Capital Regional District

625 Fisgard St.,
Victoria, BC V8W 1R7

Notice of Meeting and Meeting Agenda
Regional Water Supply Commission

Wednesday, September 16, 2020 **11:30 AM** **6th Floor Boardroom**
625 Fisgard St.
Victoria, BC V8W 1R7

Members:
R. Mersereau (Chair); G. Baird (Vice Chair); N. Chambers; L. Collins; Z. de Vries; S. Duncan; C. Graham; K. Harper; M. Hicks; B. Isitt; K. Kahakauwila; G. Logan; J. Loveday; T. Morrison; J. Rogers; T. St-Pierre; C. Stock; L. Szpak; N. Taylor; R. Wade; E. Wood Zhelka; G. Young

1. TERRITORIAL ACKNOWLEDGEMENT

2. APPROVAL OF THE AGENDA

3. ADOPTION OF MINUTES

3.1. 20-524 Adoption of the minutes of the July 15, 2020 Regional Water Supply Commission Meeting

Recommendation: That the minutes of the July 15, 2020 meeting be adopted.

Attachments: Minutes: July 15, 2020

4. CHAIR'S REMARKS

5. GENERAL MANAGER'S REPORT

5.1. Water Supply Outlook

5.2. October Meeting

- Regional Water Supply Strategic Plan Progress Report
- 2021 Budget Presentation

6. PRESENTATIONS/DELEGATIONS

Presentations and delegations will be permitted to speak to an agenda item via phone-in participation.

You can make a request online at www.crd.bc.ca/about/board-committees/addressing-the-board, a printable form is also available. Requests must be received no later than 4:30 p.m. two calendar days prior to the meeting.

Written submissions are still encouraged.

7. WATER ADVISORY COMMITTEE REPORT

8. COMMISSION BUSINESS

8.1. 20-527 Remediation of Leech Water Supply Area Gravel Pit - Consideration of Certificate of Compliance

Recommendation: That this report be received for information, and that staff be directed not to pursue a Certificate of Compliance for the site.

Attachments: Staff Report: Remediation of Leech Water Supply Area Gravel Pit - Consideratic

8.2. 20-526 August 17, 2020 Lightning Strike Wildfires in the Greater Victoria Water Supply Area

Recommendation: That the Regional Water Supply Commission receive the report for information.

Attachments: Staff Report: August 17, 2020 Lightning Strike Wildfires in the GVWSA

Appendix A: Details of Lightning Strike Wildfires in the GVWSA

Appendix B: Map 1 2020 Wildfire Locations - Horton Ridge

Appendix C: Map 2 Mount Healey Fire Perimeter

Appendix D: Map 3 Rithet Fire Perimeter

Appendix E: Map 4 GVWSA Risk Mitigation Features

8.3. 20-528 Summary of Recommendations from Other Water Commissions

Recommendation: That the Summary of Recommendations from Other Water Commissions be received for information.

Attachments: Summary Of Recommendations from Other Water Commissions

8.4. 20-529 Water Watch Report

Recommendation: That the September 8, 2020 Water Watch Report be received for information.

Attachments: Water Watch Report September 8, 2020

9. NEW BUSINESS

10. ADJOURNMENT

Next Meeting: October 21, 2020
To ensure quorum, please contact Denise Dionne at ddionne@crd.bc.ca or 250.360.3087 if you or your alternate cannot attend.

Capital Regional District

625 Fisgard St.,
Victoria, BC V8W 1R7

Meeting Minutes

Regional Water Supply Commission

Wednesday, July 15, 2020 **11:30 AM** **6th Floor Boardroom**
625 Fisgard St.
Victoria, BC V8W 1R7

PRESENT:
R. Mersereau (Chair); G. Baird (Vice Chair); N. Chambers; S. Duncan; M. Hicks; M. Little for K. Kahakauwila; J. Loveday; T. Morrison; J. Rogers; C. Stock; T. St-Pierre; L. Szpak; N. Taylor; G. Young

BY WEBEX:
Z. de Vries; C. Graham; K. Harper; B. Isitt; G. Logan; R. Wade; E. Wood Zhelka

STAFF:
T. Robbins, General Manager; A. Constabel, Senior Manager, Watershed Protection; I. Jesney, Senior Manager, Infrastructure Engineering; T. Urquhart, Communications Coordinator; T. Duthie, Manager, Administrative Services; D. Dionne, Administrative Coordinator; S. Orr, Recorder

ALSO PRESENT:
R. Hunsinger, Chair, Water Advisory Committee

The meeting was called to order at 11:44 am.

1. TERRITORIAL ACKNOWLEDGEMENT

Commissioner Loveday provided the Territorial Acknowledgement.

2. APPROVAL OF THE AGENDA

The following item was added to the agenda:

8.2.1 Correspondence - Letter from M. Doehnel re: Agricultural Study (July 14, 2020)

MOVED by Commissioner Morrison, and **SECONDED** by Commissioner Stock,
That the Regional Water Supply Commission agenda be approved as amended.
CARRIED

3. ADOPTION OF MINUTES

3.1. 20-374 Adoption of Minutes - June 17, 2020

Attachments: June 17, 2020 Draft Minutes

MOVED by Commissioner Rogers, and **SECONDED** by Commissioner Baird,
That the minutes of the June 17, 2020 Regional Water Supply Commission meeting be adopted.
CARRIED

4. APPROVAL OF RESOLUTION

20-422 Approval of Resolution

1. That this resolution applies to the Regional Water Supply Commission for the meetings being held between July 1, 2020 and December 31, 2020.

2. That the attendance of the public at the place of the meeting cannot be accommodated in accordance with the applicable requirements or recommendations under the Public Health Act, despite the best efforts of the Regional Water Supply Commission, because:

a. The available meeting facilities cannot accommodate more than 38 people in person, including members of the Regional Water Supply Commission and staff, and
b. There are no other facilities presently available that will allow physical attendance of the Regional Water Supply Commission and the public in sufficient numbers; and

3. That the Regional Water Supply Commission is ensuring openness, transparency, accessibility and accountability in respect of the open meeting by the following means:

a. By allowing the public to hear or participate via teleconference or electronic meeting software,
b. By allowing the public to see and hear the live webcasting of the meeting on the CRD website,
c. By providing notice of the meeting in newspaper or local notice Board, including the methods for providing written or electronic submissions,
d. By making the meeting agenda, as well as the other relevant documents, available on the CRD website, and directing interested persons to the website by means of the notices provided in respect of the meeting,
e. By strongly encouraging the provision of, and subsequently receiving and distributing to members, written correspondence from the public in advance of the meeting, and
f. By making the minutes of the meeting available on the CRD website following the meeting.

