Making a difference...together

REGIONAL WATER SUPPLY COMMISSION
Notice of Meeting on **Wednesday, September 16, 2015 @ 12:30 pm**
Board Room, 6th Floor, 625 Fisgard Street, Victoria, BC

M. Lougher-Goodey (Chair)	G. Orr (Vice-Chair)	G. Baird
C. Coleman	V. Derman	B. Gramigna
F. Haynes	M. Hicks	B. Isitt
R. Kasper	Z. King	G. Logan
J. Loveday	T. Morrison	D. Murdock
J. Rogers	V. Sanders	W. Sifert
L. Szpak	L. Wergeland	G. Young
E. Zhelka		

AGENDA

1. Approval of Agenda

2. Adoption of Minutes of June 16, 2015 1

3. Chair's Remarks

4. Presentations/Delegations

5. Water Advisory Committee (WAC)
   - Verbal Report from the Chair

6. General Manager's Report
   - Water Supply Outlook

7. Summary of Recommendations from Other Water Commissions 4

8. Summary of the 2015 H_2Open House – Celebrating 100 Years of Drinking Water Supply to the Greater Victoria Region (Report #RWSC 2015 - 14) 5

9. Leech Water Supply Area Open House Results (Report #RWSC 2015 - 15) 18

10. Update on Implementation of 2012 Strategic Plan for the Greater Victoria Water Supply System (Report #RWSC 2015 - 16) 54

11. Water Watch 69

12. New Business

13. Adjournment

To ensure a quorum, advise Margaret at 250.474.9606 if you or your alternate cannot attend.

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MINUTES OF A MEETING OF THE REGIONAL WATER SUPPLY COMMISSION
Held Wednesday, June 17, 2015 in the 6th Floor Boardroom, 625 Fisgard Street

PRESENT: **Commissioners**: M. Lougher-Goodey (Chair), Z. King, G. Logan, T. Morrison, G. Baird, M. Hicks, B. Gramigna, G. Orr, E. Zhelka, F. Haynes, S. Brice (for L. Wergeland), D. Murdock, V. Derman, V. Sanders, R. Kasper, C. Coleman, J. Loveday, B. Isitt, G. Young, J. Rogers
Staff: T. Robbins, P. Sparanese, A. Constabel, J. van Niekerk, G. Harris, H. Dale, M. Montague (Recorder)
ABSENT: L. Szpak, W. Sifert

The meeting was called to order at 12:30 pm.

1. **APPROVAL OF THE AGENDA**

MOVED by Commissioner Sanders and **SECONDED** by Commissioner Szpak,
that the Regional Water Supply Commission approve the agenda.

CARRIED

2. ADOPTION OF THE MINUTES OF MAY 20, 2015

MOVED by Commissioner Gramigna and **SECONDED** by Commissioner Derman,
that the Regional Water Supply Commission adopt the minutes of the meeting held May 20, 2015.

CARRIED

3. CHAIR'S REMARKS

The Chair remarked as follows:

- Staff did a wonderful job organizing the H2Open House, and thanks to the members from the Water Advisory Committee and Regional Water Supply Commission that attended.

4. PRESENTATIONS/DELEGATIONS

There were no presentations/delegations.

5. WATER ADVISORY COMMITTEE – VERBAL REPORT FROM THE CHAIR

R. Thompson, Co-Chair, provided a verbal report on the status of the Water Advisory Committee and provided an update on current initiatives.

6. GENERAL MANAGER'S REPORT

- May 28, 2015 Centennial Anniversary Event
  T. Robbins provided an update on the 2015 Centennial Anniversary Event held on May 28, 2015.

- June 20, 2015 H_2Open House
  T. Robbins reminded the Commission members of the H_2Open House public event scheduled at the Field Operations Centre this Saturday, June 20, 2015.

- 2015 Water Supply Outlook
  T. Robbins reported that there are some concerns in other areas on the island and lower mainland. The reservoir is current at 90% of full storage capacity, and there are no concerns regarding CRD water supply at this time.

7. SUMMARY OF RECOMMENDATIONS FROM OTHER WATER COMMISSIONS

MOVED by Commissioner Gramigna and **SECONDED** by Commissioner Rogers,
That the Regional Water Supply Commission receive the staff report for information.

CARRIED

8. POTENTIAL IMPACT OF SOUTH ISLAND AGGREGATES CONTAMINATED SOILS LANDFILL ON GREATER VICTORIA DRINKING WATER – REVIEW OF NEW INFORMATION

MOVED by Commissioner Derman and **SECONDED** by Commissioner Szpak,
That the Regional Water Supply Commission receive the staff report for information.

CARRIED

9. JAPAN GULCH WATER DISINFECTION FACILITY UPGRADE – PROJECT STATUS REPORT

MOVED by Commissioner Coleman and **SECONDED** by Commissioner Derman,
That the Regional Water Supply Commission direct staff to include the replacement of the 36" and 48" bulk water supply meters, identified in the 2016 capital budget for $490,000, into the 2015 Japan Gulch Water Disinfection Facility Upgrade Project RFP.

CARRIED

10. PROPOSED AMENDMENTS TO CRD CROSS CONNECTION CONTROL BYLAW NO. 3516

MOVED by Commissioner Coleman and **SECONDED** by Commissioner Derman,
That the Regional Water Supply Commission receive the report for information and direct staff to prepare a financial submission to the Budget Subcommittee for consideration.

CARRIED

11. SUMMARY OF THE 2015 PUBLIC TOURS OF THE GREATER VICTORIA WATER SUPPLY AREA AND WATER SUPPLY FACILITIES

MOVED by Commissioner Derman and **SECONDED** by Commissioner Rogers,
That the Regional Water Supply Commission receive the staff report for information.

CARRIED

12. GREATER VICTORIA DRINKING WATER QUALITY – 2014 ANNUAL REPORT

MOVED by Commissioner Derman and **SECONDED** by Commissioner Coleman,
That the Regional Water Supply Commission:

1. Receive the Greater Victoria Drinking Water 2014 Annual Report for information and direct staff to forward the report to the CRD Board for information; and
2. That staff be directed to distribute the full annual report to the appropriate agencies and post it on the CRD website.

CARRIED

13. WATER WATCH

MOVED by Commissioner Baird and **SECONDED** by Commissioner Rogers,
That the Regional Water Supply Commission receive the report for information

CARRIED

14. NEW BUSINESS
There was no new business.

15. ADJOURNMENT

MOVED by Commissioner Brice and **SECONDED** by Commissioner Rogers,
That the Regional Water Supply Commission meeting be adjourned at 1:30 pm.

CARRIED

Chair

Secretary

4

SAANICH PENINSULA WATER COMMISSION

SUMMARY OF RECOMMENDATIONS MADE
AT A MEETING HELD JUNE 18, 2015

Full reports can be reviewed at https://www.crd.bc.ca/about/document-library/Documents/committeedocuments/saanichpeninsulawatercommission/20150618

1. Dean Park Upper Reservoir – Remediation Assessment

That the Saanich Peninsula Water Commission direct staff to undertake the Dean Park Upper Reservoir Remediation Assessment, and utilize the Saanich Peninsula Water Service Capital Reserve Fund to fund the assessment and associated assessment work with a budget of $35,000.

CARRIED

2. Replace Permastran Sidney Supply Main – Supply and Delivery of Ductile Iron Pipe and Restrainers

That the Saanich Peninsula Water Commission award the contract for the Supply and Delivery of Ductile Iron Pipe and Restrainers (Tender No. 2015-893) to Corix Water Products for the amount of $302,110.03, including taxes.

CARRIED

3. Water Watch

That the Saanich Peninsula Water Commission receive the report for information.

CARRIED

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REPORT TO THE REGIONAL WATER SUPPLY COMMISSION
MEETING OF SEPTEMBER 16, 2015

SUBJECT **SUMMARY OF THE 2015 H_2OPEN HOUSE – CELEBRATING 100 YEARS OF DRINKING WATER SUPPLY TO THE GREATER VICTORIA REGION**

ISSUE

To provide a summary of the H_2Open House Event celebrating the 100 year anniversary of the Sooke Lake Reservoir and the origins of the Regional Water Supply System held on June 20, 2015.

BACKGROUND

2015 marked the 100 year anniversary of the Sooke Lake Reservoir and the origins of the Regional Water Supply system. CRD Integrated Water Services (IWS) celebrated this milestone with a free, family oriented outdoor event on June 20, 2015. The event was held at the Watershed Field Operations Centre at the Goldstream Entrance to the Water Supply Area from 10am to 4pm. The welcome brochure and map of the event site is shown in Attachment 1. The event offerings were the following:

- Interpretive short (30 or 60 min) bus tours lead by IWS staff to various sites highlighting the history of the water supply system, current operations and infrastructure, forest health and ecology, an opportunity to view the Powerhouse (1897), Humpback Dam and Flowline (1915), and discuss security and protection of the water supply area;
- Educational displays from IWS and Parks & Environmental Services;
- Related educational displays from partners including: Pacific Forestry Centre, BC Power Pioneers, Sooke Region Museum, Charles Tolman “Bringing Water to Victoria”, and the View Royal Archives;
- Hands-on displays and demonstrations of operational activities – water quality, wildfire protection, water infrastructure equipment, and heavy equipment “petting zoo”;
- Kid zone – face painting, colouring, firefighting challenge, field games, wildlife displays, sticker passport; and
- Food trucks and photo booth with commemorative labelling.

Advertising / Communications

As a first time event, the advertising and communication component was identified early on as a key component to the success of the event. Advertising and communications were provided in the following ways. An article from the Goldstream News Gazette promoting the event is included in Attachment 2.

- Newspaper (Times Colonist & Black Press)
- Radio advertisements (Kool FM) and broadcasting from the event on the day
- CRD website, CRD Facebook and Twitter profiles
- Water bills to the western communities
- Facebook advertising
- Posters in recreation centres, libraries, and community poster boards throughout the Region
- Emails to teachers who either went on tours or expressed an interest in the Water Supply tours in 2015
- Emails to District Parent Advisory Committee representatives

- Media release
- Community free event listings
- Postcards handed out on the May water supply tours as well as through Demand Management outreach events since May
- Letter drop to approximately 200 of the residences neighbouring the Watershed Field Operations Centre.

Below are photos from the event booths and tour stops.

Water Quality Booth

Watershed Protection Booth and Event Security

Water Quality and Environmental Services Booth

Tour stop at 1897 Powerhouse

Town of View Royal Archives Booth

Kids fire fighting challenge

Tour stop 1897 Powerhouse

Kids passport program

Water bottle filling station

Results and Feedback

The H2Open House attracted 409 attendees, with 243 pre-registrations (135 adults and 108 children). Of those attending the event, 51 (12 %) filled out a feedback form (a draw prize opportunity was offered to all those who filled out a form). In many cases one person filled out a feedback form for their family or group. The overall response received was that the event was fun, informative and appreciated.

The largest draw was the opportunity to take a 30 or 60 minute bus tour to see and learn about the Water Supply Area and the Regional Water Supply System. Of the offered tours, 325 of 374 seats (87 %) were taken. The variety of activities for kids and also the variety of information provided was also noted.
Suggestions for improvements were varied including: providing tours targeted to children, microphones on the bus, bringing exhibits closer together, more advertising, and providing reusable bags for handouts from the educational booths. The figures below provide a summary of the responses to two of the feedback form questions. Attachment 2 provides a summary of all written comments received.

Staff also provided feedback expressing the enjoyment and value in interacting with the public and with each other across the department. A debrief session with involved staff identified many minor suggestions for how to improve or enhance a similar event in future years.

Figure 1. Feedback Q1– How did you hear about the H2Open House?

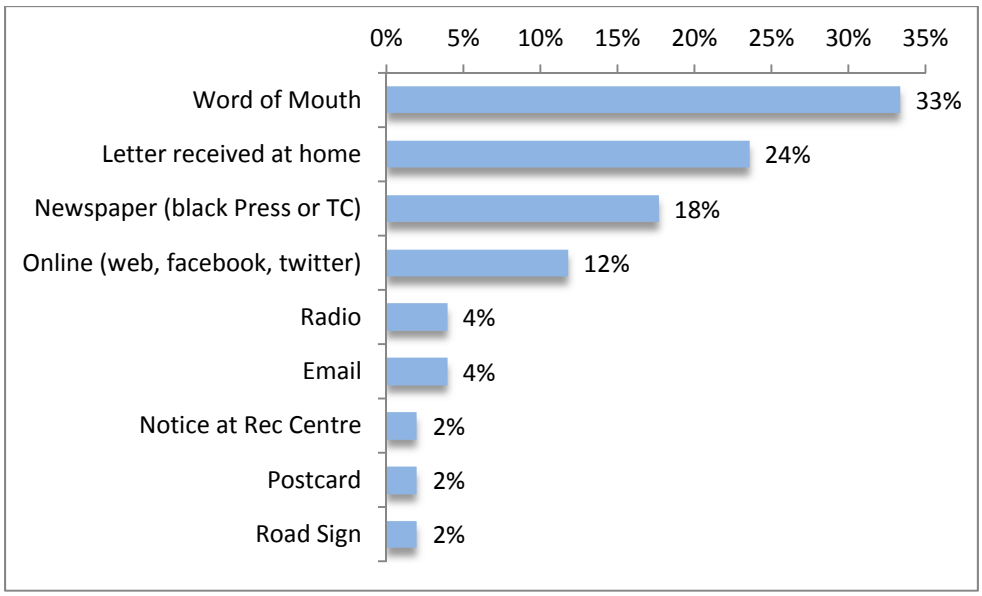
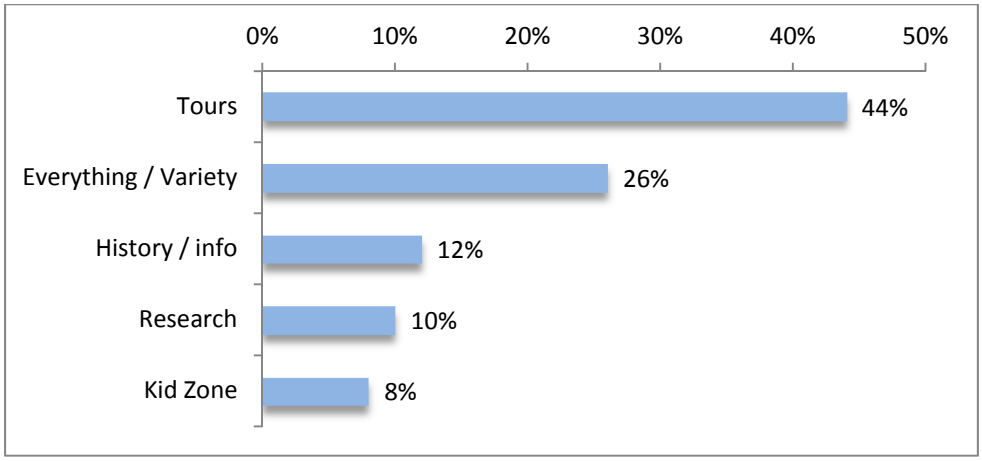


Figure 2. Feedback Q2 – What did you enjoy most at the event?



Cost

The cost of the H2Open House was $29,115 not including department staff wages. The approved $40,000 supplemental operating funds for centennial celebrations was used to pay these costs which included advertising, rental of buses, tents, tables, chairs, sani facilities, disposal bins, educational display materials, event signs, event t-shirts, photo booth, the door prize, and lunch for staff. Staff wages to host the event were funded across the department through existing operating budgets. The remaining funds are being used to pay for the centennial plaque and centennial event at Sooke Lake Reservoir and additional promotional materials.

CONCLUSIONS

The H_2Open House event was successful in providing the public opportunity to celebrate and learn about the history and operation of the Regional Water Supply System and Water Supply Area. The attendance of 409 people and feedback obtained indicate the event was well received and worthwhile to members of the public. Given the positive public reception, similar events could be considered in future. The popularity and interest in tours should be considered in all future public outreach efforts.

RECOMMENDATION

That the Regional Water Supply Commission receive the staff report for information.

