The Urban Stream Project

January 25, 2011

1. Reasons for the Urban Stream Project (USP)

The degradation and destruction of salmon bearing streams due to urbanization has resulted in salmon runs being destroyed or severely compromised. As identified in the Department of Fisheries and Oceans Lower Fraser Valley Stream Review of 779 streams 117 have been lost between the period of 1860 and 1997 and most of those remaining are under significant stress. The threat streams face from urbanization has and will continue to increase as the human population of British Columbia increased from 3.9 million in 1997 to 4.5 million in 2010 and is estimated to rise to 6 million by 2036.

The degradation of small urban streams in British Columbia is nowhere better exemplified than Mosquito, McKay and Mission creeks on the North Shore of Burrard Inlet. In 1926 J.A. Motherwell, the Chief Inspector of Fisheries, relayed a fishery agent report which estimated the Squamish harvested 600 to 700 Cohoes from these creeks in a single year. In 2010 the North Shore Streamkeepers saw less than five Coho salmon in these streams. While the streams of Burrard Inlet individually have relatively small runs, cumulatively they are significant. Particularly given each female has between 1500 to 4500 eggs.

It should be remembered the Coho reported in Motherwell's report were wild salmon; salmon whose very existence demonstrates a genetic heritage more likely to survive the impacts of climate change than artificially selected hatchery fish.

While current initiatives have been crucial in ensuring salmon actually exist in these streams they often aren't sustainable and depend on human inputs. They don't address the underlying issue which is human modification of the environment such that streams are no longer able to support sustainable salmon populations. The Urban Stream Project is designed to return streams to a state which without human intervention will support wild salmon.

While the disappearance of salmon from our streams is extremely problematic for several reasons, perhaps most alarming in terms of addressing the problem is the diminishing knowledge of what was and what could be. The West Coast has gone from a thriving, sustainable fishery and ecosystem where large fish were caught in great numbers to generations of young people growing up among nonexistent streams or streams devoid of salmon. Barren streams have become normal. Just as present generations do not ask why are there no whales in Burrard Inlet, will future generations fail to ask why are there no salmon?

The USP provides an opportunity to those communities who wish to take back their streams and protect a resource and way of life for generations.

2. Benefits to the Community

The restoration of stream ecosystems provides several benefits to communities in addition to the obvious environmental and economic benefits associated with restoring viable salmon populations.

Firstly, a green belt will be created or enlarged which can be used for a variety of purposes. Provided it is ecologically sound, low impact walking, running, biking and cross-country skiing trails can be built in a forested environment within the urban area. The availability of these trails close by will reduce the need to travel to these often out of the way places and eliminate carbon emissions associated with this travel.

Secondly, a greenbelt provides an opportunity and a place for children (and adults) who increasingly spend more time in front of electronic devices to reconnect to nature. Few things are as amazing as the lifecycle of salmon, particularly when it can be witnessed in one's neighbourhood.

Thirdly, climate change will result in a greater frequency of extreme weather events, such as heavy rainfall or rapid snow melts. In fact, North Vancouver is expected to receive the same volume of precipitation but in less frequent and more severe weather events. The Larger riparian areas between streams and private or public property will provide greater buffer zones when these events occur and reduce the likelihood of personal injury or property damage by flooding or landslides.

Fourthly, the creation of a greenbelt will raise property values.

Fifthly, the transformation from urban environment to greenbelt will create carbon sinks in the soil and plant biomass.

3. Process

The step by step process is provided below, however, it should be remembered the key to this process is public engagement at each step. This would involve community meetings to explain the initiative, seek public input and engage the public in an ongoing manner through an email list (for those interested) and website. The website would provide updates on current activities, such as upcoming meetings, and historic information such as escapement, pictures of the area before development, historical narrative, etc. In short, it would remind the public what was, what can be and what is being done.

While the acquisition of land mentioned below may seem ambitious this is not the first time something of this nature has been undertaken on the North Shore. For several years the City of West Vancouver has been buying property along Ambleside and converting it to parkland. Many of the properties in question are worth millions of dollars and still the public is extremely supportive of this project.

The suggested process is as follows:

1. Identify historic salmon producing streams and rivers which no longer produce salmon or produce severely reduced numbers of salmon.

2. Determine the riparian area necessary to replicate natural conditions as far as possible within an urban environment necessary to sustain a salmon population.

3. Identify areas impinging the necessary riparian area.

4. Approach home owners of infringing properties to sign a non-binding Endorsement indicating their support for the project generally and to have infringing areas on their property restored. If support from local government is high it may be possible to avoid this step and instead engage in purchasing property and entering into rights of first refusal (step 5).

5. When large areas of the stream have been made subject to Endorsements, begin lobbying various levels of government, corporations and other entities for funds to restore impinging areas and if necessary purchase impinging properties. The purchase of properties could involve providing existing owners with life estates or entering into rights of first refusal.

6. Register easements and if necessary purchase properties as they become available and return impinging areas to their natural state. Note, this project is likely to last a number of years (10 to 20) depending on available funds, property values and amount of area to be rehabilitated.