The Chair introduced the resolution as presented.

Staff answered questions from the Commission regarding electronic presentations and delegations.

MOVED by Commissioner Chambers, and **SECONDED** by Commissioner Stock,
That the Regional Water Supply Commission adopt the resolution as presented.
CARRIED

5. REPORT OF THE CHAIR

The Chair had no remarks.

6. PRESENTATIONS/DELEGATIONS

There were no presentations or delegations.

7. WATER ADVISORY COMMITTEE REPORT

7.1. Water Advisory Committee Chair's Report

Chair Hunsinger, stated the Committee met June 25, 2020 and discussed the agricultural water rates which resulted in three recommendations to the Regional Water Supply Commission which are included in the agenda package.

7.2. 20-420 Draft Minutes of the June 25, 2020 Water Advisory Committee Meeting

Attachments: Water Advisory Committee Draft Minutes June 25, 2020

MOVED by Commissioner Baird, and **SECONDED** by Commissioner St-Pierre,
That the Regional Water Supply Commission receive the Draft Minutes for information.
CARRIED

8. COMMISSION BUSINESS

8.1. 20-375 Remediation of Leech Water Supply Area Gravel Pit

Attachments: Staff Report: Remediation Of Leech Water Supply Area Gravel Pit
Appendix A: Location Map Weeks Gravel Pit Remediation

A. Constabel provided a summary of the report as presented.

Staff answered questions from the Commission regarding:
- Remediation process
- Contamination mitigation
- Certificate of compliance
- Trespassing

MOVED by Commissioner Stock, and **SECONDED** by Alternate Commissioner Little,
That the Regional Water Supply Commission receive the report for information.
CARRIED

MOVED by Commissioner Baird, and **SECONDED** by Alternate Commissioner Zhelka,
That the Regional Water Supply Commission direct staff to review the costs and process for moving forward with a Certificate of Compliance to remove the site from the contaminated sites list and report back to the Commission.
CARRIED

8.2. 20-421 Agriculture Water Demand Model and Land Use Inventory Report and Agriculture Water Rate Considerations

Attachments: Staff Report: Review Of The Agricultural Water Subsidy Rate And Rate Methodology
Appendix A: Agriculture Water Demand Model Report
Appendix B: Agriculture Water Rate Funding and Demand Summary 2011-2019

T. Robbins provided a summary of the report as presented.

Discussion ensued and staff answered questions from the Commission regarding:
- Stakeholder engagement
- Water rates
- Land Use Inventory
- Subsidy for non-agricultural users
- Rate review and adjustment

MOVED by Commissioner Rogers, and **SECONDED** by Commissioner Baird,
The Regional Water Supply Commission recommends:
That staff be directed to maintain the current agricultural water rate for the 2021 budget year, and undertake an agricultural rate review that considers the current rate, rate model and rate application, the implications of these elements, and presents rate/rate model options for the Commission's consideration.
CARRIED

8.2.1 Correspondence

MOVED by Commissioner Rogers, and **SECONDED** by Commissioner Stock,
That the Regional Water Supply Commission receive the correspondence for information.
CARRIED

8.3. 20-376 Summary of Recommendations from Other Water Commissions

Attachments: Summary Of Recommendations From Other Water Commissions

Commissioners Isitt and Wade left the meeting.

MOVED by Commissioner Rogers, and **SECONDED** by Commissioner Stock,
That the Summary of Recommendations from Other Water Commissions be received for information
CARRIED

8.4. 20-377 Water Watch Report

Attachments: July 6, 2020 Water Watch Report

Staff addressed a question regarding water demand during the COVID-19 State of Emergency.

MOVED by Commissioner Stock, and **SECONDED** by Commissioner Taylor,
That the July 6, 2020 Water Watch Report be received for information.
CARRIED

9. NOTICE OF MOTION

9.1. 20-378 Request for a Review and Update of Bylaw No. 3780: Notice of Motion from Commissioner St-Pierre

Attachments: Notice of Motion: Review and Update of Bylaw No. 3780

Commissioner Baird recused himself and left the room.
Commissioner Logan left the meeting.

Commissioner St-Pierre introduced the Notice of Motion.

MOVED by Commissioner St-Pierre, and **SECONDED** by Commissioner Hicks,
BE IT RESOLVED that the Regional Water Supply Commission recommends that the Electoral Area Services Committee recommends to the CRD Board:
That staff be requested to review and update the building bylaw 3780 with respect to onsite water collection to align with the CSA B805-18 Canadian National Rainwater Harvesting Standard.
CARRIED

Commissioner Baird returned to the meeting.

10. NEW BUSINESS

There was no new business.

11. MOTION TO CLOSE THE MEETING

11.1. 20-379 Motion to Close the Meeting

R. Hunsinger left the meeting.

MOVED by Commissioner Loveday, and **SECONDED** by Commissioner St-Pierre,
In accordance with the Community Charter, Part 4, Division 3, 90(1)(e) the acquisition, disposition or expropriation of land or improvements.
CARRIED

12. RISE AND REPORT

The Commission rose from its closed meeting without report.

13. ADJOURNMENT

MOVED by Commissioner ST-Pierre, and **SECONDED** by Commissioner Loveday,
The meeting be adjourned at 1:27 pm.
CARRIED

_____
CHAIR

_____
SECRETARY

Making a difference...together

EEP 20-41

REPORT TO REGIONAL WATER SUPPLY COMMISSION
MEETING OF WEDNESDAY, SEPTEMBER 16, 2020

SUBJECT **Remediation of Leech Water Supply Area Gravel Pit – Consideration of Certificate of Compliance**

ISSUE SUMMARY

Soil remediation was completed in May 2020 at a former gravel pit in the Leech Water Supply area (Weeks Lake gravel pit). Historically, the area was used as an unregulated shooting range, and identified as a contaminated site under provincial legislation, primarily due to metals from bullets and shell casings. Though there was no formal trigger to remediate the site, Capital Regional District (CRD) staff conducted the work in an effort to remove the bulk source of soil contamination and reduce the overall risk associated with the area. At its July 15 meeting, the Regional Water Supply Commission directed staff to review the costs and process for moving forward with a Certificate of Compliance to remove the site from the contaminated sites list and report back to the Commission.

