



**MINUTES OF THE REGULAR MEETING OF THE
DRINKING WATER AND WATERSHED PROTECTION
TECHNICAL ADVISORY COMMITTEE
HELD ON THURSDAY, NOVEMBER 27, 2014 AT 1:30 PM**

Present:

Mike Donnelly, CHAIR	Manager, Water & Utility Services, RDN
Peter Law	General Public Representative (North)
Pat Lapcevic.....	Ministry of Forests, Lands and Natural Resource Operations
Faye Smith.....	Environment Community Representative
Ken Epps.....	Forest Industry Representative, Island Timberlands
Chris Cole	Forest Industry Representative, TimberWest
Kate Miller	Manager, Environmental Initiatives, CVRD
Raluca Hlevca	Academic Community Representative (for Oliver Brandes)
Rosie Barlak.....	Registered Professional Biologist Representative (for Deb Epps)
Leon Cake	Water Purveyors' Representative
Barbara Silenieks	City of Parksville (for Mike Squire)
Bill Sims	Manager, Water Resources, City of Nanaimo
Gary Anderson.....	Island Health Representative
Linda Brooymans.....	Academic Community Representative, VIU (for Alan Gilchrist)
Bob Weir.....	Director of Engineering, Town of Qualicum Beach
Fred Spears	Director of Public Works, District of Lantzville

Regrets:

Courtenay Simpson	Islands Trust Representative
Gilles Wendling	General Public Representative (South)
Kirsten Fagervik	Ministry of Transportation and Infrastructure
Alan Gilchrist	Academic Community Representative (VIU)
David Vincent	Hydrologist Representative (Northwest Hydraulic Consultants)
Deb Epps	Registered Professional Biologist Representative
Oliver Brandes.....	Academic Community Representative
Mike Squire	City of Parksville / Program Manager, Arrowsmith Water Service
Lynne Magee.....	Island Health

Also In attendance:

Julie Pisani	Drinking Water and Watershed Protection Coordinator, RDN
Alex King.....	Special Projects Assistant, RDN
Deanna McGillivray	Special Projects Assistant, RDN
Shelleen Schultz	Recording Secretary, RDN
Randy Alexander	General Manager, Regional & Community Utilities, RDN
Craig Sutherland.....	Kerr Wood Leidal Engineering

CALL TO ORDER

M. Donnelly called the meeting to order at 1:25 pm.

MINUTES

MOVED Mike Donnelly, SECONDED Ken Epps, that the minutes from the regular meeting of the Drinking Water and Watershed Protection Advisory Committee held July 23, 2014 be adopted.

CARRIED

BUSINESS ARISING FROM MINUTES

M. Donnelly summarized the main priorities of the committee, based on the remarks of committee members at the last meeting:

1. Communication and raising awareness of watershed issues, health and sustainability with the community including elected representatives and developers.
2. To continue to pursue a higher level of scientific understanding of our surface water and groundwater resources, including understanding cumulative effects on availability and quality.
3. Integrating management approaches and working with First Nations. There was a great discussion regarding First Nations partnership building at the last meeting that has helped us move in the right direction.

COMMUNICATIONS/CORRESPONDENCE

Letter from K. Fagervik, MOTI Approving Officer, Re: Provision of Water for Subdivision (Was not presented as K. Fagervik could not attend the meeting)

J. Pisani gave a brief summary in K. Fagervik's absence about the importance of the RDN and MOTI working together to update and streamline requirements for water for subdivision. MOTI is the approving officer for subdivisions in rural areas and has expressed interest in working in partnership with the RDN in order to strengthen the language for provision for water and create consistency between the MOTI and the RDN. RDN is concurrently looking to update subdivision Bylaw 500 and sees this as a great opportunity to align with MOTI in improving requirements. At a later meeting we hope to hear more from MOTI, as they are going through a core review of their requirements including for proof of water for subdivision and they would like the participation of local government in this review as well. Particularly of interest is establishing a standard of practice with hydrogeological assessments in order to provide consistency of language and a framework for a long term data bank of groundwater reports.

