

**Final Speaking notes April 22, 6pm HP/PNE Board Presentation**  
**Content removed from text for 5 min time limit but available in alternate copy**

***You Can't Sell Sanctuary:***

*Fishing Program in Manmade Biofiltration Lagoon: Critical Questions about Urban Runoff Pollution, Biodiversity and the Devaluation of a Cherished Public Green Infrastructure Asset*

~~

I want to make some critical connections because I think this program suffers from omissions, potential wildlife and biodiversity violations, and important unanswered questions about public health and safety.

I live at Hastings at Renfrew and walk here daily when in Vancouver. When on Vancouver Island with my family, coincidentally I live next to another Biofiltration Wetland for which I am the wetland keeper (Conveners' Report, SFU Centre for Coastal Science and Management, list of participants, p. 3, Ap. 2014.).

My work is in communications and researching governance and the environment. Please ask for details. I am not a credentialed scientific expert but I am a resident with deeply relevant experience and the right to raise questions.

In addition to well-known concerns like documented bird entanglement, what about all the unreported incidents and inadequate signage that does say who to contact if you see an animal in distress, nor specify if you intend these trout for human consumption?

I think we need thorough, ongoing, publicly available data on the cumulative impacts of all the runoff and air pollution this wetland filters. Geography puts it near the bottom of an intense catchment basin. At the same time, it's become a Hotspot recognized by Vancouver's new Biodiversity Strategy and is one of our largest rare freshwater ecosystems. (April 19, 2016, p. 8, *Sensitive Ecosystems in Metro Vancouver*).

I'd rather tell this success story about resilience – but that seems incompatible with this program and especially any expansion. I've always seen Hastings Park as a sign of hope in troubled times. But this program suggests troubled times and exploitation are encroaching.

You say "prior to implementation" you "researched: consultation with a freshwater biologist" (p. 6). What data "ensure" you're "not have negative effects on the ecosystem"?

I think you've lost sight not only of original vision – you've forgotten or not been informed about its PRIMARY ECOLOGICAL FUNCTION.

There's a four-lane highway on the south, race track and stables to the north, Playland on east, and a gas station to the west, and much more. It's encircled by "nonpoint source pollution" (Polluted Runoff: Nonpoint Source Pollution, EPA).

Water quality, depth, volume and concentration of dissolved substances varies by season, temperature, drought and rainfall events (and thus climate change). One “water quality assessment” by “BCIT students” and the “Freshwater Fisheries Society” (p. 6) also does not provide adequate data on pollution that can build up over time.

You may be creating a perfect storm for toxin accumulation. I submitted my concerns with full references to staff before the deadline, so they should be on record and are available from me.

You tested “conductivity” to measure the presence of harmful salts and heavy metals (Water Quality 101). What were the specific results on what date and time of year?

Polluted runoff is seen by observation and a dramatic evacuation incident on June 17, 2014, of my entire 59-unit apartment building. Heavy rainfall caused (most likely) the gas station to overflow volatile chemicals into our sump which contaminated the air so badly that the Environmental Protection Branch and Fire Department had to ventilate for hours (we couldn’t even get our pets) -- If this happened in our sump, what's in the underground hydrology?

What about bacteria like e. coli from wildlife (I saw a rat swimming here too). Especially during summer drought, it could be a serious health threat for body contact. You are adding thousands more organisms whose fecal waste adds nitrogen, *another* trigger of low oxygen. Some trout hatcheries actually harvest feces as a power source and fertilizer (*Fish poo from rainbow trout powers organic farm, 2016*).

What are mortality rates; are carcasses decomposing? Last year you stocked 3,500 fish (PNE, p. 4). On what basis were these numbers increased?

Today concerned neighbours have also asked if this is attracting more large predators like coyotes that feed on wildlife and pets. Residents claim increased sightings.

Since the lagoon filters and sediments pollution, do we really want kids and others catching thousands of fish from it annually? Interventions like “aeration” can improve some things but could it also “re-suspend” pollution? More interruption of natural processes could simply increase energy and operating costs, overload a core asset AND IMPAIR VALUABLE PUBLIC GREEN INFRASTRUCTURE.

In 2013 your project manager said environmental studies “aren’t required for man-made lakes” (Thomas, *Fish Pond in Sanctuary Doesn’t fly with neighbours*).

That’s wrong, especially now the Park Board and City Council voted unanimously for a new Biodiversity Strategy for “future generations” (CBC, Feb. 2, 2016, *Vancouver wildlife biodiversity strategy approved by park board*), AND to “increase the amount and...quality of...natural areas” which includes “constructed wetlands” (City of Vancouver, Biodiversity Strategy and Policy Report).

Under the new Strategy, the Fishing program could now violate Vancouver city policy.

It's can also be a criminal offence in the BC Wildlife Act to disturb an area with nesting species-at-risk (Section 34, BC Wildlife Act, 1996) like the Green Heron pairs seen here (Stewardship Centre for BC).

Habitat alteration also contravenes the BC government's "Develop with Care" guidelines for urban areas on Great Blue Herons and Eagles by potentially damaging or disturbing feeding areas (Develop with Care 2014, *Fact Sheet 11: Great Blue Herons* and *Fact Sheet 10: Bald Eagles and Ospreys*).

What data *substantiate* that these activities are not creating *net loss*? And what about taking the *precautionary approach* in the interest of public and ecological health?

