

REGIONAL DISTRICT OF NANAIMO
SUSTAINABILITY SELECT COMMITTEE
WEDNESDAY, OCTOBER 17, 2012
10:00 AM

(RDN Committee Room)

A G E N D A

PAGES

CALL TO ORDER

DELEGATIONS

MINUTES

- 3 - 8 Minutes of the Regular Meeting of the Drinking Water and Watershed Protection Technical Advisory Committee held on Wednesday July 25, 2012.
- 9 - 10 Minutes of the Sustainability Select Committee meeting held on Wednesday July 25, 2012.

BUSINESS ARISING FROM THE MINUTES

COMMUNICATIONS/CORRESPONDENCE

UNFINISHED BUSINESS

REPORTS

- 11 - 12 Rainwater Harvesting Best Practices Guidebook.
- Green Building Incentives Quarterly Update (Verbal).
- 13 - 16 Community Based Social Marketing.
- 17 - 18 Partnership with British Columbia Irrigation Association.
- DWWP Update on Work to Date (2012) (Verbal).
- Community Energy Association – Honourable Mention for MOA (Verbal).
- Green Building Speaker Series and Open House Tours (Verbal).
- Regional Growth Strategy Implementation Update (Verbal).

Distribution: J. Stanhope (Chair), A. McPherson, H. Houle, M. Young, B. Veenhof, B. Dempsey, J. Kipp, D. Brennan, M. Lefebvre, D. Willie, P. Thorkelsson, P. Thompson, C. Midgley, M. Donnelly, N.Hewitt

J. Fell

For information only: G. Holme, J. Ruttan, B. Bestwick, D. Johnstone, T. Greves, G. Anderson, M. Brown, T. Graff, F. Manson, J. Hill, T. Nohr, L. Burgoyne, Matt O'Halloran

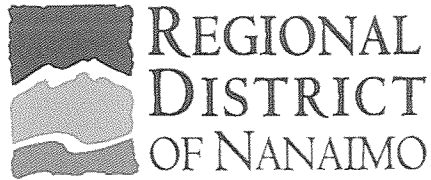
ADDENDUM

BUSINESS ARISING FROM DELEGATIONS OR COMMUNICATIONS

NEW BUSINESS

ADJOURNMENT

IN CAMERA



**MINUTES OF THE REGULAR MEETING OF THE
DRINKING WATER AND WATERSHED PROTECTION
TECHNICAL ADVISORY COMMITTEE
HELD ON WEDNESDAY, July 25, 2012 AT 12:30 PM
IN THE RDN BOARDROOM**

Present:

Mike Donnelly, Chair	Manager, Water Services, RDN
Mike Squire	City of Parksville / Program Manager, AWS
Bill Sims	Manager, Water Resources, City of Nanaimo
Fred Spears	Director of Public Works, District of Lantzville
Chris Jackson	Islands Trust Regional Planning Manager
Gordon Buckingham	General Public Representative (North)
Pat Lapcevic	Min. of Forests, Lands & Natural Res.
Lynn Magee	Vancouver Island Health Authority
John Deniseger	Registered Professional Biologist Rep.
Al Magnan	Fisheries and Oceans Canada Representative
Leon Cake	Water Purveyors' Representative
Bob Wylie	Ministry of Transportation and Infrastructure
Domenico Iannidinardo	Forest Industry Representative
Faye Smith	Environment Community Representative
Ken Epps	Forest Industry Representative

Also in Attendance:

Darren David	Principal Hydrogeologist, Waterline Resources
Matt Skinner	GIS Technician, Waterline Resources
David Van Everdingen	Senior Hydrogeologist, Waterline Resources
Craig Sutherland	Senior Surface Water Engineer, Kerr Wood Leidal
Pam Newton	GIS Technician, RDN
John Finnie	GM, Regional and Community Utilities, RDN
Christina Metherall	DWWP Coordinator, RDN
Julie Pisani	Special Projects Assistant, RDN
Lauren Fegan	Special Projects Assistant, RDN
Brian Dempsey	Councillor, District of Lantzville

Regrets:

Bob Weir	Director of Engineering and Utilities, Town of QB
Oliver Brandes	Academic Community Representative
Alan Gilchrist	Academic Community Representative (VIU)
Maury Scott	Special Projects Assistant, RDN
Shelley Bayne	Hydrogeology Representative
Gilles Wendling	General Public Representative (South)

