live. Their economic contributions help to support fishers of all kinds and other community groups (like eagles, bears, wolves and insects). They're committed to sustainability, giving of themselves to support the ecosystems in which they spawn and die. They have strong family values and, generous to a fault, they donate everything they have to their children.

Unfortunately, salmon extended families have now been reduced to a mere fraction of the levels that once existed in Western Canada's lakes, rivers and ocean waters – but they can flourish again if we all take action to stem their decline.

Is this a simple task? No. But is it possible? Absolutely. By protecting their freshwater and coastal salmon neighbourhoods, we can ensure the survival of Pacific salmon. But without a home to return to, they are doomed.

Where are these Salmon Neighbourhoods and what are they like?



Salmon neighbourhoods can be found all over British Columbia, from the shoreline to the shadow of Mount Robson in the Rockies, the headwaters of the Fraser River. They're in many municipalities, regional districts, towns and cities. Like any heritage neighbourhood, they've been around for a long

time and they have certain distinctive qualities. Like the rest of us, salmon prefer waterfront properties (mostly creek-side or river-mouth) with lots of green space and a plentiful supply of fresh water. Salmon neighbourhoods are close to amenities like nurseries, food stores and recreation facilities.

Salmon neighbourhoods also feature a mix of housing stocks and densities. While some salmon prefer mainstream living in the wide-open spaces of large rivers like the Fraser, Skeena and Nass, others prefer a high-density lifestyle in some of the smallest backyard creeks. By and large, most salmon prefer safe communities where they can go about their business undisturbed: spawning, dying, being born or preparing for life at sea. A few prefer show-homes (like the Adams River sockeye, who encourage tourists to visit during their quadrennial open house).

What sort of threats do Salmon Neighbourhoods face?

Sadly, many salmon neighbourhoods have been expropriated without compensation and bulldozed to make way for subdivisions, shopping malls, sports facilities and other developments. Others have had all their green space removed or their water supply cut off. This has been a major factor in the extinction of over 142 extended salmon families in the past century. The remaining extended salmon families are not doing well and their numbers are declining. This is due mainly to six key threats to existing salmon neighbourhoods:

- **Urban and agricultural development**
- **Climate change**
- **Water licensing and over-allocation**
- **Logging**
- **Mining**
- **Open-net-cage aquaculture**

It's not that people don't care about salmon. Nor is there a lack of government policy. There's lots of policy – federally, provincially and locally. What's lacking is action. What's needed is getting all levels of government as well as the public working together, using the powers they have, to guarantee a future for wild Pacific salmon.

What can I do about it?

