



**MINUTES OF THE EMERGENCY MEETING OF THE
ENGLISHMAN RIVER WATER SERVICE (ERWS) MANAGEMENT BOARD
HELD ON FRIDAY, MARCH 13, 2015 AT 8:30 AM
IN THE PARKSVILLE FORUM**

Present:

Director J. Stanhope, Chair	Regional District of Nanaimo
Director B. Rogers	Regional District of Nanaimo
Director M. Lefebvre	City of Parksville
Counsellor S. Powell	City of Parksville

Also in Attendance:

P. Thorkelsson	Regional District of Nanaimo
R. Alexander	Regional District of Nanaimo
M. Donnelly	Regional District of Nanaimo
G. St. Pierre	Regional District of Nanaimo
F. Manson	City of Parksville
M. Squire	City of Parksville
R. Graves	Recording Secretary

CALL TO ORDER

Chair Stanhope called the meeting to order at 8:30 AM.

DELEGATIONS

MINUTES

MOVED Director Lefebvre, SECONDED Director Rogers, that the minutes from the meeting of the Englishman River Water Services Management Board held November 13, 2014, be adopted.

CARRIED

BUSINESS ARISING FROM THE MINUTES

COMMUNICATIONS/CORRESPONDENCE

Fisheries and Oceans Canada.

Dr. P. Hasselback, Island Health to Trevor Wicks.

MOVED Director Lefebvre, SECONDED Director Rogers, that the correspondence dated February 23, 2015, from Fisheries and Oceans Canada and Dr. P. Hasselback be received.

CARRIED

MOVED Director Lefebvre, SECONDED Director Rogers, that correspondence be sent to Fisheries and Oceans Canada requesting a second look at our grant application.

CARRIED

REPORTS

Fisheries and Oceans Canada.

MOVED Director Lefebvre, SECONDED Director Powell, that the following recommendations be received.

- Receive this report and direct staff to update the project implementation plan.
- Undertake federal and provincial political involvement (MLA, MP) in lobby efforts.
- Direct staff to move forward with the application process with DFO.
- Direct staff resources and budgets towards focusing on a contingency plan to meet current and future water needs until such time as authorization for surface water extraction of the Englishman River is achieved.
- Direct staff to advise Island Health that we will not be in compliance with our Operating Permit.

CARRIED

Funding Update.

MOVED Director Powell, SECONDED Director Lefebvre, that the Funding Update report be received.

CARRIED

Aquifer Storage and Recovery.

MOVED Director Lefebvre, SECONDED Director Rogers that the Aquifer Storage and Recovery report be received.

CARRIED

BUSINESS ARISING FROM DELEGATIONS OR COMMUNICATIONS

NEW BUSINESS

Submission Of Funding Application For The Federal Gas Tax Fund Strategic Priorities Fund.

MOVED Director Powell, SECONDED Director Rogers that the Englishman River Management Board direct staff to make application to the Federal Gas Tax Strategic Priorities Fund (Capital Infrastructure Projects Stream) for a financial contribution toward the cost of construction of the Englishman River Water Service drinking water treatment and intake infrastructure and distribution system.

CARRIED

Updated ERWS Communications Plan.

MOVED Director Lefebvre, SECONDED Director Powell that the updated ERWS Communications Plan be received.

CARRIED

OTHER

QUESTIONS

The Chair opened the floor to questions and comments.

Elaine Hoffer asked if the Parksville town hall meeting will be cancelled and commented that the ERWS website is difficult to locate items and would like to see more links to City of Parksville and RDN site.

Director Lefebvre replied that it won't be on the date planned but will take place in the months ahead.

Al Pastors commented on the DFO letter and the concern of the proposal of the existing intake and the current state of the fishery and questioned if anyone has looked into putting in a smaller pipe.

Mike Squire replied that the issue with DFO is that do not recognizing the original intent of the dam which was to supply water for fish habitat and human consumption. M. Squire commented that a smaller pipe size would not have changed the outcome of the letter received from DFO.

Dwayne Round commented that he lives on the Englishman River in between the current water intake and the new proposed water intake and has noticed since the development of the dam a marked improvement in water levels and fish population. D. Round commented that the City of Parksville have been good stewards of the river and will encourage the Martindale Residents Association to contact DFO and senior levels of government to support the water intake.

