

<http://www.pskf.ca/ecology/watershed/northvan/hastings02.htm>

Hastings Creek Watershed Profile



Total Drainage Area: 7.1 km²
 Length: 23 km
 Orientation: North-South and West-East
 Elevation Range: 280-840 m
 Average Channel Gradient: 11



Characteristics

- Hastings Creek is a small urban stream that is one of the six tributaries of Lynn Creek. Considered one of the most important small fish-bearing streams in North Vancouver (Renshaw), Hastings originates on the east slope of Grouse Mountain, and flows through Princess Park, Hunter Park, the Lynn Valley commercial area, and various residential areas until it joins Lynn Creek in the Arbour Lynn area.
- The main tributary is Thames Creek. Smaller tributaries include: Dunell, Dyer, Coleman, Pierson and Hoskins Creeks and unnamed tributaries.
- **Status: Endangered** – due to riparian removal, urbanization, culverting and degraded water quality.
- 21% impervious area in watershed (GVRD, 1999).

History

- Before mid-1800's -North Vancouver District was inhabited by Coast Salish peoples.
- Hastings Creek and its numerous tributaries made up the prime spawning area for most of the Lynn's migratory runs of cutthroat, steelhead, coho and chinook. In the early days, this creek contained excellent spawning and rearing habitat for salmon and trout, and had strong coho runs.
- 1860's - The first significant non-native settlement began. The Lynn-Hastings community is the 2nd oldest on the North Shore.
- 1870- 1926 – Old growth forest in Lynn Valley logged.
- 1870's – Wood-Spicer Cedar Co. – uses Prince's Pond in Princess Park to store cedar shingles and transports shingles to its mill in Lynn Valley via Hastings Creek. Dam at main collection pond at Lynn Valley Road and Mountain Highway blocked fish passage.
- 1895 – World's largest fir tree felled in Lynn Valley settlement area: Over 2000 years old; 417 feet high; 77 feet in circumference at the butt; 16 inch thick bark.
- 1903 – Mill pond on Thames Creek, Hastings tributary (Stewart 1975).
- 1909 – 200 people live in Lynn Valley (Bouton, 2000).
- 1911 – Mill built at Lynn Valley Road and Mountain Highway.
- 1912 –" Walter McKay Draycott claims that every year at least fifty salmon and 'salmon-trout (steelhead), swam up Draycot Brook and kept him awake at night with their 'flipping and flapping' in the stream" (Steward, 1975).
- Late 1950's – wave of residential housing in Lynn Valley. 2nd Narrows opened in 1958.
- 1960-70's – Westlynn area at mouth of Hastings developed as residential area.
- 1962 - 7-foot high wall built below Arbourlynn culvert to control flooding stops fish passage (Stewart, 1975). 1971 – Lynn Valley population = 25,000 (Bouton, 2000).
- Mid-80's – Coho escapement almost 20 (DFO)
- 1987 - Study of Hastings Creek estimated a steelhead population of 3140 and a coho population of 357 (Methven 1987)
- 1993 - North Shore Streamkeepers began restoration activities.

Watershed Use

- Fish – coho, cutthroat, dolly vardin, sculpin and steelhead - chinook? (Renshaw). Rainbow?
- Wildlife – besides providing habitat for various species, the riparian corridor serves as a travel corridor. Likely species include: shrews, moles, weasels, bobcat, lynx, deer, fox, raccoon, otter, hares, coyote and bear, but no wildlife studies have been conducted.
- Vegetation - Coastal Western Hemlock, dry subzone. Remaining native trees in watershed include western hemlock, douglas-fir, western red cedar, big leaf maple, and red alder up to about 120 years old.
- Parks: Hunter, Princess and Hastings Creek Parks: trails, dog-walking
- Residential
- 4 Schools

- Commercial
- Power line crossing at Princess Park.
- 3 current watershed licenses on Hastings Creek (Conservation-Construction works, Domestic and Land Improvement).

Concerns

- Stream classified as endangered due to impacts (FRAP)
- Significant loss of riparian vegetation along more than 50% of the fish frequented length of the stream due to development and removal by landowners (FRAP).
- Water quality – Significant problems caused by urban development (FRAP). Serious non-point source pollution problem caused by contaminated stormwater being discharged directly into the creek, spills into storm drains, impervious surfaces near the banks and loss of riparian vegetation. 29 storm drains discharge into Hastings.
- Urbanization in the watershed has significantly affected the stream basin (FRAP)
- Bank and slope stability leading to erosion and flooding. Progressive sedimentation and plugging of trash racks at culvert inlets under flood flow conditions in tributary channels in upper reaches (Kerr Wood Leidal Associates, 1982).
- Impacts from gas stations located at Lynn Valley Road and Mountain Highway (NSSK).
- Road construction in the 1950's created impassable culverts, severely reducing the coho runs.
- Creek impassable to fish 200 m. upstream of the footbridge off Hendecourt Road and at the dams at the Twin Lakes ponds.
- Hastings tributaries have been heavily culverted.
- Houses are located within creek floodplain.

Key Interest Groups/Government Bodies

- Municipal Gov't: District of North Vancouver (DNV); District Parks Department; Lynn Canyon Ecology Centre
- Regional: GVRD (regional parks, sewers and air quality); GVWD
- Provincial Gov't: Ministry of Transportation and Highways; Ministry of Environment, Lands and Parks
- Federal Gov't: Department of Fisheries and Oceans; Environment Canada; Transport Canada
- Local NGO's: North Shore Streamkeepers; North Shore Fish and Game Club; Pacific Streamkeepers Federation; Lynn Valley Community Association
- BC Hydro
- School District 44
- North (Shore/Vancouver) Historical Society

Watershed Projects

- 1979 - Squaretailers Rod and Reel Club installed a fish ladder near the mouth.
- Early 80's – Fish ladder installed.
- 1980 – DFO released steelhead
- 80/83 – Incubation box for coho at Lynn Valley Road.
- 91/92 - School District released coho at Roblin Place, Kirkstone Road and Hastings Creek Park.
- July 1994 – Fish ladder installed at Lynn Valley Road & Mountain Highway (Fisheries and Oceans Canada, Salmonid Enhancement Program and North Shore Streamkeepers (NSSK)). For the first time in decades, salmon returned to spawn in the upper reaches of Hastings Creek. NSSK volunteers continue to clean ladder at regular intervals.
- 1995 Stream bank clean-ups, storm drain marking (55 sites)
- 1995 – Ongoing - Spawner surveys conducted each fall.
- 1996 - Smolt trapping, bank clean-up and planting banks in Princess Park, improved access to Donavon's pond (NSSK).
- 1997 – GIS mapping - District of North Vancouver
- 1997 - Fry trapping, mapping survey, planting in Princess Park (NSSK).
- 1998 - Planting of native trees and shrubs in Princess Park, smolt trapping (NSSK).
- 1999 - Spawner surveys, developed educational signs, bank clean-up, smolt trapping, Donavon Pond Restoration (NSSK).

Available Sources of Information

Map: TRIM/UTM - BC Ministry of Environment, Lands and Parks
Map: District of North Vancouver

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