BACKGROUND

In April and May 2020, the CRD oversaw the excavation of more than 1,200 metric tonnes of contaminated soil from the site. In accordance with regulatory requirements, the CRD notified the Ministry of Environment and Climate Change Strategy (ENV) of the independent remediation (i.e., no formal administrative closure). The CRD intends to hold these lands in perpetuity, and with no change in land use.

There are several contaminated sites processes that apply to these sites:

PS3260 Liability for Contaminated Sites

In 2010, the Public Sector Accounting Board introduced PS 3260 *Liability for Contaminated Sites* (PS3260), which requires government to recognize, predict and disclose financial liability from potentially contaminated sites at each fiscal year-end. Through the 2020 Weeks Lake gravel pit remediation, the CRD has significantly reduced the environmental and financial liability associated with this site.

BC ENV Contaminated Site Process

The Environmental Management Act (EMA) and Contaminated Sites Regulation (CSR) are the main pieces of legislation governing contaminated sites in the province. The EMA and CSR were created to ensure health and environmental protection, in part by regulating and administering the investigation and remediation of contaminated sites.

BC Site Registry

The Site Registry is a publicly searchable database of the provincial government's records of site investigations and cleanups. It is not a registry of contaminated sites. While some sites in the registry are contaminated, many have already been investigated and require minor remediation,

or have already been remediated, in accordance with the EMA and CSR. All information submitted to ENV regarding a site remains in the registry and is never removed.

Currently the notation on the Site Registry for the Weeks Lake gravel pit will indicate "Independent Remediation Complete" and no further action is required.

Typically, a land owner would secure a contaminated sites legal instrument (e.g., Certificate of Compliance) to: satisfy provincial legal requirements, improve marketability of a property, show compliance with the CSR to a prospective purchaser, secure financing for development and limit liability. Under the CSR, a landowner may also remediate their land independently without obtaining a contaminated sites legal instrument. Currently, there is no regulatory requirement to pursue a Certificate of Compliance at the site, and given the site's location (CRD controlled watershed) and intended use (natural Water Supply Area), there is little benefit to obtaining a Certificate of Compliance. The site would still be identified in the above processes, regardless of obtaining a Certificate of Compliance or not.

ALTERNATIVES

Alternative 1

That this report be received for information, and that staff be directed not to pursue a Certificate of Compliance for the site.

Alternative 2

That this report be referred back to staff for additional information.

IMPLICATIONS

Financial Implications

Planning and implementation of the soil excavation project was completed at a cost of approximately $300,000. Significant additional expenditures beyond the costs incurred to date would be required to meet ENV requirements for obtaining a Certificate of Compliance. The cost is associated with procuring the services of an environmental consultant and Contaminated Sites Approved Professional to complete additional confirmatory site investigation, carry out any additional required remediation, and complete detailed reporting required to support issuance of a Certificate of Compliance. The range of costs for completing the additional work is estimated at $220,000 to $330,000 (class C estimate as defined by Engineers and Geoscientists BC +/- 25-40% variability based on limited site data).

Environmental & Climate Implications

Removal of soil contamination substantially reduced the risk of contamination to the drinking water resource and reduced financial liability, as reported through the PSAB accounting process.

CONCLUSION

Staff oversaw a soil remediation project (April-May 2020) at a former gravel pit in the Leech Water Supply area to remove contamination associated with historic shooting activities. The Commission requested information on the project, as well as the cost and process to obtain a Certificate of Compliance for the site. A high-level estimate of this cost is in the range of $220,000 to $330,000 (+/- 25-40%). Removal of soil contamination reduced the risk of contamination to the drinking water resource and reduced financial liability. Staff do not recommend completing the additional administrative effort required to obtain a Certificate of Compliance for the site. Obtaining the certificate is not a regulatory requirement and the independent remediation process is more applicable to the site.

RECOMMENDATION

That this report be received for information, and that staff be directed not to pursue a Certificate of Compliance for the site.

Submitted by:	Glenn Harris, Ph.D., R.P.Bio., Senior Manager, Environmental Protection
Concurrence:	Annette Constabel, , M.Sc., R.P.F., P.M.P., Senior Manager, Watershed Protection
Concurrence:	Steve Knoke, Acting General Manager, Parks & Environmental Services
Concurrence:	Ted Robbins, B.Sc., C.Tech., General Manager, Integrated Water Services
Concurrence:	Robert Lapham, MCIP, RPP, Chief Administrative Officer

Making a difference...together

RWSC 20-07

REPORT TO REGIONAL WATER SUPPLY COMMISSION
MEETING OF WEDNESDAY, SEPTEMBER 16, 2020

SUBJECT **August 17, 2020 Lightning Strike Wildfires in the Greater Victoria Water Supply Area**

ISSUE SUMMARY

To report on conditions and wildfire management activities related to two lightning-caused fires in the Greater Victoria Water Supply Area.

BACKGROUND

A lightning storm passed through the Greater Victoria Water Supply Area (GVWSA) and southern Vancouver Island on the night of Sunday, August 16, 2020, after a day of high air temperatures and dry outflow wind conditions. Nineteen lightning strikes were recorded in the GVWSA of which two near Horton Ridge caused fires within the watershed catchments of Sooke Lake Reservoir and Deception Reservoir overnight. The two fires were referred to as the Healey Fire and the Rithet Fire. The fires were detected on the morning of Monday, August 17 and grew to a total of 8 hectares (ha) before being largely contained by end of Tuesday, August 18. CRD staff and BC Wildfire Service (BCWS) worked together on suppression, aided by a shift to lower temperatures, higher humidity, and relatively calm conditions. Suppression efforts included considerable air support on the fires including one load of fire retardant dropped in four lines, and several hours of water drops. Approximately 20 millimeters (mm) of rain on Wednesday and Thursday greatly assisted with the suppression and mop up effort. The fires were patrolled until Sunday, August 30 and called "out" by the BCWS Incident Commander on August 31. Water quality parameters measured in Sooke Lake Reservoir, nearest the burned areas, have not detected any effects on water quality from the burned area or retardant. The burned areas have been assessed and a remediation plan is being developed which will be implemented prior to fall rains. Water quality monitoring will continue through the first significant fall rains however no water quality concerns are anticipated as a result of the fires.

Fire Weather Conditions and Fire Hazard

The wildfire danger condition in the GVWSA on the weekend of August 15 and 16 had just reached Extreme at one station due to periodic rains through the summer. However, the weather conditions on the afternoon and evening of Sunday August 16, were conducive to fire starts and spread as humidity had dropped below the air temperature, a condition known as "crossover".

