

Cowichan Watershed Board – November 6, 2010

Cowichan River Hatchery



The Hatchery

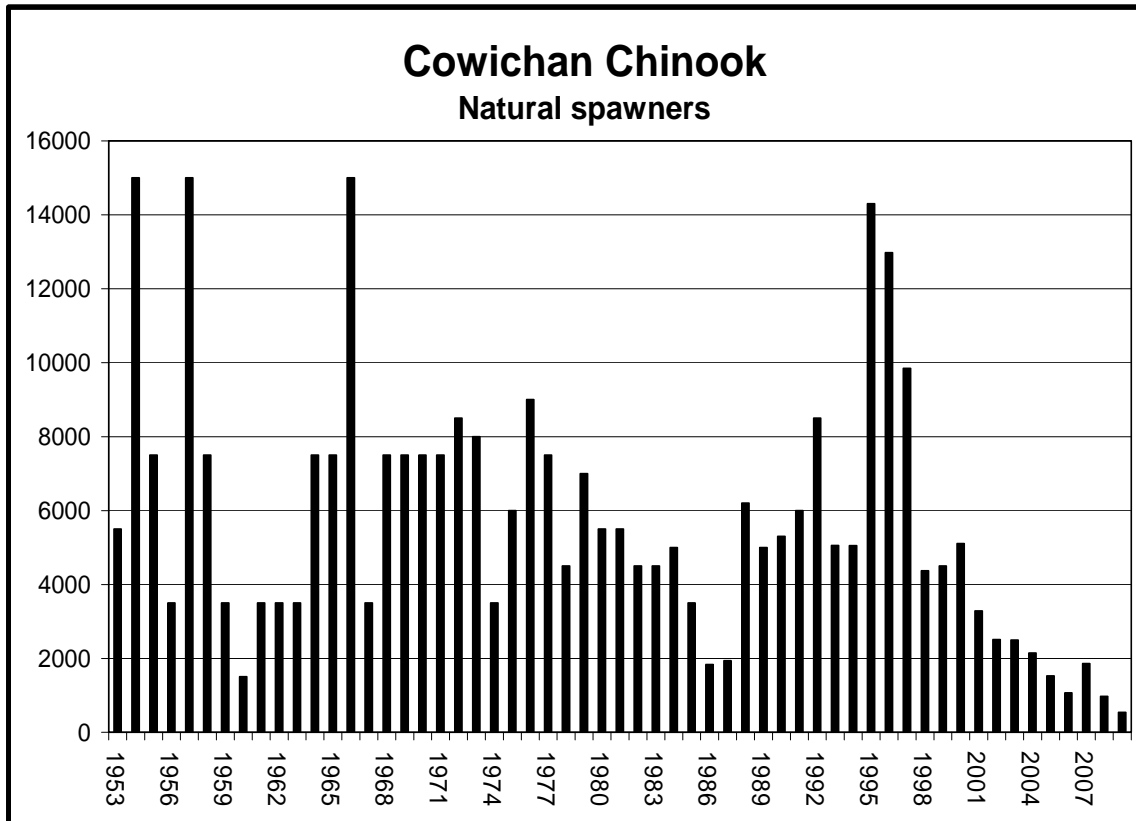
- A partnership between Cowichan Tribes and DFO for over 30 years
- Chinook salmon focus
 - “Conservation Hatchery to rebuild wild stocks not replace with “hatchery run”
- Experienced staff – recent biological audit (Dr. D. Groves et. al.) reveals excellent husbandry practices and fish health
- High % Coded Wire Tagged to allow for detailed stock assessment analysis (informs Canada/US salmon Treaty Negotiations)
- Testing new rearing release strategies in order to adapt to changing inshore marine conditions associated with global climate change

The Water

- Hatchery water supply 100% groundwater (50 ft wells)
- Up to 3,000 gallons/minute pumped 24/7 in season
- Well capacity dropping over time (from 6,000 gpm in 1987)
 - Drop associated with changes to well head associated with pumping large amounts of water as opposed to changes to aquifer
- Water temperature stable year round
- Hatchery staff have documented slow but steady water temperature increase over time since wells were installed.
 - 1.4 deg C increase over 23 years

The Fish

- Chinook important to Cowichan Tribes for food, social, and ceremonial purposes; also highly prized sport and commercial catch
- Target escapement 7,000, recent population trends alarming (see Graph)



- 2009 historic low escapement – 500 natural spawners
- 2010 preliminary numbers better but still bad – 1200 natural spawners
- Significant number of jacks this year – 1100 – positive sign...
- Integrated approach to rebuilding necessary:
 - Freshwater and inshore marine habitat restoration
 - Eg. Stoltz bluff, 5 Fingers channel, eelgrass restoration in Cowichan Bay
 - Controlled harvest
 - Conservation measures in place by all user groups (complicated business – see graph)
 - Strategic enhancement – smarter not bigger?
 - Supporting Research and Science
 - Eg. Cowichan Estuary work with Beamish & Sweeting

Cowichan Chinook Catch Distribution

