



# Regional District of Nanaimo

## Drinking Water and Watershed Protection Program

# TONIGHT

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About the DWWP Program

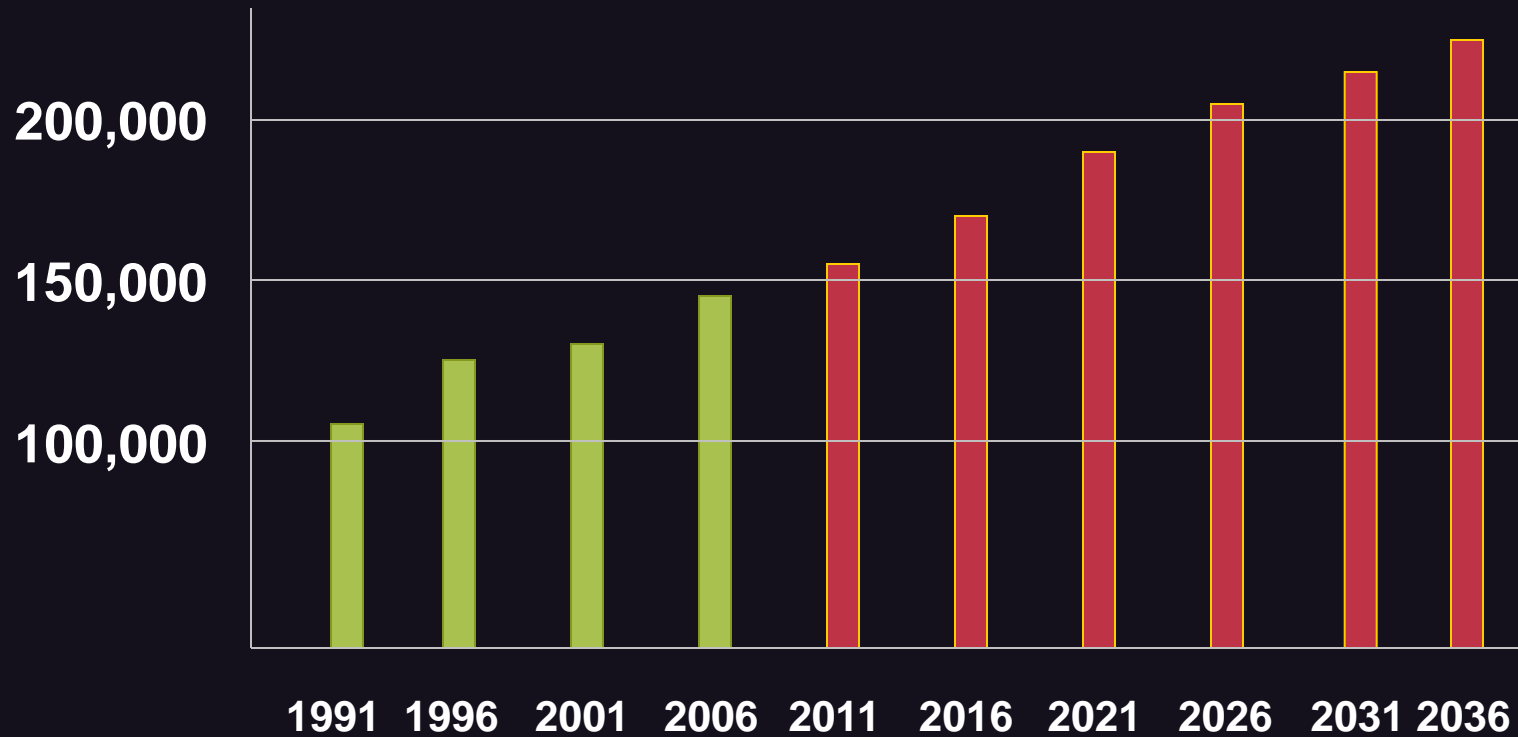
Current Activities

Future Activities

Questions



# A GROWING REGION



# THE IMPACTS AND CHALLENGES



Growing population