Doug Kits questioned if alternative storage of water reservoirs as a secondary Plan B has been addressed and have you considered another reservoir on another part of the river? D. Kits also commented on the lack of snow pack and believes there should be incentives for cisterns so the residents can store water.

Director Stanhope agreed that development within Nanoose and Parksville will have to comply with water supply and the lack of snow fall will impact aquifers not only in coming years but years to follow.

Mike Squire commented that ASR is a small part of the overall project and when we looked at how it's been achieved in other communities it could be a benefit for our community. In regards to looking at the south Englishman River arm for future reservoir and storage, there was an application brought forward by BCCF to AWS approximately 4/5 years ago, for a non-consumptive license if we wanted to go forward as a joint venture.

Trevor Wicks remarked that 20 years ago we realized there was going to be issues with water in this community. In the last 5-10 years there has been \$5-6 million spent on a project that at this point in time seems to have stalled and now looking at contingency plans. On March 24, 2015, T. Wicks will give a presentation about options for water.

Mike Jessen, representing the Arrowsmith Parks and Land Use Council, remarked on EPCOR and Morningstar Golf Course drilling new wells and questioned when there would be a plan for alternate options for the Englishman River situation and where would they money come from?

Paul Thorkelsson replied that the Board has given staff directions to halt work on the ASR project and look at a contingency plans and how to move forward with the treatment plant project. Any recommendations will come to the Board.

IN CAMERA

OTHER

NEXT MEETING

ADJOURNMENT

MOVED Director Lefebvre, SECONDED Director Rogers that the meeting be adjourned.

CARRIED

J. Stanhope, Chairperson



200 – 401 Burrard Street
Vancouver, BC V6C 3S4

FEB 23 2015 2015

Your file Votre référence

Our file Notre référence
14-HPAC- 01184

Mr. Mike Squire
Englishman River Water Service
P.O. Box 1390
Parksville, BC V9P 2H3

Dear Mr. Squire:

Subject: Proposal likely to result in serious harm to fish. DFO authorization required.

The Fisheries Protection Program of Fisheries and Oceans Canada (DFO) received your revised proposal on 12 December 2014. Please refer to the file number and title below:

DFO File No.: **14-HPAC- 01184**

Title: **Englishman River Water Withdrawal Project, Parksville**

Your proposal has been reviewed to determine whether it is likely to result in serious harm to fish, which is prohibited under subsection 35(1) of the *Fisheries Act*.

Our review consisted of:

- Project Notification and Review Application Form, dated 28 October, 2014
- Fisheries Component of Aquatic Effects Assessment of Proposed Bulk Water Supply Intake in Englishman River, prepared by LGL Ltd, dated October, 2014

We understand that you propose to:

- Construct a temporary coffer dam and stream diversion to isolate works from stream flow during construction of an intake weir and intake structure
- Construct a water intake structure on the right (north) bank of Englishman River immediately upstream of the Highway 19 bridge, fitted with 10.5 m wide inclined wedge wire screen with 2.54 mm slots
- Construct a raw water pumping station with a capacity of 28.8 ML/day (0.33 m³/s), which equates to ~20% of the 1.6 m³/s currently required by a Provisional Operating Rule for average year releases from the Arrowsmith reservoir to be delivered to reaches >2 km downstream of the proposed extraction site.
- Withdraw up to 0.33 m³/s (instantaneous) flows for municipal water consumption for up to a maximum average daily withdrawal in July of 24 ML/day (24-hr average of 0.27 m³/s) at current demand.

Based on the above information, DFO has concluded that your proposal is likely to result in serious harm to fish (as follows), which is prohibited under subsection 35(1) of the *Fisheries Act*:

- permanent alteration of fish habitat that supports various salmon and trout life history stages due to the reduction of flow in the Englishman River from instantaneous water withdrawal;

In order to be in compliance with the above legislation you must obtain an authorization from DFO pursuant to paragraph 35(2)(b) of the *Fisheries Act*.

Should you choose to proceed with your proposal, please complete the Application for Authorization under Paragraph 35(2)(b) of the *Fisheries Act* Form (<http://www.dfo-mpo.gc.ca/pnw-ppw/reviews-revues/index-eng.html>).