Lightning Strikes and Fire Starts

The BCWS lightning locator application recorded a total of 19 lightning strikes in the GVWSA on the night of Sunday, August 16. Fortunately, fire starts occurred at only two sites, both on Horton Ridge to the west of Sooke Lake Reservoir (Appendix B: Map 1). The fire starts on Mount Healey were the first reported. A fire at a second, much more isolated site, dubbed Rithet, was discovered during the response to the Mount Healey fire.

Suppression Response

A total of 24 CRD staff responded to the fires on Monday morning. An intermediate helicopter was hired to provide assistance bucketing water to the fires from Deception Reservoir. The fires were immediately reported to BCWS, which responded with staff, contract crews and air suppression resources. BCWS assumed command of the wildfire mid-morning on Monday. Watershed Protection staff continued to work on the fire throughout the week, although most staff were released back to regular duties on Wednesday after the fires were largely contained.

A load of fire retardant was dropped on the Mount Healey fire on Monday afternoon to try and prevent further spread. This was followed up on Monday afternoon by water drops on both fires from seven skimmer aircraft over approximately 2.5 hours. These air suppression efforts played a major role in constraining the size of the fires.

Throughout the suppression response there were no safety incidents and only one minor injury (bruised leg) with no time loss.

Weather greatly assisted containment, suppression and mop up efforts. Weather conditions on Monday and Tuesday were relatively stable with low wind speeds, lower temperature, and higher relative humidity. About 28 mm of rain fell on Thursday and Friday. By the weekend, mop up activities were no longer required although the sites were patrolled daily by both BCWS and Watershed Protection staff.

Images of the areas burned and a detailed overview of weather conditions, wildfire preparedness, and a log of wildfire response actions and resources is provided in Appendix A.

Location and Characteristics of the Fires

Both wildfires were located in areas identified by wildfire models as increased risk for lightning and burn probability. The fire locations are described as extensive areas of moss covered rock outcrops interspersed with trees and shrubs. The fires behaved largely as expected, spreading slowly across the moss but flaring up when reaching areas with accumulations of fuel. The understory salal burned readily. Although the fine fuels were dry, it was fortunate that the larger and deeper fuels were not as dry as in recent past years, and that wind speeds remained relatively calm throughout the week.

The rugged steep terrain hampered ground suppression and mop up, although there was good road access to Mount Healey. The isolated location of the Rithet fire required an access foot trail and helipad to be constructed.

The Mount Healey fire eventually grew to just under 6 ha (Appendix C: Map 2). Most of the area burned was within the catchment of Deception Reservoir, which is not used for water supply. Portions of the fire did burn into the catchment of Sooke Lake Reservoir and onto adjacent private managed forest land. The fire did not spread toward the Capital Regional District (CRD) communications facility on Mount Healey. This was likely due to FireSmart fuel management and clearing for radio sightlines as well as containment priorities. However, the tower-mounted wildfire infrared camera appears to have been damaged by lightning strike activity. The Rithet fire burned approximately 2 ha within the catchment of Sooke Lake Reservoir (Appendix D Map 3).

A review of the available information on lightning and wildfires in the GVWSA indicates that rocky uplands, such as Horton Ridge have had multiple lightning strikes and fires since the 1930's, although lightning storms are relatively infrequent. The most recent previous event occurred on August 17, 2008 when four fires were started by lightning strikes clustered near Horton Ridge. Based on this history, a forest fuel reduction corridor has been put in place along a road on Horton Ridge to facilitate access for suppression and slow the spread of wildfire. This is one of a series of forest fuel reduction corridors put in place or underway to protect the GVWSA (Appendix E: Map 4).

BC Wildfire Service (BCWS)

There was excellent support from the BCWS on the Healey and Rithet wildfires in the GVWSA. BCWS responded to the GVWSA wildfires under the terms of the current CRD-BCWS Wildfire Response Agreement. For 2020, the fee for unlimited BCWS response is $7,100 or $0.35 per hectare. While there has yet to be a final tally of costs, the resources provided by the BCWS, particularly the air support, were substantial.

The handover of incident command to BCWS was appropriate and timely, however caused some delays in the field. In addition, the CRD had some difficulty in obtaining accurate information from BCWS on strategies and resources, and there could have been more timely participation of CRD staff in decisions important to the GVWSA such as the use of fire retardants and water sources to be used. Learnings from these fires will help fine tune the relationship with BCWS and will further enhance the wildfire response in the GVWSA.

Use of Fire Retardant

The chemical fire retardant (commercially called PHOS-CHECK LC95A) used by BCWS on the Mount Healey fire on Monday, August 17 has the active chemical ingredient ammonium polyphosphate which is an inorganic salt at approximately 15% concentration. Approximately 11,000 L of retardant was dropped, meaning about 1,700 L of the active ingredient was applied with colouring to make it visible. When flames come into contact with the retardant, the resulting reaction releases a combination of water and carbon dioxide that cools and suffocates the fire[1]. The retardant is applied by air in the path of the fire to contain it. The purpose of retardants and other suppressants applied by air is to contain and slow down the fire or suppress its behavior to buy time and allow for safe deployment of ground suppression resources.

BCWS consulted with CRD staff prior to utilizing retardant, although the time for decision making was short. The issue of when and where to apply chemical retardants in the GVWSA has been pre-planned by Watershed Protection and Water Quality staff in terms of mapping of exclusion zones where retardant is never to be applied (Appendix E: Map 4); and required water quality monitoring protocols if retardant is applied. The decision whether to allow application of fire retardant is necessarily situation dependent and was made collaboratively between senior staff. The decision making principle is based on causing least harm – weighing the risk of a large scale wildfire impacting water quality against the risk from retardant potentially reaching and impacting the water supply.

The retardant contains chemicals that are similar to those used as agricultural fertilizer and pose no direct risk to public health. Unless deposited directly and in large amounts into a small fish

[1] Province of British Columbia – Water Quality – Fire Retardants Used to Fight Wildfires

bearing stream, there is no environmental toxicity associated with this product. As a potent fertilizer, any significant amount of retardant reaching Sooke Lake Reservoir could stimulate algal growth and lead to short and mid-term water quality deterioration.

A post-fire water quality assessment with additional and targeted water quality monitoring in Sooke Lake Reservoir and potentially affected tributary streams began on Friday, August 21. The data analysis has not yet detected any measurable water quality impact as a result of the retardant application and the wildfires. This post-fire water quality assessment will continue once currently dry streams begin to flow after the onset of the fall rains.