Annette Constabel, MSc, RPF, PMP
Senior Manager, Watershed Protection

Ted Robbins, B.Sc., C.Tech.
General Manager, Integrated Water Services
Concurrence

KH:AC:mm

Attachments:
1. Event Feedback
2. Welcome Brochure and Venue Map
3. June 19, 2015 Article from Goldstream News Gazette

Appendix B: Public Feedback

H20pen House Feedback - June 20, 2015				
	Q1: How did you hear about the H20pen House?	**Q2: What did you enjoy the most at the event?**	**Q3: Do you have any suggestions for how we could improve the event?**	**Q4: Any other comments?**
1	-	Everything	None	Staff, friendly, informative. Really enjoyed it.
2	CRD - I emailed them	Bus tour	-	Was fun!
3	Email from Kathy (To teacher?)	Variety. So many great CRD staff to talk to and tour.	Email earlier?	Thank you! Awesome - no garbage! Water station and bottles - super! All ages engaged!
4	Information handed out at the May tours and newspaper.	The tours!	Recommend that people wear shoes for off road walking.	This was a great event! Lots of friendly, informative staff members and a variety of displays. Well done!!
5	Letter received at home	The tours!	-	Very informative and enjoyable. Thank You!
6	Letter received at home	Bus tour, esp. Japan Gulch facility.	More food trucks?	Informative, knowledgeable, personable staff. Thank you.
7	Letter received at home	All of it, it was very informative.	The watershed table.	-
8	Letter received at home	Bus tour.	No, it was great!	Photo booth was fun!!
9	Letter received at home	Never been back there, only around corner. Everything.	No, it was great.	Great opportunity, educational.

	Q1: How did you hear about the H20pen House?	Q2: What did you enjoy the most at the event?	Q3: Do you have any suggestions for how we could improve the event?	Q4: Any other comments?
10	Letter received at home	Tours	-	I would like to see this every year.
11	Letter received at home	Seeing the natural environment and the guides.	-	Thank you!
12	Letter received at home	Scenery, host speakers - very good.	No	Look forward to next year.
13	Letter received at home	60 min tour.	No	-
14	Letter received at home	Tour of reservoirs	No	A very good day!
15	Letter received at home	Watershed research work	Bring exhibits closer together	Expand displays to show how water gets from lake to houses. Include info about municipalities.
16	Letter received at home	Bus tour	No kids under 6 on bus tour. Mic's/bullhorns for tour guides.	Excellent!
17	Newspaper	Info at booth 12, re: Core samples.	Kids bus tour and/or adult tour. It was hard to hear.	Fabulous day. Really liked the kids activity. Thank you - great info.
18	Newspaper	Excellent	Not really - everything covered	Enjoyed all of it. Well organized and most informative. Thank You.
19	Newspaper	History	Liked it all!	-
20	Newspaper - Black press	Bus tour	Microphone for the bus tour.	Thank you.
21	Newspaper - Gazette	Info	-	What about "grey water" when will it be recognized and started. Thanks.

	Q1: How did you hear about the H20pen House?	Q2: What did you enjoy the most at the event?	Q3: Do you have any suggestions for how we could improve the event?	Q4: Any other comments?
22	Newspaper - Gazette	Film/photos. Info.	3D map of where the water came from and at present.	Informative. Thanks.
23	Newspaper - Gazette	Picture exhibits and tour	Put bus tour registration at entrance	Well done. Do it again.
24	Newspaper - Times Colonist	Everything, Carbon print, making bookmark.	Bags for all the handouts!	Excellent work everyone!
25	Notice at Rec Ctr.	Very much	Put tour sign up at beginning	You all do a great job! Made everyone welcome! Well done.
26	On line	Both tours, the reservoir and Japan Gulch.	All is good. Enjoyable.	I hope we do this every year. This was my 1st time and it's incredible.
27	On line	Tour of Japan Gulch and Humpback water reservoir.	It's all very satisfactory.	Does CRD also test the water that is already in the community reservoir? I would like to know.
28	On Line - Facebook	All the kids' activities. The kids had so much fun and learned lots.	The bus tours were a little long wait and longer for kids.	Great Event! Lots of giveaways too! Fantastic.
29	On Line - Facebook	Tours/touch trucks.	Provide reusable bags for leaflets and such.	It was awesome! Joel and Fraser were fantastic with my kids on the 1hr tour!
30	On Line - From my Wife - I believe online	Watershed Management booth.	No, this event far exceeded expectations.	Maybe the creation of a 3D top map for visual representation of entire site.
31	on line - via E-mail and Facebook ad	The variety of displays and activities.	Place the booths closer together.	Very fun day! Great opportunity to engage with the public and to learn about our drinking water.

	Q1: How did you hear about the H20pen House?	Q2: What did you enjoy the most at the event?	Q3: Do you have any suggestions for how we could improve the event?	Q4: Any other comments?
32	Radio	Guided bus tour.	-	-
33	Radio	History and fire hose	More advertising in advance.	Thank you
34	Road signage	Kids activities, free water bottles.	Microphone on bus tour.	Do it again.
35	Word of Mouth	Loved it!	Nope	No
36	Word of Mouth	Learning about water.	Kids prizes.	Great event.
37	Word of Mouth	A number of things, the bus tour and displays. Very informative.	No, you guys and ladies did a great job.	Thank you so much for the open house, well done!
38	Word of Mouth (From CRD Staff)	Tours were awesome.	No, it was fabulous!	Looking forward to do the full tour next May.
39	Word of Mouth (From my Daughter who works for CRD)	The trip to the powerhouse.	No	-
40	Word of Mouth (From my Husband)	Great hands-on activities for children!	Have people at a station at all times.	-
41	Word of Mouth (Jeff Sneek)	Everything - water truck, kids zone, photo booth.	Great job	Let's do it again!! Awesome job
42	Word of mouth (Mom)	Ice Cream	-	-
43	Word of Mouth (My Daughter)	Forestry exhibit.	Put a sign on the highway.	-
44	Word of Mouth (My Husband)	The history	Nope	Thank you!
45	Word of Mouth (My Mother who works here, M. Robertson)	-	More media coverage. More concentrated (seems busier)	-

	Q1: How did you hear about the H20pen House?	**Q2: What did you enjoy the most at the event?**	**Q3: Do you have any suggestions for how we could improve the event?**	**Q4: Any other comments?**
46	Word of Mouth (My Sister)	Tour	More food trucks!	-
47	Word of Mouth (Nathan Prenger)	Understanding how the H_20 makes its way from the reservoir to Saanich.	Live music?	Very informative! Lovely historic photos.
48	Word of Mouth (Nathan Prenger)	Food trucks, baby animals, free water bottles	Live band	Could bring more people. More advertising.
49	Word of Mouth (Sister)	People, tour	No	Great job.
50	Word of Mouth (Through friend)	Learning about the cores taken from the lakes!	Perhaps more advertising.	I had fun and it was really interesting as a whole.
51	Word of Mouth (WAC)	Everything	No	Keep doing it!!

Word of Mouth = Friend, family member, co-worker, etc.

Bus Tours Schedule & Descriptions

Take a bus tour or take all of them! A bus leaves every 15 minutes. There are only 24 seats on each bus. If you'd like to reserve your spot, go to the registration tent.

From Source to Tap

Learn about how Greater Victoria drinking water flows from source to tap in this tour, which takes you to a walkway over the Goldstream River, Japan Gulch Reservoir Dam & Intake Tower, Japan Gulch Treatment Plant and to view other sites along the way. *This tour runs for approximately 60 minutes.*

Leaves at:

10:30 am | 11:15 am | 11:45 am | 12:45 pm
1:30 pm | 2:15 pm | 2:45 pm

History and Natural History

Learn about the history of the Regional Water Supply System in this tour which includes a forest walk and a stop at Humpback Reservoir & Dam. *This tour runs for approximately 60 minutes.*

Leaves at:

11:00 am | 12:15 pm | 2:00 pm

Mini Tour: From Source to Tap - Japan Gulch Reservoir

Curious about how your drinking water gets to your tap? Take this tour to find out. Tour includes a walk across Japan Gulch Reservoir Dam, a pause at the Hatchery and Goldstream Bridge and a stop at Japan Gulch Treatment Plant. *This tour runs for approximately 30 minutes.*

Leaves at:

10:45 am | 12:15 pm | 1:45 pm | 3:15 pm

Mini Tour: History of the GVWSA - Powerhouse

Learn about the history of the Greater Victoria Water Supply Area and visit the first hydroelectric plant built on the Pacific coast in 1898. *This tour runs for approximately 30 minutes.*

Leaves at:

11:30 am | 1:00 pm | 2:30 pm

Guide to Kid's Activities

We have a lot of great activities for kids!

"Fire" Fighting Challenge: Put out forest "fires" when you join this fun challenge involving tree cut-outs and water backpacks!

Truck/Equipment Petting Zoo: Climb aboard and take a picture in a skidder and forest fire truck. There's a lot of equipment, big and small, to see and touch in the petting zoo.

Kid's Sticker Passport: Visit all 6 locations listed in the passport & ask the water question to collect all 6 stickers. Passports available at the welcome desk.

Colouring & Face Painting Tent: Help fill the reservoir by colouring or writing about what CRD water means to you on a water droplet. Complete a water colouring sheet & get your face painted.

SEAPARC Activities: Get active by joining some of the recreational activities put on by SEAPARC Summer Camp Leaders.

Ollie the Otter: Visit Ollie the Otter to learn about watersheds!

CRD Parks Naturalist: Watch a wildlife demo at the Regional Parks Tent

Photo Booth: Keep a memory of the day by having your picture taken in the water-themed photo booth!

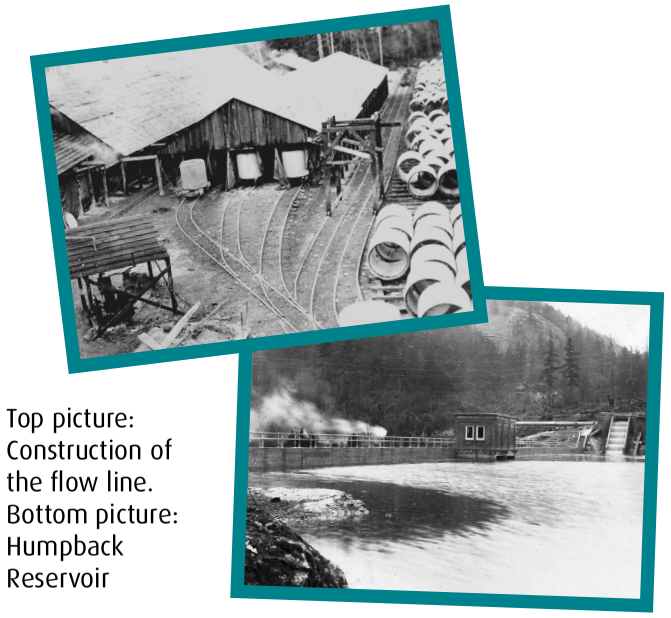
Bus Tours: Sign up for a bus tour to see the water supply area up close. Kids under 12 must be accompanied by an adult.

Historic Film Theatre: Take in a film that shows the history of water supply in Greater Victoria.

About the 100th Anniversary

This year marks the Centennial Anniversary of Sooke Lake Reservoir, the source of Greater Victoria's drinking water supply and the origins of the Regional Water Supply System, which provides a reliable supply of clean and safe drinking water to the residents of our region.

It was 100 years ago that the Sooke Lake Reservoir was commissioned as the new source of Victoria's water supply. From the estimated 35,000 residents in 1915 to the approximately 350,000 people served in Greater Victoria today, the Sooke Lake Reservoir continues to supply almost 100 percent of the water used by area residents. Currently across the region, the CRD treats and delivers an average of 130 million litres of water every day. There are over 20,500 hectares of protected water supply area, 11 dams, 6 reservoirs and more than 110 kilometres of water transmission mains that make up the Regional Water Supply System.



Top picture: Construction of the flow line. Bottom picture: Humpback Reservoir

The Capital Regional District Welcomes You to the:

H2Open House

Celebrating 100 Years of Drinking Water in Greater Victoria

June 20, 2015
10am - 4pm

External Exhibitors

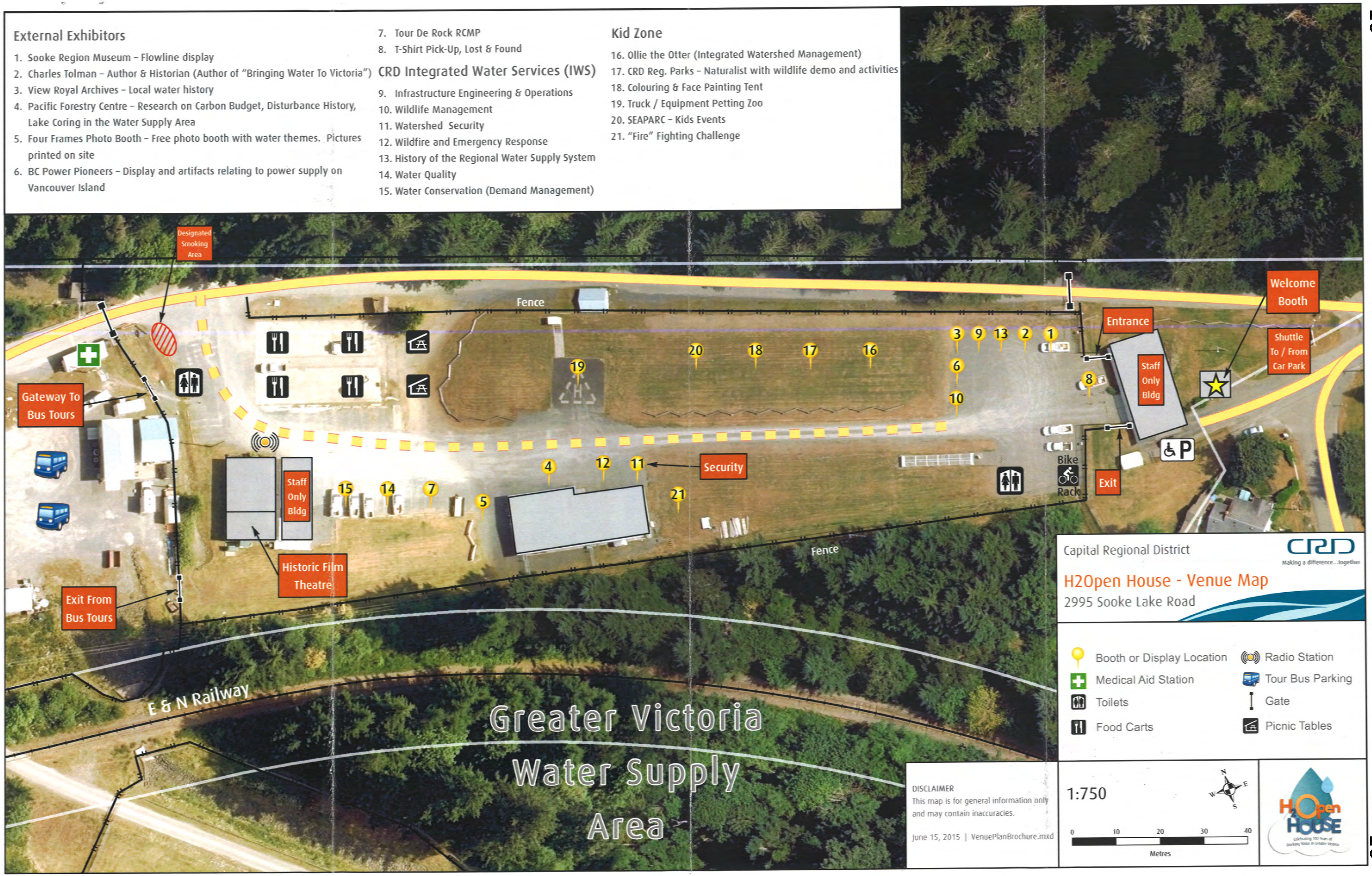
1. Sooke Region Museum – Flowline display
2. Charles Tolman – Author & Historian (Author of "Bringing Water To Victoria")
3. View Royal Archives – Local water history
4. Pacific Forestry Centre – Research on Carbon Budget, Disturbance History, Lake Coring in the Water Supply Area
5. Four Frames Photo Booth – Free photo booth with water themes. Pictures printed on site
6. BC Power Pioneers – Display and artifacts relating to power supply on Vancouver Island
7. Tour De Rock RCMP
8. T-Shirt Pick-Up, Lost & Found

CRD Integrated Water Services (IWS)

9. Infrastructure Engineering & Operations
10. Wildlife Management
11. Watershed Security
12. Wildfire and Emergency Response
13. History of the Regional Water Supply System
14. Water Quality
15. Water Conservation (Demand Management)

Kid Zone

16. Ollie the Otter (Integrated Watershed Management)
17. CRD Reg. Parks – Naturalist with wildlife demo and activities
18. Colouring & Face Painting Tent
19. Truck / Equipment Petting Zoo
20. SEAPARC – Kids Events
21. "Fire" Fighting Challenge



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H2Open House - Venue Map

2995 Sooke Lake Road

- Booth or Display Location
- Medical Aid Station
- Toilets
- Food Carts
- Radio Station
- Tour Bus Parking
- Gate
- Picnic Tables

DISCLAIMER
This map is for general information only and may contain inaccuracies.