Increasing development

Responsibilities for water

Climate change

- Reduced Snow Pack
- Precipitation Changes
- Longer, Drier Summers

# REGIONAL DISTRICT OF NANAIMO



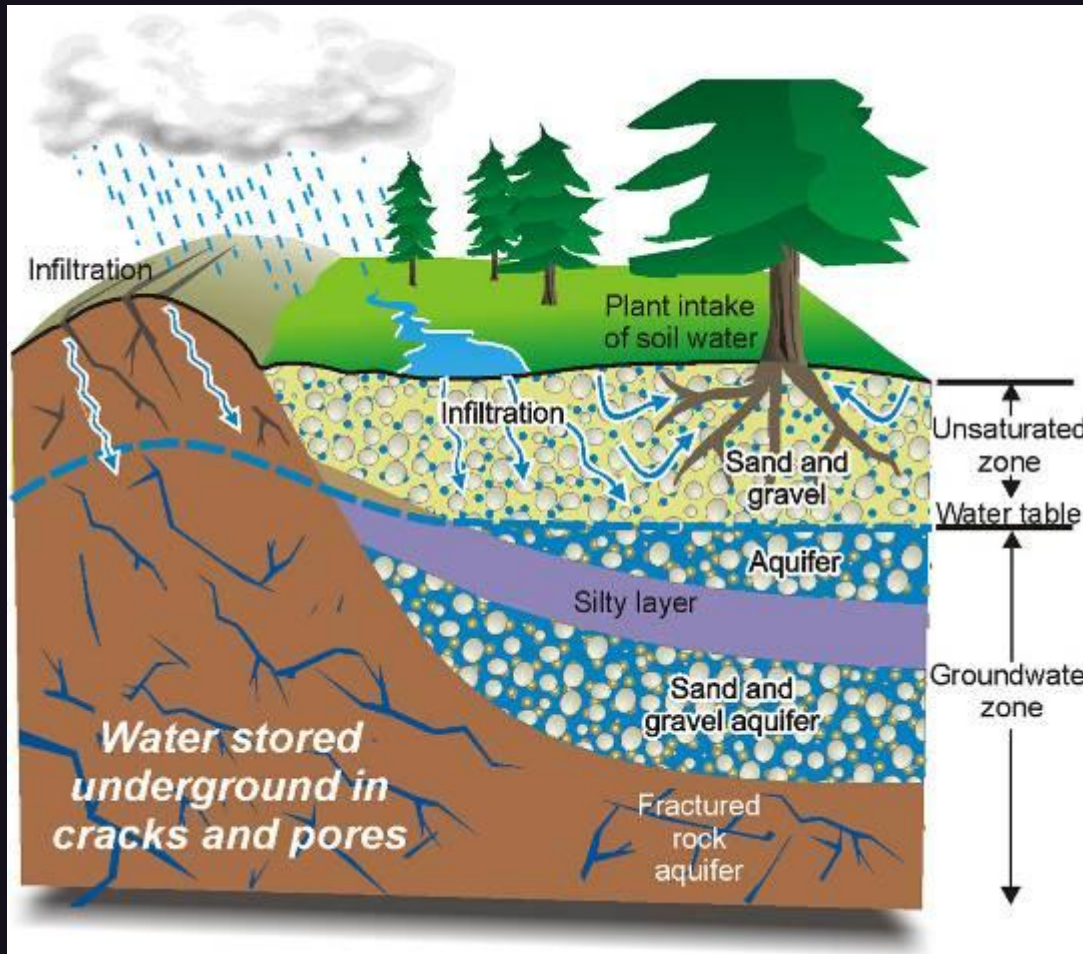
# WATERSHEDS



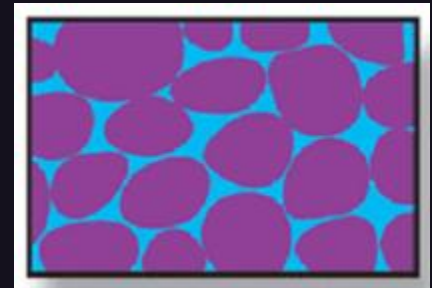
A watershed is...