CALL TO ORDER

M. Donnelly called the meeting to order at 12:34 pm.

DELEGATIONS**MINUTES**

MOVED M. Squire, SECONDED B.Sims second that the minutes from the regular meeting of the Drinking Water and Watershed Protection Advisory Committee held February 14, 2012 be adopted. CARRIED

BUSINESS ARISING FROM MINUTES**COMMUNICATIONS/CORRESPONDENCE****REPORTS****Municipal Updates (B. Sims, M. Squire)**

B. Sims announced that City of Nanaimo council has adopted an overall Strategic Plan – one of six key focuses is on water conservation and continued partnership with this committee and Team WaterSmart. B. Sims also elaborated that 2020 is the target for the City of Nanaimo to augment their water supply. Work with consultants has indicated potential for raising Jump Lake Dam for more storage and suggests that this is the economic and ecological choice. He also stated that the City will be starting the new treatment plant pipeline construction in the next 5 months, likely January or February.

M. Squire noted the occurrence of stakeholder meetings , including meetings with the provincial and federal governments, regarding the Aquifer Storage Recovery (ASR) project. The project continues to move ahead, with four test wells already drilled and two looking promising for the ASR well. M. Squire stated that there has been cooperation of neighbouring properties for monitoring wells. M. Squire stated that the pilot program for the Englishman River Treatment is finished and identified membrane treatment as the preferable choice so far. Water quality monitoring will continue on the Englishman River and finish in the fall.

M. Squire also gave an Operations update regarding the clay banks approximately 6.5 km upstream of the City's water intake. There has been no historical sloughing in the summer, however last week on Tuesday the 17th, there was a big erosion event that caused high turbidity alarms to go off and resulted in the shutting down of the river station, leaving only wells to supply Parksville's water.

M. Donnelly noted the City of Parksville's agreement with the RDN to supply the Nanoose Bay Peninsula water service area with water. During summer the contribution is 40% surface water. The result of the erosion event is that a Level 3 watering restriction has been implemented in the RDN (Nanoose) and Parksville. M. Donnelly stated that it will probably remain in effect until sometime in October as a preventative measure.

M. Donnelly also noted the Nanoose Bay Treatment Plant that was supposed to be commissioned next week has now been postponed until October 1st due to the water use restrictions. D. Iannidinaro asked if there has been any thought given to geotechnical bank stabilization. M. Donnelly noted that there may be the need for consultants to ascertain future risks. D. David suggested that groundwater is coming in and undermining the clay bank, and it is toppling over. He suggested the need to prevent

water from discharging on the slope. G. Buckingham enquired about media release for Nanoose residents. M. Donnelly stated that a news release for Area E is currently being prepared and will be out next week.

F. Smith mentioned that MVIHES has monitored this area on the Englishman River for many years, and is willing to share data results if interested. She suggested inviting an engineer to have a look at bank and also mentioned that the solution in Cowichan to a similar erosion event was very expensive, perhaps more than a million dollars.

Rainwater Harvesting (J.Frumento)

J. Frumento introduced the upcoming release of the Residential Rainwater Harvesting Guidebook, developed by the Sustainability Department, with two local Rainwater Harvesting (RWH) consultants, including input from VIHA. It is anticipated to be released in Fall 2012 and is planned to be promoted via social media, advertising and at the Green Building Series in October. This guidebook is the first in a series of intended guidebooks that highlight Green Building Practices as a part of the Green Building Action Plan. The key features of this guidebook will include checklists, graphics and regional case studies to help residents design and install RWH systems in the RDN.

Water Budget Project Update – Gabriola (C.Metherall)

C. Metherall gave a brief overview of the progress the consultants at SRK have made so far on the Gabriola water budget project. She noted that a preliminary 3D model has been developed, with updated information on the water table in relation to surface water and groundwater depth. C. Metherall mentioned that there is a need for monitoring in private wells on Gabriola to understand the impact of tides and that the study is seeking volunteers ASAP. Private well monitoring has also been suggested to better understand groundwater recharge; this would be a 2 -3 month study and would not be included in SRK's report but has been recommended as helpful for the long term.

C. Metherall also stated that over 600 well records have been transferred from a local well driller to the provincial WELLS database. This is an important step to help fill gaps in data and gain understanding of the aquifers on Gabriola Island. Currently, the study is also looking for information on surface water quantities as there has been little monitoring done on the island to date. C. Metherall noted that anecdotal information or volunteer monitoring results is welcome.