June 15, 2015 | VenuePlanBrochure.mxd

1:750

0 10 20 30 40

Metres

16

Courtesy Tolman family

The construction of the Sooke Flowline, which brought fresh drinking water to Greater Victoria, was completed in 1915. Its 100-year anniversary is being celebrated at the H2Open House event tomorrow (June 20) at the CRD Watershed Field Operations Centre, near the Goldstream Park campground.

Event celebrates history of region's 'liquid gold'

Rare tours of Greater Victoria water supply area being offered

Mike Davies
News Gazette staff

This weekend the public is invited to help celebrate history, engineering, regional pride – and water.

"Without a safe, reliable and plentiful water supply, the Victoria area would not have been able to grow from the 35,000 residents of 1915 to the 350,000 residents of today," says Capital Regional District senior manager of watershed protection, Annette Constabel. "This is an opportunity for residents of the region to look back to 1915 and the origins of our current water supply system and celebrate 100 years of safe reliable drinking water."

The event is being dubbed H2Open House and is being held tomorrow (June 20) at the CRD Watershed Field Operations Centre, near the Goldstream Park campground.

The free, all-ages, family-friendly event marks the completion of construction on the Sooke flowline and Sooke Lake Reservoir, which still serves as the source of the region's water supply.

"The development of the water supply system for Greater Victoria had its share of controversies and unique stories," Constabel says, "and the marking of 100 years is a chance to remember that history."

Besides learning about the development of the flow line and reservoir, visitors will be treated to guided tours of the water supply area that are otherwise closed to the public, including walking across the original 1915 Humpback Dam, touring the Japan Gulch water disinfection facility and the Howard English Fish Hatchery, as well as viewing the Japan Gulch reservoir and dam.

"This is an opportunity for residents of the region to look back to 1915 and the origins of our current water supply system and celebrate 100 years of safe reliable drinking water."

– Annette Constabel

There will also be a "Kids Zone," where children can participate in a firefighting challenge and see different types of firefighting equipment, learn about the watershed from CRD naturalists, have their faces painted and do crafts.

Food vendors will also be on site, as will displays from the Sooke Region Museum, Town of View Royal Archives, B.C. Hydro's Power Pioneers and the Pacific Forestry Centre.

Those who register in advance will receive a free kid's T-shirt while quantities last, but the event is open to the public to simply show up, as well.

The operations centre is at 2995 Sooke Lake Rd.

For more information, or to register, head over to crd.bc.ca/open-house.

mdavies@goldstreamgazette.com

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Agenda Item 9
REPORT #RWSC 2015 - 15

REPORT TO REGIONAL WATER SUPPLY COMMISSION
MEETING OF WEDNESDAY, SEPTEMBER 16, 2015

SUBJECT **LEECH WATER SUPPLY AREA OPEN HOUSE RESULTS**

ISSUE

To report on the results of the Leech Water Supply Area Open Houses.

BACKGROUND

In February of 2015, staff presented a report titled "Leech Water Supply Area Open House" to the Regional Water Supply Commission (RWSC), which directed staff to hold public open houses to explain the need to extend the Greater Victoria Water Supply Area (GVWSA) Protection bylaw to the Leech Water Supply Area and collect public comment on the issue for Regional Water Supply Commission consideration, and report back to the Regional Water Supply Commission (RWSC 2015-03). The content of the final information boards used in the Open Houses is provided in Attachment 1.

Advertising

Advertising was conducted as planned with two ads in each of the Black Press papers (Saanich News, Victoria News, Oak Bay News, Goldstream News Gazette, Peninsula Daily News and Sooke News Mirror), three ads in the Times Colonist, two ads in Cowichan Valley Citizen paper, posters distributed in Shawnigan Lake, social media advertising through Facebook, promotion on the CRD website, CRD Facebook page and CRD Twitter profile.

Media Coverage

Attachment 2 contains a summary of media commentary and coverage of the issues and Leech Open House events. Media coverage provided a balanced account of the reasons to close the Leech Water Supply area to unauthorized access (risks to water quality, possibility of wildfire, and activities that threaten efforts to rehabilitate the lands) while also discussing the arguments of some residents for access to recreate in the area.

Costs

Direct costs for holding the Open Houses were $8,500 compared with a planned budget of $9,000. Costs did not include staff time to prepare and attend the events and transcribe comments. All costs were paid through Watershed Protection operational funding.

Item	Cost
Display Boards	$ 1,895
Advertising	$ 4,950
Venue Rental	$ 1,031
Tea & Coffee Service	$ 625
Total	**$ 8,501**

Open House Locations and Attendance

The Open Houses were held at the following dates and locations with attendance and number of written comments received as shown below:

Location:	**Date: 4 – 8 pm each day**	**Number of Public Signed In:**	**Number of Written Comments Received:**
Westshore: Juan de Fuca Rec Centre	Tuesday April 14	15	4
Juan de Fuca Electoral Area: Planning Office	Thursday April 16	12	6
Sooke: Edward Milne School	Tuesday April 21	14	9
Saanich: Greek Society Community Hall	Wednesday April 22	23	11
Shawnigan Lake: Community Centre	Thursday April 23	28	5
Website/Email/Letter			12
Total		**92**	**47**

A total of 92 members of the public signed in at the Open House events. It should be noted that a few people (less than 10) chose not to sign in. This level of public attendance was less than expected. This may be due to a number of factors including: advertising, locations and/or times to attend, less than expected interest in the issue(s).

While staff are unable to conclude the cause for low attendance, public comment made to staff in writing and verbally did not indicate lack of advertising as a reason, nor location. One verbal comment was received that the Open House locations were biased toward the outlying municipalities rather than providing opportunities relative to per capita population. The most likely remaining cause appeared to be less than expected interest in the issue of public closure of the Leech Water Supply Area.

Public Feedback

The majority of comments (35) were received at the Open Houses, representing the views of approximately 38% of those attending. A further 10 written comments were received via the website, 1 by email and 1 delivered to CRD offices. Given the low level of response, the results cannot be considered to be representative of the larger population of the CRD, but may give an indication of the scope of views.

Attachment 3 contains the transcriptions of all written responses received. Responses have been categorized into best fit with the following themes:

Theme	Number of Comments Received
Support restricting unauthorized access with a preference for allowing authorized recreation	18
Support restricting unauthorized access with no reference to authorized recreation	13
Other comments – neither for nor against restricting unauthorized access	11
Against restricting unauthorized access	5
Total	**47**

The written responses indicate 86% (31 out of 36) in favour of restricting unauthorized access to the Leech and 14% (5) against. Of those in favour, a majority (58%) prefer a form of authorized recreational access as part of the overall access restriction. It is interesting to note, that the 5 written comments received against restriction of public access to the Leech were all received through the CRD website and not at one of the Open Houses.

In terms of the variety of suggestions regarding authorized recreation and access, a few themes can be identified in the written comments. Text between each semi-colon represents a verbatim or paraphrased comment received:

Theme: *Value of public access*

- "tours, training, demonstration, part of eco-tours to know what has been done to area (historic mistakes) and what can be done to improve usability";
- "access to the old logging roads for local people and to develop tourism – needs long term planning with Timberwest and CRD";
- "I just hope there might be some future consideration for outdoor recreation. Specifically access to one of the last lakes available, Weeks lake;
- "important that a degree of access is available for the public to enjoy these lands";
- "would like to see GVWSA and CRD Parks coordinated approach to land use – removes a huge recreation area from the CRD without replacement with CRD Parkland - no benefit to JDFEA residents - how much more public land can a community continue to lose access to?";
- "individuals who enjoy hiking should not be discriminated against and denied access if they are not part of a permitted group";
- "[closure] is discriminatory, as certain groups will still be allowed access i.e. claim holders, First Nations";
- "if people cannot get into the back country to see the beauty of old growth and see nature instead of shopping centre they will not care about it";
- "as a member of a small informal hiking group, I would like to ensure that some way may be found to retain access to the area";
- "it is also important that a degree of safe access is available for the public to enjoy all these lands"

Theme: *Value of access control*

- "controlled access to reduce garbage dumping, tree cutting and general vandalism";
- "controlled public access. It worked in the past – recreational fishing, gold panning, etc";
- "access should most definitely be restricted to approved visitors".

Theme: *Restrict by location or by season*
- "restrict only a portion of the Leech";
- "complete restriction during forest fire season";
- "close the watershed during periods of high fire risk";
- "do not want the whole Leech Water Supply Area shut down to the public";

Theme: *Authorized access for certain activities*
- "there should be a process for groups and individuals to obtain authorization for permissible activities (hiking, fishing, not motorized access)";
- "camping possibly with very strict guidelines and monitoring";
- "would like to see permitting for mushroom picking and placer mining";
- "consider options to allow non-motorized public use like municipalities all over North America";
- "there has to be a way to open the area to legitimate people for recreation"

Theme: *Authorized access for certain groups*
- "if controlled access could be granted to Jarvis and Weeks Lake for members of clubs that carry 3rd party insurance - surely that's reasonable and achievable";
- "open only to groups who are covered by insurance - policed by their own club and liable for their members";

Theme: Method of controlling access
- "perhaps a $5 entry fee to hire a gate guard on weekends of hunting season;
- "certain access points could have a gatekeeper, only open certain days and well monitored, must check in and out"

Theme: *Recreational users can help reduce unwanted activities*
- "more people accessing will cut back on vandalism";
- "responsible outdoor enthusiasts accessing the Leech WSA could act as stewards of the resource";
- "controlled regular access will be self-patrolling area - regular users will watch that others do not ruin area";
- "perhaps having ATV people as "stewards" would leash some of the rowdy element";

CONCLUSION

Public open houses held to inform and gauge public interest and opinion regarding the management of the Leech Water Supply Area and the necessity for updating the Greater Victoria Water Supply Protection Bylaw to restrict unauthorized access were well received and, despite less than expected attendance, provided a range of feedback on the issues and information presented. This feedback is intended to inform the Regional Water Supply Commission in preparation of considering the extension of the GVWSA Protection Bylaw to the Leech Water Supply Area at an upcoming meeting.

RECOMMENDATION

That the Regional Water Supply Commission receive the staff report for information.

Annette Constabel, MSc, RPF, PMP
Senior Manager, Watershed Protection

Ted Robbins, BSc, CTech
General Manager, Integrated Water Services
Concurrence

AC:mm:hd

Attachments:
1. Public Feedback Summary
2. Open House Information Boards
3. Summary of Media Commentary and Coverage

Attachment 1: Public Feedback Summary

Location: Colwood
Date: April 14/2015

Number of Attendees: 15

How did you hear about open house?	Count
Newspaper	11
Facebook	2
CTV News	1
No response	1

Post-It Comments:

1. I love hunting.

Comment Forms:

1. I agree completely with the initiative. With the onset of global warming, water security is of paramount importance. Bill Brown, Victoria

2. Please consider options to allow non-motorized public use, like municipalities all over North America. Thanks.

3. I am a hunter and have hunted on Lazar(sp?) for 50 years and Jarvis lake area. I am not pleased with closing a large area to hunters for something that is not needed for 50 years. There has to be a way to open the area to legitimate people for recreation. Perhaps a $5.00 entry fee to hire a gate guard on weekends of hunting season.

4. 1. Are there any plans to use volunteers to remove invasive species, such as done at Mill Hill Park, Fort Rodd Hill, etc.
   2. Planning for encouraging water conservation seems to be working, hopefully possible climate change with increased drought events is factored in as well.
   3. I hope non-catchment lands east of Sooke Lake basin is opened soon for trans-Canada trail completion. Thank you and good luck.

Location: Sooke
Date: April 16/2015

Number of Attendees: 12

How did you hear about open house?	Count
Newspaper	4
ODSRRA	2
Word of mouth	2
CRD notification	1
Email forwarded to me	1
JDF Water & Regional Supply	1
VIPMA member	1

Post-It Comments:

Comment Forms:

1. Educating the public on any issue takes considerable time and resources (money). Protecting LWSA is overdue and needs more stringent protection. This is especially needed in Goldstream and Sooke Supply areas. Bylaw officers are especially needed all year round to prevent contamination and human intrusion (vandalism). The CRD directors are as parochial as all other regional district directors on Vancouver Island. All RD directors need to liaison to educate all residents to Vancouver Island, plus visitors. The general population of Van Isle need to be fully aware of our most precious resources, water and air.

2. 1. Good poster boards with lots of info using a logical flow. Climate change and its effects on water supply is a big issue. When would you expect the Leech Water Supply to come into service, given current population growth trends and predictions.
   2. What are some of the climate change adaptation strategies the CRD is currently implementing? - How will the issue of authorized access to the watershed lands be addressed with respect to crossing private lands (eg. Timberwest and Insurance requirements)?
   3. How is CRD dealing with the larger issue of illegal dumping in Otter Point and Shirley.

3. 1. Options for access to area. Certain access points could have a gate keeper, only open certain days and well monitored. Must register at gate and check out.
   2. Open only to groups who are covered by insurance. The groups would be policed by their own club and liable for their members. – Louise Peterson, Chairperson, JDFEA Community Parks

4. Thanks for coming to display. As I'd really like to have some access to the Leech River Bear Creek fault or the old logging roads for the local people to develop tourism. Needs long term planning in TW & CRD but tourism is economic activity, yes? So TW could make $ off it maybe. Perhaps having ATV people as 'stewards' would leash some of the rowdy element?

5. 1. Would like to see the G.V.W.S.A. coordinated with CRD Parks to see a coordinated approach to land use.
   2. The inclusion of the Leech remains a huge ___ over from the CRD without replacement with CRD parkland.
   3. The need to increase & protect the CV water supply is understandable/necessary but all the benefit goes to the water users on the Commissioner's water systems the local residents of the JDFEA ____ of Sooke who are not a CV water don't get any benefit.
   4. Almost 10% (?) of Otter Point is provincial crown land. There will now go to First Nation treaty settlement. How much more 'public' land can a community continue to lose access to?

6. There should be a readily available process for groups and individuals to obtain authorization to access the Leech Water Supply Area of permissible activities (hiking, fishing…)
   - Agree with no motorized access.
   - Camping possibly with very strict guidelines and monitoring.

Location: Sooke – Edward Milne School
Date: April 21, 2015

Number of Attendees: 14

How did you hear about open house?	Count
Word of Mouth	3
Edward Milne School	3
Fishing Club 'WCFFA'	2
Newspaper	2
No response	2
Sooke District	1
VIPMA	1

Post-It Comments:

Comment Forms:

1. The greatest asset the people of the CRD own are Leech, Sooke and Goldstream watersheds. Please keep people out. Recognize the research potential.

2. I fully support No Access to the Leech Watershed. Allowing organized groups to go will only raise expectations for more and more access in the future and will be difficult to discontinue. The Leech watershed is a great place to scientifically determine the regrowth of a forest amidst climate change. There should be ZERO road development and ZERO infrastructure development in the area to ensure proper scientific analysis.

3. Thank you – it was a very informative presentation and I had all my questions answered. I believe in protecting our watershed.

4. It looks like a very good plan. Planning for the future is essential for conserving and ensuring water for our future. You've got my vote √ Good job CRD!