Please be advised that any unauthorized work, undertaking or activity that results in serious harm to fish that are part of a commercial, recreational or Aboriginal fishery, or supports such a fishery that would result from proceeding with your proposal without first obtaining a *Fisheries Act* authorization could lead to corrective action such as enforcement. It is also your *Duty to Notify* DFO if you have caused, or about to cause, serious harm to fish that are part of or support a commercial, recreational or Aboriginal fishery. Such notifications should be directed to (<http://www.dfo-mpo.gc.ca/pnw-ppw/violation-infraction/index-eng.html>).

If you have any questions, please contact Herb Klassen at our Vancouver office at (604-666-9126), by fax at (604-666-0417), or by email at (Herb.Klassen@dfo-mpo.gc.ca). Please refer to the file number referenced above when corresponding with DFO.

Yours sincerely,



Brad Fanos,
Regional Manager, Fisheries Protection Program

cc. Herb Klassen (DFO)

Excellent care, for everyone,
everywhere, every time.



February 23, 2015
16485

Trevor Wicks
524 Hawthorne Drive
Qualicum Beach, BC V9K 1A5

Dear Mr. Wicks:

Re: Response to Drinking Water Contamination

Since early January, Island Health and others have received correspondence from yourself regarding concerns over potential sources of contamination of drinking water sources. On behalf of many who received this communication I am responding to some of your concerns. Under S 3(1)(b) of the *Drinking Water Protection Act* I am the Drinking Water Officer for water systems in the Central Vancouver Island area.

Your interest in drinking water is commendable. Those involved in ensuring that safe quality water is provided to residents on Vancouver Island welcome the opportunity to be accountable for their work and the increased public attention to ensuring safe drinking water is available.

As you are aware, the BC *Drinking Water Protection Act* came into force in 2003 and since then many water systems have invested in and continue to improve the quality of the water delivered to users. Your communication alludes to your opinion regarding whether operators or regulators carry certain liabilities for their current actions. Such concerns should be brought through the BC legal system and would be readily replied to in that appropriate setting.

Your communications focus on water systems in the Parksville-French Creek area for which there are multiple operators and drinking water systems in operation currently. Depending on the system, the current status and needs are different and such specific inquiries might best be directed to the operator who can communicate with the Environmental Health Officer delegated by myself and acting as the Drinking Water Officer.

Systems are expected to comply with the *Drinking Water Protection Act* and Regulations, and are encouraged to utilize resources such as available from the BC Drinking Water Program website of the Ministry of Health at http://www.health.gov.bc.ca/protect/dw_index.html. There are several documents in respect of water system assessment and source to tap assessment that provide excellent guidance to both operators and regulators.

Medical Health Officer

Located at: 3rd Floor 6475 Metral Drive | Nanaimo, BC V9T 2L9

Tel: 250.739.6304 | Fax: 250.755.3372

viha.ca

The Provincial Health Officer regularly releases reports on the state of drinking water in the province of British Columbia. These can be accessed at <http://www.health.gov.bc.ca/pho/reports/drinkingwater.html>.

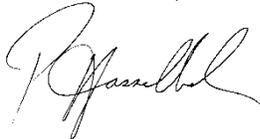
To provide more local reporting on drinking water systems, recently the Island Health Medical Health Officers issued a report on drinking water for Island Health and can be accessed from the Medical Health Officers publications page at <http://www.viha.ca/mho/publications/>.

Both of the above reports provide information on the current state of drinking water systems. You may also wish to review the Ombudsperson's ongoing review of drinking water in BC which can be accessed from her special report page at <https://www.bcombudsperson.ca/resources-and-publications/investigative-reports/special-reports> (*Fit to Drink: Challenges in Providing Safe Drinking Water in British Columbia*).

Through these processes and publications there is ongoing reporting and oversight of progress locally and provincially in striving to ensure that British Columbians in general, and residents of the Parksville-French Creek area locally, have ongoing access to safe drinking water.

My colleagues welcome the public interest in drinking water that you stimulate as it continues to inform users of the challenges and issues faced in providing safe, quality, reliable and affordable drinking water to all British Columbians.