J. Pisani outlined potential updates to water requirements for subdivision and then opened the floor to discussion.

- M. Donnelly commented on the Parker Road Well in Nanoose and concerns that arose from the lack of advance notification and proper communication with residents in immediate and surrounding areas in a certain radius of the subject well, suggesting that communication protocols may be something to add to new requirements

- B. Sims suggested that the updated water requirements for subdivision use the definition of potable water as defined by Island Health, as a way to streamline with the local agency to point to the Canadian Drinking Water Guidelines.
- P. Lapcevic questioned how the “adverse impacts” on groundwater supply are defined? There is a need to define the language and using more progressive, consistent interpretation of pump testing (see work done by Vicki Carmichael).
- G. Anderson commented that if you stick too closely to Canadian Drinking Water Objectives, you may have lots not approved due to aesthetic issues rather than health issues. Need requirements to allow for treatment that deals with water concerns. There is a need for wells tested on each fee-simple lot as a requirement from developers... this would prevent unmanageable systems by identifying water issues prior to subdivision/ development. A Subdivision Best Practices Guidelines document that was in production by Opus Dayton Knight for the Province was 95% complete and could be used as a guideline document for Approving Officers to use and apply. This should be something that is looked into again for completion and possible utilization.
- G. Anderson went on to say that we need to look at cumulative impact when performing hydrogeological assessments i.e. nitrogen input and that distinction should be made between community water systems and individual wells.
- M. Donnelly inquired as to the contact information that could be used to locate the Subdivision Best Practices document.
- M. Donnelly commented that this is in the preliminary stages and we will be working on a path for the next six months. During this time ideas and suggestions are welcomed and encouraged for the definition process.
- P. Law asked if MOTI is updating their subdivision approval documents? That would give the opportunity for other issues to be addressed such as storm water.
- J. Pisani responded that at this time the focus of working with MOTI is on updated requirements in on Water Provision for Subdivision, but yes there is an opportunity to look into the issue of storm water management requirements in rural areas with MOTI as well.
- K. Miller requested that the RDN staff work more closely with the CVRD as they have gone through the process of updated engineering standards years ago. Those updated CVRD standards were submitted to the Province and they have been waiting 4 years to hear back. There is an opportunity for a unified document if RDN works with CVRD.
- M. Donnelly concurred that this would be a great idea and asked if the document mentioned had been delayed due to waiting for the final Water Act?
- F. Smith wanted to know if people with questions could refer to the Water Budget document from last year?
- J. Pisani responded that one of the recommendations coming out of the water budget study was to look at cumulative impacts on groundwater and also to have standardized groundwater reporting which would be part of the development approval process.
- F. Smith wanted to know with all of the development going on around Wembley Mall: were the water budget study results considered as a part of that development approval?

- J. Pisani commented that once the improved language and the strengthened requirements are in place it is possible that previous developments may not have qualified but we can use what we know about our water to make better decisions regarding land use in the future.
- M. Donnelly commented that we will keep moving forward taking into consideration that there are political issues as well.
- J. Pisani commented that the advisory committee helps steer the implementation of the DWWP Action Plan and guides the direction of the program. By using the information provided by Program 2 (the data we collect) to protect the water resources, all of the information gathered is couched in the implementation of our action plan.

Implementing Program Action 3 (Land Planning and Development Discussion (J. Pisani))

J. Pisani presented Program Action 3 for Land Planning and Development outlining its goal to protect the Region's watersheds and water resources in land use planning and development decisions. The floor was then opened for discussion and input.

- K. Miller asked if the groundwater vulnerability and the DRASTIC work were nested in this Action 3 as it did not jump out.
- J. Pisani responded that the vulnerability mapping project comparing vulnerability to quality issues based on surface activities is covered but not specifically in the Action Plan as the work was done either concurrently or after. However this issue will be covered in Action 5 which is the water quality monitoring action.
- M. Donnelly commented that the drastic and vulnerability work that was done subsequent to this plan and the information gathered early on is not lost and will be utilized and reviewed during these exercises
- B. Sims wanted to briefly answer and say that the second objective is adequate, good quality sustainable drinking water and this is the overarching thing and you can point back to that when moving forward.

REPORTS

Regional Hydrometric & Climate Monitoring Scoping Study update presentation

C. Sutherland from Kerr Wood Leidal summarizing the study goals and objectives, process and costs of data collection and how they vary due to climate and accessibility and then the floor was opened for discussion.

- M. Donnelly requested an overview cost to install and maintain the hydrometric stations from B. Weir from the Town of Qualicum Beach as they have had a new station installed.
- B. Weir responded that he believes the install cost was roughly \$15,000 and the annual operating cost seems to be around \$8,000. The new station is almost on the location of a pre-existing station which helps because you have historic information to compare changes in the streamflow over time.