Additionally a residential water use survey has been issued by the RDN to Electoral Area B residents. This is in partnership with the Gabriola Groundwater Management Society (GGMS). C. Metherall stated that so far 350 surveys have been completed. She noted that residents have also been interested in sharing well levels and water quality tests. RDN staff contacted Agricultural, Institutional, and Commercial operations with similar questions regarding water use - excellent information received. There has also been survey feedback from residents on Mudge and Decourcy Islands.

Water Budget Project Updates – Vancouver Island (D. David, C. Sutherland)

D. David, Principal Hydrogeologist of Waterline Resources, gave a powerpoint overview of the progress of the Water Budget Project so far. So far they have gathered data from over 9000 water wells including the Ministry of Environment database, observation well, private wells and community wells. Now they are synthesizing this data in order to map aquifers and develop a geological model. D. David presented a video that illustrated a 3D flyover of the Regional District of Nanaimo's surficial geology. The next steps are to :

- Gain understanding of the subsurface geology and include that in the 3D model
- Determine how water is flowing from one watershed to another in the aquifer (crossing surface water boundaries)
- Assess areas where potential groundwater stress is
- Look at well yields from driller logs
- Formulate a surface water budget equation, make groundwater/surface water linkage

D. David noted the overall observed trend of decreasing levels in several observation wells and private wells, and the French Creek has been determined to be groundwater fed.

C. Sutherland of Kerr Wood Leidal introduced a model that predicts stream flow at un-gauged locations, takes climate data from UBC Forestry Climate data set, then fed to monthly water balance model, incorporates all stages of water cycle, and describes how much precipitation goes to surface water runoff vs. groundwater recharge. The estimates average flows over large areas, possibility for climate change assessment. C. Sutherland reported that the model is reproducing the observed flows quite well. The next step will be to look at interaction between surface water and groundwater.

C. Sutherland noted that for water budget purposes, they will use the actual French Creek watershed boundary NOT the water region boundary that is indicated by the RDN.

M. Donnelly stated that the RDN water region boundary will be adjusted to better fit the actual watershed boundaries.

K. Epps noted that evapotranspiration is an important factor and that currently the amount of water used by vegetation may be a data gap.

D. David also mentioned that it not mandatory to submit water well logs to the MOE database and that this creates a data gap. He solicited ideas for getting this data and suggested encouraging private well owners to measure levels and submit to VIU website.

D. David stated that the aim is to have the Water Budget Project completed by the end of the year. After that, the next steps involve filling data gaps.

C. Metherall stated that she has received a list of key stress areas from D. David, correlated with well water service areas. She mentioned that she would be in contact with water suppliers to obtain information on water levels from their wells.

RGS Indicators (L.Bhopalsingh)

L. Bhopalsingh provided a powerpoint overview of the Regional Growth Strategy (RGS) with regards to choosing indicators to monitor progress as well as setting progress targets. She noted that the RGS was created in response to concern about rapid growth and development in region and that it aims to establish a more sustainable pattern of population growth and development. Current selected water indicators are: groundwater levels, surface water quality, and water consumption. L. Bhopalsingh put forward to the committee to think about what other measures should be reported on and to think about specific levels of performance with the targets.

Indicators should relate to things that RDN has influence or control over with their policies. L. Bhopalsingh noted the need to commit to a set of indicators; have a practical number to report to the Board; be regular, meaningful and clear when reporting; and make the indicators accessible to everyone.

F. Smith suggested monitoring of impervious surfaces in watersheds as an indicator.

C. Metherall mentioned that that would require yearly airphotos and that the RDN doesn't have yearly photos, maybe every few years.

L. Bhopalsingh stated that over time, as access to data and data improves, indicators can be updated.

P. Lapcevic noted that annual reporting may be too short of a period of time for monitoring water levels in observation wells.

L. Bhopalsingh suggested that the indicators could be presented as trends with qualifiers, and also mentioned the potential for bi-yearly or monthly updates for different indicators.

J. Deniseger noted that eventually in 3-5 years the Community Watershed Monitoring Network data will start to show trends. With regards to groundwater indicators, he noted the need to manage expectations. Very little data is collected on a yearly basis. The frequency is more like 3-5 years. Should think more along the lines of a periodic snapshot that shows trends.

C. Jackson suggested the use of water storage, including RWH systems, could be an indicators that could be tracked through Building Services Department.

M. Donnelly suggested that the water budget will identify stressed areas to guide our DWWP program and narrow our focus. Therefore it may be premature to shoot for a target before the water budget. This could be a basis for a future discussion during the Fall meeting of this committee.