5. I would like access – more people accessing will cut back on vandalism.

6. How can you prevent lightning strikes? Pass a by-law?!

7. Extend Galloping trail from Leechtown to Sooke Wilderness Park along Kapoor main to Humpback Recreation with Leech River area!

8. This land should be left for the wildlife and ecosystem restoration. No access should be allowed. The area should be left to naturally develop into an old growth forest without any roads or buildings. Research can be done with UVIC on the regeneration of the forest without human usage and access.

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9. Let the land return to wilderness and access will be natural trails and waterways. No paved roads or parking lots. No housing, let the land evolve back into its natural state. No roads or development of any kind.

Location: Saanich
Date: April 22/2015

Number of Attendees: 23

How did you hear about open house?	Count
Newspaper	9
Word of mouth	4
Email through WestCoast Fly Fishing Association	3
Website	2
No response	2
Advertising	1
Facebook	1
News	1

Post-It Comments:

- Thank you
- Super display boards on the Leech
- Extremely informative! Appreciate the pro-active management of our water supply.

Comment Forms:

1. Back in the 1900's it was a wise and courageous move to protect the area for future drinking water use. We're getting the dividends now. Let the tradition continue. Carry on the good forward thinking _____. My regard to those who continue to abuse the rules and ____ for future security should be fined heavily and all of what they leave brought into the property should be forfeited to the Crown. No good terms but make penalties meaningful enough that one will not risk the chance of being caught. No gentle warning. Keep up the good work.

2. As the watershed is not required immediately, it would be a great opportunity to allow controlled access; tours, training, demonstrations, part of eco-tours to know what has been done in area (historic mistakes) and what can be done to improve usability. Controlled regular access will be self-patrolling area; regular users will watch that others do not ruin area.

3. As a member of a small informal hiking group, I would like to ensure that some way may be found to retain access to the area.

4. Mike Simpson – Do not want the whole Leech water supply area shut down to the public as they are now. Without some access nobody will care. Not anybody wants to dump their garbage, steal and burn stolen cars. If people cannot get into the back country to see the beauty of old growth and see nature instead of shopping centre they will not care about it.

5. A secure water supply area is critical to south island residents. As a fly fisherman and outdoorsman I cherish our wilderness areas for their wild values. If controlled access could be granted to Jaruls and Weeks Lake for members of clubs that carry 3rd party insurance, surely that's reasonable and achievable. Responsible outdoor enthusiasts accessing the Leech WSA could act as stewards of the resource. Thanks for listening, Brian, Westcoast Flyfishers, Sooke, BC.

6. Thank you for the information! Overall very supportive of this initiative as long as access to west Jordan and Jordan main are not lost. West Jordan Main – Near West & South. Jordan Main – Boundary of Leech Watershed.

7. It would be nice to have a key that will work on all gates. If there was a fire, for instance, one could be cut off any access. Also in case of emergency, we know how to get to each others claim, and can get right to it in some circumstances, where GPS coordinates don't indicate direct access.

8. It was very gratifying to see the comments and concerns of Water Advisory Committee members incorporated into the communication materials. Excellent job carefully wording this information! Rebecca Mersereau, Chair, WAC.

9. Access to the Leech Watershed should most definitely be restricted to approved visitors.

10. A great presentation. I think it makes sense to limit public access to this area although clearly a minority of people will be upset. The CRD has shown leadership by purchasing and protecting these lands.

11. All good reminders of how precious our resources are.
    - I represent a significant amount of time spent working placer mining claims in the Leech town area.
    - I currently hold 3 continuous placer mining claims that I've been prospecting for gold on. It is my hope to be able to pass on my interests to my grandsons. My son is a partner in my ventures.
    - I have always held a good relationship with the forestry companies holding the timber rights in the area. Now I hope to continue the same relationship with the CRD.
    - I support the Sooke Museum by selling any gold found on my claims through them. There is a lot of history in this watershed. - R. Walton

Location: Shawnigan
Date: April 23, 2015

Number of Attendees: 28

How did you hear about open house?	Count
Newspaper	15
Media	3
Facebook	3
Word of mouth	2
No response	2
Letter	1
WAC	1
Website	1

Post-It Comments:

Comment Forms:

1. Although I would not support complete access restriction to Leech WSA, it would be necessary during forest fire season no question! Further, individuals who enjoy hiking here should not be discriminated against and denied access if they are not part of a permitted group. -The CRD Water authority should be much more vocal in public sense concerning the potential for polluting seepage from the afflicted Stebbings Rd aquifier.

2. Nice to see the CRD Water Svcs looking after the CRD water resource. Shawnigan residents look forward to being included when our water is degraded past consumption quality due to negative impacts on our watershed. Lets hop the SIA proposal doesn't also affect the Sooke Basin in the future.

3. Controlled public access. It worked in the past. Recreational fishing, gold panning etc. Weeks Lake was stocked with trough (public money).

4. Would like to see permitting for the mushroom picking livelihood. There is a permitting system in place in both California, Oregon & Washington states.
   - Also, permit and access for the purpose of placer mining. - Chuck Farrar

5. We hope the CRD will support the CVRD position against the SIA dump.

Feedback Received Outside of the Open Houses

Received by Letter

1. VIPMA members with valid claims should have a special relationship with CRD within the Leech watershed. VIPMA members are an important user group in this area. There should be a partnership in trust and responsibility with regard to access and use of mining claims in the Leech watershed.

   Further effort is needed to accommodate miners with special access issues such as active claims located several miles beyond the closest vehicle access. Some of these claims require several hours of walking each way from the closest road.

   For safety reasons alone it would be a tremendous asset for these few affected miners to be able to access these far away claims with a fully licenced and insured quad on an existing grade which is not usable for a pickup truck. The area in question is several miles north of Worley Lake and access is required during fall, winter and spring seasons.

   VIPMA members with active claims within the CRD Leech River watershed are a legitimate user group appreciative of the privilege of access across CRD lands to work on their claims and a resolution to the above issue would further the good relationship between VIPMA member and CRD.
   Greg Scott, Sooke, BC

Received through the CRD Website:

2. I am alarmed to discover that the CRD is poised to restrict access to the Leech River area.

   Victoria is surrounded by water and there are very limited options close to the city. Lands to the immediate north are either already within the active community water supply area and not accessible or, unlike most of our province, are within the enormous E&N land grant and privately owned.

   We are a growing urban centre and would benefit from a greater range of terrestrial recreation opportunities, not diminishing options. The Leech River area offers interesting landscapes with river and lake features that give it high recreation values.

   Of course, like any wilderness area, proper measures should be taken to prevent irresponsible behaviour and control practices that are detrimental to watershed health. However, this does not mean that it is necessary to exclude all access or put such restrictive measures on access that it is effectively not available for recreation.

   Appropriate recreation use is highly unlikely to preclude the forest from regenerating, as the CRD manager seems to suggest. In fact, if properly managed, recreation use could contribute to watershed monitoring and rehabilitation efforts of net benefit to watershed health.

   It is clear that it would be easiest for the CRD to simply exclude all access. What simpler solution that to lock the gate, put up cameras and not have to manage any users at all?

But the CRD should not be allowed to do so. On the contrary, they should be making efforts to optimize a range of watershed values including recreation. There are management options and best practices for successful mixed use.

What makes this action particularly unreasonable is that this area is not inside the active community water supply area and will likely not be used as a source of drinking water for several decades, if at all!

I urge you to consider a more balanced plan than the direction the CRD appears to be going.

3. The effect of CRD policy across parks and water related backcountry areas is progressive closure of access to motorized vehicles.

   This is in direct conflict with statements in the Rural Resource Lands OCP and other planning documents supporting motorized backcountry access in the rural resource lands area.

   Could you please show where in the CRD there is a single instance of an actual route that has been officially designated by CRD planning for motorized public access (ATV in particular) to any backcountry destination?

   How does the CRD reconcile its position in regards to access to Weeks Lake with the fact that the Bear Creek trail system established in the Lambly Creek community watershed, near Kelowna, BC has demonstrated that a managed approach to access results in net harm reduction when compared to a "no access" policy in the same area?

   From the report: "The collaborative approach applied to this recreation site demonstrates that managed motorized recreation can be compatible with the protection of drinking water quality."
   https://www.bcfpb.ca/sites/default/files/reports/SIR40-Community-Watersheds-From-Objectives-to-Results-on-the-Ground.pdf

   Regards,
   Terrance Martin
   Executive Director
   South Island Recreation Association

4. I wholeheartedly disagree with the closure of the Leech water area. The CRD needs to consider off highway vehicle recreation as a valid form of outdoor enjoyment. Limiting access to lands like the Leech water supply, or the Sooke Hills accessed by Harbourview road denies new generations the enjoyment and understanding of the backcountry. The safety of the water is not threatened by light vehicle traffic; many other communities allow access to their water supply lands without incident.

5. Please do not close this area to recreation. Open the gates. Can't believe you guys have been scaring people away from there with gates and "warnings" but have no legal basis to do so. One day someone powerful enough will stick up for the little guys and put the CRD in its place. PROVE we need the water. Then talk about closure. Not the other way around.

6. We need to be able to access portions of the water supply area like they do in Nanaimo. There has to be a way to accomplish this while keeping both parties satisfied.

7. Comments... Hard to Sum it up with comments. I feel robbed of the outdoor recreation possibilities that were available in my youth... im 28. An avid fisherman and forest enjoyer. I love this wonderful little island and just wish that there was more plans for shared access in the future. I understand the many difficulties in doing so. Only takes a few bad apples to sour it for all... I just hope there might be some future consideration for outdoor recreation. Specifically access to one of the last lakes available, weeks lake. I would love to take my kids for a humble through the Bush to such a place one day!

8. While proper management and protection of water sources is vital, it is also important that a degree of safe access is available for them public to enjoy all these lands.

9. Re: Management of Leech Water Supply Area

    1. MINING: Which mining companies have valid tenures in the Leech Water Supply Area? What historical evidence is there of acid drainage and or any other chemicals leeching into the watershed? What are the current levels of contaminants from mining? What would be released should there be disturbances in mined areas? How would it ever be possible for mining operations to resume, given all of the precautionary priorities mentioned in this presentation?

       Will the CRD request that the Provincial Government expropriate these tenures?

    2. TOXIC DUMPING 4.5 KM NORTH: Now that the Shawnigan Ratepayers have lost their legal appeal concerning the dumping of toxic waste, what legal action can the CRD take to prevent future contamination which seems inevitable?

       Given that within the watershed, fertilizers and pesticides are generally prohibited, given that every effort is being made to avoid spills of toxic or hazardous substances, given that dumping is prohibited, and given that keeping contaminants away from watercourses and watershed are all stated priorities, how can a toxic dump so close to our watershed be tolerated?

       Is there any process in the primary/secondary disinfection processes which would protect users of the CRD watersheds from future drainage leaks from the toxic dumping taking place in the Shawnigan area?

    3. LIMITS TO GROWTH: I appreciate the acknowledgment of Climate Change and think that Saanich and other municipalities are making efforts to plan ahead. Have there been any calculations on the limits to growth/development that can take place in the areas supplied by the watershed?

    4. LOGGING: I applaud the sensible efforts to maintain forest cover and prevent wildfires. I would like more information on the “fuel reduction opportunities and options" as well as the efforts to create "adequate healthy reforestation".

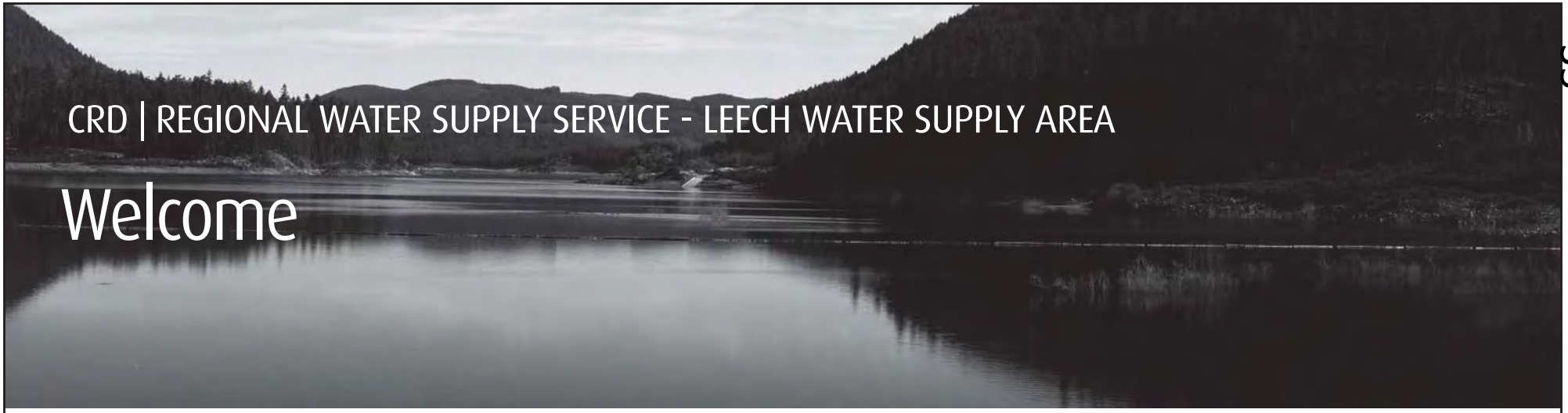
10. I am opposed to the closing of the Leech water supply area at this time for the following reasons:
    (1) I believe closing is premature, the water is not needed for at least 50 years.
    (2) The CRD has restricted access to a large area of the sea to sea greenbelt and the removal of more land from public access is unreasonable.
    (3) it is discriminatory, as certain groups will still be allowed access, ie claim holders, first nations.

(4) The risk of wildfires, which seems to be a major concern, can be handled by closing the watershed during periods of high fire risk. This is done at present by the BC forest Service.

I do however support controlled access into the watershed as a means of reducing such activities as garbage dumping, tree cutting and general vandalism.

11. Clean water is a very rare and precious resource. This is even more true today than it was yesterday, and it will be more true tomorrow. Libertarian freedoms must be sacrificed if we are to protect what few sources we have.

12. On the May 6, 2015 Water Tour, Rob Walker and I talked about the protection bylaw. He said I should send you my opinions. I am a retired chief forester for Pacific Logging Ltd. and practiced forest land management for 38 years. Forest access on privately owned and public lands has always been a contentious issue. But in a watershed the risks associated with fire, land disturbance from motor bikes and ATVs, destruction of equipment and capital assets, deposit of garbage, cutting of trees, theft and just plain carelessness and thoughtfulness are most critical. The thoughtless few ruin it for others. My experience says such risks are real and my opinion is just simply secure and manage the lands for water production. It's land dedicated for one use or purpose not many or multiple uses. I also observe that though being secured for water management purposes the reserve also serves as a plant gene pool reservoir in a highly industrialized area. Further CRD is very rich in dedicated park lands.



CRD | REGIONAL WATER SUPPLY SERVICE - LEECH WATER SUPPLY AREA

Welcome

Management of the Leech Water Supply Area of the Greater Victoria Water Supply Service

Public Open House

Welcome

"Water is the most critical resource issue of our lifetime and our children's lifetime. The health of our waters is the principal measure of how we live on the land."

- Luna Leopold

CRD | REGIONAL WATER SUPPLY SERVICE - LEECH WATER SUPPLY AREA

What is the Purpose of This Open House?

We want to:

- Provide information on the current situation in the Leech Water Supply Area (WSA)

- Explain the necessity for updating the Greater Victoria WSA Protection Bylaw to restrict unauthorized access to the Leech WSA

- Provide information on the restoration of the Leech WSA and the management of the Greater Victoria WSA as a whole

Can I be heard?

Yes, this Open House is an opportunity for interested residents to review information and speak directly with Capital Regional District Integrated Water Services (IWS) staff.

We welcome your comment on the information and plans. Any written comments received will be provided to Integrated Water Services staff, the Water Advisory Committee and the Regional Water Supply Commission for consideration.