This is not about signs or whether fishing is a "good fit" – it's about health, our future and stewardship.

As we conclude on Earth Day, I must say we're not only talking about sound asset management – we're talking about safeguarding a precious, beloved urban green space that is essential to our total wellbeing in an era of dramatic global and local changes. Thank you.

## References

Blendell, Leah et al. *Stewarding the Sound*. Conveners' Report. April 2014. SFU Centre for Coastal Science and Management. Available upon request.

*Learn to Fish Program Hastings Park Sanctuary*. Pacific National Exhibition. April 22, 2016. PNE Board of Directors Meeting Public Realm Portion Agenda Item 2.2.  
<http://www.pne.ca/aboutus/pdf/meetings/learn-to-fish-program.pdf>

Polluted Runoff: Nonpoint Source Pollution. 2016. United States Environmental Protection Agency. <https://www.epa.gov/polluted-runoff-nonpoint-source-pollution/what-nonpoint-source>

Road Salts. List of Toxic Substances Managed Under CEPA. Environment Canada. 2013. Available at: <http://www.ec.gc.ca/toxiques-toxics/Default.asp?lang=En&n=D83D0535-1>

Environmental, Health and Economic Impacts of Road Salt. New Hampshire Department of Environmental Services. <http://des.nh.gov/organization/divisions/water/wmb/was/salt-reduction-initiative/impacts.htm#humanhealth>

Code of Practice. Environmental Management of Road Salts. Environment Canada. 2013. Available at: <http://www.ec.gc.ca/sels-salts/default.asp?lang=En&n=F37B47CE-1>

Annex B. Identifying Areas Vulnerable to Road Salts. Environment Canada. 2013. Available: <http://www.ec.gc.ca/sels-salts/default.asp?lang=En&n=82FAD3D4-1>

Stromberg. <http://www.smithsonianmag.com/science-nature/what-happens-to-all-the-salt-we-dump-on-the-roads-180948079/?no-ist>

Fish poo from rainbow trout powers organic farm, 2016.  
<http://www.abc.net.au/news/2016-01-22/aquaponics-loomberah-gunagulla/7072870>

Water Quality 101. Appalachian Citizens Enforcement Project. Alliance for Appalachia. Available <http://www.ace-project.org/water-quality-101/>

Freshwater Fisheries Society of BC. 2014. Sanctuary Pond/Hastings Park.  
<http://www.gofishbc.com/where-to-fish/city-fishing/lower-mainland-lakes.aspx>

Thomas, Sandra. June 4 2013. *Fish Pond in Sanctuary Doesn't fly with neighbours*. Vancouver Courier. Available at: <http://www.vancourier.com/news/fish-pond-in-sanctuary-doesn-t-fly-with-neighbours-1.374964>

CBC. Feb. 2, 2016. Vancouver wildlife biodiversity strategy approved by park board.  
<http://www.cbc.ca/news/canada/british-columbia/vancouver-wildlife-biodiversity-strategy-approved-by-park-board-1.3430931>

(City of Vancouver, Biodiversity Strategy.  
<http://council.vancouver.ca/20160419/documents/rr1presentation.pdf>

City of Vancouver, Biodiversity Strategy Policy Report to Vancouver City Council).  
<http://council.vancouver.ca/20160419/documents/rr1.pdf>

BC Wildlife Act, 1996. Section 34. Available at:  
[http://www.bclaws.ca/Recon/document/ID/freeside/00\\_96488\\_01#section34](http://www.bclaws.ca/Recon/document/ID/freeside/00_96488_01#section34)

Government of BC. Lower Mainland Environmental Stewardship. Wildlife Management.  
[http://www.env.gov.bc.ca/lower-mainland/wildlife/management/wildlife\\_management.htm](http://www.env.gov.bc.ca/lower-mainland/wildlife/management/wildlife_management.htm)

Stewardship Centre for BC. Green Heron. [http://www.env.gov.bc.ca/lower-mainland/wildlife/management/wildlife\\_management.htm](http://www.env.gov.bc.ca/lower-mainland/wildlife/management/wildlife_management.htm)

Develop with Care 2014: Environmental Guidelines for Urban and Rural Land Development in British Columbia. Fact Sheet 11: Great Blue Herons.  
<http://www.env.gov.bc.ca/wld/documents/bmp/devwithcare/Fact-Sheet-11-herons.pdf>

Develop with Care 2014: Environmental Guidelines for Urban and Rural Land Development in British Columbia. Guidelines for Raptor Conservation during Urban and Rural Land Development. <http://www.env.gov.bc.ca/wld/documents/bmp/devwithcare/Fact-Sheet-10-eagles-osprey.pdf>

Truth and Reconciliation Commission of Canada. BC National Event, Vancouver. Pacific National Exhibition Program. Sept. 18-21, 2013.  
<http://www.trc.ca/websites/vancouver/File/TRC-073.06%20BCNE%20program-web.pdf>

Reconciliation Canada. Sept. 23, 2013. Walk for Reconciliation.  
<http://reconciliationcanada.ca/staging/walk-for-reconciliation-2013/>

City of Vancouver. June 20, 2013. City of Vancouver proclaims a Year of Reconciliation.  
<http://vancouver.ca/news-calendar/city-of-vancouver-proclaims-a-year-of-reconciliation.aspx>