Community Watershed Monitoring Network Update (C. Metherall)

The monitoring network now includes 10 different stewardship groups to monitor water quality across RDN. This year Harbour City River Stewards have joined the program. The monitoring sites were chosen by the RDN and MOE based on feedback from City of Nanaimo staff, representatives from VIU, and based on where there was historical monitoring information. Monitoring begins this August 14th until mid-September for low flow period, and will start again in mid-October for the Fall Flush period. The monitoring will collect data on turbidity, dissolved oxygen, conductivity and temperature. The Cowichan Valley Regional District is looking to start a similar program. More information is available on the new webpage.

Observation Well Updates (C. Metherall)

C. Metherall stated that this initiative is in partnership with Geological Survey of Canada who have contributed \$50,000 for sonic coring in the creation of new observation wells. The sonic core will provide a continuous tube of material to get a good definition of what the aquifer materials are like in an area. C. Metherall stated that the initial invite to quote was met with proposals that were all well over budget. She stated that the problem may have been the quick turnaround timing and noted the re-releasing of the invite to quote with hopes of drilling between October and January. The RDN needs to spend money by the end of March 2013.

Stewardship Activities Updates (J. Pisani)

J. Pisani presented the latest stewardship activities including the new Rainwater Harvesting Incentive program; the Rural Water Quality Stewardship program development; the Water Purveyor Working Group meeting in June and the next one in the Fall; the 20+ Team WaterSmart community events; Toilet

Replacement Rebate Program; the Free Irrigation Audit program targeted at high water users and strata; and the 5 Kids Camp presentations scheduled this summer.

M. Donnelly added that the Drinking Water and Watershed Protection educational program is now a year-round effort and that the program is successful because of it.

OTHER

F. Smith mentioned the MVIHES Englishman river status report card that is in the works. It has been ten years since the recovery plan was initiated. She put forward to the committee if anyone can assist with providing any information or data it would be really helpful and to contact F. Smith directly

J. Finnie mentioned the recent Water Balance Model workshop that RDN Water Services and Planning staff attended that addressed concerns with impermeable surfaces and that there are currently no direct planning requirements in terms of numbers or criteria. J. Finnie noted the importance of recognizing that site run off does impact streams and that the goal should be to detain storm water on site if possible. He mentioned an upcoming tool to watch for called Water Balance Express.

ADJOURNMENT

The meeting was adjourned at 3:07 pm.

REGIONAL DISTRICT OF NANAIMO

**MINUTES OF THE SUSTAINABILITY SELECT COMMITTEE
MEETING HELD ON WEDNESDAY, JULY 25, 2012 AT 2:05 PM
IN THE RDN COMMITTEE ROOM**

Present:

Director J. Stanhope	Chairperson
Director A. McPherson	Electoral Area A
Director H. Houle	Electoral Area B
Director D. Brennan	City of Nanaimo
Director M. Lefebvre	City of Parksville

Also in Attendance:

Director J. Fell	Electoral Area F
C. Mason	Chief Administrative Officer
P. Thorkelsson	General Manager of Development Services
C. Midgley	Manager, Energy & Sustainability
J. Frumento	Sustainability Coordinator
N. Hewitt	Recording Secretary

Regrets:

Director M. Young	Electoral Area C
Director B. Veenhof	Electoral Area H
Director B. Dempsey	District of Lantzville
Director D. Willie	Town of Qualicum Beach
Director J. Kipp	City of Nanaimo

CALL TO ORDER

The meeting was called to order at 2:05 pm by the Chair.

MINUTES

MOVED Director Lefebvre, SECONDED Director Brennan, that the minutes of the Sustainability Select Committee meeting held on Wednesday, June 13, 2012 be adopted.

CARRIED

REPORTS

2012 Green Building Series.

MOVED Director Lefebvre, SECONDED Director Brennan, that the verbal/visual report on the 2012 Green Building Series be received for information.

CARRIED

Rainwater Harvesting Best Practices Guidebook.

MOVED Director Lefebvre, SECONDED Director Brennan, that the verbal/visual report on the Rainwater Harvesting Best Practices Guidebook be received for information.

CARRIED

ADJOURNMENT

MOVED Director Houle, SECONDED Director Lefebvre, that this meeting be adjourned.

