

# RDN Drinking Water & Watershed Protection Program Technical Advisory Committee July 7th, 2016





DRINKING WATER  
WATERSHED  
PROTECTION

# Partner Updates



# DWWP Updates

USHP Stream Assessments	Report – D. Clough
User Survey Results – BC Water Use Reporting Centre	Report – J. Pisani
Regional Hydrometric & Climate Monitoring	Verbal
Area E Water Monitoring (Phase 2 Water Budget)	Verbal
Rebate Programs & Outreach	Verbal
Community Watershed Monitoring Network	Verbal
AVICC Resolution – Rainwater as a Potable Water Source	Verbal / Report
Watersheds 2016 Forum	Verbal
VIU Partnership – Wetland Mapping and Monitoring	Verbal

# STREAM ASSESSMENTS

- Holden Creek, with volunteers from NALT's email list
- Millstone River, with the Island Waters Fly Fishers
- Used the “Urban Salmon Habitat Program” (USHP) methodology – developed by the Province
- Dave Clough, RPBio will present summaries; final reports forthcoming with recommendations for actions to improve the physical attributes of the stream to in turn improve water quality.



# User Survey Results

## BC Water Use Reporting Centre



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**BC**  
Water Use  
Reporting Centre

### SUMMARY REPORT

PREPARED FOR THE OKANAGAN BASIN WATER BOARD



304 - 1353 Ellis Street  
Kelowna, BC, V1Y 1Z9  
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**URBAN**  
systems

urbansystems.ca

[www.bcwateruserreporting.ca](http://www.bcwateruserreporting.ca)

May 2016 | File: 2508.0003.01

### What we heard

1. Keep it simple
2. Make sure to successfully execute the function in the name: reporting
3. Give flexibility for data entry and data reporting
4. Minimize redundant data entry
5. Recognize value of regional water management

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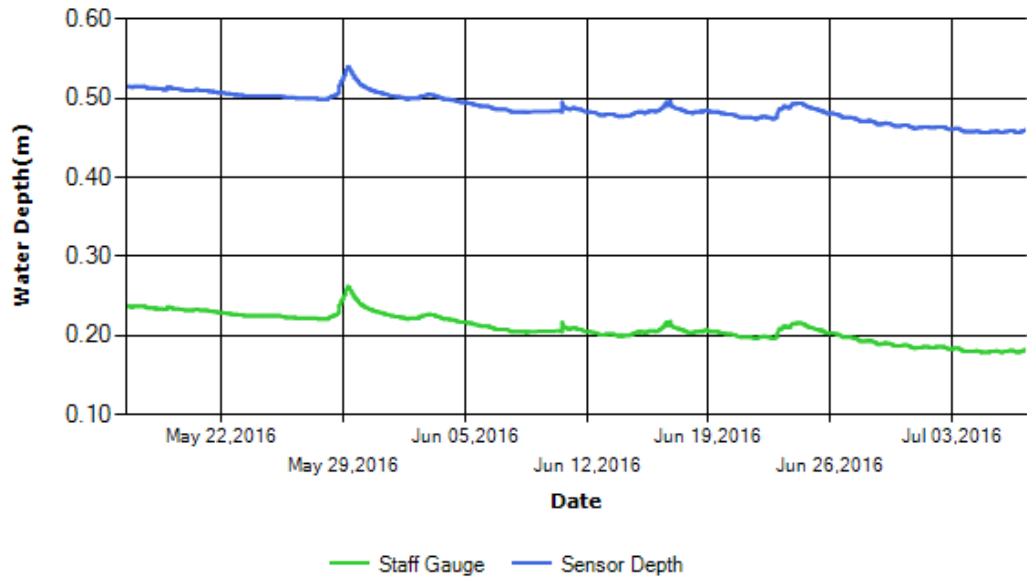
### Solutions

1. Hired a new programmer
2. Streamlining data entry aspect to align with the reports required by the Province
3. Working to automate the data entry i.e. uploads from SCADA to BCWURC
4. Working with the Province to incorporate environmental flows and drought mgmt information into the tool

# Regional Climate and Hydrometric



**Haslam Creek Water Level from:  
May 16, 2016 12:20 PM to Jul 07, 2016 08:00 AM**





# Regional Climate and Hydrometric Monitoring



**Mt Arrowsmith Snowpillow and Weather Station** now fully installed. Real-time data will be up on the River Forecast Centre site by next snow season.

Thanks to partnership with MOE, MFLNRO, VIU, Island Timberlands and Arrowsmith Water Service.



# Regional Climate and Hydrometric Monitoring

Mid Vancouver Island Habitat Enhancement Society began an initiative to quantify and qualify the role of bedrock in the groundwater dynamics of the **Englishman River** watershed.