CRD | REGIONAL WATER SUPPLY SERVICE - LEECH WATER SUPPLY AREA

Introduction to the Leech Water Supply Area

Acquisition and History

The Leech Water Supply Area (WSA) which is adjacent to the Sooke WSA was acquired by the CRD through two purchases to protect future water supply:

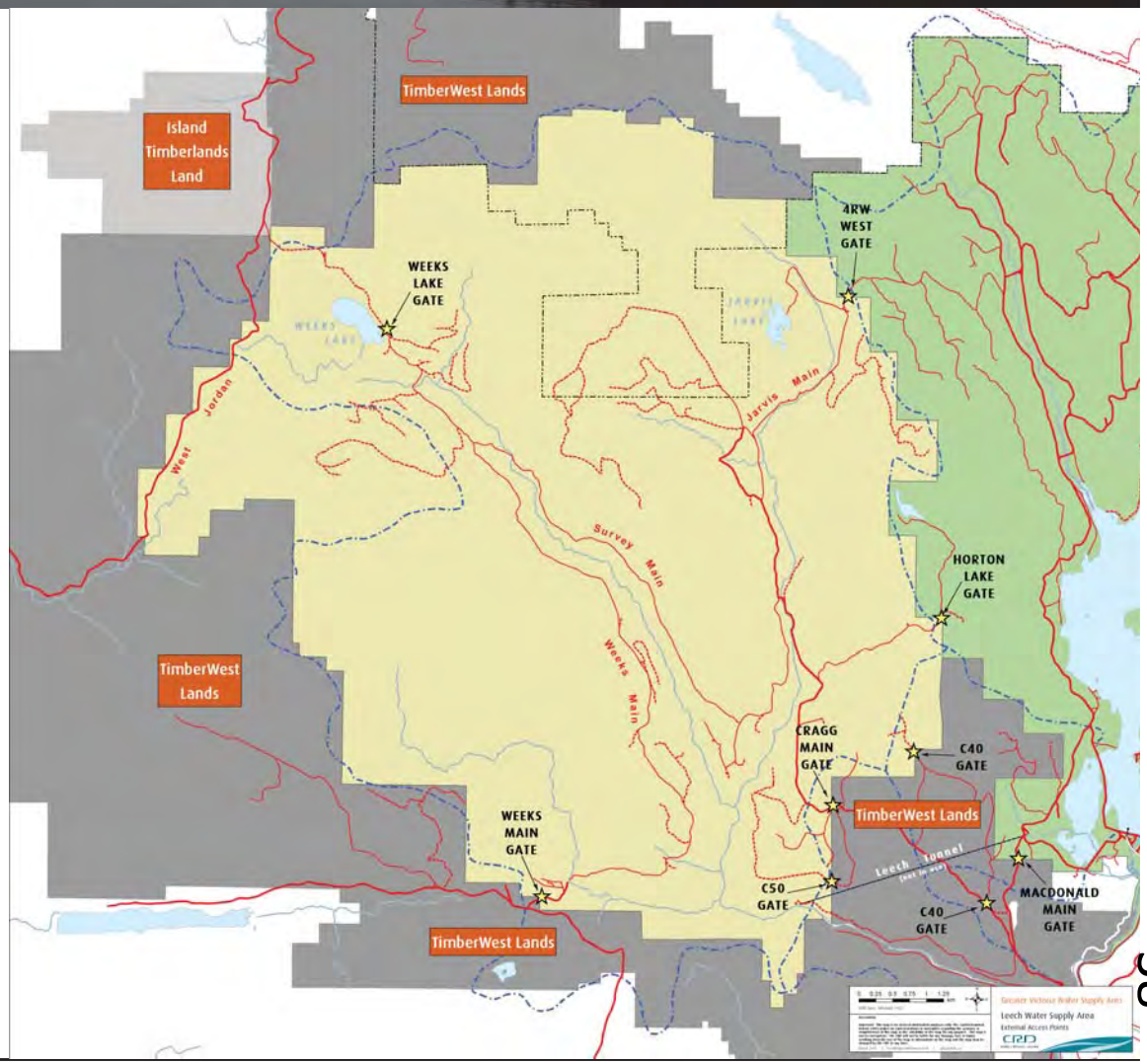
1. 8,791 hectares purchased from TimberWest in 2007 ($59 million)

2. 832 hectares purchased from Western Forest Products in 2010 ($3 million)

9,623 hectares total ($62 million)

95% of the timber in the Leech WSA was harvested with an extensive road network of more than 400 kilometres.

92% of the watershed of the Leech River above the diversion tunnel is now owned and managed by the CRD for water supply.



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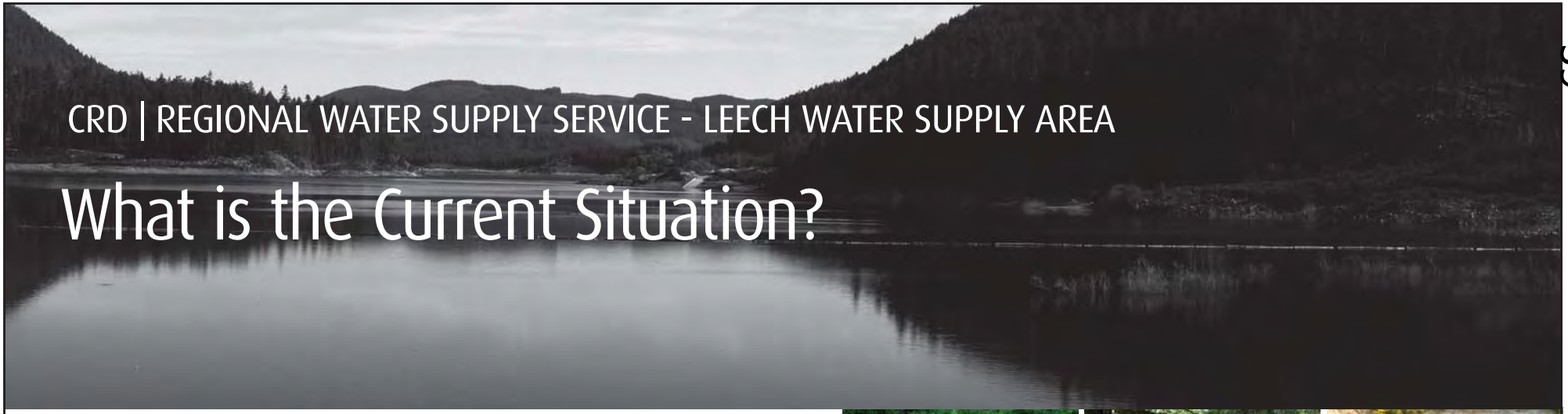
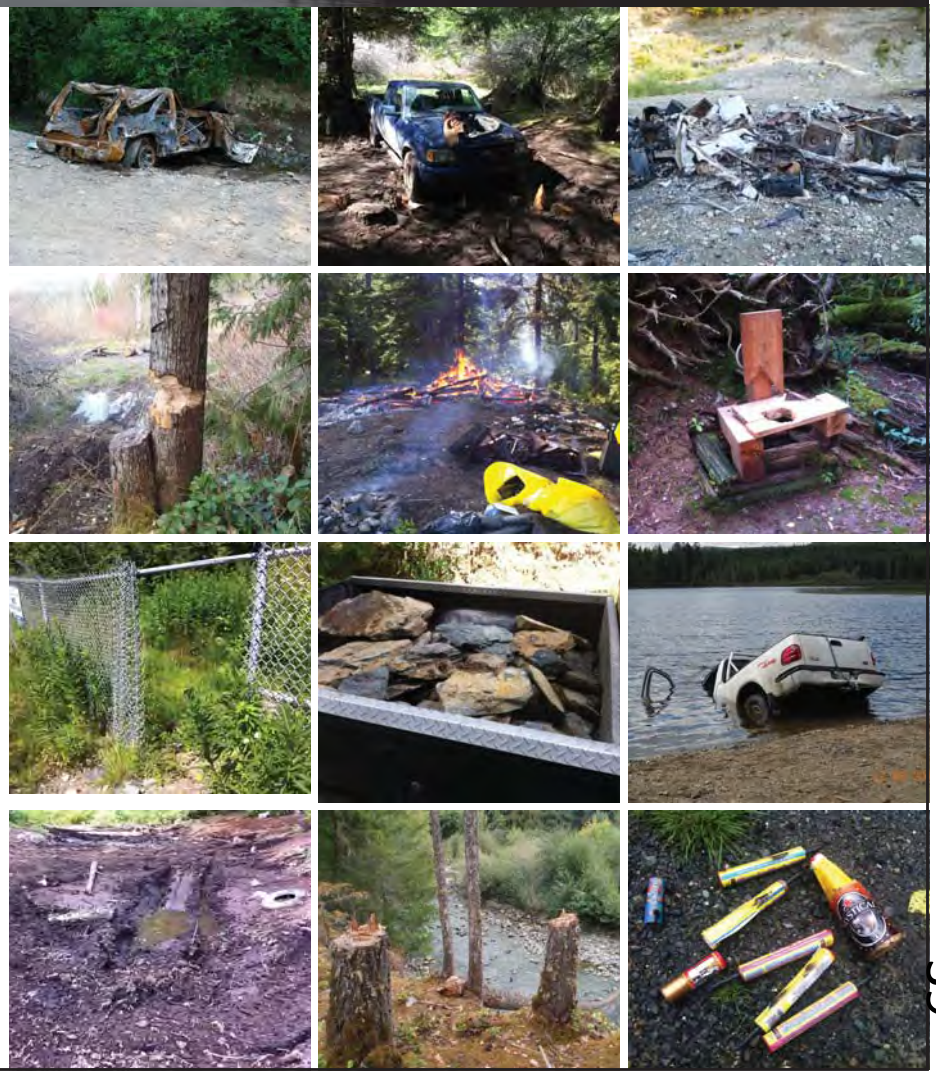


CRD | REGIONAL WATER SUPPLY SERVICE - LEECH WATER SUPPLY AREA

What is the Current Situation?

The Leech lands acquired in 2007 from TimberWest have been closed to the public for several years, but trespass continues to occur. The Leech lands acquired in 2010 from Western Forest Products in the Weeks Lake area have not yet been closed and secured. The lack of enforcement authority in the Leech Water Supply Area and incomplete closure of the lands to public access have led to a number of issues:

- Stolen vehicles driven into Weeks Lake (twice), abandoned vehicles burned on site
- Discharge of firearms and fireworks during high and extreme fire danger
- Burning and abandoned campfires during high and extreme fire danger
- Rutting (soil damage), erosion and damage to streams
- Vandalism of infrastructure (gates and signs)
- Dumping and littering (including large items such as televisions, computers, a camper and canoe)
- Sanitation concerns (there are no facilities)
- Tree cutting and theft of rock
- Illegal hunting
- Illegal grow operations



Why is the Current Situation a Problem?

History of Illegal Use:
The Leech Water Supply Area (WSA) has never been "open" to public access while held by TimberWest and Western Forest Products or the CRD, but a long history of trespass has led to a perception that public access is permitted.

Trespass across TimberWest Private Forest Land:
In order to reach the Leech WSA, you must first pass through private forest land owned by TimberWest. Passing through TimberWest private lands without permission is trespass and illegal.

Wildfire Risk to Sooke WSA:
Public access and the activities currently occurring greatly increase the likelihood of a fire start. During dry summer conditions a human caused fire could spread rapidly through the young forest in the Leech WSA and burn into the Sooke WSA. Such an event could be catastrophic to the drinking water supply for Greater Victoria.

Poor Environmental Stewardship:
Though the number of people accessing the Leech WSA without authorization is relatively small, the environmental impact is significant and long lasting – in particular damage from vehicles driving off-road and spread of invasive species.

Risk to Investment:
The Leech WSA was purchased for $62 million and significant funds are being expended ($5.8 million over 17 years) to rehabilitate the land for the purposes of water supply. The investment in protection and rehabilitation of the lands for best water quality may reduce the future need for expensive filtration facilities.

Public Safety and Allowing Illegal Activities to Continue:
The Leech WSA has never been managed for public access or use. Steep slopes and poorly maintained roads with failing drainage structures pose a public safety hazard. There are no facilities, few warning signs and unexpected hazards. The CRD may face liability should serious injury occur. Further, illegal activities such as hunting in a no hunting zone, dumping, and burning during campfire bans cannot be allowed to continue.

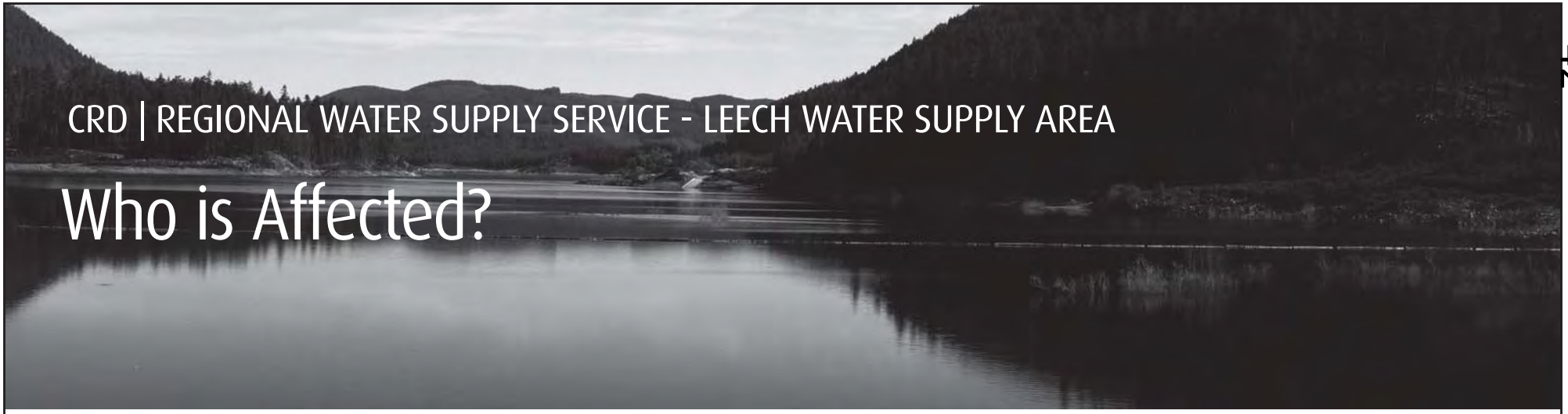
What Needs to Change & How will this be Done?

What needs to change?

Human activities that are illegal, cause damage and place the Leech WSA and the Sooke WSA at risk need to stop.

How will this be done?

- Update the Greater Victoria Water Supply Area (GVWSA) Protection Bylaw to include the Leech WSA. The Bylaw already protects the Sooke and Goldstream WSAs. The Bylaw spells out that unauthorized access and unauthorized activities in the GVWSA are illegal and enforceable with fines.
- Install 1 additional gate and additional fencing in the northwest corner of the Leech WSA near Weeks Lake. Existing access from the south and east is already blocked by gates and fencing.
- Conduct additional ground patrols to educate and enforce the Protection Bylaw in the Leech. Currently a ground patrol monitors the Leech WSA daily with more frequent patrols when wildfire danger is elevated.
- Place additional signage providing information and delineating boundaries. Signage is important to let people know the location of the property boundaries and that unauthorized access is not permitted.
- Expand public communication – by posting notices and articles regarding restoration and the need to restrict public access to the Leech WSA to protect our future water supply.