CARRIED

Time: 2:34 pm

CHAIRPERSON



RDN REPORT	
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MEMORANDUM

TO: Paul Thorkelsson
GM Strategic and Community Development/
Interim CAO

DATE: October 9, 2012

FROM: Chris Midgley
Manager, Energy and Sustainability

FILE:

SUBJECT: Rainwater Harvesting Best Practices Guidebook

PURPOSE

To provide the Committee with the completed *Rainwater Harvesting Best Practices Guidebook (RWH Guidebook)*, provided under separate cover.

BACKGROUND

The development of the *RWH Guidebook* emerged out of the *Green Building Action Plan*, which includes the following objectives:

- To inform residents about the benefits of green building practices and ways to incorporate green building technology into new and existing buildings in the region;
- To inform the development and construction industry active in the region about ways to incorporate green building technology into new and existing buildings in the region; and
- To provide research to support green building principles and practices in the region.

In addition to the *Green Building Action Plan*, the *2007 RDN Drinking Water and Watershed Protection Plan* and *RDN Watershed Snapshot Report 2010* each specifically promote rainwater harvesting in the region as ways to address dropping groundwater levels and stressed ecosystems resulting from increasing water use due to a growing population.

In 2012, the Water Services Department established a rainwater harvesting incentive program providing rebates to homeowners who invest in cisterns exceeding 4,546 litres (1,000 gallons) in volume and related system components (pumps, filters, etc.). In 2011, the RDN established the Yellow Point Aquifer Development Permit Area in the Electoral Area 'A' Official Community Plan, requiring new development and major renovations (adding 70m² or more in new habitable space) within the development permit area to incorporate rainwater harvesting systems with an 18,000 litre capacity, or more.

Responding to these programs and policies, and in recognition of the need to provide guidance and support for residents developing rainwater harvesting systems, the RDN produced the *RWH Guidebook*, offering practical information for homeowners and professional installers, and encouraging the responsible use of rainwater as a safe, sustainable water source for private residences.

The *RWH Guidebook* is the first in what is envisioned as a green building guidebook series published on an annual basis.

ALTERNATIVES

1. To endorse the Regional District of Nanaimo *Rainwater Harvesting Best Practices Guidebook*.
2. To provide alternate direction to staff.

FINANCIAL IMPLICATIONS

There are no financial implications. Development of the *Rainwater Harvesting Best Practices Guidebook* was funded with \$20,000 from the Community Works Fund, which provides annual revenues to the Regional District of Nanaimo for community sustainability and capacity building projects that contribute to cleaner air, cleaner water or reduced greenhouse gas emissions.

SUSTAINABILITY IMPLICATIONS

Ongoing availability of water resources is an issue of intense concern among residents. The Regional District of Nanaimo has a strong tradition of advocating and educating water conservation opportunities for residents in the region, and investing in efficient infrastructure in RDN water systems.

Similarly, the RDN had been a traditional supporter of Green Building education, outreach and implementation. The *RWH Guidebook* bridges these two areas of RDN activity, producing a resource that will assist interested homeowners and professional practitioners in the region access an abundant, alternative water resource, thereby reducing pressure on aquifers and local ecosystems and protecting long term watershed health.

SUMMARY/CONCLUSIONS

Regional District of Nanaimo has completed a *Rainwater Harvesting Best Practices Guidebook*. As an information source specific to the RDN's location and climate, and a practical tool for RDN residents interested in building their own rainwater harvesting systems or working with professionals to do so, the *RWH Guidebook* will be a valuable resource for those who wish to learn more about the benefits and opportunities of rainwater harvesting.

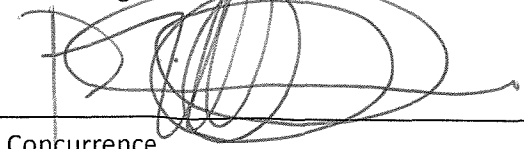
The *RWH Guidebook* provides support for programs and policies already implemented within the Regional District of Nanaimo, particularly the rainwater harvesting incentive program delivered through the Water Served Department, and the establishment of the Yellow Point Development Permit Area in the Electoral Area 'A'. With direction from the Committee and the Board, staff will make document available to the public at large.

RECOMMENDATION

That the Committee endorse the Regional District of Nanaimo *Rainwater Harvesting Best Practices Guidebook* and forward the Guidebook to the Board for adoption.