DWWP supported the initial levellogger installation last year. This year we will support spot flow measurements to produce a rating curve





# NANOOSE (AREA E) WATER MONITORING

REGIONAL DISTRICT OF NANAIMO  
JUNE 9, 2016

## HELP SHAPE OUR WATER FUTURE: Nanoose Bay (AREA E)

**MONITOR RIVER FLOW & RECHARGE**  
HIGHER AQUIFERS?  
Gathering in Englishman River!  
WE need to MONITOR IT!  
PRIVATE AREAS: LOGGING DESTROYS HABITAT  
HOUSEHOLD VEGGIE GARDENS & GREENHOUSES  
WHICH WELLS ARE ACTIVE?  
PRIVATE WELLS NEED TO BE MONITORED!  
BOTH VOLUME & LEVELS FOR NEW WELLS!  
MONITOR DEEP AQUIFERS & RECHARGE RATE  
WHERE'S THE BEDROCK AREA?

**KNOWLEDGE FROM THE PAST INFORMS THE FUTURE**  
CULTURAL USE OF WATER  
WHAT ARE EFFICIENT FARMING PRACTICES?  
FARM IRRIGATION  
POPULATION INCREASE GET AHEAD OF THE CURVE!  
HOUSEHOLD ESSENTIAL INDOOR DEMAND IMPACTS SUPPLY  
HOUSEHOLD LAWN & ORNAMENTAL  
FIRE PROTECTION  
PIPED USERS SHOULD BE MONITORED

**COORDINATE WITH BROADER AREA!**  
EVERYONE WORKING TOGETHER  
NANAIMO TO GO MDX!  
WHAT ABOUT CAMERON LAKE?

**RAIN:** MONITOR THE RATES, MICRO CLIMATES, CHANGE OVER TIME  
WEATHER MONITORING IS INEXPENSIVE & EFFECTIVE  
THINK REGIONALLY

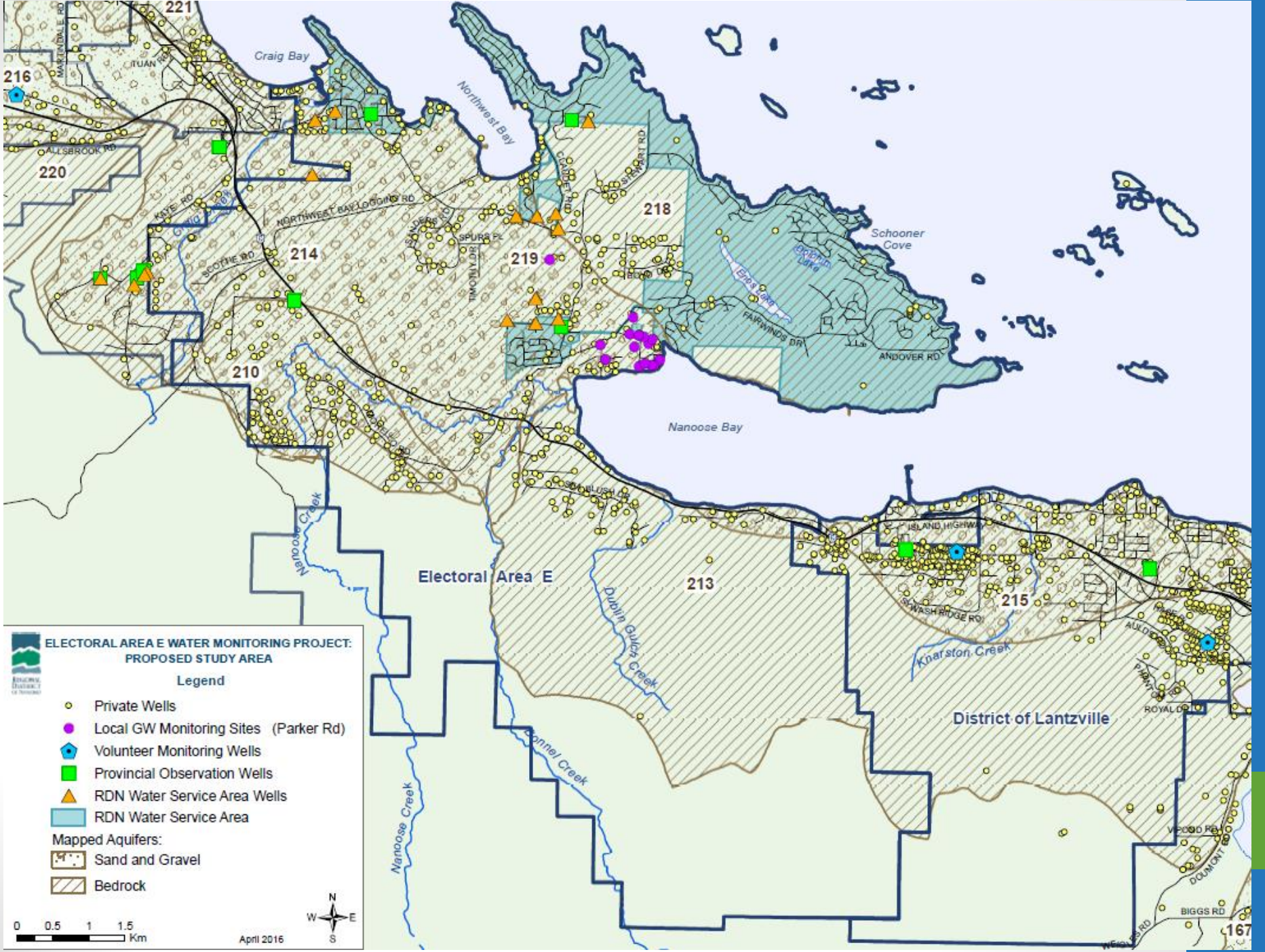
**RECREATIONAL USE OF LAKES**  
FAIRWINDS MONITORING IS IMPORTANT  
HOW MANY HOUSES ARE GOING IN?  
DEVELOPMENTS NEED TO BE PLANNED WITH WATER USE!  
AQUATIC HABITAT & STREAM FLOW  
UNDERSTAND IMPACT ON FISH  
BUFFER BETWEEN WET LANDS & DEVELOPMENT