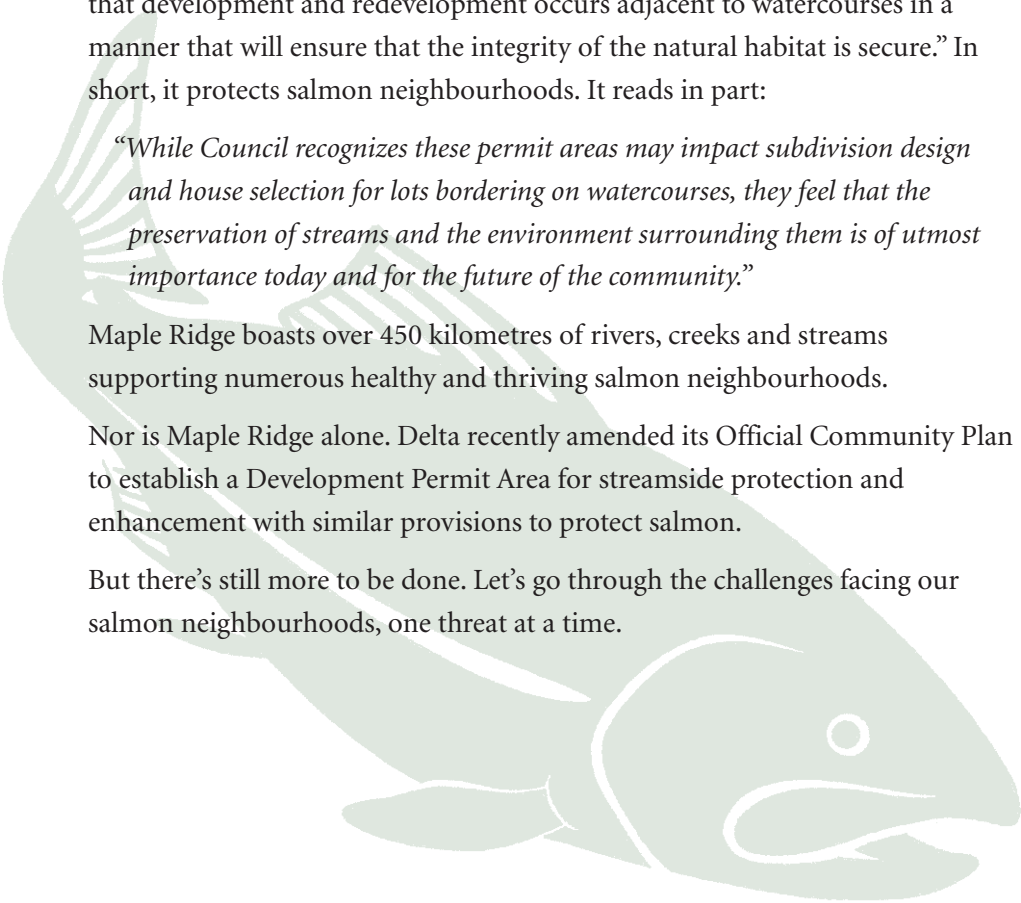
Lots. Individuals involved in public life can make a profound difference, whether you're an elected representative or professional staff. Many people in civic government are stepping up to the plate and protecting salmon neighbourhoods. For instance, the District of Maple Ridge has recently established the Watercourse Protection Development Permit Area, which applies to all lands within 50 metres of the top bank of all watercourses and their associated wetlands. This Development Permit Area is designed "to ensure that development and redevelopment occurs adjacent to watercourses in a manner that will ensure that the integrity of the natural habitat is secure." In short, it protects salmon neighbourhoods. It reads in part:

"While Council recognizes these permit areas may impact subdivision design and house selection for lots bordering on watercourses, they feel that the preservation of streams and the environment surrounding them is of utmost importance today and for the future of the community."

Maple Ridge boasts over 450 kilometres of rivers, creeks and streams supporting numerous healthy and thriving salmon neighbourhoods.

Nor is Maple Ridge alone. Delta recently amended its Official Community Plan to establish a Development Permit Area for streamside protection and enhancement with similar provisions to protect salmon.

But there's still more to be done. Let's go through the challenges facing our salmon neighbourhoods, one threat at a time.



I. URBAN DEVELOPMENT, AGRICULTURE AND LINEAR DEVELOPMENTS

Urban and agricultural developments can destroy salmon neighbourhoods or slowly turn them into unlivable slums. A 1997 evaluation of land cover in the Lower Fraser Basin since European settlement estimates that wetland cover has been reduced from 10 per cent to one per cent while land used for agriculture and urban development has increased from zero per cent to 26 per cent.

Linear developments, like highways, pipelines and power lines, cause additional problems for salmon residents. Roads in particular can cause excess sedimentation, alter water flow and block passage to salmon neighbourhoods. In addition, they lead to further land and water development in newly accessed areas.

People and salmon love the same places. Coastal, estuary and nearshore marine environments are important rearing areas and staging grounds for juvenile salmon, as well as prime locations for agriculture and urban development. Sharing these areas requires careful planning to protect salmon and salmon infrastructure.