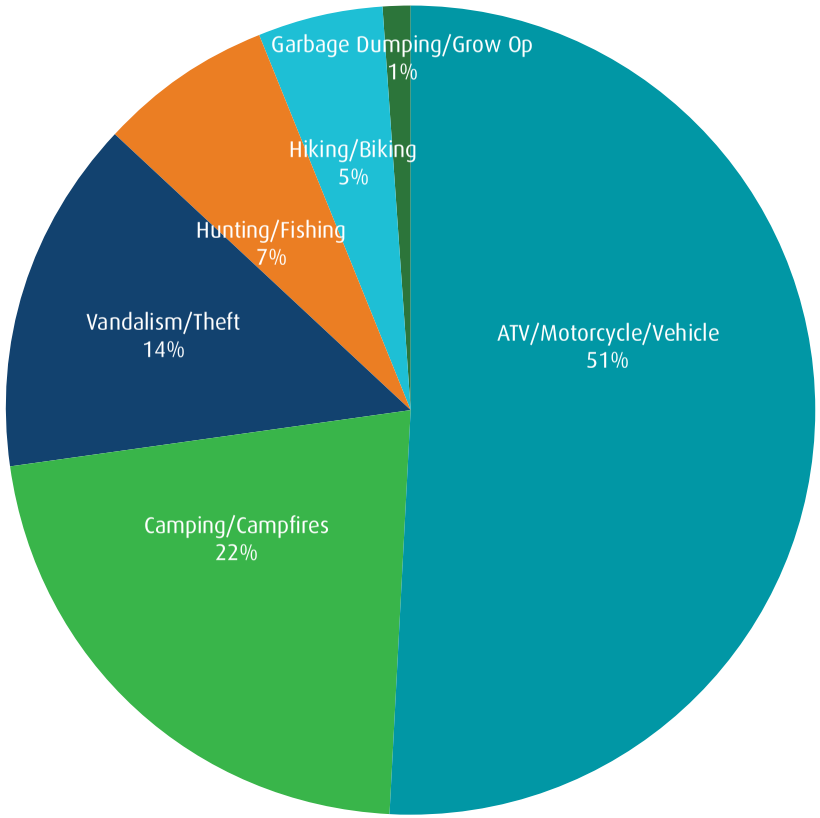
Who is Affected?

There have been approximately 60 trespass incidents (approximately 200 people) detected in the Leech WSA each year since the CRD purchased the lands in 2007 and 2010. Some incidents involve the same individuals who trespass repeatedly. Restricting unauthorized access to the Leech WSA will only affect a relatively small number of people given the population of the Region.

The main trespass activities are:

51 % ATV/Motorcycle/Vehicle
22 % Camping/Campfires
14 % Vandalism/Theft
7 % Hunting/Fishing
5 % Hiking/Biking
1 % Dumping/Grow Operations

Leech WSA Trespass Incidents 2008-2014



What Activities Can or Could be Allowed in the Leech WSA?

The following activities are currently allowed:

Research and Other CRD Initiatives

Researchers presenting proposals that are consistent with restoration efforts are considered on a case-by-case basis. Access for initiatives in the interest of the region may be considered.

Cultural Use

First Nations cultural access can be accommodated provided such activities are consistent with watershed protection and restoration efforts and public safety considerations.

Mining

The Leech Water Supply Area has a long history of placer mining and mineral exploration that pre-dates the CRD purchase of the lands. Provincial legislation currently requires the CRD to grant miners with valid tenures access to their claim areas.

The following activities could be allowed:

Non-Motorized Recreation

Once the Leech is in active use as a drinking water supply area, it will be fully closed to public access, consistent with the Sooke and Goldstream Water Supply Areas. However, it may be several decades before water from the Leech is needed.

Requests from sanctioned organizations for non-motorized recreation consistent with watershed protection and restoration efforts could be considered on a case-by-case basis. Appropriate insurance, orientation and permission to travel through adjacent private forest land (TimberWest) would be required.

CRD | REGIONAL WATER SUPPLY SERVICE - LEECH WATER SUPPLY AREA

Benefits of Closing the Leech Water Supply Area to Public Access

The benefits of fully closing the Leech Water Supply Area (WSA) to public access are:

- Protection of a major financial investment in our future water supply
- Reduced risk of fire starts and wildfire that could affect our current drinking water source
- Improved environmental stewardship - reduced risk of environmental damage and spread of invasive species
- Protection of public health by reducing risk of contamination from spills associated with unauthorized vehicles, and from poor sanitation of people and pets
- Restoration efforts not hindered or damaged by foot and off road traffic
- Consistent security approach with surrounding landowners
- Public not encouraged to trespass across TimberWest lands
- Consistent approach to watershed protection throughout the Greater Victoria Water Supply Area (controlled authorized access only)

Leech Water Supply Area - Further Issues & Recommendations

In 2009, the condition of the Leech Water Supply Area was assessed by a team of consultants and CRD staff. The following main issues and recommendations were noted, which informed the long-term restoration program:

Roads

Issue: Existing road network has terrain stability and sedimentation concerns placing risk on Leech River water quality.

Recommendations:

- Inventory and assess all roads and drainage structures
- Develop access management plan for the area
- Upgrade roads and drainage structures of water quality concern
- Deactivate and/or rehabilitate roads on unstable terrain or that are no longer needed

Wildfire

Issue: Wildfire represents a major threat and risk to Greater Victoria water supply. Integrated Water Services has a well established wildfire management program, but the Leech represents additional wildfire protection challenges (less access, more trespass, dense forest fuels, large area)

Recommendations:

- Incorporate the Leech watershed into the wildfire management program for the GVWSA
- Evaluate fuel reduction opportunities and options
- Develop a wildfire fuel management plan

Leech Water Supply Area - Issues & Recommendations

Soil Erosion and Slope Stability

Issue: The Leech watershed contains areas of highly unstable terrain as evidenced by historic landslides. Further landslides into the Leech River system could have devastating impacts on water quality.

Recommendations:

- Assess existing landslides for rehabilitation
- Conduct detailed terrain mapping
- Assess sediment sources, sinks and movement within the watershed
- Conduct rehabilitation where necessary

Forest Health

Issue: The Leech watershed has been heavily logged, adequate healthy reforestation must be achieved to meet water quality goals over time. Invasive species represent a challenge to restoration and a possible threat to ecological integrity.

Recommendations:

- Collect forest inventory information for the Leech Water Supply Area
- Assess forest plantations and fill plant or brush to achieve reforestation objectives
- Conduct annual forest insect and disease surveys to monitor for trends

Leech Water Supply Area - Issues & Recommendations

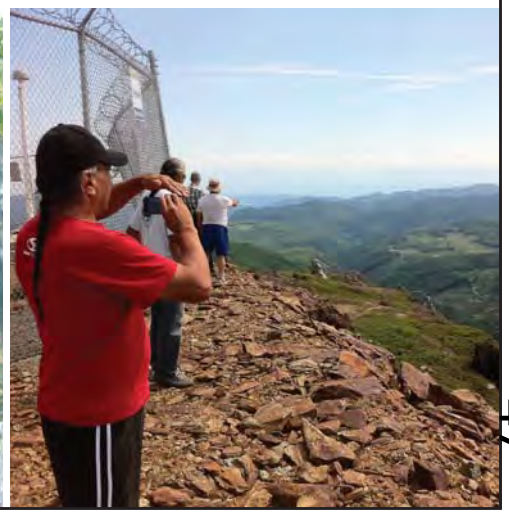
Other Recommendations

Water Quality and Restoration Program Monitoring:

- Implement a network of monitoring sites to gauge existing water quality and the effect that restoration activities will have on water quality in future years.

Cultural Assessment of the Leech Water Supply Area:

- Conduct an assessment of the cultural values of the Leech Water Supply Area and use the information to guide future management decisions.



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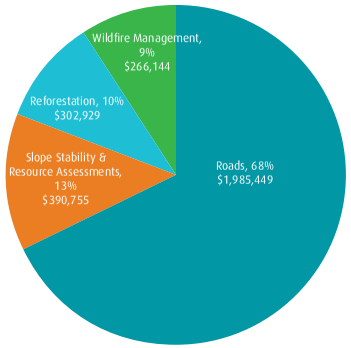
Leech Water Supply Area - Restoration Program

In 2009, a 17-year $5.8 million capital plan was approved by the Regional Water Supply Commission to rehabilitate the Leech Water Supply Area. The graph to the right summarizes the work completed to date.



Leech Restoration Projects Completed ($2,945,277) 2009 - 2014

Highlights of restoration work completed:

Roads:
- Piling and removal of cables, old culverts and scrap metal
- Removal or replacement of failing bridges: Jarvis Main, West Leech, Survey Main
- Upgrade of Survey Mountain Main and Cragg Main roads
- Re-routing of Survey Main and Jarvis Main roads

Reforestation:
- Planting of 137,186 tree seedlings – Douglas fir, western red cedar, white pine
- Brushing for tree seedling release
- Pruning white pine to reduce susceptibility to white pine blister rust

Slope Stability:
- Classification and mapping of geology, terrain, landslides, terrain stability and soil erosion potential
- Road rehabilitation prescriptions for roads on unstable terrain

Wildfire Management Program:
- Piling and burning of remaining logging slash
- Installation of two fire weather stations
- Identification and development of water pumping stations, fire vantage points, helicopter landing sites
- Removal of a derelict cabin at Jarvis Lake

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CRD | REGIONAL WATER SUPPLY SERVICE - LEECH WATER SUPPLY AREA

Opportunity for Comment

Now it's your turn to tell us what you think!

If you would like to leave us with any comments, please take a comment form, fill it out and leave in the comment box.

If you have a short comment, feel free to write it on a post-it and stick it in the box on the right.

All written comments received will be provided to Integrated Water Services staff, the Water Advisory Committee and Regional Water Supply Commission for their consideration.

Thank you for engaging with us about the management of the Leech Water Supply Area and the protection of our drinking water.

Your comments:

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Attachment 3: Summary of Media Commentary and Coverage

Date	Media Outlet	Title	Commentary location
April 11, 2015	Times Colonist	CRD considers limiting access to Leech Water Supply Area	Attached
April 13, 2015	CTV Vancouver	Outdoorsy islanders could be banned from watershed	http://vancouverisland.ctvnews.ca/video?clipId=591223
April 14, 2015	CFAX	Frank Stanford Comment	https://soundcloud.com/frank-stanford-cfax/april-14-9am-1?in=frank-stanford-cfax/sets/frank-stanford Blog post attached
April 17, 2015	CFAX	Interview with Mike Hicks re: Regional Water	https://soundcloud.com/frank-stanford-cfax/april-17-9am-1?in=frank-stanford-cfax/sets/frank-stanford Approx. minute 33:30

TIMES COLONIST

CRD considers limiting access to Leech Water Supply Area

Jeff Bell / Times Colonist
April 11, 2015 09:54 PM

The need to further restrict access to the Leech Water Supply Area will be the focus of a series of five open houses over the next two weeks.

The land, 9,623 hectares around the Leech River, is located west of the Sooke Lake Reservoir, which provides most of Greater Victoria's water. The main Leech parcel was purchased by the Capital Regional District in 2007, followed by a smaller parcel in 2010, for a total of $62 million.

The parcels have increased the overall size of the region's watershed to 20,550 hectares.

While the Leech land might not be needed for decades, controlling access is needed so the forest can regenerate, said Annette Constabel, senior manager of CRD watershed protection. About 95 per cent of the land, which includes more than 400 kilometres of roads, has been logged.

"Coming up, we're going to be looking at all the water needs and forecasts again," Constabel said.

About 200 people a year use the Leech area for camping or other activities, but Constabel said there is a long history of the public gaining access. She said the area is closely monitored. "Every time that there's a granola wrapper that's left behind, we write it up. We know somebody's been there."

Access to the Leech area is controlled from the south and the east through gates and regulations, and the west is largely inaccessible. That leaves the north, in the vicinity of Weeks Lake, as the only feasible entry point.

In recent years, two stolen vehicles have been found in Weeks Lake, firearms and fireworks have been discharged and marijuana-growing operations have been found. People using the area are talked to by staff

and reminded of the rules — including one that says no campfires — “but we don’t tell people they have to leave,” Constabel said.

The possibility of forest fires is the biggest concern, she said. “That could impact our current water supply.”

The idea is to do away with unauthorized access, Constabel said.

“One of the options that we’re presenting at the open houses is the potential for sanctioned recreational groups to apply,” she said.

Constabel anticipates the new access rules to be in effect by the summer of 2016. A CRD bylaw change is required.

OPEN HOUSES

Here are the dates and locations of the open houses. Each one is scheduled from 4 to 8 p.m.:

• Tuesday — Colwood
Juan de Fuca Recreation Centre, 1767 Island Highway
• Wednesday — Otter Point
Juan de Fuca Electoral Area Planning Services,
#3-7450 Butler Rd.
• April 21 — Sooke
Edward Milne Community School, 6218 Sooke Rd.
• April 22 — Saanich
Greek Community Centre,
4648 Elk Lake Dr.
• April 23 — Shawnigan Lake
Shawnigan Lake Community Centre, 2804 Shawnigan Lake Rd.

jwbell@timescolonist.com (mailto:jwbell@timescolonist.com)

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Agenda Item 10
REPORT #RWSC 2015 - 16

REPORT TO THE REGIONAL WATER SUPPLY COMMISSION MEETING OF WEDNESDAY, SEPTEMBER 16, 2015

SUBJECT **UPDATE ON IMPLEMENTATION OF THE 2012 STRATEGIC PLAN FOR THE GREATER VICTORIA WATER SUPPLY SYSTEM**

ISSUE

To provide an update on implementation of the 2012 Strategic Plan for the Greater Victoria Water Supply System and next steps for strategic planning as context for the 2016 – 2020 Capital Budget for Regional Water Supply and the Service Plans of Integrated Water Services.

BACKGROUND

In May 2012, the Regional Water Supply Commission adopted the 2012 Strategic Plan for the Greater Victoria Water Supply System. The Strategic Plan reviewed the challenges and opportunities facing the Water Supply System in the coming decade and set out three strategic priorities and a number of recommendations to address these priorities and improve the management of the water supply system.

The majority of actions set out in the plan are either underway or planned over the next three years. The implementation of these actions has been integrated into the Capital Budget for the Regional Water Supply System and the Service Plans of Integrated Water Services.

An overview of the status of actions from the 2012 Strategic Plan is provided below, organized by topic area. A table summarizing the status of all actions associated with the strategic priorities and recommendations is provided as Attachment 1.

Strategic Priority - Climate Change Adaptation

Climate change adaptation continues to be a priority in the corporate strategic plan as well as the strategic plan for the water supply system. Work has begun on integrating climate change adaptation into the management of the water supply system. Potential impacts on the water supply reservoirs, watersheds and water supply are being reviewed, any vulnerabilities and the level of risk will be identified, and adaptation strategies developed. Climate change impacts will be factored into water supply forecasting. Collaboration on research and monitoring with federal and agencies and the University of Victoria is underway. A network of long term study plots to monitor change in forests in the water supply area is being established. Data from weather stations in the GVWSA has been shared with the province and the Pacific Climate Impacts Consortium at UVIC to assist with regional analyses of climate change. The network of weather and hydrology monitoring stations in the Leech WSA is being expanded. Climate change has been factored into the design of bridges and drainage structures in the GVWSA and existing structures are being reviewed to ensure they are adequate for climate change projections.

Strategic Priority – Addressing Changing Trends in Water Use

The Demand Management section in the Environmental Partnerships Division is continuing to monitor water use in the residential, industrial commercial, institutional and agriculture sectors and to look for opportunities to improve the efficiency of water use. Staff also continue to work with professional, trade and industry associations, deliver educational workshops on outdoor water use, conduct public outreach, and carry out water audits for institutions and businesses to identify opportunities for water savings. A new public survey on water use is planned in 2016 and this will be used to update the demand management strategy for the water supply system. Factors affecting the current trend in water use are being analyzed to project water demand for the development of the water rate for the upcoming year.

Strategic Priority – Workforce Planning

This priority was established in 2012 in anticipation of a significant increase in retirements. The proposed actions were designed to prevent a loss of institutional knowledge through improved succession planning. The rate of retirement has not increased as much as anticipated, providing opportunity to re-direct resources and attention on additional studies and assessments critical to the plan.

Water Transmission System

The 2012 Strategic Plan recommended two major initiatives: 1) an update of the hydraulic model for the water supply system and 2) a condition assessment of the components of the transmission system. These studies have been included in the Capital Budget for Regional Water Supply and have been expanded in scope to better meet required information needs. Additional studies have also been identified in preparation for the next review of the strategic plan. These include water quality and potential filtration, a vulnerability assessment of the supply system, and post-disaster emergency water supply. The reviews of water quality and potential filtration and water supply will review the minimum acceptable level of Sooke Lake Reservoir to ensure water quality requirements are maintained. All of these studies are included in the Capital Budget and the IWS service plans.

Projection for Expansion of Supply

An updated supply forecast with particular attention to the timing of the use of the Leech Water Supply Area, is scheduled for 2016. This will be integrated with the assessment of the hydraulic model and an audit of water losses in the system.

