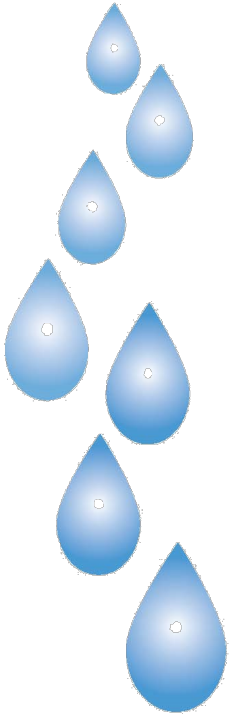


DRINKING WATER
WATERSHED
PROTECTION



Your Community's Water

Presentation by Julie Pisani

Regional District of Nanaimo

Drinking Water and Watershed Protection
Program Coordinator

Drinking Water and Watershed Protection



DRINKING WATER
WATERSHED
PROTECTION



Science

Learn more about water in the region through scientific studies and data collection



Planning

Use this knowledge to inform land use decisions



Stewardship

Empower communities to protect our water & the environment

Why?



Our drinking water comes from lakes, rivers and underground sources - it is up to us to protect it.



The quality and amount of water in the ground and in our lakes & rivers is directly affected by what we do on the land.

Fish and other important aquatic species rely on clean and plentiful water for habitat.



Town of Qualicum Beach



REGIONAL DISTRICT OF NANAIMO



CITY OF NANAIMO



District of Lantzville

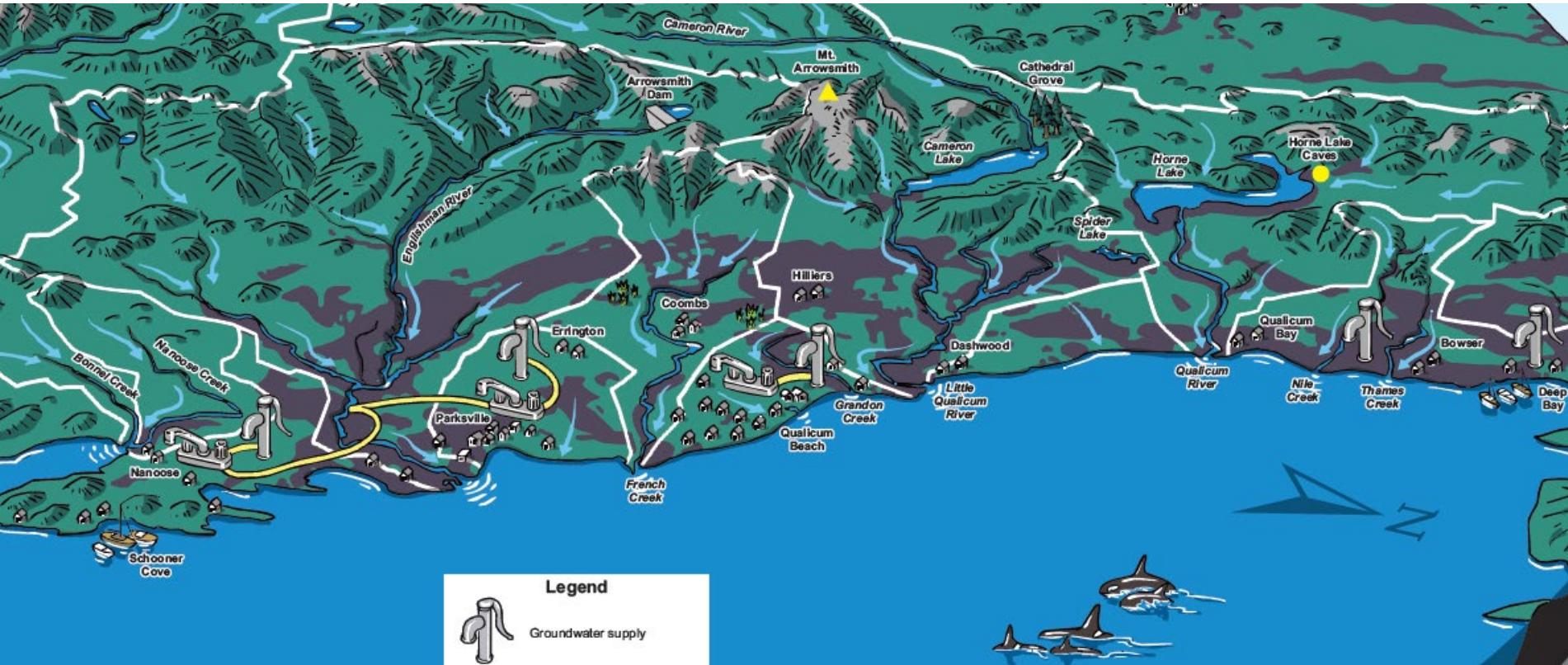


City of Parksville



A regional program to learn more about our watersheds and encourage water efficiency and watershed protection.