CRD Emergency Operations Centre

The CRD Emergency Operations Centre (EOC) was activated on the morning of Tuesday, August 18 in support of wildfire response in the region. There were several other wildfires burning west of Sooke River as a result of the lightning storm, in addition to the fires in the GVWSA. The EOC provided a coordinating role with Corporate Communications on the wildfires in the GVWSA as well as senior CRD staff. The involvement of the EOC allowed CRD Integrated Water Services (IWS) staff to focus on wildfire response and updates to the Water Commissions.

Public Communications

Given that the incident command on the wildfires was the responsibility of the BCWS, it was decided that the CRD would provide supplemental information on the provincial communications about the fires in the GVWSA. However, given the level of media interest, IWS staff provided an interview to give an update on the status of the fires.

Recovery and Rehabilitation

An assessment of the two burned areas is being undertaken following the Post-wildfire Natural Hazards Risk Analysis in BC methodology[2] and early results indicate less than 0.5 ha of high burn severity, and approximately 4 ha of moderate burn severity. Soil hydrophobicity (water repellence), erosion and debris flow potential are being calculated, however given the amount of exposed bedrock and shallow soils there does not appear to be any significant risk of soil and debris being transported from the burned areas. Any movement of sediment and nutrients downslope will most likely be taken up by forest vegetation as the burned sites are about a kilometer away from Sooke Lake Reservoir (Appendix E: Map 4).

Rehabilitation will be undertaken by spreading wood “straw”, an engineered and kiln dried wood product designed for erosion control on the high and moderate burn severity areas. CRD has wood straw in inventory and has ordered additional product for the rehabilitation. The need for grass seeding and/or planting will be re-assessed in the following year or two after allowing for natural regeneration. Grass seeding in particular has been shown in post-wildfire rehabilitation studies to be ineffective in the first year.

[2] Hope, G., P. Jordan, R. Winkler, T. Giles, M. Curran, K. Soneff, and B. Chapman. 2015. Post-wildfire natural hazards risk analysis in British Columbia. Prov. B.C., Victoria, B.C. Land Management Handbook 69. www.for.gov.bc.ca/hfd/pubs/Docs/Lmh/LMH69.htm

The CRD, with the help of the BC Wildfire Service, was successful in responding to and suppressing two wildfires that started as a result of a lightning storm that passed through the region on August 17. The CRD 2020 GVWSA Wildfire Preparedness Plan was followed and adequate wildfire preparedness resources in patrol, equipment and on standby were in place. CRD staff monitored lightning and weather and responded quickly to detect and deploy to the wildfires. BCWS responded quickly, prioritized the GVWSA wildfires over others on southern Vancouver Island, and provided significant ground and air support resources.

The fires were kept to small size and contained within two days. The FireSmart fuel management around the Mt. Healey communication facility and the clearing of radio site lines, helped protect the facility from heat and fire damage.

Lessons learned from the incident will be used to refine wildfire response and suppression procedures and assess the need for additional forest fuel management on Horton Ridge. The burned areas provide an opportunity to test and monitor rehabilitation methods in order to better prepare for the impacts of future wildfires. The learnings from this event will also help improve the working relationship with the BCWS on wildfires in the GVWSA.

RECOMMENDATION

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

Submitted by:	Annette Constabel, M.Sc., R.P.F., P.M.P., Senior Manager, Watershed Protection
Concurrence:	Ted Robbins, B. Sc., C. Tech., General Manager, Integrated Water Services
Concurrence:	Robert Lapham, MCIP, RPP, Chief Administrative Officer

ATTACHMENTS

Appendix A: Details of Lightning Strike Wildfires in the GVWSA
Appendix B: Map 1: 2020 Wildfire Locations - Horton Ridge
Appendix C: Map 2: Mount Healey Fire Perimeter
Appendix D: Map 3: Rithet Fire Perimeter
Appendix E: Map 4: GVWSA Risk Mitigation Features