Level of Service Policy for Wholesale Water Customers

It is intended to define level of service expectations and policy through the establishment of service agreements with municipal and First Nations wholesale water customers.

Watershed Protection and Stewardship

In recognition of the importance of water quality in Sooke Lake Reservoir there is a continual focus on improving the wildfire and emergency response programs in the GVWSA and an ongoing emphasis on watershed protection and stewardship within the Sooke Water Supply Area (WSA).

The 1999 assessment of biophysical and built features and identification of risks and management issues in the GVWSA is being updated using the provincial Source to Tap Assessment Guideline and a revised risk management framework. The new watershed and risk assessments will include the Leech WSA. The results of the assessments will be used to develop a watershed management plan for the GVWSA in 2017 and will be reported in a State of the Water Supply Area report in 2018.

A proposal to close the Leech WSA to unauthorized access and incorporate these lands into the *Capital Regional District Water Supply Area Regulations Bylaw* is under review. A cultural assessment and agreement for access to the Leech WSA with the T'Sou-ke First Nation is underway. This agreement is being coordinated with a similar initiative being undertaken by Regional Parks.

A biosecurity strategy is being developed to prevent undesirable species for invading and establishing within the GVWSA and to improve the management of problem species already present.

Preparation for Next Update of the Strategic Plan

The implementation of the strategic priorities and recommendations of the 2012 Strategic Plan is being integrated with additional studies in preparation for the next update of the strategic plan for the Greater Victoria Drinking Water Supply System. Adjustments are needed as new issues arise and new information is available. The next update of the strategic plan is anticipated in 2018.

CONCLUSION

Progress has been made on many of the actions recommended by the 2012 Strategic Plan for the Greater Victoria Drinking Water Supply System. Further studies and assessments in the area of water quality and potential filtration, supply system vulnerabilities, and post-disaster emergency water supply are needed prior to developing the next strategic plan.

RECOMMENDATION

That the Regional Water Supply Commission receive the staff report for information.

Annette Constabel, MSc, RPF, PMP
Senior Manager, Watershed Protection

Ted Robbins, BSc, CTech
General Manager, Integrated Water Services
Concurrence

JU:mm

Attachments:
- ✓ Status of Strategic Priorities and Recommendations

Attachment 1: Status of Strategic Priorities and Recommendations
2012 Strategic Plan for the Greater Victoria Water Supply System

Action	Complete	In Progress	To Do
Climate Change			
Designate planning, assessments and actions in support of climate change adaptation a key strategic priority for the management of the Greater Victoria Water Supply System.	✓		
Climate Change Adaptation			
Expand planning for adaptation to address the predicted effects of climate change.		✓	
Review analysis frameworks proposed in literature on climate change adaptation.		✓ In consultation with CRD Climate group	
Review the potential for applying the existing risk assessment and management framework for the Water Supply Area to climate change adaptation.		✓ Application being tested	
Develop clear criteria for evaluating priorities and trade-offs when developing and evaluating adaptation strategies			✓ Will consult with CRD Climate group
Climate Change – Effects on Aquatic Ecosystems and Water Quality			
Conduct a review of the literature relating to aquatic ecosystems and climate change focusing on the effects on coastal lakes.			✓
Develop collaborative partnerships with government agencies and academic institutions to enhance research and monitoring of the ecology of inflow streams and source water reservoirs.		✓ Potential partners being identified	

Action	Complete	In Progress	To Do
Identify and assess possible scenarios associated with the predicted effects of climate change on water quality.			✓ Past event reports will be reviewed as a first step
Prepare a problem analysis of the potential effects of climate change on the ecology and water quality of source water streams and reservoirs.			✓
Enhance monitoring of the chemistry, nutrients and biota in streams flowing into source water reservoirs.		✓ Being reviewed by the CRD Water Quality Group	
Climate Change – Terrestrial Ecosystems and Watershed Hydrology			
Conduct a review of the extensive literature relating to forest ecosystems, hydrology and climate change, and prepare a summary of predicted effects relevant to the forests in the GVWSA.		✓ Will be complete in mid-2016	
Develop a collaborative research and monitoring program with government agencies and academic institutions to assess the effects of climate and disturbance on changes on forests in the GVWSA.		✓ Some partners in place and some long-term monitoring plots established	
Conduct landscape level analyses of data on ecosystems and forest types and ages in the GVWSA to assess their relative vulnerability to undesirable effects associated with climate change.		✓ Part of Watershed Assessment	
Identify and assess possible scenarios associated with the potential effects of climate on terrestrial ecosystems in the GVWSA.		✓ Workshop proposed for early 2016	
Identify and assess possible scenarios associated with the potential effects of climate on terrestrial ecosystems in the GVWSA.		✓ Workshop proposed for early 2016	
Develop a strategy to sustain and restore the resilience and health of forest ecosystems in the GVWSA to protect water quality, watershed hydrology, and compatible environmental values.			✓ Will be incorporated into Management Plan for the GVWSA

Action	Complete	In Progress	To Do
Continue annual landscape-level aerial surveys of tree mortality associated with drought and forest insects and diseases.	✓ Ongoing		
Review and adjust standards for tree species and seed sources in reforestation and watershed restoration		✓ Will be completed in 2016	
Continue to plan and expand the program for forest fuel management in and around water supply facilities and the creation of landscape-level fuel break corridors to reduce the potential for a large-scale wildfire in the GVWSA.	✓ Ongoing		
Work with the CRD Climate Action Coordinator to explore requirements for estimating carbon sequestration potential and carbon offset valuation.	✓		
Consider the data requirements of forest carbon sequestration models when developing the terms of reference for the update of forest inventory data for the GVWSA.	✓		
Use the Forestry Canada carbon model and updated forest inventory data to develop an estimate of existing carbon sequestration potential of ecosystems in the GVWSA.		✓ Carbon budget developed for the Sooke WSA	
Expand hydro-meteorological system to include new stations for monitoring weather and stream flows and sediment transport.		✓ Weather stations complete, new stream flow monitoring needs will be evaluated in 2016/2017	

Action	Complete	In Progress	To Do
Addressing Changing Trends in Water Use			
Improve capabilities for monitoring water use and include this as part of a larger strategic priority for demand management in the Greater Victoria Water Supply System.		✓	
Continue to put a priority on reducing outdoor water use and make this part of a larger strategic priority for demand management in the Greater Victoria Water Supply System.		✓	
Ensure the Demand Management Program receives regular water use reports and weather predictions relating to the Water Supply System	✓		
Continue to work with retail distribution systems to standardize data on water use by categories of residential and institutional, commercial and industrial (ICI) customers.	✓		
Continue to conduct public surveys on water use behaviour and attitudes.		✓	2016 in planning phase resource dependant
Work with Regional Planning and Protective Services to coordinate studies and use of datasets.		✓	
Ongoing communication and dialogue with water customers, relevant associations, and community stakeholders.		✓	

Action	Complete	In Progress	To Do
Continue to establish and maintain working relationships with professional, trade and industry associations.		✓	
Continue to develop strong working relationships with business, institutional, planning and professional associations to facilitate reductions in water use.		✓	
Continue to support research programs that benefit the demand management program.			Resources not available to support research programs
Encourage use of best practices for cooling systems, irrigation, and landscaping by institutions, businesses and agricultural operations.		✓	
Encourage planners, landscape designers, engineers and developers and their associations to develop incentives and requirements for integrating water efficient designs and technologies into new developments.			Staff resources not available.
Encourage planners, landscape designers, engineers and developers and their associations to develop incentives and requirements for integrating water efficient designs and technologies into new developments.		✓	
Continue to communicate the relationship between reductions in water use and energy efficiency, reduction in greenhouse gasses, and other contributions to regional sustainability		✓	

Action	Complete	In Progress	To Do
Continue to explain and monitor compliance with annual watering schedules and requirements to moderate outdoor water use.		✓	
Continue to provide information and incentives to facilitate the adoption and use of water efficient technologies.		✓	
Act as a resource centre by assembling and sharing information on the latest ideas, strategies, and technologies for water wise development, landscaping, lawn and garden care, and efficient water use.		✓	
Publicize local success stories of residents and businesses that have successfully reduced water use.			Will focus on publicizing ICI success stories in 2016-2019 work plan
Continue to use focus groups and surveys to evaluate the effectiveness of existing demand management initiatives, messages and pilot new ideas/programs		✓	
Workforce Planning			
Designate workforce planning a strategic priority for the management of the Greater Victoria Water Supply System.	✓		
Follow CRD process and requirements in the development of the workforce plan.			✓
Involve Human Resources staff in the development of the plan			✓
Identify and assess factors that affect the existing and future workforce of the Water Supply System.		✓ Being explored or undertaken at the divisional level	
Identify and assess future business and technological requirements			
Assess implications of current workforce demographics for staff turnover and recruitment.		✓ Being explored or undertaken at the divisional level	
Identify positions required to meet future business and technological needs and potential gaps in the workforce.			
Identify key attributes required in new employees for each type of position to meet anticipated future needs		✓ A part of new hiring process	
Identify strategy and incentives for retaining key staff			✓

Action	Complete	In Progress	To Do
Document history and rational relating to past decisions		✓ Ongoing	
Ensure key processes and standards are documented and communicated to new staff.		✓	
Provide opportunities for older staff to mentor and train newer staff.		✓ Being carried out where feasible	
Place older staff in a leadership role to take advantage of their knowledge and experience.			
Transmission System			
Update the hydraulic model of the Greater Victoria Water Supply System considering the potential for micro-hydro generation.			✓ Update of model will begin in 2016
Conduct condition analyses of the components of the transmission system to identify any necessary upgrades.		✓ A number of analyses are underway and additional assessments planned	

Action	Complete	In Progress	To Do
Watershed Stewardship			
Adopt the proposed definition of stewardship to provide guidance for the protection and management of the Greater Victoria Water Supply Area (GVWSA).	✓		
Update the Watershed Assessment of the GVWSA to incorporate the lands in the Leech Water Supply Area and reflect the new ecological inventory data for the Water Supply Area.		✓ Assessment will be complete in 2017	
Review and update the Ecological Risk Assessment process set out in the 1999 *Strategic Plan for Water Management* to incorporate new approaches to risk assessment specific to the Water Supply Area and Water Supply System.			✓ Will begin in 2016
Review and update the risks to water quality and the ecological characteristics and built features of the GVWSA.			✓ Will begin in 2016
Develop a *State of the Water Supply Area* report prior to the next review of the Strategic Plan.			✓ To be complete in 2018
Adopt a phased approach to the implementation of the closed watershed policy in the Leech River Water Supply Area.		✓ Proposal to close the Leech WSA being considered	
Review and update the *Capital Regional District Water Supply Area Regulations Bylaw* to incorporate the security requirements of the Leech Water Supply Area.		✓ Review in process	

Action	Complete	In Progress	To Do
Projects for Expansion of Supply			
In preparation for the next update of the *Strategic Plan*, test a broader range of variables and scenarios in projecting possible dates for the necessary expansion of the Water Supply System.			✓Planning for data assembly and scenario testing will begin in 2016
Reliance on Unfiltered Source Water and Sooke Lake Reservoir			
Continue the emphasis on wildfire prevention, early detection and suppression capability, scenario planning, forest fuel management, and preparations for post-fire rehabilitation to reduce the likelihood of a large-scale wildfire affecting the catchment area of Sooke Reservoir.	✓Upgrades and studies ongoing		
To improve the protection of water quality, increase in the minimum useable storage volume in Sooke Reservoir to 20.5 million cubic metres (4.5 billion gallons) in the calculations to determine 96% reliability and the need for Stage 2 and Stage 3 requirements of the *Water Conservation Bylaw.*		✓Minimum increased for reliability calculations, bylaw not yet changed	
Ensure the Sooke Water Supply Area is given priority in watershed stewardship and risk management.	✓Ongoing		
Level of Service Policy to Wholesale Water Customers			
Develop a level of service policy for the Greater Victoria Water Supply System.			✓
Service agreements should be negotiated and executed with each of the wholesale water customers.		✓	
Factors Affecting the Price of Water			
Maintain a conservative approach to projecting changes in water demand in the annual budget preparation process.	✓Ongoing		

Action	Complete	In Progress	To Do
Legacy of Past Human Activities in the GVWSA			
Update the watershed assessment and risk assessment conducted as part of the 1999 *Strategic Plan for Water Management* to include the lands in the Leech Water Supply Area and any new information on the Sooke and Goldstream water supply areas.		✓	
Use the results of inventories and assessments to set priorities for addressing identified issues relating to the legacy of past human activities.			✓Final stage of the Watershed Assessment
Potential Establishment of Undesirable Species in the GVWSA			
Ensure all authorized people entering the Water Supply Area are provided with information on recognizing undesirable species and the protocols for reporting their location.		✓Some information provided now, will be expanded	
Establish a formal bio-security program of inspection and cleaning of vehicles, boats, equipment and materials to prevent the introduction and establishment of undesirable species in the GVWSA.		✓A bio-security strategy is being developed	
Land Acquisition and Exchange			
Continue to monitor the land market to identify opportunities for land acquisition or exchange to acquire non-owned catchment lands and effective buffer properties.	✓Ongoing		
Review existing non-owned catchment lands to determine their relative priority for acquisition.		✓A basic assessment has been done, more analysis is required	

Action	Complete	In Progress	To Do
Evaluate lands adjacent to the water supply catchment area to identify and rank their value as a buffer to protect water quality and supply.			✓ Will be considered in Watershed Assessment
Work with other CRD Departments to develop a coordinated corporate strategy and process for land purchases and exchanges.			✓
Enhancing Relationships with First Nations			
Work cooperatively with local First Nations to identify the cultural significance of the Leech River area and integrate this information into the planning and stewardship of future water supply lands.		✓	
Explore additional opportunities for enhancing relationships with local First Nations.		✓	
Collaborative Research and Monitoring			
Identify priority research and monitoring initiatives required to enhance the management of the Water Supply System.		✓ Ongoing	
Explore opportunities for collaborative partnerships and developing more formal research consortiums in carrying out research and monitoring initiatives identified as priorities for the water supply system.		✓ Partnerships in place with Canadian Forestry Service and University of Victoria	
Proposals for Generating Renewable Energy			
Develop a policy on generating renewable energy in the Water Supply System for adoption by the Regional Water Supply Commission.			✓
Ensure any proposal for wind power generation in Water Supply Area lands is subjected to a full review of potential impacts to water quality, the natural environment, and cultural values.			✓ No proposal received

Action	Complete	In Progress	To Do
Carbon Offset Potential in the Leech Water Supply Area			
Participate in the investigation of the carbon offset potential of lands and activities in the Leech Water Supply Area to ensure that the potential sale of these offsets continues to allow for the management for water supply and quality and the full costs and implications for the Water Supply System are considered.	✓No offsets with purchase, offsets with enhanced silviculture problematic		

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File No. 902-03

CAPITAL REGIONAL DISTRICT - INTEGRATED WATER SERVICES

Water Watch

Issued: September 08, 2015

Water Supply System Summary:

1. Useable Volume in Storage:

Reservoir	September 30 5 Year Ave		September 30/14		September 6/15		% Existing Full Storage
	ML	MIG	ML	MIG	ML	MIG	
Sooke	68,042	14,969	66,608	14,654	66,209	14,566	71.4%
Goldstream	7,086	1,559	6,604	1,453	6,543	1,440	66.6%
Total	75,128	16,528	73,212	16,107	72,752	16,005	70.9%

2. Average Daily Demand:

For the month of September	128.4 MLD	28.25 MIGD
For week ending September 06, 2015	128.8 MLD	28.34 MIGD
Max. day September 2015, to date:	137.1 MLD	30.17 MIGD

3. Average 5 Year Daily Demand for September

Average (2010 - 2014)	153.4 MLD [1]	33.74 MIGD [2]

[1]MLD = Million Litres Per Day [2]MIGD = Million Imperial Gallons Per Day

4. Rainfall September:

Average (1914 - 2014):	63.9 mm
Actual Rainfall to Date	51.6 (81% of monthly average)