Water Sources – RDN North



Water Sources: groundwater aquifers

Deep Bay

Bowser

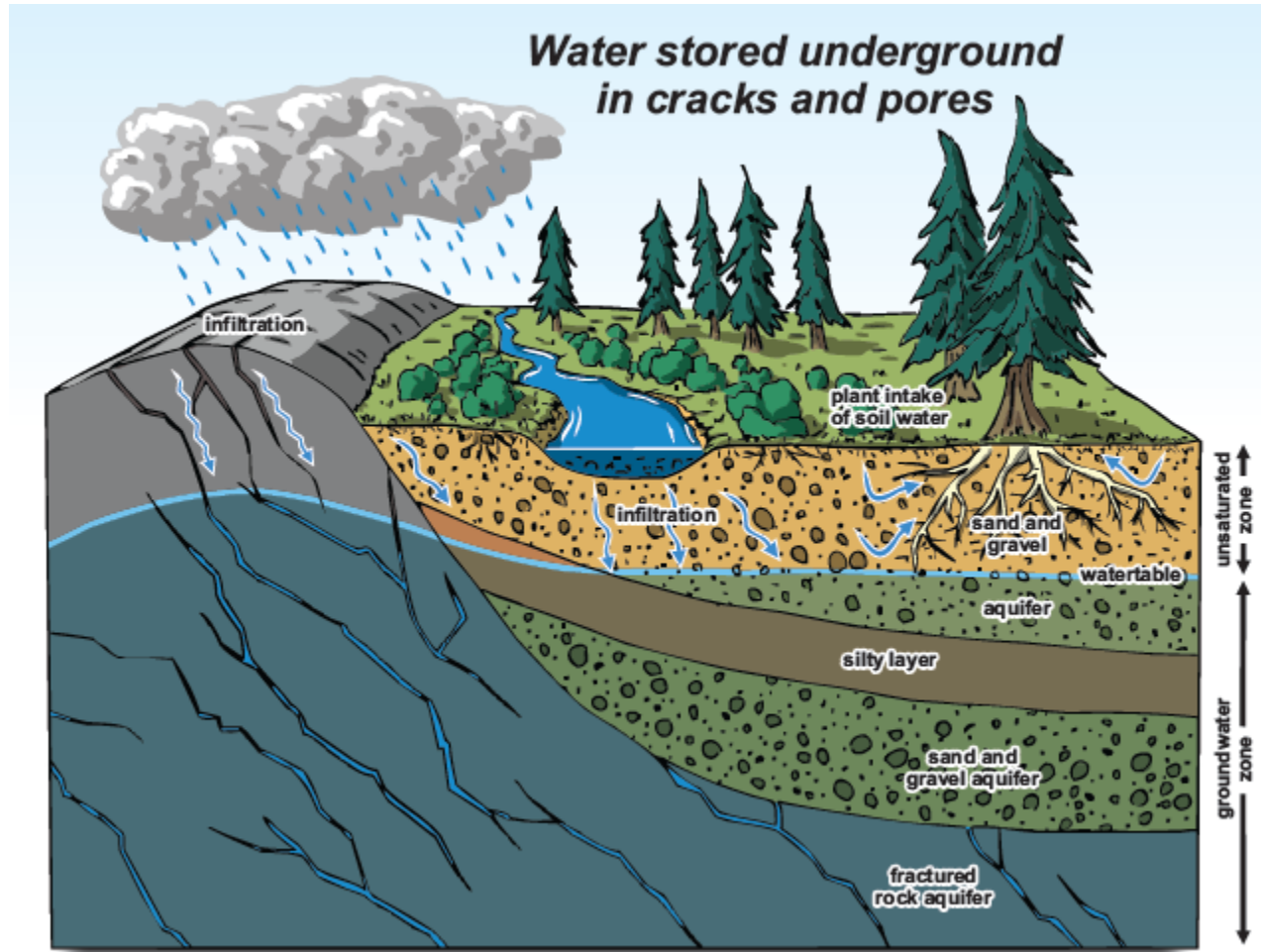
Qualicum
Bay

Qualicum
Beach

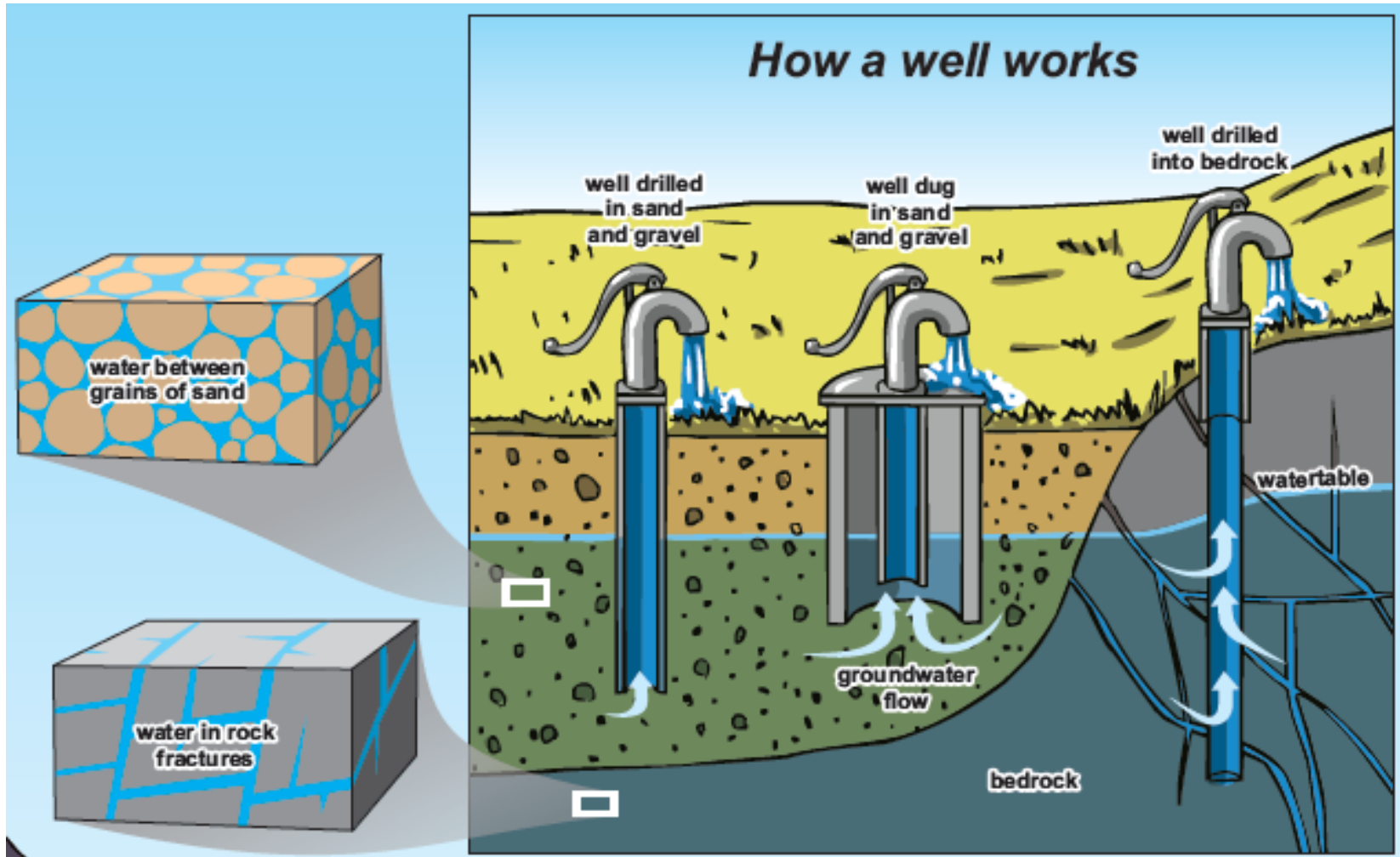
Parksville

Nanoose

All Rural
Areas

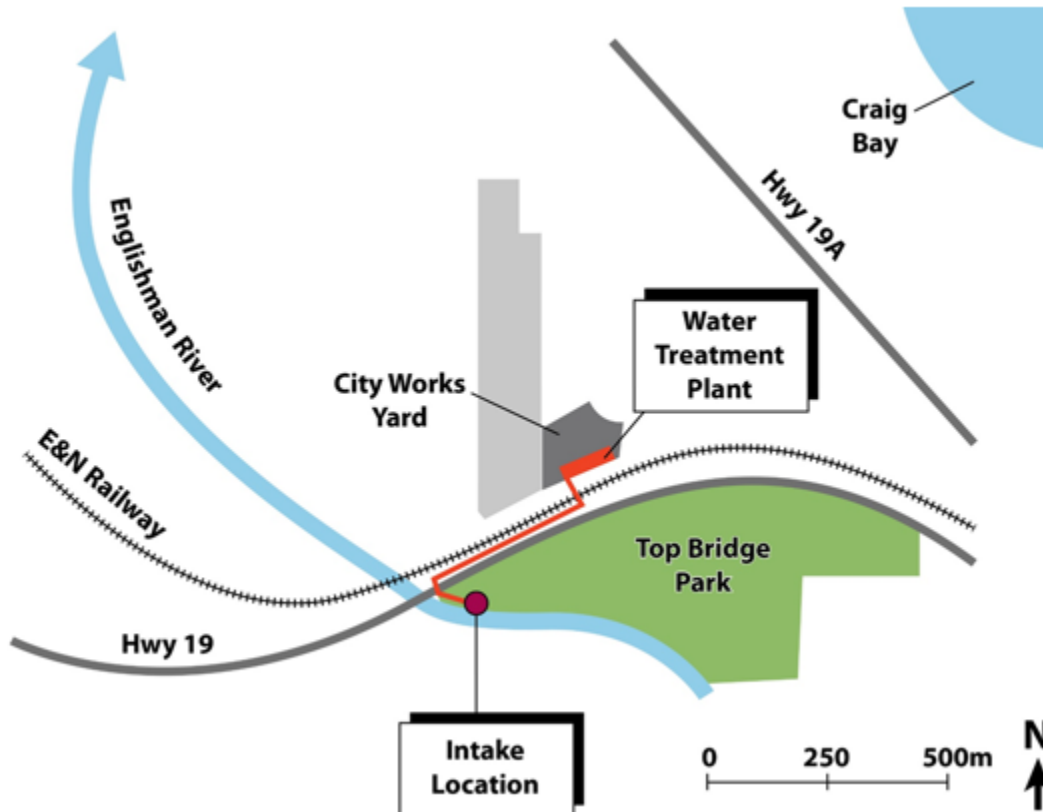