- M. Donnelly asked J. Pisani if a committee will be getting together again before the end of the year to review further information
- J. Pisani responded that there is a TAC sub-committee getting together early in the new year to review Craig's report when submitted. . This sub-committee has helped establish the direction taken with this study by bringing together stakeholders with interest in hydrometric and climate data and includes partners beyond the TAC such as Water Survey of Canada, Ministry of Environment hydrometric specialists from Victoria, FLNRO staff Brian Epps and Neil Goeller. The next TAC meeting in the spring will show what information has come out of the subcommittee meeting.

Community Watershed (Water Quality) Monitoring Network – 2011-2013 Three Year Trend Report was presented by R. Barlak and J. Pisani.

R. Barlak reported to the committee that the Three Year Trend Report for the results of the Community Watershed Monitoring Network 2011- 2013 was now published by the MOE and available on the RDN website. She explained that this year's community watershed monitoring network had 9 community groups monitoring water quality in 17 watersheds at 50 sites. This was a very successful fourth year of the program with great participation and data collected. The sampling for this year has just ended so the data has not been reviewed yet but will be in the near future. Some groups took extra samples and sent them into a lab for analysis to investigate if some turbidity results seen in previous years were linked with higher levels of phosphorous or microbiological contamination. Next, we will look into connections between land use activities and water quality results, to incorporate that information as well. The project is ongoing and continues to go very well.

- M. Donnelly wanted to thank the MOE again for their help and review time as it is very valuable to the region's understanding of water quality in our rivers, creeks and streams.
- J. Pisani presented a land use map around some of the water quality sampling sites and explained some of the data found and how land use practices could be used to determine what is needed for improved water quality and outline the land impact on the water.

UPDATES

Water Use Reporting Centre update presented by J. Pisani

J. Pisani updated the committee on the implementation of the **Water Use Reporting Centre (WURC)** software that enables water service providers in the RDN to enter water use data into a secure web-based interface to help quantify regional water demand to ultimately contribute to more accurate a water budget calculations and provide a dashboard to inter-relate water use with other local data like precipitation or compare to other water service providers. At this point the RDN has supported mainly the groundwater component of the software with the majority of software development done by the Okanagan Basin Water Board, with the long term vision of this becoming a provincially implemented tool. The four municipalities and the RDN are currently using the tool, and a roll-out to improvement districts and other water purveyors in the region is planned for 2015.

- K. Miller asked if the information is on an automated SCADA upload or is the data keyed in by manual entry. Second question: in the private sector are you providing incentives or strongly requesting the data or how is the data collected?
- J P isani responded that there is double data entry right now and there is no SCADA upload. There has been good participation thus far as it benefits each area to know their water usage information. Right now the program has been lucky with voluntary participation by municipal water providers and interest has been shown by smaller water systems at water purveyor working group meeting. Possibly later on it may become a mandatory requirement with Provincial groundwater regulations under the new Water Sustainability Act.
- B. Sileniks commented that the double uploading of data is working well at this point and is not terribly time consuming and it is nice to be able to see the report and graph
- B. Sims commented that the information will help with the production of an annual water report that we are required to submit.
- G. Anderson wanted to know if the information helps with leak detection
- J. Pisani commented that it does within the water audits
- B. Weir had an issue that not all municipal water is metered with respect to special circumstance water usage such as irrigation of parks and Qualicum Beach supplying the water to the Fire Department for surrounding fires. How then would this water usage be captured in the data?
- M. Donnelly responded that the data collected is used as more of an indicator for water budget calculation of water demand and usage, and is not fine grained where special circumstance water usage would cause an issue.

Team WaterSmart Education and Awareness update by D. McGillivray and A. King

A. King outlined how Team WaterSmart was engaged in **school field trips** which provided an engaging experience for the students that seemed to cause retention of the information in the students. The students learned about the water cycle, resource use, forestry, drinking water and infrastructure. They learned how they get their drinking water, about ecosystems and wildlife that rely on water, wilderness safety and land use by use of games and visual activities. There was also discussion of where other children around the world get their water. These fieldtrips are meant to emphasise the importance of our local watersheds seeing as young people are so indoor orientated these days.

Salomon the salmon a puppet purchased by Team WaterSmart for **pre-school** children have been introduced and it is the hope that these visuals will help engage the pre-school students to retain information about water and its conservation. Team WaterSmart would welcome any input from other areas that that can be incorporated into the program.

A. King provided a PowerPoint slide and then discussed the **well upgrade rebate program** which includes upgrades to existing residential wells in the RDN if they, upon inspection, require work to be done to improve groundwater protection. This year there have been 26 rebates given out in total with Gabriola Island being the front runner of participation. There were 11 rebates given for well caps, 8 rebates for stick up, 6 rebates for surface seals and 1 close well rebate. Along with the well upgrade rebate program there is also a **well water quality testing rebate** going on this year which has seen good uptake with over 200

participants to date and about 80 percent of the participants are willing to share their information from their testing which can in turn be added to ongoing data collection.