Report Writer

General Manager Concurrence



D/ CAO Concurrence



RDN REPORT	
CAO APPROVAL <i>[Signature]</i>	
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DWWP - TAV	

MEMORANDUM

TO: Mike Donnelly
Manager of Water Services

DATE: September 27, 2012

FROM: Christina Metherall
Drinking Water and Watershed Protection Coordinator

FILE: 5600-07

SUBJECT: Rural Water Quality Stewardship Program Development
Community Based Social Marketing

PURPOSE

To obtain Board support to use a Community Based Social Marketing (CBSM) approach to assist with the development of the Rural Water Quality Stewardship Program.

BACKGROUND

In April 2011, the Board approved the Watershed Snapshot Report 2010. The Watershed Snapshot Report guides the implementation of the Drinking Water and Watershed Protection program by identifying key issues and concerns regarding water resources in the Regional District of Nanaimo and providing a set of recommendations to address those concerns. One of the core recommendations is to develop a Rural Water Quality Stewardship Program to help rural property owners protect water quality by properly maintaining their private wells and septic (on-site) systems.

Staff proposes to develop this program using a model for stewardship program development called 'Community Based Social Marketing' (CBSM). CBSM is a pragmatic approach to developing outreach programs, used successfully by a variety of local governments including the Capital Regional District, Cowichan Valley Regional District, Municipality of Whistler, Richmond, North Vancouver, and Metro Vancouver. Several rural water quality programs in other provinces have also used this model. The CBSM model recognizes that campaigns based on providing information alone will not lead people to adopt more sustainable behaviours.

In order to develop an effective stewardship program, it is essential to understand why people are currently not participating in a desired activity and identify the barriers to their participation. It is also important to understand the rationale used by those who currently take the desired action. Experience in other local government jurisdictions indicate that programs that only provide information to the public without addressing the barriers to the desired behaviour are generally less effective. Programs developed using the CBSM model, however, are highly effective at breaking down barriers to action and maximize program resources by using strategies that specifically suit the community.

Staff proposes the following approach, using the CBSM model as a guideline:

1. Select target behaviours to protect water quality
2. Identify barriers to behaviours and rationale of those participating in behaviours
3. Select achievable strategies for addressing barriers and benefits
4. Pilot strategies in pilot area
5. Evaluate results of pilot program. If successful, expand Region-wide

In 2011, DWWP staff accomplished Step #1 by researching potential target behaviours that would be the most effective in protecting water quality. Staff reviewed existing literature on rural water quality stewardship programs, surveyed local industry and government experts, conducted a groundwater quality survey and wellhead inspection program, and consulted with other RDN Departments. The research showed that in order to best protect rural water resources, a rural water quality program should promote the following actions:

1. Wellhead inspections and protection
2. Regular septic pump outs and maintenance

The next step in developing the Rural Water Quality Stewardship Program is to identify barriers and benefits to the above actions. This requires direct consultation with the target audience. Methods such as focus groups, interviews and surveys reveal what actions related to wellhead protection and septic maintenance are predominant in the community and what barriers exist that prevent people from engaging in recommended approaches.

As this program is intended to engage a broader audience, it is very important to understand the perspectives of typical residents who are the target of the outreach program. It is not enough to work with those that are already engaged and aware of the issues and possibly already taking the appropriate actions. To do this, CBSM program development guidelines and other local governments suggest randomly selecting participants from across the community and offering them an incentive for participating in program development. Random selection increases the likelihood that participants will be representative of the target audience. Offering an incentive for participation ensures that the participants will be more representative of the target audience by providing a draw for those who are not passionate or engaged in the topic to take time to share their perspectives. By obtaining information from average community members that are not currently aware of the subject and are not engaged, staff can develop a program that has a significantly greater likelihood of stimulating behavioral change in the community at large, resulting in greater program success.

Application of CBSM Principles

In January 2012, DWWP staff piloted a focus group of eight randomly selected individuals from the target audience (rural property owners from Cassidy and South Wellington) to discuss their behaviors and attitudes related to well and septic maintenance. This focus group session was held in Cassidy and a \$40 incentive was offered to the participants for their time, as per the recommendation of the CBSM program development approach.

The Cassidy and South Wellington areas were identified as a good pilot project area because they have the highest density of wells and septic systems in the RDN, the Cassidy aquifer is highly vulnerable, and there is good data available on groundwater quality and wellhead maintenance. In 2011, the RDN collaborated with the Ministry of Forests, Lands, and Natural Resource Operations (MFLNRO) to conduct a groundwater quality sampling and wellhead inspection program in Cassidy and South Wellington. The study showed that the groundwater quality in both areas was good, and that improved wellhead protection and septic maintenance would ensure that this water quality was maintained.