Water Sources: groundwater wells



Water Sources: Surface Water

- Englishman River Water Service



Ecosystem Needs

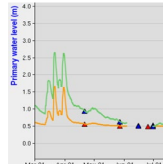
- Water for fish, birds, frogs



Spiritual, Cultural Values

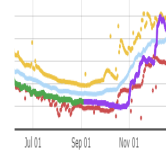


Understanding More About Our Water



Stream Levels
& Flows

Groundwater
Levels



Precipitation
& Snowpack

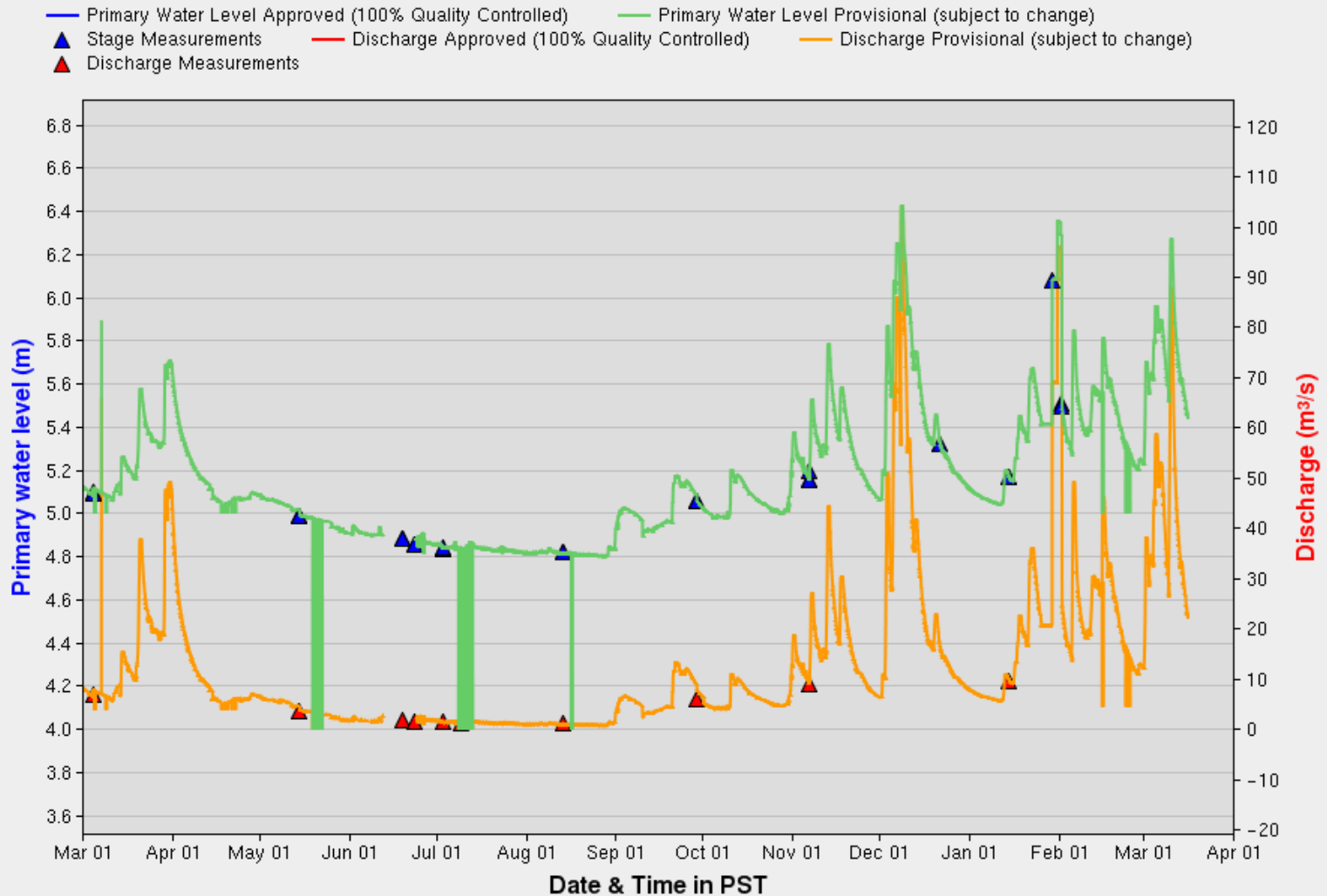
Demand



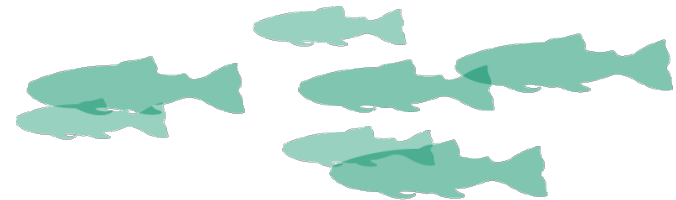
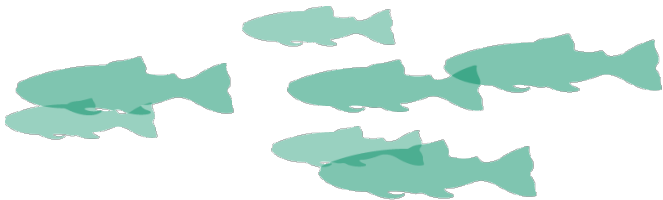
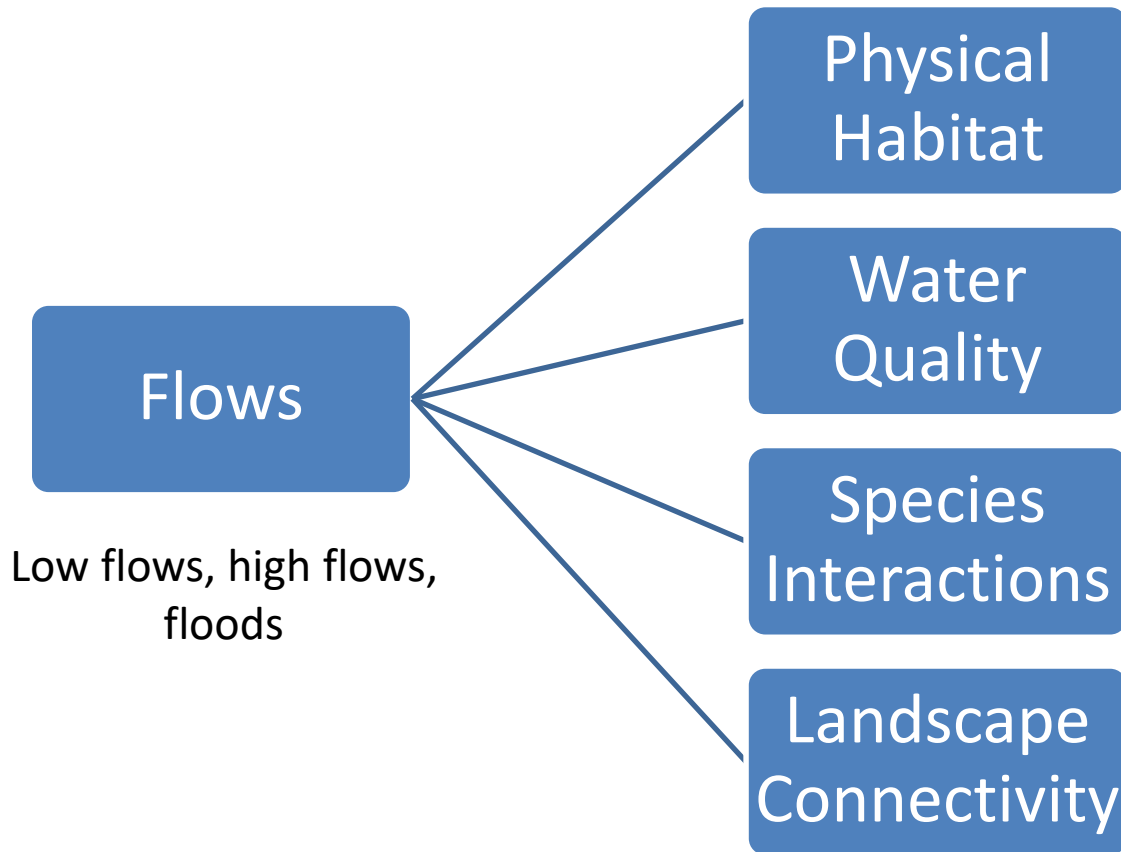
Water Quality

