

## REGIONAL DISTRICT OF NANAIMO

### MINUTES FROM THE REGULAR MEETING OF THE DRINKING WATER WATERSHED PROTECTION ADVISORY COMMITTEE

HELD ON MONDAY, SEPTEMBER 21, 2010 AT 12:30 PM  
IN THE RDN BOARDROOM

<b>Present:</b>	Director J. Stanhope	Chairperson
	Joe Burnett	Director Electoral Area A
	David Bartram	Director Electoral Area H
	Gisele Rudischer	Director Electoral Area B
	Deb Ferens	Islands Trust Representative
	Gilles Wendling	General Public Representative (South)
	Gordon Buckingham	General Public Representative (North)
	Doug Glenn (Alternate)	Vancouver Island Health Authority
	Pat Lapcevic	Ministry of Environment
	Faye Smith	Environment Community Representative
	Alan Gilchrist	Academic Community Representative (VIU)
	Domenico Iannidinardo	Forest Industry Representative
	Ken Epps (Alternate)	Forest Industry Representative
	Bonaventure Thorburn	Water Purveyors' Representative
	Shelley Bayne	Hydrogeology Representative
	John Deniseger	Registered Professional Biologist Representative
	John Finnie	GM, Regional and Community Utilities, RDN
	Mike Donnelly	Manager of Water Services, RDN
	Christina Metherall	Drinking Water/Watershed Protection Coordinator, RDN
	Sara Ellis	Special Projects Assistant (Recording Secretary)
	David Reid	HB Lanarc
<b>Regrets:</b>	Makenzie Leine	Forest Industry Representative
	Lynne Magee	Vancouver Island Health Authority
	Oliver Brandes	Academic Community Representative

#### CALL TO ORDER

The Chair called the meeting to order at 12:30 and introductions were made.

#### MINUTES

MOVED D. Bartram, SECONDED K. Epps, that the minutes of the Drinking Water Watershed Protection Advisory Committee meeting of June 7, 2010 be adopted. CARRIED

#### REPORTS

##### **Introduction to Workshop. (M.Donnelly)**

M. Donnelly introduced the "Watershed Snapshot Report 2010" and introduced D. Reid of Lanarc who assisted with the community scoping process.

##### **Watershed Snapshot and Work Plan Development Workshop. (C.Metherall)**

C. Metherall overviewed the issues and recommendations for each of the seven watersheds and opened the floor to comments. A summary of comments follows.

WATERSHED AREA 1: BIG QUALICUM, NILE, THAMES, ROSEWALL CREEK

## Major Comments/Issues/Concerns:

- ? Observation well levels are okay now. The observation well is likely an accurate depiction of the aquifer levels. There is some variation, but there isn't evidence that the aquifer is being depleted. However, it would be good to know the sustainable yield for this area.
- ? Septic system runoff is a concern for the shellfish industry. MOE confirmed link between shellfish health and septic systems. Environment Canada and the VIU Shellfish Research Centre have information on the impacts. It appears to be effecting algal growth. There was discussion of potential actions to address the issue. Sewer systems, advanced septic systems, and septic system education were mentioned. Sewer infrastructure is very costly. Septic system education would help with improved maintenance and operation of septic system and would also help residents make more information decisions about septic systems compared to sewer systems.
- ? Remove action item for illegal dumping, as it is not a big priority here. Most of the illegal dumping is yard waste, because Area H is so far from the Church Road Transfer Station.

## Comments on Recommendations:

1. Better groundwater monitoring. Develop a program/study to identify sustainable yield of aquifers.  
**Comment:** The concern in this area is about future development and better understanding extraction. Therefore it would be appropriate to look at low-cost monitoring solutions. It may also be helpful to look for opportunities – ie., abandoned, unused wells for monitoring equipment to be installed - for observation wells in the unmonitored aquifers (421, 665, 661 – #662 will have a monitoring well installed in 2010 in the Little Qualicum area).
2. Surface water – work with stewardship groups to monitor all flows. Create a central repository for storing flow data for stewardship groups across the RDN.  
**Comment:** Move to RDN-wide programs.
3. Work with Solid Waste to reduce illegal dumping.  
**Comment:** Not a priority in this watershed alone. Include in Region-wide education programs.
4. Work with Wastewater on improved Septic education programs.  
**Comment:** Move to Region-wide programs.

WATERSHED AREA 2: LITTLE QUALICUM RIVER

## Major Comments/Issues/Concerns:

- ? Mobile home park may not have a big impact, as there are not many permanent residents.
- ? Development potential - With existing zoning, population could double.
- ? RDN should obtain information from DFO on flow monitoring on the LQR.
- ? Request Ministry of Transportation on Advisory Committee.
- ? Ministry of Transportation has low requirements for proof of water source – they look at drillers. recommendations are not looking at overall impact on aquifers.
- ? Grandon Creek is not on correct location on map.