D. McGillivray presented an update on the **rainwater harvesting rebate program** this year, that 24 applicants have already received their rebates and they are still processing applications as the program had a bit of a late start this year. There was even 1 indoor system and there was a large 18,000 gallon system that also applied for the rebate.

D. McGillivray went on to present the stats of the **residential irrigation checkup program** performed by Team WaterSmart, where participants from 2013 were investigated for their water use this past summer, to see if reductions in water use were observed. Most participants had indeed reduced water use, considering precipitation and weather differences between this year and last year. There were also irrigation checkups done for stratas this year which was a focus for the program. This year's participants' water use will be analyzed after next summer to see if reductions were made as a result of the irrigation checkup.

D. McGillivray presented the Home Water Consumption Report or **enhanced water billing** report which originated from the 2013 Water Conservation Plan as one of the recommended actions for the RDN Water Service Areas to encourage water conservation. This enhanced water billing report includes information to the residents as to how their water use compares to their previous bills and to the rest of their community. The customer's usage category (i.e. Skillful Saver, Room for Improvement, Take Action) is shown based on where they fit into the water billing structure. A test form was sent out to one small water service area in Surfside to pilot this enhanced billing report. Next year the information will be sent out to other RDN Water Service Areas, and over time water meter readings will be observed to see if this communication makes an impact on water use reduction in these communities.

- K. Epps inquired about the cost of a cistern and if they are approved or regulated somehow?
- D. McGillivray commented that the system has to be CSA approved and the cost varies greatly anywhere from \$2000 up to \$30,000 dependent on the system installed and the location of the installation.
- J. Pisani commented that the average cost of a cistern installation last year was \$2700 which means on average people received more than a quarter of the cost back with the \$750 rebate.
- G. Anderson inquired as to what is required for a portable water cistern.
- D. McGillivray responded that in the rebate program the RDN does not deal with treatment regulations only the permits that are required for indoor plumbing and potable water lines if applicable and that other regulations are the applicants responsibility to source out.
- L. Cake commented that early childhood programs and pre-school years are very important information years and that 1 in 5 pre-school children are in poverty. He commended the RDN and Team WaterSmart with the passion they are showing in their programs and the information they are providing to children.

J. Pisani gave credit to L. Cake who made the suggestion at the last meeting, and to the Qualicum First Nation, who has invited Team WaterSmart to provide their first pre-school program.

Watershed Partnerships Session (Sept. 26th) update presented by M. Donnelly

M. Donnelly summarized the Watershed Partnerships Session that occurred in September as part of the **Inter-Regional Education Initiative** which includes 5 regional districts, each committed to a day to educate each other on their watershed projects. The RDN chose to give a session on Watershed Partnerships because the DWWP program relies on partnerships for its success thus far. The RDN is committed to watershed protection planning with first nations and moving forward in that direction. Leading up to this September session, DWWP staff worked with Snaw-naw-as (Nanoose) and Qualicum First Nation chiefs to co-create the program for that day. Snaw-naw-as hosted the start of the day at the Nanoose Health Centre prior to all travelling to the Englishman River Regional Park. Chief Bob (NFN) and Snaw-naw-as elders led the day and communicated mostly through storytelling. Other partners shared their stories of working together in our watersheds and this method of communication has a great impact and really engaged the listeners and provided an interesting point of view regarding the issues with and value of water.

- F. Smith commented that she was very impressed that the 2 Chiefs attended the session.

New Business**Business Arising from Communications**

- B. Sims commended Team WaterSmart on being successful with getting everyone participating on education programs.
- K. Miller commented that CVRD walks away feeling encouraged and happy with the partnership and hopeful that we will be able to move forward more strategically in the future. One note was that they have just received funding from environment Canada to work on a predictive model and hydrological model for the Yellow Point Cedar area and have ensured that the boundary is not a political boundary but a watershed boundary and are hoping that this will help with the DWWP information as well.
- L. Bhopalsingh wanted to commend all who were involved in organizing the watershed tour her daughter was on and the feedback she got at home was excellent.
- C. Cole mentioned that his daughter attended a watershed tour as well and said it was excellent and stated that Team WaterSmart was doing a great job.

ADJOURNMENT

The meeting was adjourned at 3:33 pm.

Mike Donnelly, Chair