Stream Levels & Flows: Little Qualicum River

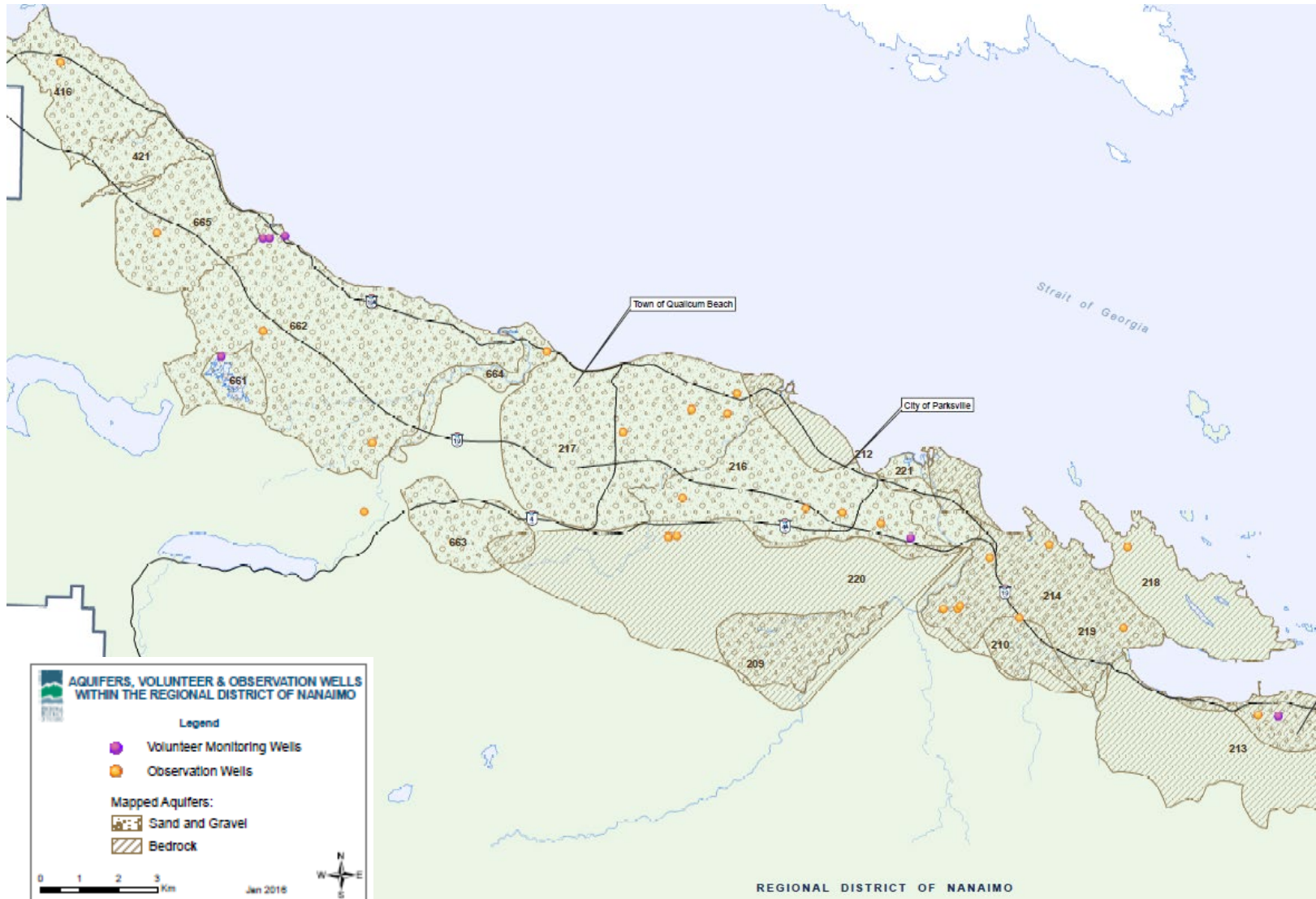
March 2015 – March 2016



Stream Levels & Flows: Ecosystem Health

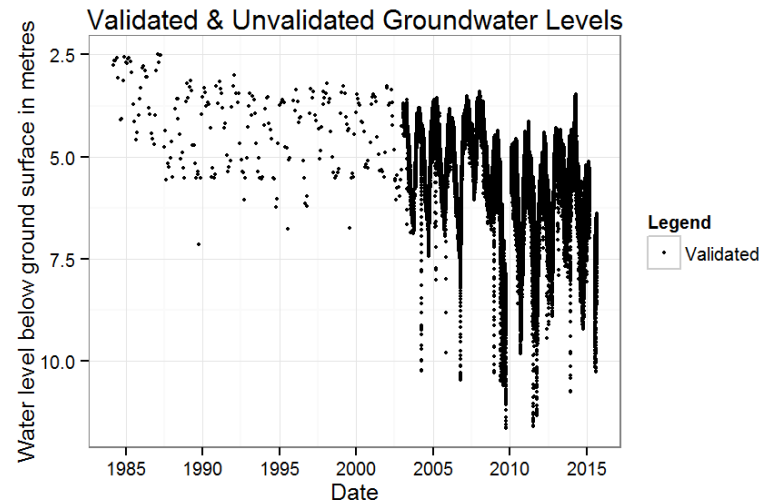
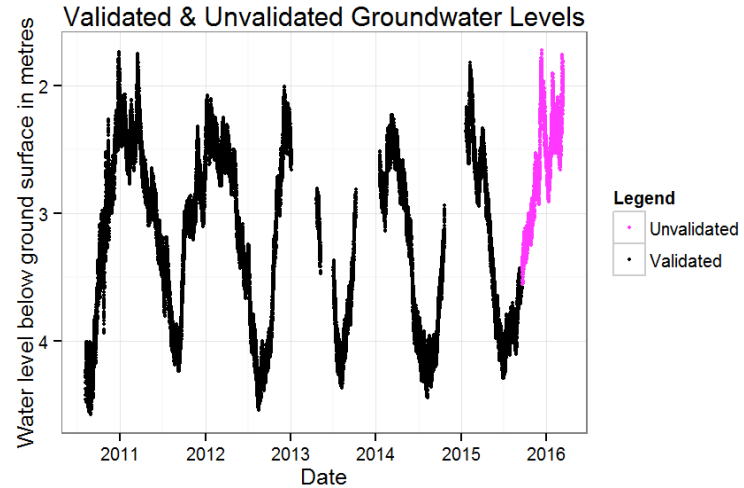


Groundwater Monitoring



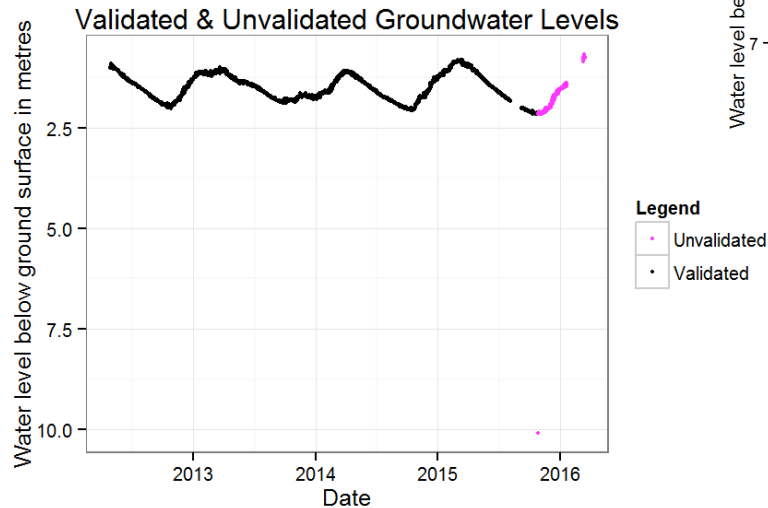
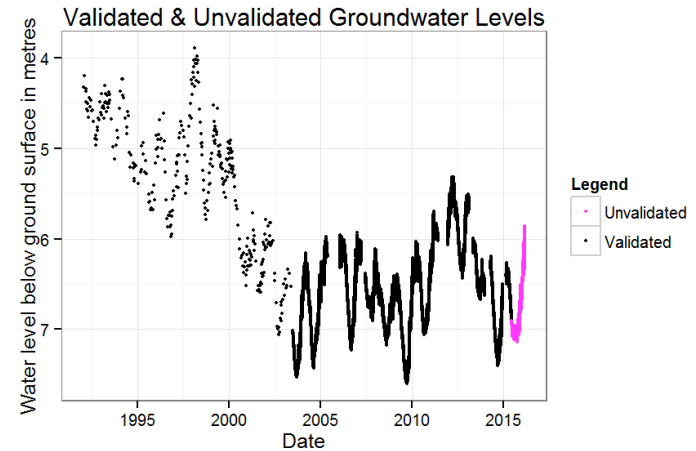
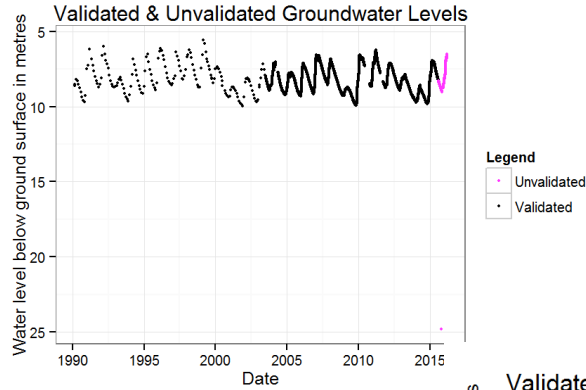
Groundwater Levels