## Comments on Recommendations:

1. Residential monitoring program in Spider Lake area, OBS well in Little Qualicum River area.  
**Comment:** These areas have separate issues – Spider Lake has limited development potential. LQRE could double. Add observation well to Little Qualicum River area in 2010. Consider residential monitoring program or look at capped well in park (determine if it is in the right aquifer).
2. Review need for observation well in Spider Lake area.  
**Comment:** if needed, look at aquifer in park. Determine if it is in the right aquifer.
3. Communicate development concerns and supporting information to MOT.

- Comment:** This is already done, now that zoning bylaw is in place; this will be addressed in 2010 by motion to include MOT on committee.
4. Require subdivision and development proposals to include more in-depth information on long term capacity.  
**Comment:** Move to RDN –wide recommendations.
  5. Work with hydrogeologist to help us identify long term capacity and create a scientific framework for approving development.  
**Comment:** Explore need to characterize this aquifer. This may include discussions with planning about development potential as well as discussion with MOE re productivity of the aquifer.
  6. Work with Wastewater to improve septic system outreach in the area.  
**Comment:** Move to RDN-wide programs.

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

#### Major Comments/Issues/Concerns:

- ? Timing of extraction on French Creek is harmful to ecosystem – extractions all happen in summer and dry up stream for fish – controlling timing of extraction would help.
- ? Golf course and agricultural extractions are very large and need to be quantified. Water license information does not tell actual use.
- ? Partnership with municipalities is important.
- ? Environmental Farm Plan Program information should be shared with Agricultural Committee and OCP.
- ? This is a good area to look at integrated rainwater management planning. Older developments also would need to be retrofitted to increase absorption. Poor quality rainwater not only effects shellfish and fish directly, but indirectly by impacting the vegetation and micro-invertebrates.

#### Comments on Recommendations:

1. Aquifer Characterization for the Parksville/Qualicum aquifers in the French Creek watershed. Work with municipalities and water suppliers in all work as it relates to Source Water Protection initiatives.  
**Comment:** Invite EPCOR to participate.
2. Rural Water Quality Improvement Program – promote best management practices for septic systems, fuel storage, etc. and agriculture in partnership with Wastewater Services.  
**Comment:** Potential *Pilot program area*.
3. Work with the Development Services Department to reduce impermeable surfaces in new development.
4. Implement the water balance model in partnership with the municipalities.  
**Comment:** move to RDN-wide.
5. Determine water use information for major users such as golf courses and agriculture for sake of water budgeting.  
**Comment:** Move to RDN-wide.

### WATERSHED AREA 4: ENGLISHMAN RIVER

#### Major Comments/Issues/Concerns:

- ? Englishman River water is being sent out of the watershed, through the Arrowsmith Water Service, which is a concern.
- ? The community would appreciate information on the area being available (ie., new observation wells).
- ? There has been an increase in the health of the river over the past few years due to the work of MVIHES and Island Timberlands.

- ? There is an interest in EPCOR participating in the DWWP program. Epcor customers are already paying for the DWWP program. Epcor is interested in sharing information using old wells.
- ? There was a discussion over the AWS extraction. There was a concern that when AWS extracts its full license potential that this would impact water levels in the river for fish. However, increased extraction would require increased storage, so the effect on water levels would be minimal. A potential impact of dams and storage is increased water temperatures. It is important to work closely with fisheries during release period.

Comments on Recommendations:

1. Better understand groundwater-surface water interactions.
2. Determine if there is a need for an ongoing water quality survey of the tributaries and main stem of the river to protect the source of the local water supply. Partner with municipalities and water suppliers in the source water protection initiative.
3. Rural Water Quality Improvement Program – promote best management practices for septic systems, fuel storage, etc. and agriculture in partnership with Wastewater Services.  
**Comment:** Potential *Pilot program area*.
5. Implement the water balance model in partnership with the municipalities.  
**Comment:** Move to RDN-wide.
6. Partner with municipalities and water suppliers in all work as it relates to Source Water Protection initiatives.

WATERSHED AREA 5: NANOOSE TO SOUTH WELLINGTON

Major Comments/Issues/Concerns:

- ? Look at old mine shafts in area and how they add complexity.
- ? There is a net import of water from the Nanaimo River watershed through the city of Nanaimo's water service. There is also an import of water into the Nanoose area through the Arrowsmith water service.
- ? Suggested that it might be valuable to consider a restriction on additional wells for irrigation in areas with low water supply.
- ? People need to be educated that through water, they are part of a community and their actions affect their neighbours.

Comments on Recommendations:

1. Groundwater quality monitoring study in South Wellington (nitrates, bacteria, chemicals(?))  
**Comment:** In areas of high density septic system, test water quality in ditches and stream as well.
2. Move forward with "WellSmart" and "SepticSmart" education opportunities.  
**Comment:** Move to RDN wide.
3. Work with Development Services Department to strengthen guidelines for development in water limited areas. – RDN wide – ensure the bedrock aquifers are included as at-risk.

WATERSHED 6: NANAIMO RIVER AND SOUTH AREA A

Major Comments/Issues/Concerns:

- ? Development has been impacting adjacent wells in Yellow Point.
- ? Look at aquifer connection to river and the impacts of low flow on estuary health, if there is interest in partnership with the City of Nanaimo, Port of Nanaimo, and Snuneymuxw First nation.
- ? See if BCCF has information on lake levels from BCCF as this may provide information on aquifer health.