What needs to be done:

- More municipalities and regional districts could follow the lead of Maple Ridge, Delta and other salmon-friendly local governments in adopting and enforcing bylaws to protect salmon neighbourhoods from development.
- Civic governments could review their regulations to ensure they meet the standards set by the *Fisheries Act*.
- Local government could work with the federal and provincial governments to establish protected watersheds that help to protect salmon neighbourhoods and infrastructure by maintaining natural water flows and sedimentation.
- The UBCM and the Federation of Canadian Municipalities (FCM) could lobby the federal and provincial governments to develop and actively enforce effective policies to preserve salmon neighbourhoods.

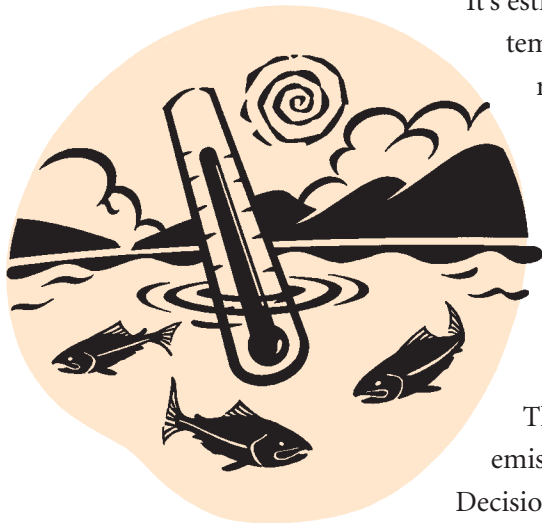
II. CLIMATE CHANGE

Climate change is putting our salmon neighbourhoods in hot water, literally. It could be the single greatest threat to the existence of Pacific salmon in Canada.

Climate-related changes in ocean conditions are already suspected of forcing salmon to travel farther for less food. Juvenile salmon love to hang out close to the coast (their equivalent of the mall). Higher temperatures in these waters mean a lot of them won't make it to adulthood. Even if they do, they'll have to face hot water in major rivers like the Fraser.

It's estimated that over the next 50 to 80 years, water temperatures lethal to salmon will occur in these rivers 10 times more often than in the past.

The federal government doesn't have a systematic way to gather, evaluate and integrate climate-change impacts with other challenges facing salmon and their extended families. That makes it difficult, if not impossible, for them to manage the Pacific salmon fishery effectively.



Three-quarters of Canada's greenhouse-gas emissions are emitted within municipal boundaries.

Decisions made by local governments influence half of these emissions. This makes it even more important for local governments to do everything in their power to reduce emissions and protect salmon neighbourhoods.

What needs to be done:

- Lobby the senior levels of government to legislate binding greenhouse-gas emission-reduction targets, including meeting Canada's Kyoto commitments.
- Help persuade the federal and provincial governments to increase funding for research to evaluate the impacts of climate change on Pacific salmon.
- Increase precaution in salmon management and reduce dependence on pre-season abundance forecasting.
- Local governments should create climate-change plans to reduce greenhouse-gas emissions and deal with the impacts. Ensure that the impacts of climate change are taken into consideration in all aspects of local government planning.

III. WATER LICENSING - OVER-ALLOCATION

It's obvious that water is a basic need for salmon. What's not so obvious is how competing demands for that water are turning many salmon neighbourhoods into death traps. The over-licensing of water rights for small- and large-scale hydroelectric projects, agricultural irrigation, municipal use and other major water diversions is a huge problem. From 2001 to 2005, the number of new water licences issued for the removal of surface water in B.C. rose by 57 per cent. The total in 2005 was 43,392 licences.

The *Water Act* doesn't require consideration of environmental impacts in granting a licence. This means we take more water than we should for our own uses while river systems like the Nicola, Coldwater and Thompson suffer low water levels. Salmon runs already pressured by over-fishing and habitat loss face added threats from water levels that are too low. Low water can prevent passage to spawning grounds and contributes to increased water temperatures lethal to salmon.