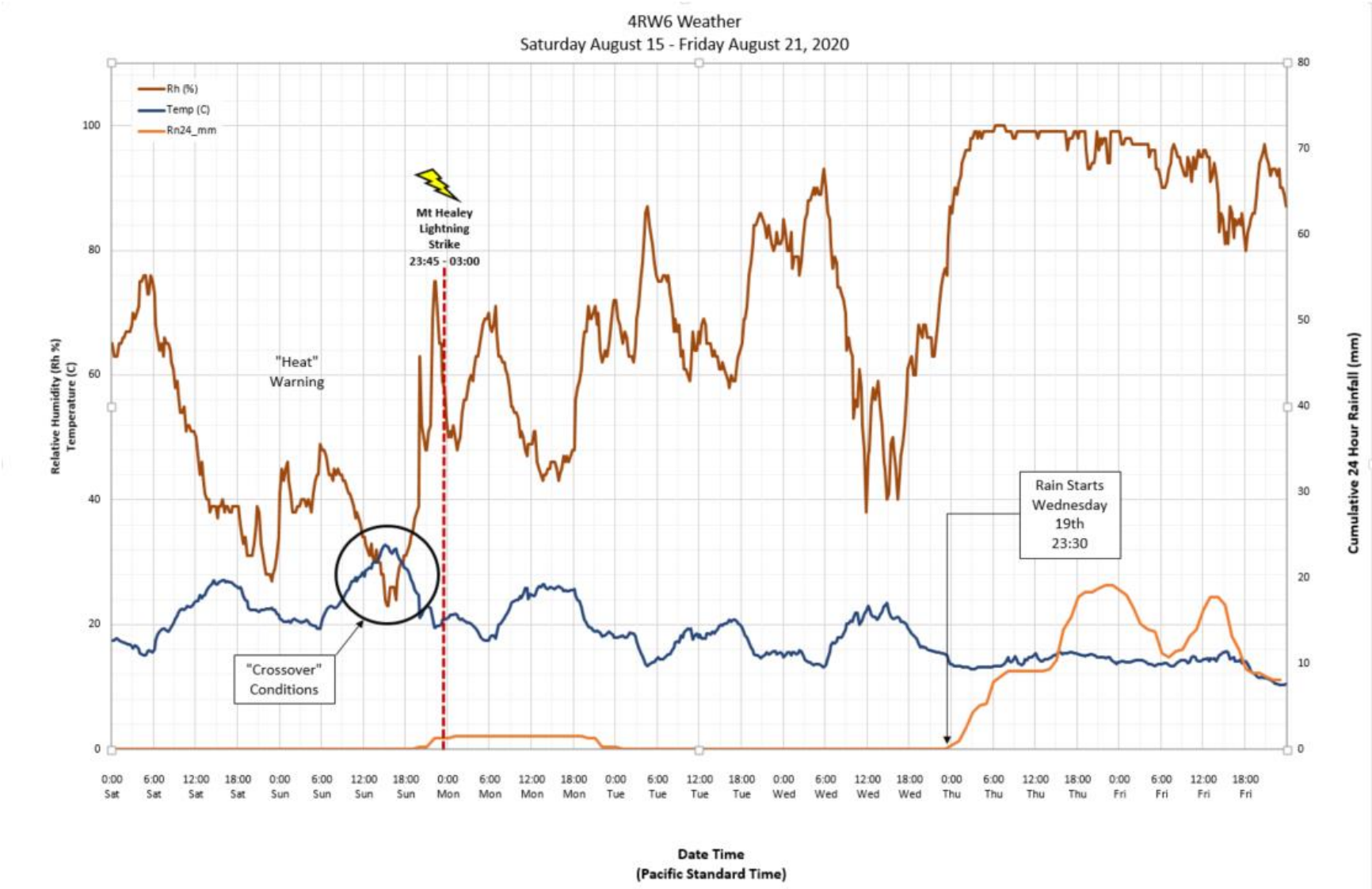
Appendix A

Fire Weather, Wildfire Preparedness, Log of Actions, and Suppression Resources
Wildfires on Horton Ridge in the GVWSA – August 17 to 31, 2020

Fire Weather Conditions and Fire Hazard

The following table and graph show the weather and fire conditions recorded at the nearest weather station at similar elevation and position (4RW weather station) to the fire locations for the period before and during the wildfires.

Date/Time	Status	Temp.	Relative humidity	Total Rain	Windspeed (km/hr)	Wind Direction	Fire Danger Rating	Fine Fuel Moisture Code
Sunday August 16	Hot weather with outflow winds	28ºC	34 %	0 mm	9 – 18	NE (outflow)	High	91
Afternoon-overnight	Evening thunderstorm with lightning strikes	High of 33ºC	Low of 21 %	1.5 mm	max gusts of 36	SW	n/a	n/a
Monday Aug 17	Two fires detected – suppression begins	25ºC	49 %	0 mm	6 – 18 max gusts to 30	NE (outflow)	High	83
Tuesday Aug 18	Fires grow somewhat overnight – suppression continues	18ºC	65 %	0 mm	7 - 29	W	High	84
Wednesday Aug 19	Fires contained – mop up	23ºC	47 %	0 mm	6 - 18	NE then SW	High	88
Thursday Aug 20	Mop up and rains douse all flames	15ºC	99 %	19 mm	5 - 11	NE then SW	Low	22
Friday August 21	Rain and patrol for hotspots	14ºC	94 %	8 mm	6 - 30	SW	Low	8
Saturday Aug 22 – Sunday Aug 30	Patrol, heat scanning for hotspots, minor amounts of rain							
Monday Aug 31	Fire declared “out”							


4RW6 Weather
Saturday August 15 - Friday August 21, 2020
Rh (%)
Temp (C)
Rn24_mm
Mt Healey Lightning Strike 23:45 - 03:00
"Heat" Warning
"Crossover" Conditions
Rain Starts Wednesday 19th 23:30
Relative Humidity (Rh %) Temperature (C)
Cumulative 24 Hour Rainfall (mm)
Date Time (Pacific Standard Time)

Wildfire Preparedness

The 2020 GVWSA Wildfire Preparedness Plan sets out the number and position of wildland firefighting resources deployed based on Fire Danger Rating. The highest danger rating in the GVWSA for this time period was Extreme and this was the level of preparedness for Sunday and Monday August 16 and 17 with the following in place as per the plan:

Ground Patrol: 3 initial attack crews on shifts of: 06:00 – 14:00; 10:00 – 18:00; 13:00 – 21:00
Air Patrol: twice daily at 10:00 and 15:00
Standby: total of 9 including the Duty Officer
Equipment:

Type	Location
Water Tender (16,600L)	Field Operations Centre (FOC)
Gravel Truck/Tender (6,800 L)	FOC
Mini Tender (2,700 L)	Sooke Dam
Mini Tender (2,700 L)	Sooke Fire Cache
Skidder (1,500 L)	Goldstream Boathouse
Sprinkler Trailer (General)	FOC

Wildfire Response – Highlight of Log of Actions

Sunday August 16

Although lightning was not forecasted at last report on Friday, Watershed Protection (WP) staff note and watch lightning storms on Sunday, following publicly available lightning location information. A compiled view of lightning strikes that night taken from Mount Tolmie looking west is shown below. The storm resulted in nine fire starts in the region and 16 on southern Vancouver Island. Some of the major strikes shown on the right hand side of the compilation may have started the GVWSA fires.

Compilation courtesy of Adam Lee photography

Monday August 17

06:00 Early patrol tries to get BCWS lightning locator information at the FOC and departs splitting up in two directions
06:55 Patrol reports smoke visible from the Kapoor Mile 10 vantage point, calls in fire report to the office and requests resources. Photo above of initial fire sighting (Healey fire):
07:14 Healey fire reported to BCWS (Initial Fire Report) – numbered V61186
08:00 First CRD crews with fire suppression resources arrive at Mt Healey
08:45 BCWS representative arrives at the FOC to discuss fires and resources
09:00 CRD contract helicopter begins bucketing Healey fire using Deception Reservoir
10:18 Rithet fire detected by staff enroute to Healey fire
10:19 CRD signs over Incident Command of the fires to BCWS
10:20 CRD air patrol calls in other fires outside the GVWSA as well as the Rithet fire
11:30 Observations of rank 3 (moderately vigorous ground fire) wildfire behavior indicating likely fire spread without air suppression resources
13:00 BCWS/CRD discuss use of retardant. Preference for no retardant but priority to limit fire spread. CRD Water Quality approves use of retardant on the fires if deemed necessary.
13:10 Staff arrive at Rithet fire – numbered V61180
13:10 11,000 L of fire retardant laid out in 4 lines around Healey fire

CRD and BCWS resources (ground and air support) continue to roll out to fires.

Rithet fire receives limited further ground resources due to difficult access, lower priority and smaller size – access trails constructed and a location chosen for a helicopter landing pad.

16:00 Amphibious air tankers (7) skim water (3,000 L per load) from Shawnigan and Cowichan Lakes and apply water to both fires from the air in multiple passes (6 loads per hour) for approximately 2.5 hours. Approximately 300,000 L of water were dropped on the fires.