“An area of land that catches rain and snow and where water flows downward into a specific river, lake, or stream”

# AQUIFERS

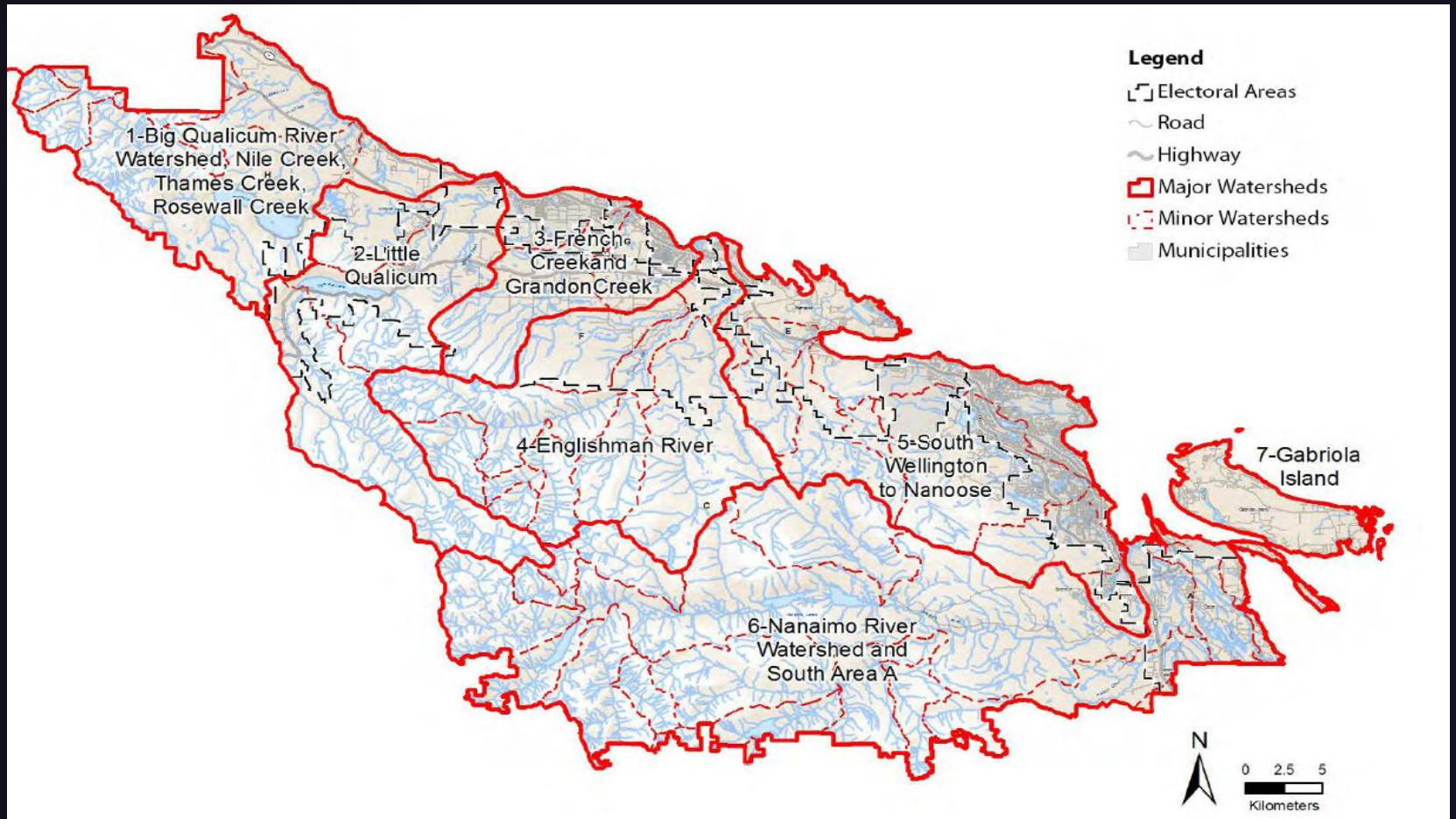


Water in rock fractures



Water between grains of sand

# RDN WATERSHED AREAS





# THE DWWP PROGRAM

## Science

Centralize information and mapping  
Monitor surface and groundwater quantity and quality  
Water use management, conservation plans  
Climate change