- Deep Bay
- Qualicum Beach
- Parksville
- Nanoose
- Coombs



Groundwater Levels

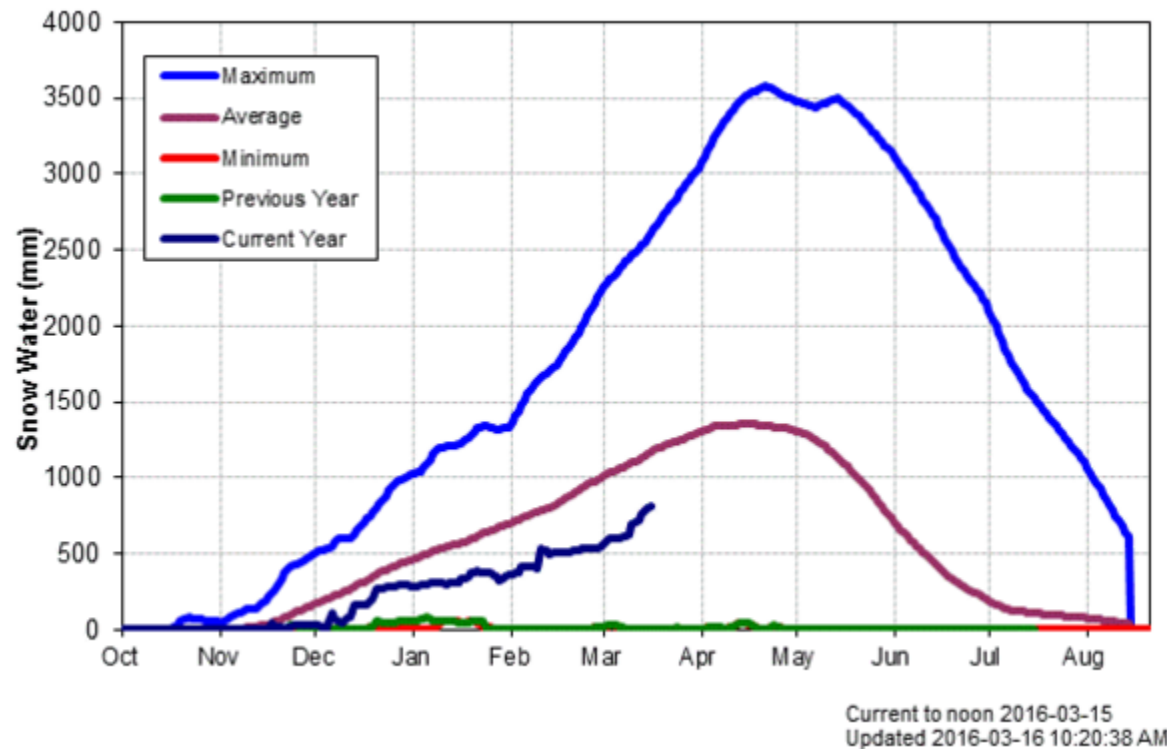
- Deep Bay
- Qualicum Beach
- Parksville
- Nanoose
- Coombs



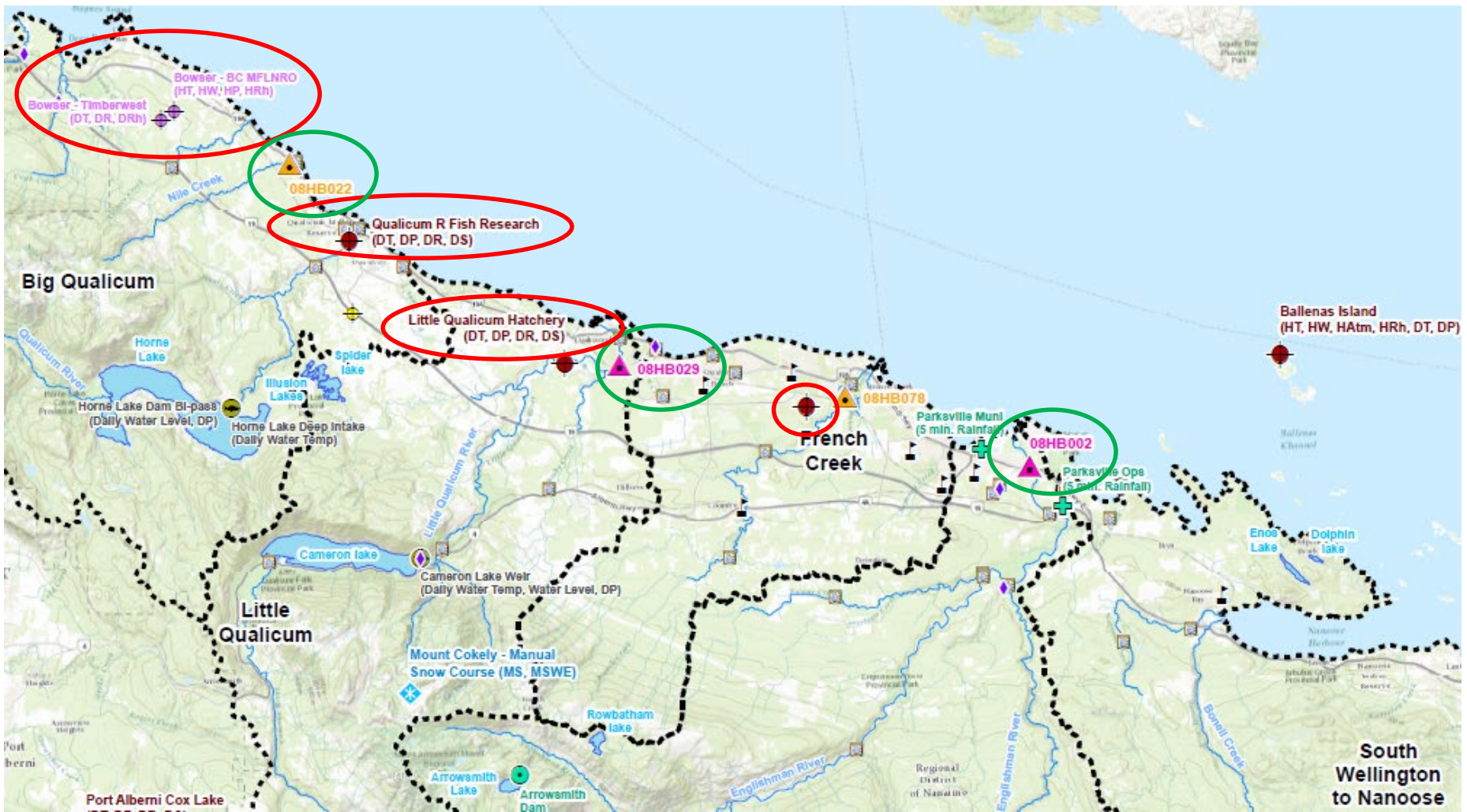
Snowpack

Ministry of
Forests, Lands and
Natural Resource Operations

RIVER FORECAST CENTRE



This is Jump Creek Snow Station in the upper Nanaimo River Watershed. Next winter we will have data from the new Snow Station on Mt Arrowsmith.