Total Deployment

CRD	BCWS
24 personnel, 2 water tenders, 1 intermediate helicopter	Two 8 person contract crews, 3 officers, 1 light helicopter, 1 intermediate helicopter, air tankers


Healey Fire - Monday


Rithet Fire - Monday

Tuesday August 18

08:30 The CRD EOC is officially opened and a task number requested and provided by EMBC.

Limited fire spread overnight, continuation of ground fire suppression with helicopter air support with containment of both fires achieved by end of day. BCWS provides one Incident Commander for each fire. The helicopter pad at the Rithet fire is constructed.

Total Deployment

CRD	BCWS
23 personnel, 2 water tenders	One 20 person unit crew, two 8 person contract crews, 4 contract fallers, 3 officers, 1 intermediate helicopter, I medium helicopter, 1 heavy helicopter

Wednesday August 19

Fires remain contained and suppression within the fire area begins, along with start of mop-up meaning extinguishing all flames and cooling hotspots with water within the fire area.

Total Deployment

CRD	BCWS
13 personnel, 2 water tenders	One 20 person unit crew, two 8 person contract crews, 4 contract fallers, 2 officers

Thursday August 20
Mop up continues aided by approximately 20 mm of rainfall that begins in the late afternoon.

Total Deployment

CRD	BCWS
11 personnel, 1 water tender	One 20 person unit crew, two 8 person contract crews, 2 officers

Friday August 21
An additional 8 mm of rain falls. Mop up activities largely complete. Demobilization and patrol begins.

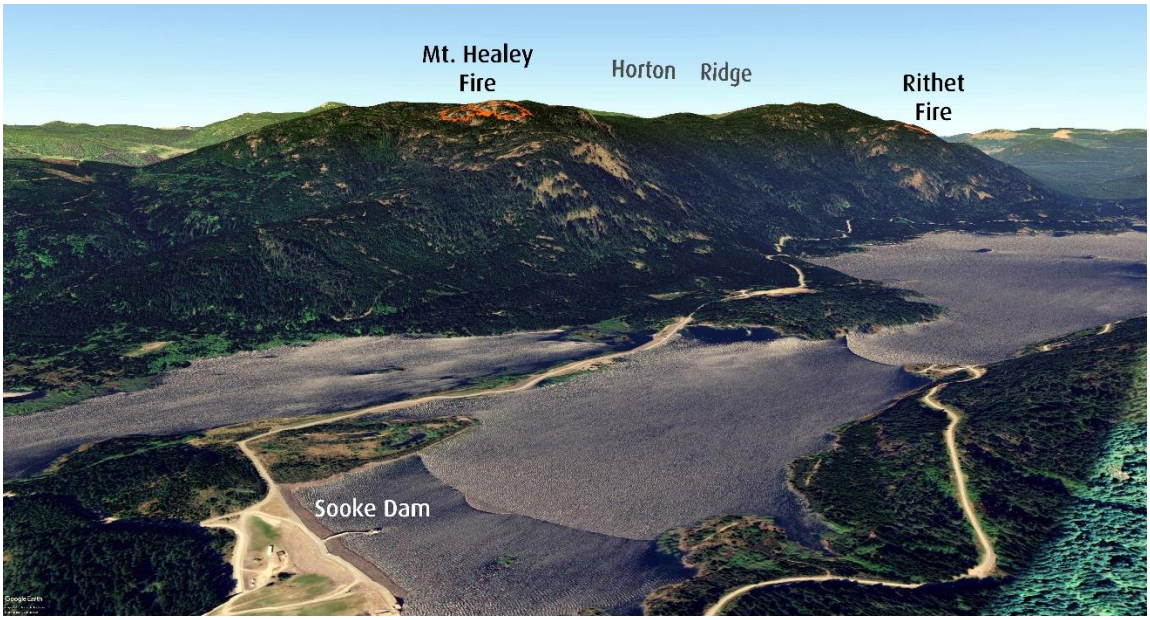
Total Deployment

CRD	BCWS
7 personnel, 1 water tender	Two 3 person Initial attack crews

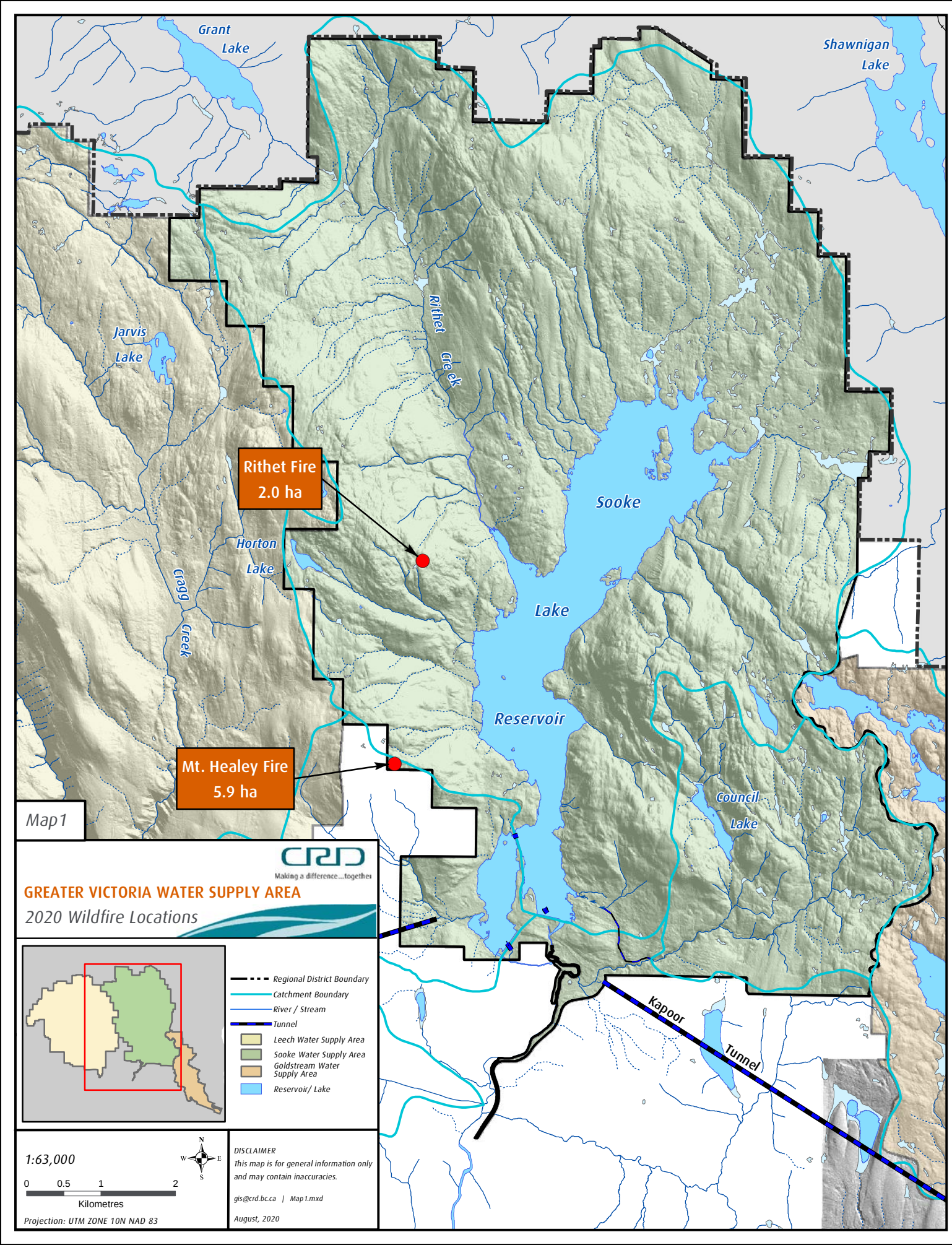
Saturday Aug 22 – Sunday Aug 30
Daily patrol by CRD and BCWS, heat scanning for hotspots, minor amounts of rain.
Fire declared out by BCWS on Monday Aug 31.