## Stewardship

Education Programs  
Website  
Private well and septic programs  
Support volunteer and stewardship groups  
Industry (agriculture, auto, forestry) stewardship  
Incentive programs and demonstration projects

## Policy and Planning

By-Laws  
Official Community Plans  
Watershed Management Plans  
Engineering Standards (ie., Low Impact Development)  
Reduce barriers to LID, rainwater and greywater reuse  
Water use regulation

# 2010 PROGRAMS: COMMUNITY OUTREACH

Team WaterSmart workshops and events  
School education programs



# Residential Irrigation Review Program

Water use increases 2-3 times in summer months

Most of this is due to poor outdoor watering practices and faulty irrigation systems



# Residential Irrigation Review Program

Goal: Reduce high summer water use

Train TWS representatives in irrigation inspections

Targeted high water use neighborhoods

Pilot neighborhoods

- Fairwinds
- Parksville
- City of Nanaimo
- River's Edge
- NCID, Deep Bay ID
- Qualicum Beach

Month of August



# WellSMART Program

Partnership between:

- RDN
- VIHA
- MOE
- North Island Labs
- BCGWA

Excellent response to  
pilot workshops (37, 98,  
78 participants)



**Free Well Workshop**

**Learn about:**

- Well protection, maintenance and operation
- Your well and your water source
- Water testing and interpreting results
- Water treatment options

Industry and government experts will be available to answer your questions. Those who attend will receive a voucher for 10% off water testing.

**Gabriola Island Agricultural Hall**  
6:30pm, Monday, October 4, 2010 • 265 South Road, Gabriola

**Arrowsmith Hall**  
7:00pm, Wednesday, October 13, 2010 • 1014 Ford Road, Coombs

# 2010 PROGRAMS: GROUNDWATER MONITORING

Support individuals and community groups to gather water level measurements from private wells (ie., MVIHES)

Work with Ministry of the Environment to expand Observation Well Network



# 2010 PROGRAMS: SURFACE WATER MONITORING

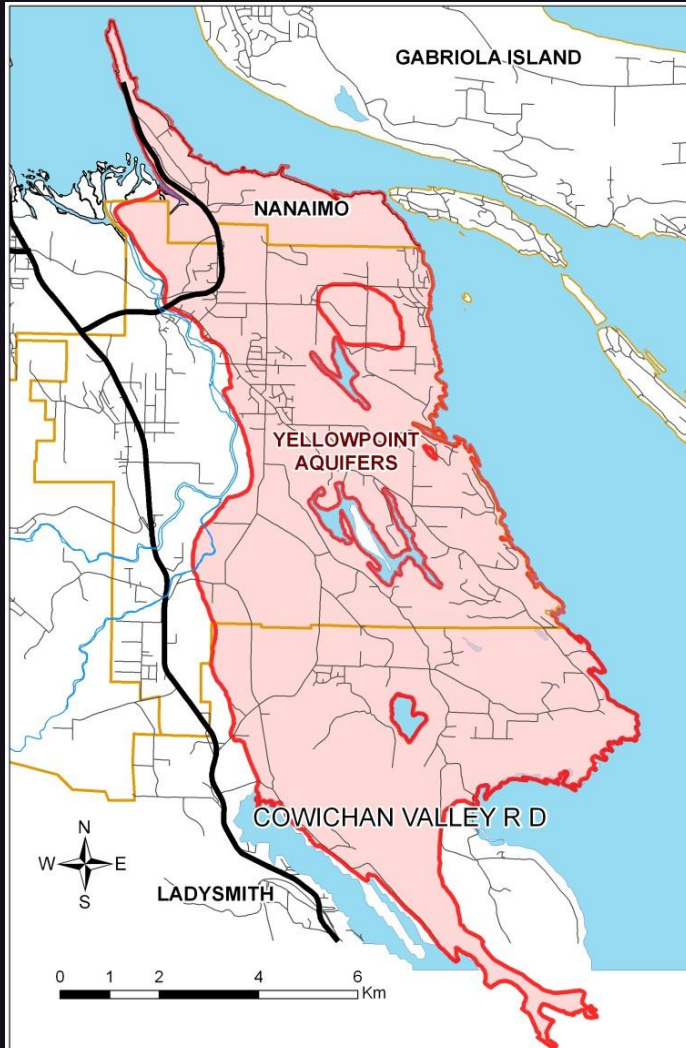
Goal: Understand the state of surface water quality