To access a better sample of input from the community, DWWP staff proposes holding two more focus groups in the pilot area. For the next two focus groups, DWWP staff is proposing to offer a modest incentive for participation such as a free well water test or a \$20 grocery voucher to a store of the attendee's choice. Other local governments as well as other RDN departments commonly use incentives to obtain a random, representative sample of the population for program development. For example:

- The CRD provided a cash incentive of \$60 to attendees of water conservation focus groups.
- The BC Ministry of Environment provided a \$50 stipend to attendees in focus groups in the development of the Woodstove Exchange program.
- The Resort Municipality of Whistler provided focus group attendees with a \$50 stipend in the development of the Bear Smart program.
- Metro Vancouver provided an honorarium of \$15-\$30 for participation in an interview in its Homelessness Strategy program development.
- RDN Recreation & Parks provided a pool pass / skate pass / water bottle and a chance to win a \$50 Rec & Parks voucher for the Youth Recreation Focus Group in 2011.
- RDN Regional Growth Strategy offered a chance to win \$400 towards groceries from the winner's choice of store or farm, if they completed an online survey.

As the session will be held in the evening over the dinner-hour, refreshments will be provided. The information obtained from these focus groups is highly valuable in informing the development of outreach programs. The development of informed, customized programs can help overcome barriers to sustainable behaviors and promote the protection of water quality region-wide.

With Board support, DWWP staff will host focus groups, structured utilizing CBSM principles, to better understand resident's attitudes and behaviors related to wellhead protection and septic maintenance, and use this information to develop a pilot Rural Water Quality Outreach Program in the Cassidy and South Wellington areas. This program will be monitored to determine its effectiveness. If it is proven effective, this program will move to region-wide implementation in 2014. If it is proven ineffective, the program will be altered to ensure that resources are spent wisely prior to region-wide implementation.

ALTERNATIVES

1. The Board support the Community Based Social Marketing model for the development of the Rural Water Quality Stewardship Program.
2. Provide alternate direction to staff.

FINANCIAL IMPLICATIONS

Board support of alternative one will allow the Rural Water Quality Program to proceed utilizing CBSM principles. There is currently \$1,000 available for this program in the 2012 budget. The funding would be utilized in two, ten-person focus group sessions to cover the cost of incentives and refreshments.

SUSTAINABILITY IMPLICATIONS

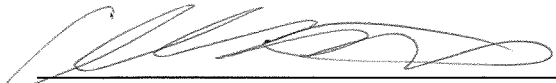
The development of an effective Rural Water Quality Program will support the protection of the source of drinking water in rural areas. Using Community Based Social Marketing principles will assist in tailoring an effective and successful program. The protection of groundwater and surface water quality in rural areas also supports the protection of watershed health and the protection of the source of drinking water supplies for the City of Parksville, District of Lantzville, and Town of Qualicum Beach. By promoting best practices related to rural water quality, the Rural Water Quality Stewardship Program will support the long term protection of our shared water resource.

CONCLUSIONS

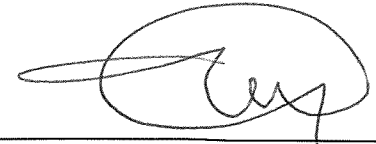
The use of the Community Based Social Marketing approach will enable effective program development as part of the Rural Water Quality Stewardship Program. It is recommended that the Board support this strategy to effectively promote the protection of water resources. If successful the CBSM approach could be considered for other program development initiatives.

RECOMMENDATION

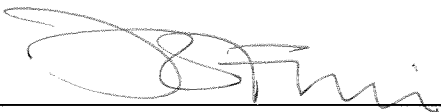
That the Board support the use of the Community Based Social Marketing model for program development to create an effective Rural Water Quality Stewardship Programs in the RDN's rural areas.



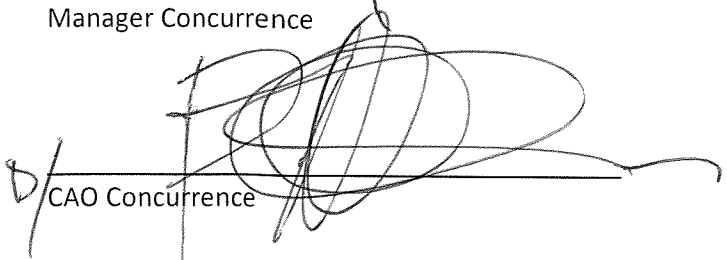
Report Writer



Manager Concurrence



General Manager Concurrence



D/ CAO Concurrence



RDN REPORT	
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MEMORANDUM

TO: Mike Donnelly
Manager of Water Services

DATE: October 2, 2012

FROM: Julie Pisani
Special Projects Assistant

FILE: 5600-07

SUBJECT: Irrigation Industry Association of British Columbia (IIABC) Course Sponsorship, March 2013

PURPOSE

To obtain Board support to partner with the Irrigation Industry Association of British Columbia (IIABC) to promote further education in the field of efficient irrigation practices for commercial installers.