Yours in Health,



Paul Hasselback, MD, MSc, FRCPC
Medical Health Officer

c.c.: Shaun Malakoe, Senior Environmental Health Officer, Island Health
Bill Wrathall, Environmental Health Officer, Island Health
Elizabeth Thomson, Environmental Health Officer, Island Health
Glenn Gibson, Environmental Health Officer, Island Health
Gary Anderson, Regional Drinking Water Coordinator, Island Health
Murray Sexton, Public Health Engineer, Island Health
Mayor Marc Lefebvre, City of Parksville
Fred Mason, Chief Administrative Officer, City of Parksville
Mike Squire, Englishman River Water Service, City of Parksville
Mike Donnelly, Manager, Water and Utility Services, Regional District of Nanaimo
Randy Alexander, Regional and Community Utilities, Regional District of Nanaimo

PH/cl



englishman river
WATER SERVICE

COMMUNICATIONS STRATEGY

Updated March 2015



Englishman River Water Service

Communications Strategy

BACKGROUND AND CONTEXT

ARROWSMITH WATER SERVICE - BACKGROUND

In 1996, the Regional District of Nanaimo, City of Parksville and the Town of Qualicum Beach entered into a joint venture agreement as the Arrowsmith Water Service (AWS) to construct, operate and maintain the Arrowsmith Dam, storage reservoir and associated water supply facilities. The dam provides storage for a water supply system to service Parksville, Qualicum Beach and the RDN water service areas in Nanoose Bay and French Creek.

The AWS water supply is intended to supplement existing supply sources owned and operated by the individual jurisdictions. The AWS is governed by appointed members from Parksville and Qualicum Beach councils and from the RDN board. Voting of the AWS management board follows a weighted vote system rather than a unanimous vote system to better reflect a governance model that is similar to a regional district governance structure. Each jurisdiction has secured the following portion of the total allocated AWS water amount:

City of Parksville	63.9%
Regional District of Nanaimo	22.4%
Town of Qualicum Beach	13.7%

In 2011, the partners renewed a revised AWS joint venture agreement. The agreement now addresses governance and funding of the bulk water service without referencing participation in the next phase of capital infrastructure. This change addresses Qualicum Beach's interest in not wishing to cost share in the water intake, treatment plant and distribution infrastructure at this time.

Currently in the AWS service area, about 85 per cent of all drinking water comes from wells. Well capacity has declined in a number of areas. The Arrowsmith Dam is required to address uncertainty regarding the sustainability of groundwater supplies for present and future needs. The Englishman River water provided by the AWS is intended to supplement groundwater supply and is currently only provided on a seasonal basis.

The original regional water supply strategy envisioned a phased construction approach developed over a thirty-year timeframe in an effort to reduce the financial burden on existing residents, businesses and future development:

- Phase 1 – Water impoundment (construction of Arrowsmith Dam in 1999)
- Phase 2 – Construction of a new water intake
- Phase 3 – Water filtration and treatment

In 2009, Island Health (formerly Vancouver Island Health Authority) imposed new water regulatory treatment standards which accelerated the capital plan to include the construction of a new intake and water treatment plant at the same time. As a result, the Englishman River Water Service was created.

ENGLISHMAN RIVER WATER SERVICE - BACKGROUND

The Englishman River Water Service joint venture agreement parallels and complements the Arrowsmith Water Service joint venture agreement; it has only the City of Parksville and the Regional District of Nanaimo as joint venture participants.

The planned expansion to the drinking water supply will include:

- New water supply intake which will withdraw water from the Englishman River; designed and located to consider the needs of river users and to protect aquatic habitat.
- New water treatment plant to meet Island Health's drinking water quality standards
- Transmission supply mains to homes and businesses
- Aquifer storage and recovery system which will enable seasonal water supply and demand to be balanced and river water extraction to be reduced.

The Englishman River Water Service joint venture agreement describes the infrastructure which will be cost shared by the City of Parksville and the Regional District of Nanaimo and contains language which gives the option for the Town of Qualicum Beach to join the agreement in the future. While the Town of Qualicum Beach would not be a signatory to the Englishman River joint venture agreement, under the AWS Agreement the Town would have the option to "buy in" to this infrastructure at a future date. Qualicum Beach would have the right to do so due to the rights it possesses as a joint venture partner on the AWS water licence for the Englishman River and as joint owner of the Arrowsmith Lake dam and related infrastructure.

Englishman River Water Service joint venture agreement (percentage of interest):

City of Parksville	74%
Regional District of Nanaimo	26%

In November 2014, an application for funding was submitted through the *New Building Canada Fund: Small Communities Fund* for the ERWS regional water intake, treatment plant, transmission supply mains and aquifer storage and recovery. At this time, we have been advised funding announcements will be made in fall 2015.