Climate Legend (See below for Parameters)

- City of Parksville Climate Station
- City of Nanaimo Climate Station
- BC MoE - Air Quality
- Environment Canada - Climate Station
- BC MFLNRO - Snow Course
- BC MFLNRO or Timberwest - Fire Weather Climate Station
- BC MoTI - Climate Station
- School Climate Monitoring Sites (Hourly Temp., Rain, Wind, Humidity)

Climate Station Parameters Description:

- HW - Hourly Wind
- HT - Hourly Temperature
- HP - Hourly Precipitation
- HRh - Hourly Relative Humidity
- HAtm - Hourly Atmospheric Pressure
- DT - Daily Temperature
- DP - Daily Precipitation
- DR - Daily Rain
- DS - Daily Snow Depth
- DSWE - Daily Snow Water Equivalent
- DHr - Daily Relative Humidity
- MS - Monthly Snow Depth
- MSWE - Monthly Snow Water Equivalent

Hydrometric Legend

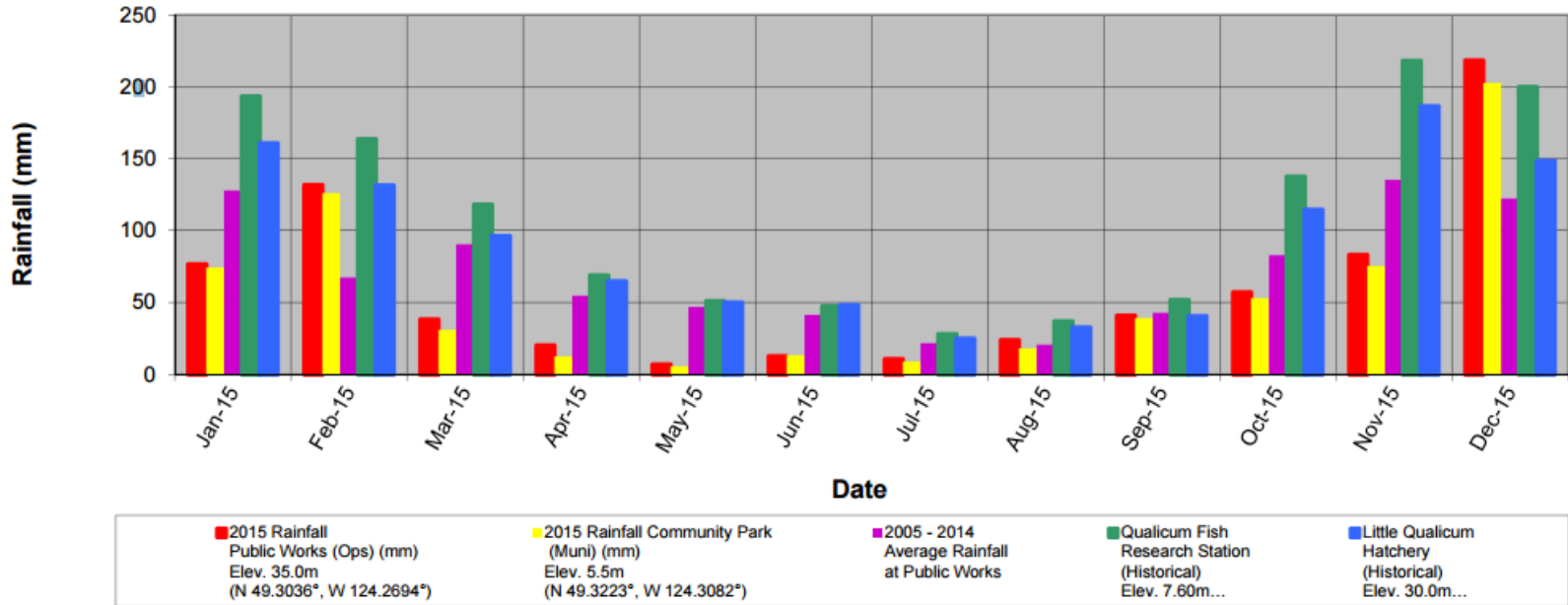
- WSC Hydrometric Sites - River Discharge and Water Level
- WSC Real-Time Hydrometric Sites - River Discharge and Water Level
- DFO Monitoring Site
- City of Parksville Hydrometric Site - Daily Water Level
- Harmac Hydrometric Site - Spot Water Level Measurements
- BCCF/Stewardship Group Flow Site - Seasonal Spot Flow and/or Continuous Monitoring
- Community Watershed Monitoring Sites (Water Quality)