What needs to be done:

- Consider the needs of salmon and salmon neighbourhoods in all water allocations.
- Establish and enforce ecosystem-based, minimum monthly in-stream flows in all watersheds.
- Withhold approval of future water licences until minimum flows are implemented and prohibit any water extraction or diversion that exceeds minimum flows.
- Develop ecosystem-based watershed-management plans for all major watersheds, including more specific water-use plans for activities of particular concern (e.g., dams).
- Enact groundwater-protection legislation that protects watershed-management objectives and minimum in-stream flows from groundwater extraction.



IV. LOGGING

Industrial-scale logging and associated road developments have negative and often disastrous impacts on salmon neighbourhoods. They can alter stream flows and increase water temperatures. Landslides in clear-cuts, soil erosion

from roads and stream-bank destabilization due to loss of riparian vegetation increase sedimentation.

This can wipe out a salmon neighbourhood overnight.

While local governments may not be able to do anything on Crown Land, they can prevent damage to salmon neighbourhoods on private land within their jurisdictions.



What needs to be done:

- Local governments can implement strict bylaws for logging in community drinking-supply watersheds that are under their direct control and place controls on private-land logging within municipal boundaries that can adversely affect water quality.
- Local governments can help ensure that buffer zones are maintained on all streams within their boundaries regardless of whether they are fish-bearing or not.
- Civic government can set aside a significant proportion of undeveloped forest cover in all salmon neighbourhoods in watersheds within their boundaries.
- The UBCM could lobby Fisheries and Oceans Canada to take strong steps to ensure that B.C.'s *Forest and Range Practices Act* protects salmon neighbourhoods and infrastructure.
- Local governments could ask the federal and provincial governments to undertake a full evaluation of the potential impacts of extensive pine-beetle salvage logging in the Fraser River's headwaters before allowing further logging to take place.

V. MINING

Mining can ruin a salmon neighbourhood through pollution from sedimentation, acid mine drainage, disposal of processing chemicals and alteration of natural water flows. It can also result in the destruction of salmon buffer zones and the removal of spawning gravels, which is like bulldozing nurseries and daycares.

Regulating mining activities is largely beyond the scope of civic governments. But in some cases, particularly when it comes to aggregate mines, mining can have a direct impact on lands and fish-bearing waters that are situated within municipal boundaries.



What needs to be done:

- Local governments can be proactive by considering bylaws that limit the areas where aggregate mines and similar activities can operate and offering land swaps (other lands away from salmon neighbourhoods that contain mineable gravels) that would enable these industries to remain viable while protecting salmon neighbourhoods and infrastructure.
- Civic governments could lobby Fisheries and Oceans Canada to ensure mining companies post adequate security deposits and long-term cleanup bonds to ensure funds are available to restore damaged habitats.
- Municipalities and regional districts could ask that the existing federal/provincial agreement on gravel mining on the Fraser River be renegotiated to better protect salmon neighbourhoods.

VI. AQUACULTURE

When an open-net-pen fish farm moves in, most salmon extended families say, “There goes the neighbourhood.” This kind of aquaculture operation releases contaminants into the environment (like sewage being

discharged into our back yards) and increases the risk of exposure to disease and parasites. As well, escaped farmed fish can become home invaders, kicking wild salmon residents out of their homes. The Department of Fisheries and Oceans appears to be in a bind, because while it’s supposed to be protecting wild salmon, it’s also supposed to actively support aquaculture.

Fortunately, municipal and regional governments have the power to zone marine areas for specific purposes, including marinas, log storage, shellfish and finfish farming. You can use your zoning clout to protect salmon extended families from having harmful or inappropriate

businesses set up in their neighbourhoods – just like you would any other neighbourhood.