Comments on Recommendations:

1. Work with Development Services to strengthen the OCP to require a more rigorous approach to determining long term water supply for new development and protect the resource.
2. Move forward with “WellSmart” and “SepticSmart” education opportunities.  
**Comment:** RDN-wide.
3. Monitor groundwater levels in private wells – Yellowpoint.
4. Monitor new observation well in Yellowpoint.
5. Water Quality Survey – South Wellington.
6. Develop longer term water quality monitoring program in vulnerable aquifers that have industrial land uses (i.e. Cassidy).  
**Comment:** Raise priority of vulnerable aquifers.

WATERSHED AREA 7: GABRIOLA ISLAND

1. Develop groundwater monitoring strategies to better understand water levels as well as water use.
2. Move forward with “WellSmart” and “SepticSmart” education opportunities.  
**Comment:** Move to RDN wide.
3. Explore the permitting of cisterns and other rainwater gathering devices to assist with water supply on existing lots. Suggestion: Mandate rainwater cisterns in new development (potentially use Bill 27?)
4. Develop a program to obtain well records and locate wells.

Comments on RDN-wide recommendations:

Science:

- Develop water budgets for each of the seven (7) major watershed areas.
- Develop indicators for assessing drinking water and watershed health, to be monitored on a yearly basis across the region to track program success. This would be part of the Regional Growth Strategy success indicators.  
**Comment:** These indicators should be developed early so that they can show program success.
- Work with MOE to develop monitoring program for climate change.  
**Comment:** Potentially snowpack monitoring station at Arrowsmith.
- Develop a user-friendly interface for sharing knowledge gathered so far (web-based GIS and website) and begin compiling water related reports for publication on the RDN website.

Additional Recommendations:

- Start groundwater monitoring by working with major water users (ie., water purveyors).
- Determine indicators of water consumption by monitoring (metering) representative volunteer golf courses, agricultural extractions, commercial water users, water suppliers, etc.
- Create a central repository for storing flow data (low and high flows) across the RDN; work with stewardship groups to monitor flows.  
**Comment:** Develop a program where volunteers monitor flows at multiple points in stream, and can enter information online (potentially community mapping network partnership or with internal Information Services program). Consider working with VIU on a data collection training program.

Stewardship:

- Develop an interactive website to share water information and stewardship resources.
- Continue summer outreach activities, i.e. residential irrigation review.  
**Comments:**
  - Help people understand why they need to conserve water. People need to understand before they have a desire to protect; create a story for each river system.

- Do home water use assessments (like home energy assessments) - outdoor water use is the main discretionary water use so irrigation assessments are likely the most effective – the living watersmart website has a home water use assessment, so this resource should be brought to all irrigation assessment visits.
- Include information on hazardous waste disposal and the impacts of illegal dumping in watershed protection education.
- Targeted outreach activities in high water use areas using community based social marketing .
- Water conservation incentive programs as supported by the Innovative Options for Sustainable Water Use report.
- Outreach to residences/business/industry in vulnerable areas(aquifers, riparian areas). **Comment:** It is important to also do targeted outreach for riparian landowners. There are many resources available for that (Living by the Water, Stewardship BC, Green Shores, The Land Conservancy, etc.). Aquifer protection materials may need to be developed. This should also be done in conjunction with the development permit process.
- Promote Environmental Farm Plan program and look for potential partnerships.
- WellSMART, SepticSmart.
- Water purveyor working group.

#### Policy and Planning

- Develop Low Impact Development Engineering standards.
- Work with Building Department and BCBC to communicate options for rainwater and grey water use; communicate changes to BCBC as updated regulations come into effect.
- Update Landscape Design Standards.
- Develop bylaws dictating construction practices, including sediment and erosion control, spill preparedness, etc.
- Review requirements for water assessments for subdivision and development proposals, update where needed to include more in-depth information on long term impact and capacity.

#### **Comments:**

- Use groundwater bylaws toolkit as a resource as well as the following suggestions:
- Include in RDN-wide – improved standards for hydrogeological assessments including provision of information on long term impacts for subdivision and development proposals.
- Ensure hydrogeological assessments are recent and include information on current uses.
- Suggest RDN requires mandatory testing of wells for submission with applications.
- Require a certain rate of tests for subdivisions over a certain amount of lots and for smaller lot sizes.
- Require watershed protection bylaws for subdivisions with more than 20 lots, so that developers look at cumulative effect of 20 wells.
- Look at using the water balance model or other rainwater management tools in partnership with the municipalities.

#### **Comments:**

- Create limits to impermeable surfaces.
- Move towards Integrated Rainwater Management Plan using tools such as Beyond the Guidebook.
- Look at options for retrofitting older developments as well.
- Strengthen Regional Growth Strategy language regarding protection of drinking water and watersheds.

#### **ADJOURNMENT**

The meeting was adjourned at 4:10 pm. The next meeting is October 5, 2010 at 12:30 in RDN Board Chambers.

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Chairperson