BACKGROUND

The Irrigation Industry Association of BC (IIABC) is an organization that provides a forum for communication and establishment of guidelines, standards and specifications for the design and installation of irrigation systems. They offer certification for installers through courses pertaining to efficient management and use of water in irrigation systems through design, installation, operation and scheduling. These courses include: Certified Irrigation Technician, Certified Irrigation Designer and Certified Irrigation Scheduler, with exams required in each course.

Reducing summer water usage is targeted by many RDN outreach initiatives for residents, such as the Team WaterSmart Irrigation Check-Up Program and the free workshops available for homeowners to learn about their irrigation systems and how to use them wisely. Poor design, installation or scheduling performed by contractors with limited training has led to significant water waste in the region. With trained professional technicians available to provide service in our region, we will see an increase in water efficiency in irrigation system installations.

Education sponsorship is a stated objective in the Innovative Options for Sustainable Water Use report (2008). The report recommends that the RDN “sponsor seminars and lunchtime events to educate landscaping and irrigation professionals about WaterSmart techniques”. While not being implemented at this time, this report also supports the IIABC professional standards by suggesting a “one-time discount on water bills if irrigation systems are designed and installed by an irrigation professional: IIABC Certified Irrigation Designer or Certified Irrigation Technician”.

There are examples of similar partnerships in other jurisdictions. The CRD – Environmental Sustainability Department and the City of Kelowna, partner with the IIABC to sponsor and subsidize courses in their areas. The CRD offers \$135 subsidy for 35 people and provides the venue and catering. The regular cost of the course is \$210 plus \$100 to take the exam. Feedback from CRD staff confirmed that the sponsorship and subsidy is an important way to increase uptake in efficient irrigation education specifically for contractors. They have partnered with the IIABC for several years and continue to do so.

Staff recommend sponsorship of the Certified Irrigation Technician (CIT-1) course that the IIABC is offering in Nanaimo next March. This partnership would illustrate the RDN's support of water efficient practices and would result in better trained irrigation installers.

ALTERNATIVES

1. The Board support an RDN - IIABC partnership in support of the IIABC CIT-1 course offered in Nanaimo, March 2013.
2. Provide alternate direction to staff.

FINANCIAL IMPLICATIONS

There is a proposed budget of \$3,000 in place for this partnership in 2013. These funds will provide subsidies for 25 participants, with \$500 for catering. The IIABC would cover venue expenses and registration.

SUSTAINABILITY IMPLICATIONS


Board support of alternative one will enable more professionals to receive training in efficient irrigation practices which supports the RDN's mandate to encourage water conservation. It will fulfill recommendations provided in the Innovative Options for Sustainable Water Use report (2008) and broaden our outreach and education initiatives to include contractors as well as residents. This will cultivate efficient water use from the system design and installation stage, with regards to outdoor irrigation.

SUMMARY/CONCLUSIONS


Partnership with the IIABC to sponsor and subsidize the Certified Irrigation Technician course will enable the training of irrigation and landscape professionals, to achieve the goal of efficient outdoor water use. It has proven successful in other districts/ municipalities and will benefit our region if implemented.

RECOMMENDATION


That the Board support the Certified Irrigation Technician training partnership with the Irrigation Industry Association of BC to a maximum of \$3,000.



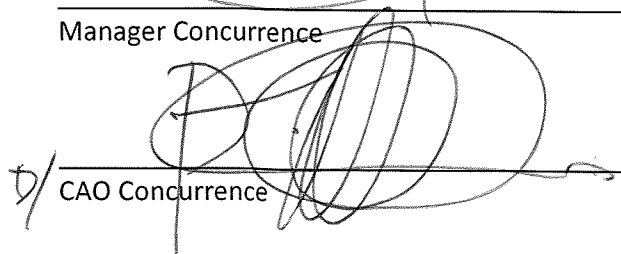
Report Writer



General Manager Concurrence



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