How?: Develop Water Quality Objectives

Monitoring French Creek, Englishman River



# Yellow Point Aquifer



A number of sources indicate a concern with water supply:

1. 2010 Ministry of Environment Observation Well Network Review
2. Ministry of Environment Observation Well
3. 2009 RDN Electoral Area A Groundwater Assessment and Vulnerability Report
4. Ministry of Environment Aquifer Classification Worksheet
5. Drinking Water and Watershed Protection public consultation process
6. Resident's concerns



# OTHER PROGRAM ACTIVITIES

Water Purveyor Working Group

DWWP Website

Toilet Rebate Program

Information Management

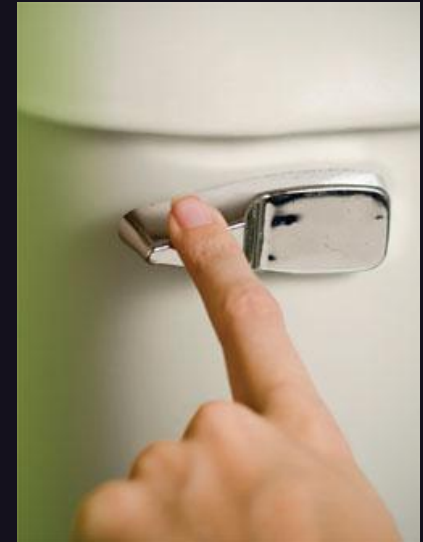
Sustainability Checklist for Green Building

Providing feedback to provincial government (ie., Water Act Modernization, Building Code updates for Rainwater Harvesting and Greywater Reuse, etc.)

Working with Planning – incorporating water information into Official Community Plan, Regional Growth Strategy

Work with other organizations (ie., Geological Survey of Canada)

