

#### Cowichan River Weir Replacement Initiative

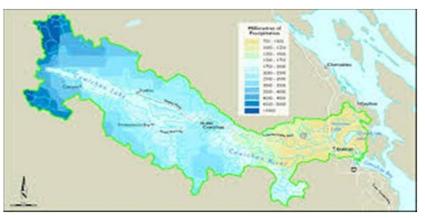
#### Reconciliation through Climate Change Adaptation Protecting Chinook and Orca populations



Cowichan Watershed Co-Governance Conversations - Workshop #2. Cowichan Bay, January 2018

# THE COWICHAN VALLEY

- National and Provincial Heritage River
- Home of Cowichan people for millennia
- 5 species of anadromous salmonids
- Economic Driver Tourism, Catalyst Mill, Agriculture, forestry all dependant on river/watershed
- The Cowichan River defines the landscape, ecology, cultural heritage and the people of the Cowichan Valley





# WATER SUPPLY AND CLIMATE CHANGE

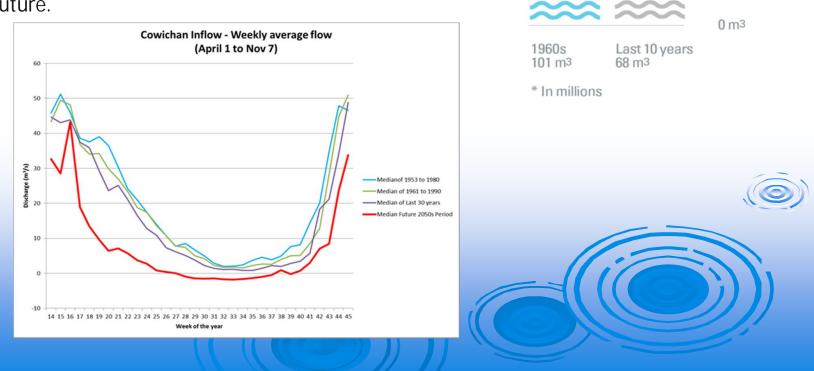
- PCIC generated climate change forecasts Hotter and drier in summer, warmer and wetter in winter. No snowpack, more floods more droughts
- 97cm of storage licensed to Catalyst in 1957. Adequate to provide industrial and E-flows for first 40 years; failure rate now 80% – and trending down.
- Extreme drought year now = average in less than 30 years
- Culture, ecosystem, and jobs are all at risk.
- Lack of adequate water management capacity jeopardizing salmon populations and CT ability – and right – to harvest fish in their traditional territory





# CLIMATE CHANGE...

- Lake inflows have decreased by over 30% since 1980's
- PCIC generated downscaled climate change projections call for significantly lower inflows April November in the future.



Average Lake Cowichan Inflow

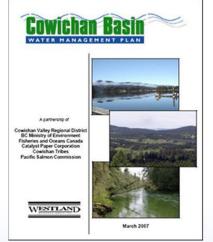
DECREASE

100 m<sup>3</sup>

50 m<sup>3</sup>

### WE HAVE BEEN WORKING HARD...

- First detailed engineering report defining solutions calling for more storage (KPA Engineering, 1991)
- Cowichan stewardship roundtable formed in 2003
- Valley partners worked together from 2004-2007 to produce award winning CBWMP calling for more storage
- Cowichan Watershed Board formed in 2010 ensuring adequate water supply top priority
- Cowichan WUP process carried out 2017/18 Consensus on 70CM additional storage
- We have a strong track record of over 25 years of working together as a community on this issue. The CWB epitomizes the partnership approach being taken to address our water challenges



# CHALLENGE AND OPPORTUNITY

- Climate change impacts on the river are obvious and will become more so
- Flows required for cultural, ecological and economic sustainability are all at risk – now.
- The community is ready we have established unique and effective mechanisms for working together as partners towards water sustainability – this is what reconciliation looks like
- We can fix this. Unlike many other watersheds in SE Vancouver island, we have the ability to address this situation. Cowichan cou become a Chinook refugia over the next decades
- This is time sensitive. The situation has worsened significantly over the past decade and will continue to do so.



### THE SOLUTION....

- Implement the recommendations of the Cowichan Water Use Plan
- Replace the natural storage of snowpack with increased weir capacity in the lake.
- Work with us to mitigate the affects of climate change on our watersheds, communities and ecosystems.



# THE BOTTOM LINE

- First Nations, local government or industry are not well positioned to lead on climate change adaptation we are looking for leadership and support from senior government.
- We need assistance to:
  - assume the liability associated with a water license to store 70cm of water
  - finance this project estimated at approx. 15 million dollars.
- Our community has demonstrated leadership, cooperation, diligence and patience, on this issue over the past 25 years we need some support at this time.
- This is an opportunity to show Canadians and the world how all levels of government can work together to demonstrate a reconciliation approach to climate change adaption.

# Huy ch q'u





River Cleanup 2017: Cowichan Watershed Board members representing (L-R) Cowichan Valley Regional District, Director Lori Iannidinardo, Cowichan Tribes Councillors Debra Toporoski, Darrin George, Fisheries and Oceans Canada Area Director, Dr. Laura Brown.. Photo by ?