What needs to be done:

- Salmon-friendly local governments could implement zoning bylaws that prohibit locating aquaculture operations in critical salmon neighbourhoods.
- Local governments could call for an immediate freeze on all new open-net-cage tenures within the boundaries of their jurisdiction.
- Civic leaders could recommend a transition strategy be implemented that, in a three- to five-year time frame, shifts aquaculture to closed-tank systems that keep farmed fish from invading salmon neighbourhoods.

Involve the folks: Salmonopolis - crime stoppers for the salmon

One of the strengths of local government is its accessibility by the citizens it serves. Civic governments work best when the people are actively involved in making them work. The David Suzuki Foundation has taken a page from the UBCM’s book in developing tools to get local people involved in protecting salmon neighbourhoods. In partnership with several other groups, the



Foundation has created www.salmonopolis.ca, a web tool designed to support education, capacity building and advocacy resources for people who want to help salmon where they live.

Salmonopolis.ca is also a “Crime Stoppers for Fish.” The site has a “Report-a-Violation” section that allows citizens to make habitat-damage reports and lists contacts to help you connect with and support local stream-stewardship groups. It also has an “Ask-an-Expert” feature where an appropriate scientist or policy expert posts answers to visitor questions, so you can tap into the best scientific expertise to help guide local decision-making.

Shouldn't the feds and the province do their share?

Absolutely, and we'd like your help in lobbying them to pick up the slack.

The federal government in particular has to give the Department of Fisheries and Oceans the resources it needs to protect our salmon neighbourhoods.

Among other things, this means living up to the existing *Fisheries Act* and putting enough money into enforcing it.

If you want to help lobby the federal and provincial governments, you can join with the David Suzuki Foundation and ask them to:

Stop paving over salmon streams and over-fishing (i.e., protect habitat and improve fisheries management).

Start taking global warming into account in salmon-protection plans.

Go out into the field and enforce the laws that are designed to conserve salmon (i.e., renew the will to enforce the *Fisheries Act* and other legislation that would halt the destruction of salmon habitat and over-exploitation of the resource).

For more details, please check out our report: *The Will to Protect: Preserving B.C.'s wild salmon habitat*, on the Foundation website, www.davidsuzuki.org.

Conclusion

Working in partnership with UBCM members and senior levels of government, the David Suzuki Foundation is certain that we can find solutions to the challenges facing the salmon who live in our salmon neighbourhoods.

For more information, please check out www.davidsuzuki.org.

Wild Salmon: Key Threats and Recommendations

KEY THREAT	REASONS FOR CONCERN	RECOMMENDATIONS
Urban and Agricultural Development	Degradation and loss of streams and wetlands.	Implement ecosystem-based water- and land-use planning; ensure provincial and municipal regulations conform to the federal <i>Fisheries Act</i> ; establish protected watersheds.
Climate Change	Reduced stream flows, altered seasonal stream-flow patterns, and increased water temperatures.	Reduce greenhouse-gas emissions; increase research funding; be precautionary and integrate climate-change information into all planning.
Water Licensing and Over-Allocation	Cumulative impacts of water extraction, stream-flow and temperature changes, blocked fish passage, and altered sediment/nutrient flow.	Ecosystem-based water-use plans precede all further water licensing; implement ecosystem-based water-use planning; enact groundwater-protection legislation.
Logging	Sedimentation, temperature increases and water-flow alterations (especially pine beetle salvage logging in Fraser River headwaters).	Protect riparian ecosystems for all streams; maintain proportion of undeveloped forest in all salmon watersheds; make provincial regulations compliant with ecosystem-based objectives; avoid and mitigate the impacts of salvage logging.
Mining	Pollution and the direct removal of habitat.	Stop implementation of weakened habitat regulations; ensure mining companies post adequate deposits and long-term cleanup bonds for habitat restoration; stop destructive gravel mining in salmon streams.
Aquaculture	Pollution, spread of disease and escapes of invasive species from open-net pens; habitat disturbance and nutrient-flow alterations.	Halt new open-net-cage tenures and implement a transition strategy to closed-tank systems.



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