5. Rainfall: Sep 1 - Sep 6

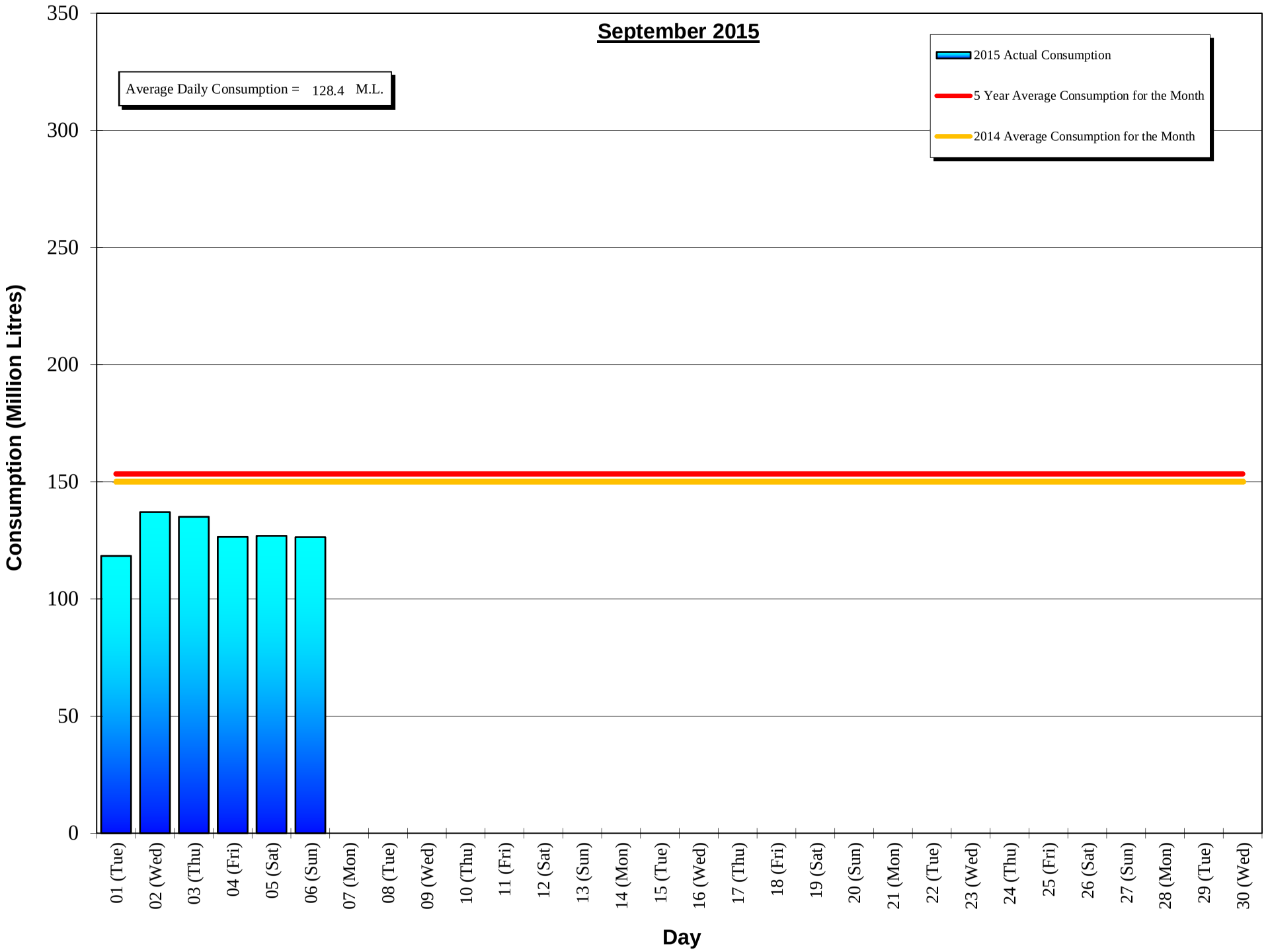
Average (1914 - 2014):	9.3 mm
2014 / 2015	51.6 (553% of average)

6. Water Conservation Action Required:

Stage 1 water conservation bylaw is now in effect
Check our website at www.crd.bc.ca/water for more information.
If you require further information, please contact:

Ted Robbins, B.Sc., C.Tech
General Manager, CRD - Integrated Water Services
or
Deborah Walker
Demand Management Coordinator

Capital Regional District Integrated Water Services
479 Island Highway
Victoria, BC V9B 1H7
(250) 474-9600


September 2015
Average Daily Consumption = 128.4 M.L.
2015 Actual Consumption
5 Year Average Consumption for the Month
2014 Average Consumption for the Month
Consumption (Million Litres)
350
300
250
200
150
100
50
0
01 (Tue)
02 (Wed)
03 (Thu)
04 (Fri)
05 (Sat)
06 (Sun)
07 (Mon)
08 (Tue)
09 (Wed)
10 (Thu)
11 (Fri)
12 (Sat)
13 (Sun)
14 (Mon)
15 (Tue)
16 (Wed)
17 (Thu)
18 (Fri)
19 (Sat)
20 (Sun)
21 (Mon)
22 (Tue)
23 (Wed)
24 (Thu)
25 (Fri)
26 (Sat)
27 (Sun)
28 (Mon)
29 (Tue)
30 (Wed)
Day

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Daily Consumptions: - September 2015

Date	Total Consumption		Air Temperature @ Japan Gulch		Weather Conditions	Precipitation @ Sooke Res.: 12:00am to 12:00am		
	(ML)	(MIG)	High (°C)	Low (°C)		Rainfall (mm)	Snowfall (mm)	Total Precip.
01 (Tue)	118.4 <=Min	26.06	18	11	Cloudy / Showers	5.6	0.0	5.6
02 (Wed)	137.1 <=Max	30.17	15	8	Cloudy / Showers	11.7	0.0	11.7
03 (Thu)	135.1	29.72	16	8	Cloudy / Showers	14.5	0.0	14.5
04 (Fri)	126.5	27.82	17	7	Sunny / P. Cloudy	0.0	0.0	0.0
05 (Sat)	127.0	27.95	20	8	Sunny / P. Cloudy / Showers	6.9	0.0	6.9
06 (Sun)	126.4	27.81	15	10	Cloudy / P. Sunny / Showers	12.9	0.0	12.9
07 (Mon)								
08 (Tue)								
09 (Wed)								
10 (Thu)								
11 (Fri)								
12 (Sat)								
13 (Sun)								
14 (Mon)								
15 (Tue)								
16 (Wed)								
17 (Thu)								
18 (Fri)								
19 (Sat)								
20 (Sun)								
21 (Mon)								
22 (Tue)								
23 (Wed)								
24 (Thu)								
25 (Fri)								
26 (Sat)								
27 (Sun)								
28 (Mon)								
29 (Tue)								
30 (Wed)								
TOTAL	770.5 ML	169.53 MIG				51.6	0	51.6
MAX	137.1	30.17	20	11		14.5	0	14.5
AVE	128.4	28.25	16.8	8.7		8.6	0	8.6
MIN	118.4	26.06	15	7		0.0	0	0.0

ML = Million Litres MIG = Million Imperial Gallons

Average Rainfall for September (1914-2014)	63.9
Actual Rainfall: September	51.6
% of Average	81%
Average Rainfall (1914-2014): Sept 01 - Sep 06	9.3
Actual Rainfall (2015): Sept 01 - Sep 06	51.6
% of Average	553%

Number days with precip. 0.2 or more
5

Note: 10% of Snow depth applied to rainfall figures for snow to water equivalent.

Water spilled at Sooke Reservoir to date = 0.00 Billion Imperial Gallons
= 0.00 Billion Litres

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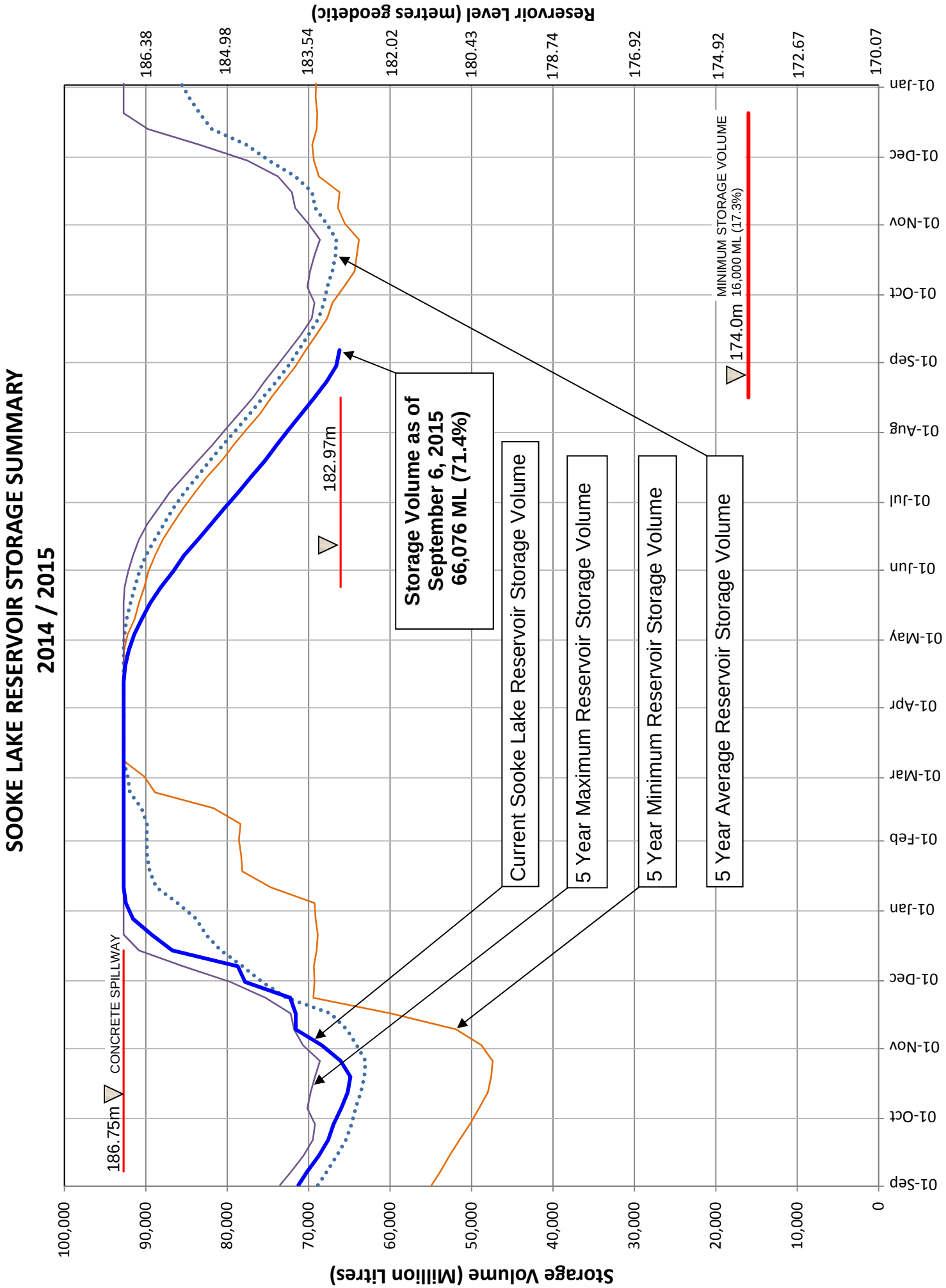
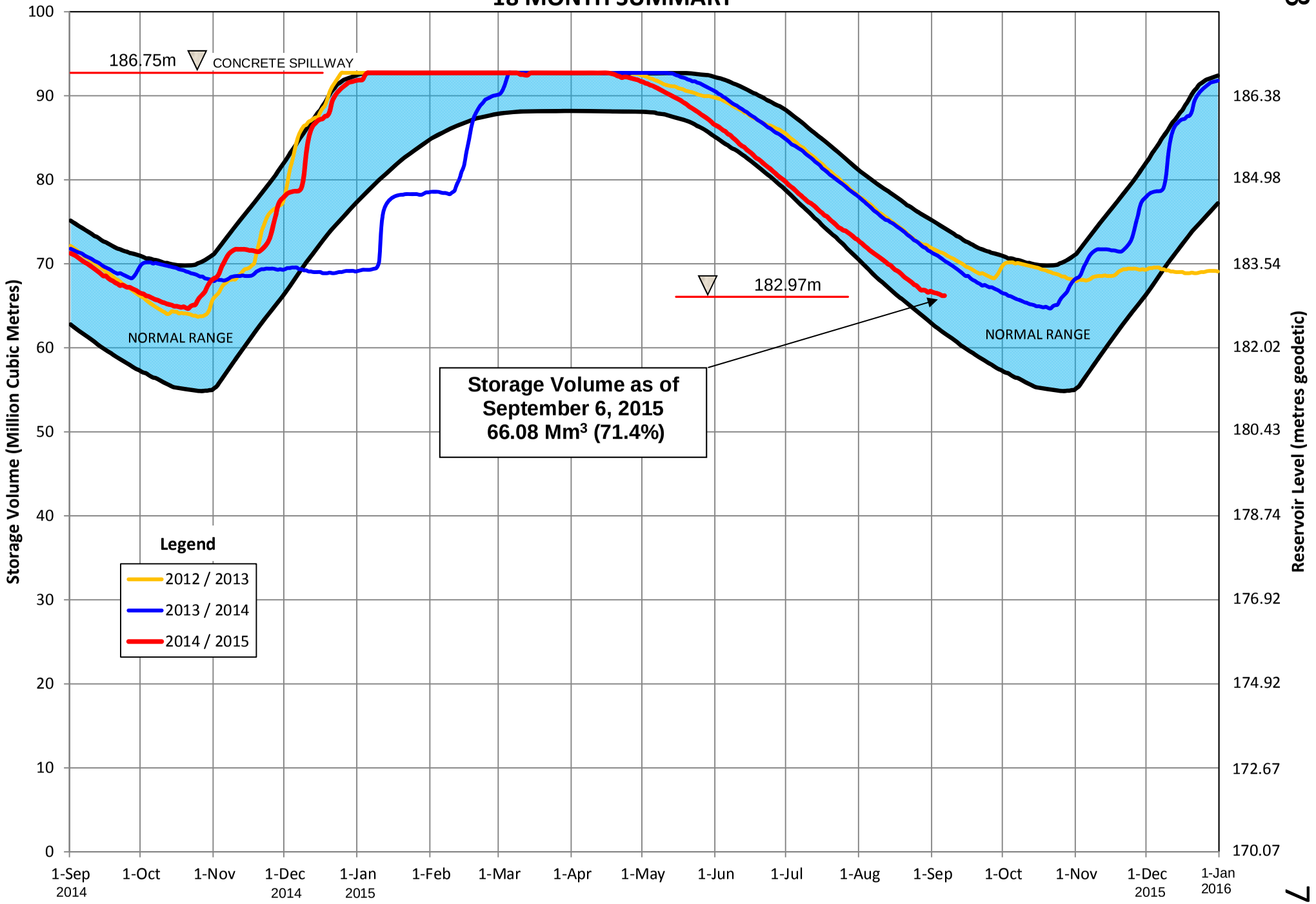

SOOKE LAKE RESERVOIR STORAGE SUMMARY
2014 / 2015
Reservoir Level (metres geodetic)
186.38
184.98
183.54
182.02
180.43
178.74
176.92
174.92
172.67
170.07
Storage Volume (Million Litres)
100,000
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
01-Jan
01-Dec
01-Nov
01-Oct
01-Sep
01-Aug
01-Jul
01-Jun
01-May
01-Apr
01-Mar
01-Feb
01-Jan
01-Dec
01-Nov
01-Oct
01-Sep
186.75m CONCRETE SPILLWAY
182.97m
174.0m MINIMUM STORAGE VOLUME 16,000 ML (17.3%)
Storage Volume as of September 6, 2015 66,076 ML (71.4%)
Current Sooke Lake Reservoir Storage Volume
5 Year Maximum Reservoir Storage Volume
5 Year Minimum Reservoir Storage Volume
5 Year Average Reservoir Storage Volume

SOOKE LAKE RESERVOIR STORAGE
18 MONTH SUMMARY