COMMUNICATIONS OBJECTIVES AND MESSAGES

A communications plan for the Arrowsmith Water Service was developed in April 2011 and a communications plan for the Englishman River Water Service was first developed in September 2013. The purpose of the updated 2015 document and the two previous versions is to define the communications methods and practices required increase understanding of the Englishman River Water Service partnership and the requirement for the planned expansion to the drinking water supply. The planned expansion is required by Island Health and will include:

- New water supply intake on the Englishman River
- New water treatment plant
- Distribution system to homes and businesses
- Aquifer storage and recovery system

This plan outlines communications objectives and key messages, identifies the audience, provides a timeline/work plan and assigns responsibilities. This plan should guide the communications components of the strategy that will create awareness of the Englishman River Water Service and help to inform the residents of the City of Parksville and the Regional District of Nanaimo (Nanose Bay Peninsula).

Engagement with residents is the key to building understanding of the ERWS within the community. Effective communication about the ERWS is critical. We will continue to assume residents' knowledge of the Englishman River Water Service and the Arrowsmith Water Service, history and structure is limited.

COMMUNICATIONS PLAN OBJECTIVES

- Inform and engage the residents of the City of Parksville and the Regional District of Nanaimo (Nanose Bay Peninsula).
- Create an understanding and awareness of the ERWS joint venture partnership agreement, its background, current structure and governance.
- Provide accurate and meaningful information so stakeholders are informed. Information will be distributed to stakeholders in a consistent manner. Process will be based on mutual respect between all participants and the information and process will be transparent.
- Create a culture which encourages and provides opportunities for ERWS partners to work collaboratively.
- Foster two-way communication by providing opportunities for stakeholders to raise concerns and for the ERWS partners to respond.
- Use all appropriate communications channels to reach the target audiences.

KEY MESSAGES

Purpose

- The ERWS exists to ensure an environmentally sensitive use of water to improve fish habitat and domestic water supply. The dam has a positive effect on fish environment. The ERWS consults regularly with federal and provincial fisheries agencies.
- Groundwater is a good, cost-effective source of drinking water for the ERWS partners.
- Aquifer storage and recovery is an important component of ensuring adequate future water supply.
- Island Health policy and guideline changes (BC Drinking Water Protection Act) require the ERWS to undertake this expansion to the drinking water supply system in order to ensure water quality.

Partnership

- The joint venture agreement is a cost-sharing partnership to provide for the infrastructure needed to expand the drinking water supply system.
- Recognition of prudent and responsible decision making by the ERWS partners will ensure a supplemental source of water for the future.

Planning and process

- Expansion of the current water supply infrastructure will include construction of a new water intake on the Englishman River, water treatment plant and water transmission system. This will provide greater reliability and security and respond to increasing water demands.
- The locations for the water treatment plant and new intake facility have been chosen to provide balance between environmental concerns, technical suitability, cost and safety.
- Residential population growth has significant impact on future water supply.
- ERWS is proceeding based on the original phased approach of constructing the new intake in 2016 and phasing in the water treatment filtration when funding assistance becomes available.
- Project design engineering is well-advanced and includes a value engineering process.
- Funding
- We will continue our ongoing efforts to inform and engage the community.

TARGET AUDIENCES

Communications should be directed to two main audience target groups - internal and external stakeholders. The primary audiences are the residents of the City of Parksville and the Regional District of Nanaimo (Nanoose Bay Peninsula).

INTERNAL STAKEHOLDERS

- Council and staff of the City of Parksville
- Board of Directors and staff of the Regional District of Nanaimo.

EXTERNAL STAKEHOLDERS

General public

- Residents/households of Parksville and Regional District of Nanaimo (Nanoose Bay Peninsula) (primary audience)
- Business owners
- Community groups and associations, business related organizations, resident associations, service clubs and others
- Environmental organizations, watershed stewardship groups

Media

- Print - PQB News, Oceanside Star; other community publications
- TV – CTV Vancouver Island, CHEK, Shaw Cable
- Radio – Island Radio (The Beach, The Lounge, Wave, Wolf), CBC, CHLY
- Online publications

Other Levels of Government

- Ministry of Environment
- Department of Fisheries and Oceans
- Island Health
- Ministry of Community, Sport and Cultural Development
- Local MLA's and MP's
- Nanoose First Nation
- School District #69

COMMUNITY WORKING GROUP

This working group was led by CH2M HILL and met five times between December 2013 and May 2014. Membership included invited representatives from community groups from the City of Parksville, the RDN and the Nanoose First Nation. The group also included involvement by students from Ballenas Secondary School. The group provided information to the project team on items of concern, options, and issues to be addressed during the process of design development, in advance of broader public engagement and also included involvement by students from Ballenas Secondary School.