Existing Climate and Hydrometric Stations

- Precipitation data
- Stream level data

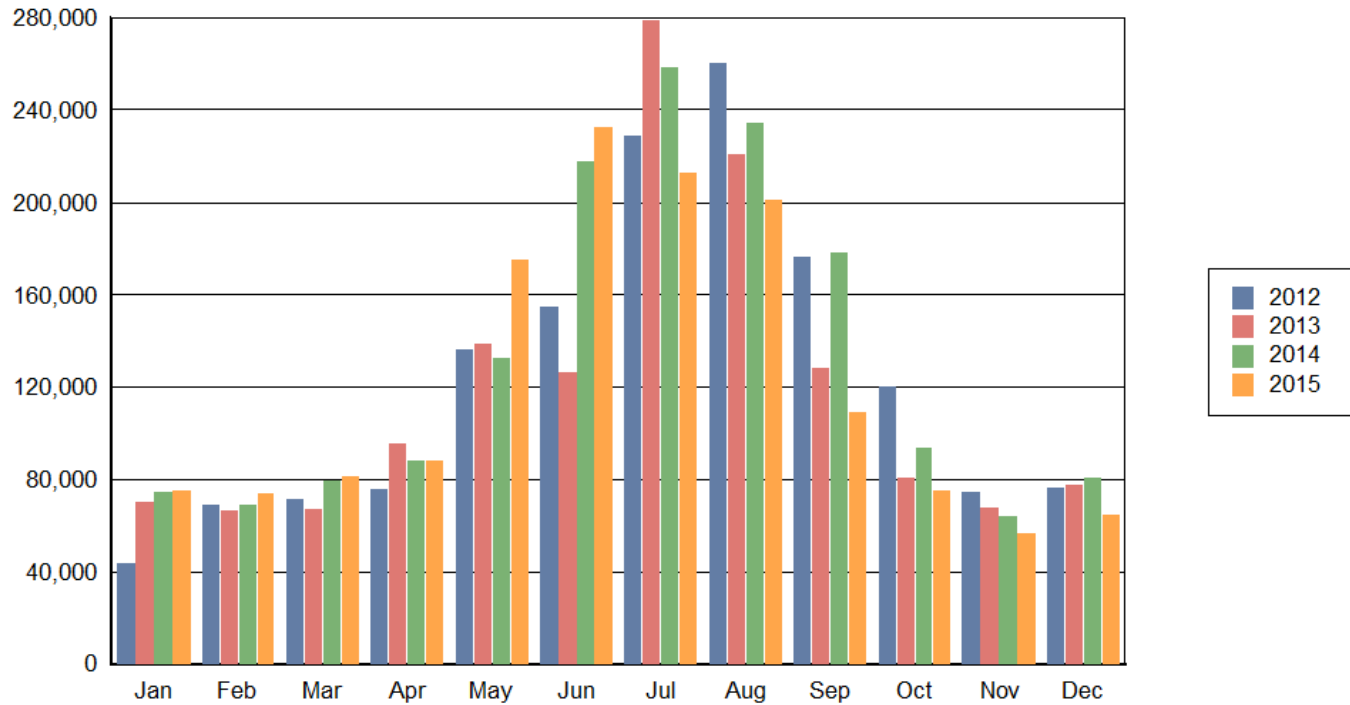
Parksville & Qualicum Rainfall

2015 - Monthly Rainfall (Public Works Yard & Community Park)

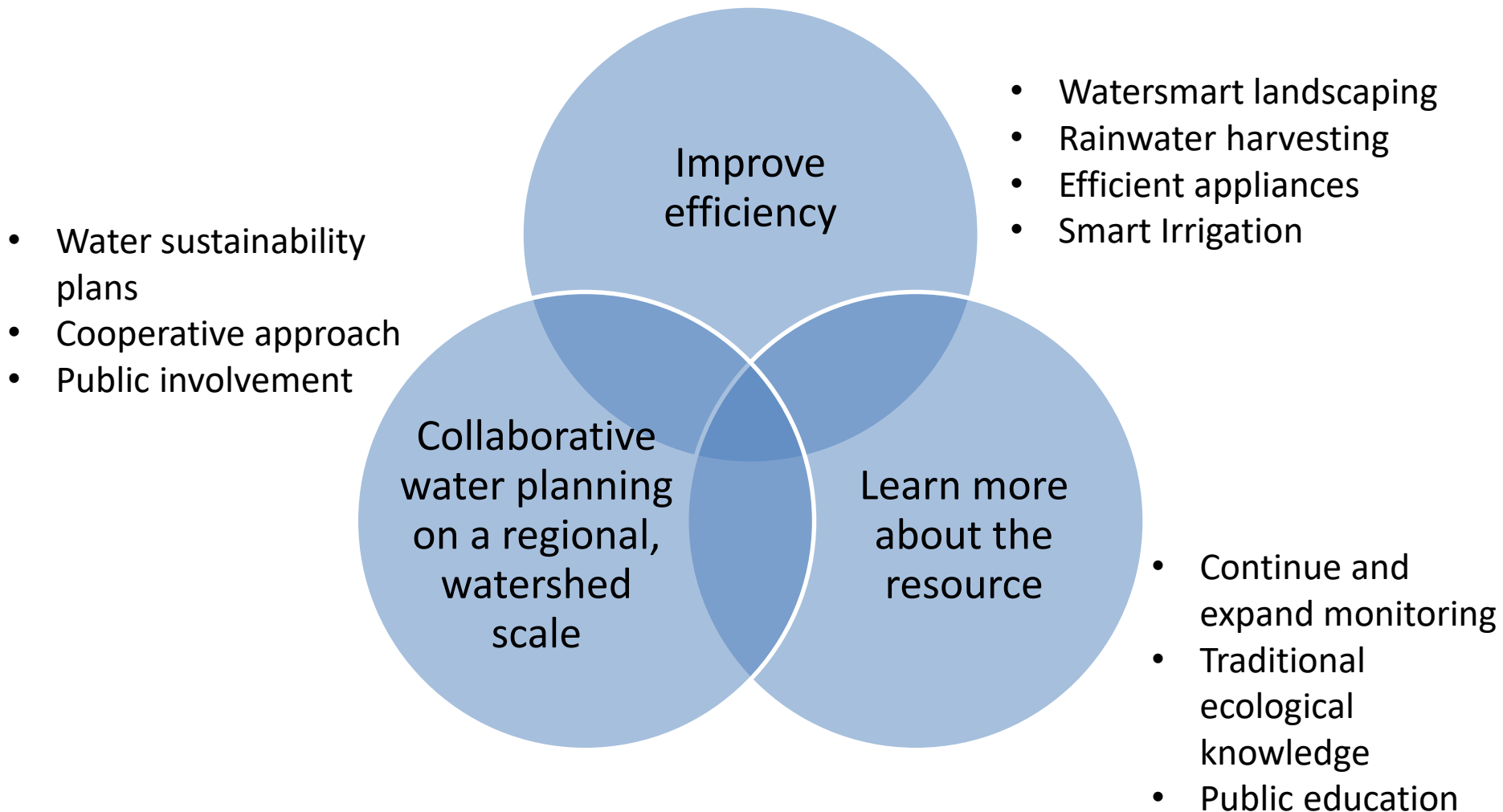


Water Demand – Qualicum Beach

Monthly Total Water Consumption



Ongoing Efforts for Water Sustainability




Shared Responsibility



- Residents
- Government
- Industry
- Commercial
- Rural
- Urban

THE NEW NORMAL

What does a cultural shift to a water smart region look like?



- ✓ **Reconsider** landscaping priorities.
 - choose drought tolerant plants
 - simply let the grass go golden in the summer
- ✓ **Value** and steward the ecology of our creeks, rivers, lakes and wetlands.
 - keep streambanks vegetated
 - refrain from chemical use on our landscapes
 - keep run-off on-site where possible
- ✓ **Innovate** and take pride in water efficiency measures.
 - rainwater collection cisterns
 - greywater re-use technology
 - soil moisture sensors and drip irrigation
 - efficient appliances
- ✓ **Establish** a deep rooted understanding about the connection between our land practices and the health of our water.
 - neighbour to neighbour outreach
 - dialogue in the public forum
 - education for children and adults

Intrinsic Value of Water

- Abundant yet rare
- Irreplaceable
- Priceless yet valuable
- Offers an amazing opportunity for cooperation



CELEBRATE WATER!

THANK YOU!
ENJOY QUALICUM WATER DAY 😊

jpisani@rdn.bc.ca

www.dwwp.ca