**WATER / PUBLIC AWARENESS IS VITAL!**  
DAILY CONSUMPTION RATES!  
WE CARE ABOUT WATER!  
METERS ARE CRUCIAL

**POPULATION INCREASE**  
WHAT DOES THE FUTURE LOOK LIKE?

**WATER MONITORING IS INEXPENSIVE & EFFECTIVE**

GRAPHIC RECORDINGS: Tanya Gadsby  
Drawing: Out Ideas  
www.outideas.ca



**ELECTORAL AREA E WATER MONITORING PROJECT:  
PROPOSED STUDY AREA**

**Legend**

- Private Wells
- Local GW Monitoring Sites (Parker Rd)
- Volunteer Monitoring Wells
- Provincial Observation Wells
- ▲ RDN Water Service Area Wells
- RDN Water Service Area

**Mapped Aquifers:**

- Sand and Gravel
- Bedrock

0 0.5 1 1.5 Km

April 2016

N  
W E  
S

# REBATE PROGRAM UPDATE

- Rainwater Harvesting – 5<sup>th</sup> year of program
- Increased to 60 available rebates this year to meet heightened demand
- 57 rebates have been allocated for this year; 3 spots remain
- Max. 30% of funding allocation – reached in Area B (20 rebates)
- This year an increase in interest from Areas E and G (Nanoose and French Creek)
- Rural Water Quality
- Second full year of program
- 48 well water quality testing rebates issued this year to date
- Most popular in Area A,B,C, Lantzville
- 3 wellhead upgrade rebates issued so far this year; with several pending completion
- Pilot Rebate – Water Efficient Landscapes
- Just in RDN Water Service areas; approx. 9 rebates available
- Up to \$750 for efficiency upgrades to irrigation systems (conversion to drip, addition of soil/weather sensor, etc) & soil augmentation (mulch, topsoil).



# TEAM WATERSMART OUTREACH UPDATE

- Team WaterSmart **Community Booth** will be at 26 community events this spring/summer across the region.
- **Watershed field trips** for 6 grade four/five classes in SD68 & 69 this spring with 6 more trips in the fall.
- **WellSmart workshops** organized for Oct. 26<sup>th</sup> in Cedar and Nov. 3<sup>rd</sup> in Qualicum.
- Starting to plan for **Water Day 2017** this summer with partners.



# COMMUNITY WATERSHED MONITORING NETWORK

- Starting up again for 2016 in August – 6<sup>th</sup> year!
- Training dates: Gabriola July 12<sup>th</sup>; July 26<sup>th</sup> – French Creek & Bowen Park.
- Two new groups: Whalley Creek & Fanny Bay Enhancement Society (Rosewall Creek and Deep Bay Creek).
- No lab analysis this year; just QA/QC.
- A couple added sites for IWFF group (Upper McGarrigle & Knarston Creek).
- Continue to collect baseline data and observe trends over time.
- Continue to foster community involvement and awareness of local waterways.



*Thank you to Island  
Timberlands, MoE & all the  
volunteers!*

# AVICC RESOLUTION

## Rainwater as a Potable Water Source

- Now on to UBCM, our Area B Director will have a meeting with Minister of Health with this request:

*To encourage the Province to develop rainwater-specific source characterization protocols, infrastructure requirements and treatment standards and objectives as a framework for more effectively establishing rainwater as a safe alternative drinking water source for small water systems in rural communities.*



# WATERSHEDS 2016 FORUM

Topics include: collaborative watershed governance, First Nation-led water planning, environmental flow needs



## Watersheds 2016

Building capacity for collaboration and watershed governance in British Columbia

September 30 – October 1, 2016  
SFU Wosk Centre for Dialogue  
Vancouver, British Columbia



# VIU Partnership – Wetland Mapping & Monitoring

- Mapping inventory and predictive mapping complete
- Ground-truthing now commenced in Water Region 3 - French Creek & Water Region 4 - Englishman River
- Using BCWF Field Sheet, with some modifications to include a indicators for connection to groundwater recharge and discharge
- i.e. minerotrophic species presence; emergent vegetation; surficial deposit composition
- Will report at next TAC meeting in the fall Oct/Nov

# NEW BUSINESS...

Area H OCP Review - Water Information Update  
French Creek or Cedar-YP Phase 2 WB Scoping 2016

## Your feedback?

## COMMENTS, QUESTIONS ?

## Thank-you.