Working group members included Parksville Qualicum Beach Tourism Association, Parksville & District Chamber of Commerce, Parksville Downtown Business Association, Vancouver Island Real Estate Board, Oceanside Women's Business Network, Parksville Residents Association, Craig Bay Residents Association, Fairwinds Community Association, Arrowsmith Agricultural Association, Mid Vancouver Island Habitat Enhancement Society, Northwest Nanoose Residents Association, Island Timberlands, Timberwest and the Ballenas Civic Action Group.

COMMUNICATION METHODS

Communications tools to inform and engage the community have included the following:

Branding

- Materials, website, advertisements, news releases consistently use the ERWS brand and identity.

Backgrounders

- Public information on ERWS background and historical context, including frequently asked questions/answers and fact sheets.

Publications/Materials

- Informational brochures for use at public information sessions, available for distribution at municipal offices. Materials will be made available on the ERWS website (www.englishmanriverwaterservice.ca).
- Educational poster.
- Local government publications and newsletters including RDN *Perspectives*, RDN *Electoral Area Updates*, RDN *WaterNews*, the City of Parksville's *It's Your City* news page, E-newsletter and others.
- Direct mail/letters to residents, unaddressed ad mail.
- Inserts in utility or tax notices.

Other publications

- Opportunity to include information in the newsletters belonging to external organizations such as Chambers of Commerce, environmental organizations, etc.
- Municipal staff newsletters and intranets.

Media

- Ongoing news releases as information becomes available.
- Preparation of media kit and briefings to educate media.
- Press conference with all partners available to provide information and answer questions from the media.

Advertising

- Paid advertisements such as print/newspapers, radio, paid channel listings and TV advertisements.
- Single page newspaper inserts.

Presentations

- Presentations to senior levels of government (DFO, MoE).
- Presentations to municipal councils and RDN board.
- Presentations for stakeholder groups - community groups, service clubs, business organizations, environmental organizations.
- Includes presentations and forums through which stakeholders are able to come to an informed opinion.

Website – www.englishmanriverwaterservice.ca

- ERWS website is used as the main site for information and updates. Website includes background, history, presentations, frequently asked questions/answers and updated links to relevant sites.
- Site also includes management board meeting notices, agendas, minutes and reports.
- Materials are made available on the website as pdf's.
- Links from RDN and Parksville websites are easily accessible.

PlaceSpeak

A location-based online platform provides an opportunity to learn about the project and contribute opinions.

<https://www.placespeak.com/topic/945-englishman-river-water-service-project/>

Public Open Houses

- Ongoing information sessions for the public in both Parksville and Nanoose.

Community Working Group

- This multi-stakeholder group worked directly with the project team to provide input and advice during the design process.

Database

- Develop and maintain a centralized database of contact information for stakeholder groups and organizations in the City of Parksville and the Regional District of Nanaimo. This is used for distribution of news releases, invitations to public presentations and open houses, informational updates, etc.

Consultation

- Ongoing consultation with various provincial ministries, Department of Fisheries and Oceans, Ministry of Environment, Island Health, Nanoose First Nation and Members of the Legislature and Members of Parliament.

IMPLEMENTATION

Communications activities for the initial planning phase started in 2011 and have included such activities as presentations to Parksville Council and RDN board, presentations to community groups and organizations, Public Information Report, ERWS branding, new ERWS website, backgrounder/FAQs, information brochures, public information meetings, community working group, etc. Communications activities are ongoing and costs to implement the communications strategy will be covered through the ERWS budget.

A list of AWS and ERWS communications initiatives to date is attached to this plan.

RESPONSIBILITIES

- The ERWS website will continue to be maintained on behalf of the partners by the RDN and updated by the City of Parksville.
- Mike Squire, AWS/ERWS Program Manager, is responsible for public presentations.