Program Planning



# PLANNING FOR THE FUTURE



Groundwater Professionals Meeting  
– March 30

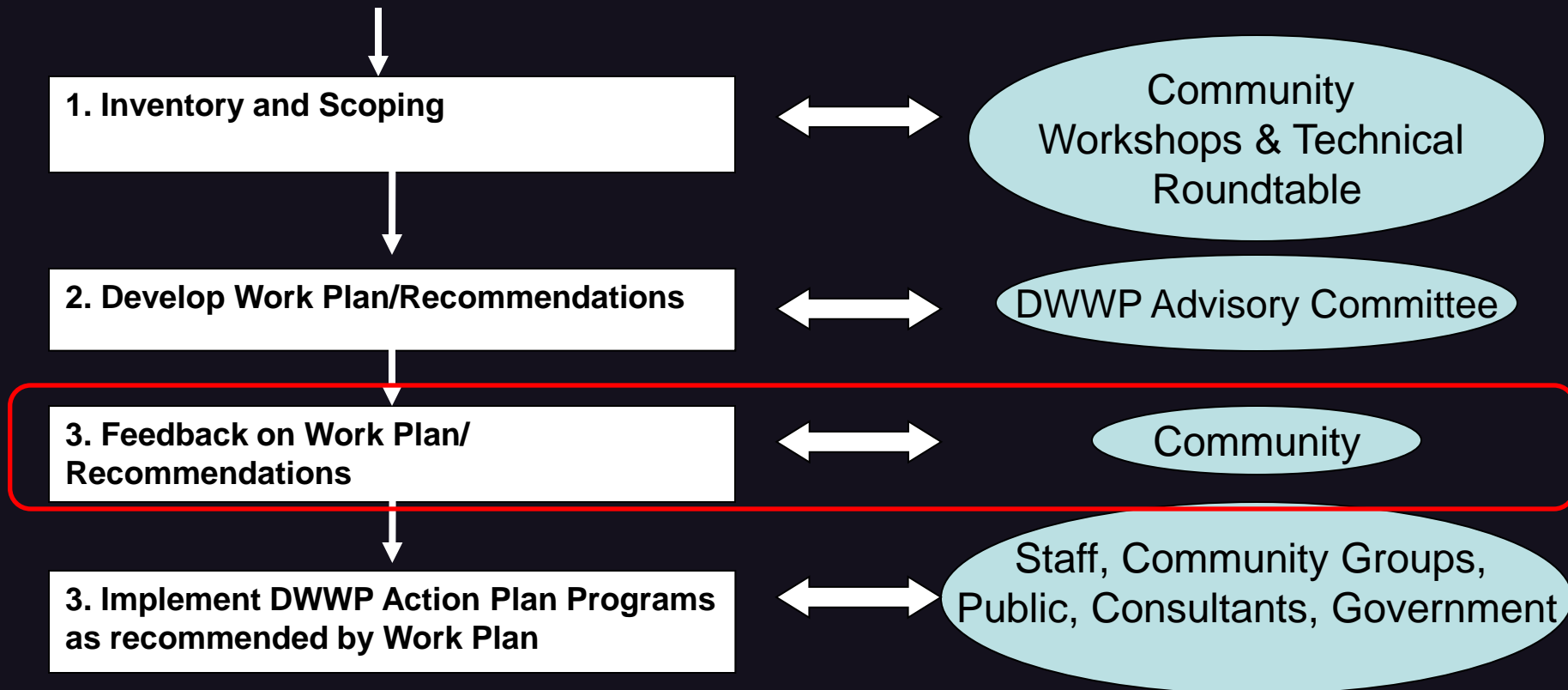
Technical Roundtable – May 18

Community Workshops: Gabriola,  
South Wellington, Qualicum Beach

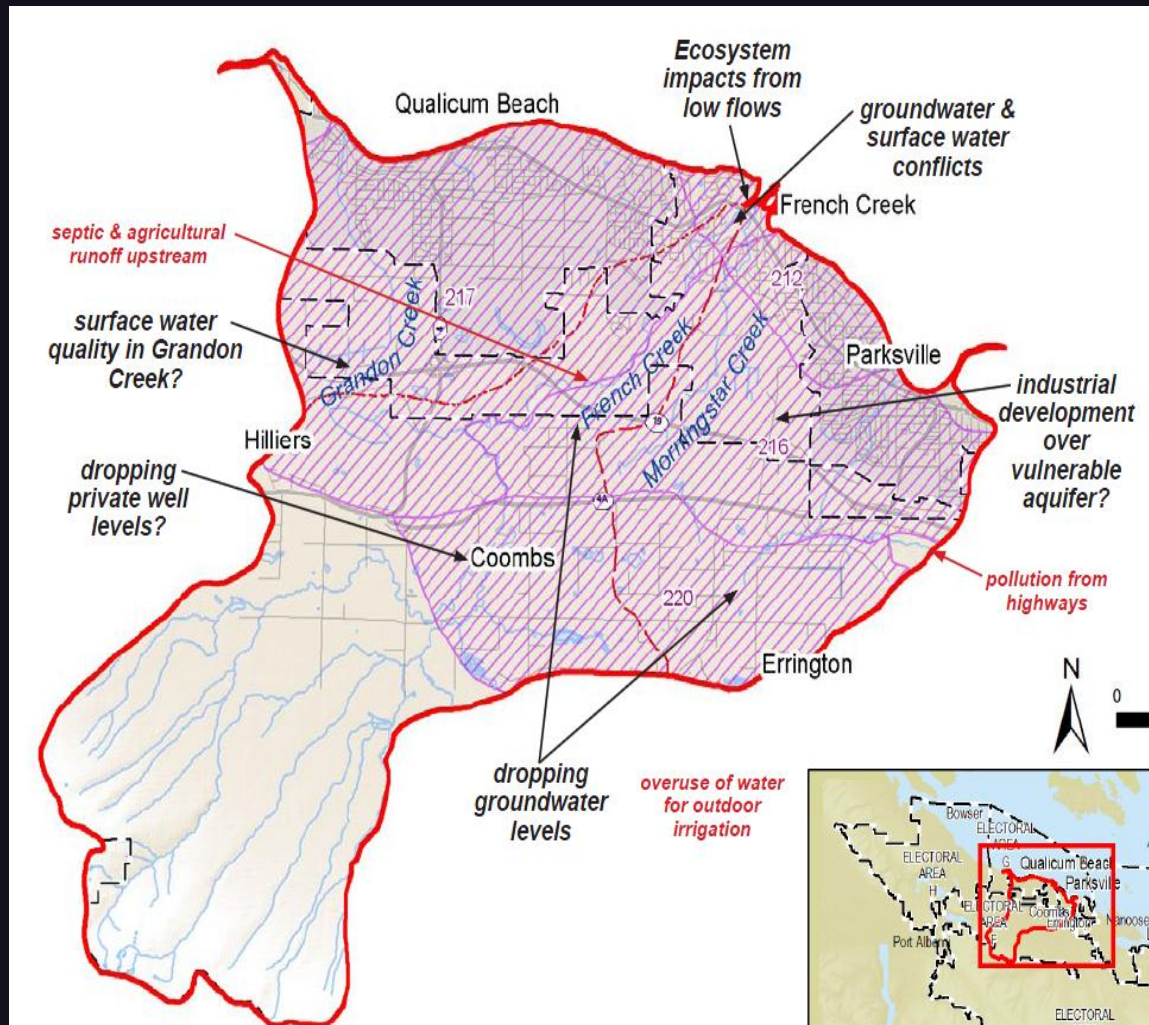


# PLANNING FOR THE FUTURE

## *Background data collection*



# WATERSHED AREA 3: FRENCH CREEK, QUALICUM BEACH AND PARKSVILLE UPLANDS



# WATERSHED 3: FRENCH CREEK, QUALICUM BEACH AND PARKSVILLE UPLANDS: RECC'S

Aquifer Characterization for the Parksville/Qualicum area

Rural Water Quality Improvement Program – promote best management practices for septic systems and agriculture

Obtain information on groundwater quality in vulnerable aquifers in developed areas



# REGION WIDE RECOMMENDATIONS

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## Stewardship

helping communities help the environment

- Develop an interactive website to share water resource information and stewardship resources
- Continue summer outreach activities – focus on outdoor water conservation
- Water conservation incentives
- Develop and implement a strategy for rainwater reuse
- Communicate building options for rainwater and greywater reuse
- Outreach to residences and business/industry in vulnerable areas
- Promote Environmental Farm Plan program
- WellSMART, SepticSmart
- Water purveyor working group

# REGION WIDE RECOMMENDATIONS

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## Science

better understanding our water resources

- Water budgets for each of the seven (7) major watershed areas
- Develop and monitor indicators for assessing water resources
- Determine indicators of water consumption by monitoring (metering) or surveying of representative volunteer users e.g. golf courses, agriculture, commercial/industrial.
- Create central repository for storing river flow data (high and low), stream temperature, etc. Work with Stewardship Groups to monitor. Install automated data collectors as needed.
- Gather information on groundwater levels by working with major users such as purveyors.
- Work with the Ministry of Environment and local volunteers to monitor surface water quality
- In partnership with the MOE, expand Provincial Observation Well Network
- Work with MOE to develop monitoring program for climate change

# REGION WIDE RECOMMENDATIONS

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## Planning and Development

### Better planning

- Strengthen RGS language regarding water protection.
- Partner with municipalities in integrated rainwater management
- Require higher standards for hydrogeological assessments in at-risk areas (ie., Yellow Point, Parksville, etc.)

### ...and better building

- Adopt Low Impact Development Engineering standards
- Update landscape and irrigation design standards and bylaws
- Develop bylaws dictating construction practices, including sediment and erosion control, spill preparedness, etc.



# CONCLUSION

Questions?