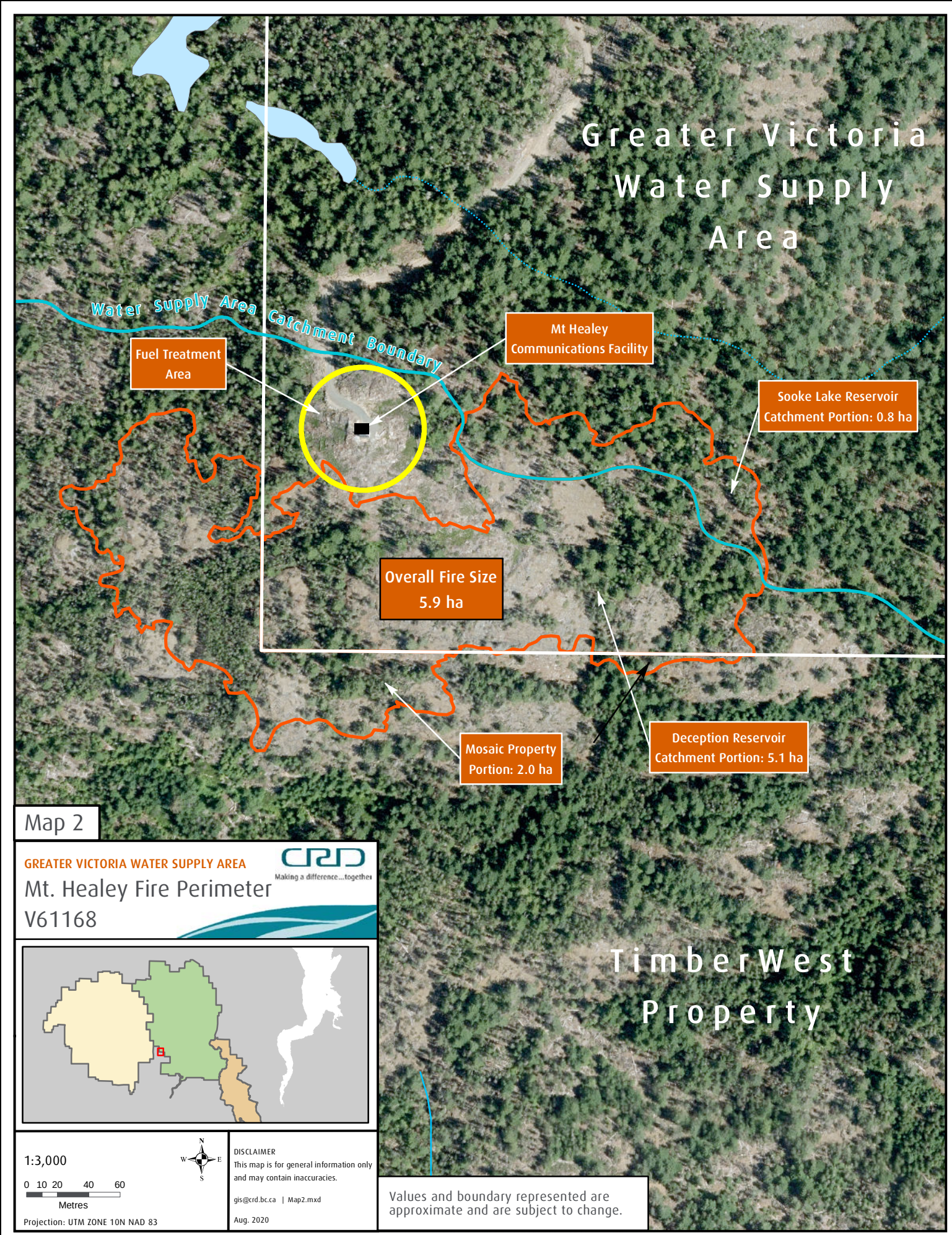
View of Healey fire (V61186) relative to the Communications Facility, Sooke Lake Reservoir, Intake Tower and Deception Reservoir.

View of Rithet fire (V11860) relative to Sooke Lake Reservoir.



A rendered view of the location of the two fires relative to Sooke Lake and Deception Reservoirs.


Grant Lake
Shawnigan Lake
Jarvis Lake
Rithet Creek
Rithet Fire
2.0 ha
Sooke
Horton Lake
Cragg Creek
Lake
Reservoir
Mt. Healey Fire
5.9 ha
Council Lake
Kapoor Tunnel
Map1
Making a difference...together
GREATER VICTORIA WATER SUPPLY AREA
2020 Wildfire Locations
Regional District Boundary
Catchment Boundary
River / Stream
Tunnel
Leech Water Supply Area
Sooke Water Supply Area
Goldstream Water Supply Area
Reservoir/ Lake
1:63,000
N
W
E
S
0 0.5 1 2
Kilometres
Projection: UTM ZONE 10N NAD 83
DISCLAIMER
This map is for general information only and may contain inaccuracies.
gis@crd.bc.ca | Map1.mxd
August, 2020



Map 2

GREATER VICTORIA WATER SUPPLY AREA

Mt. Healey Fire Perimeter V61168

CRD Making a difference...together

1:3,000

0 10 20 40 60

Metres

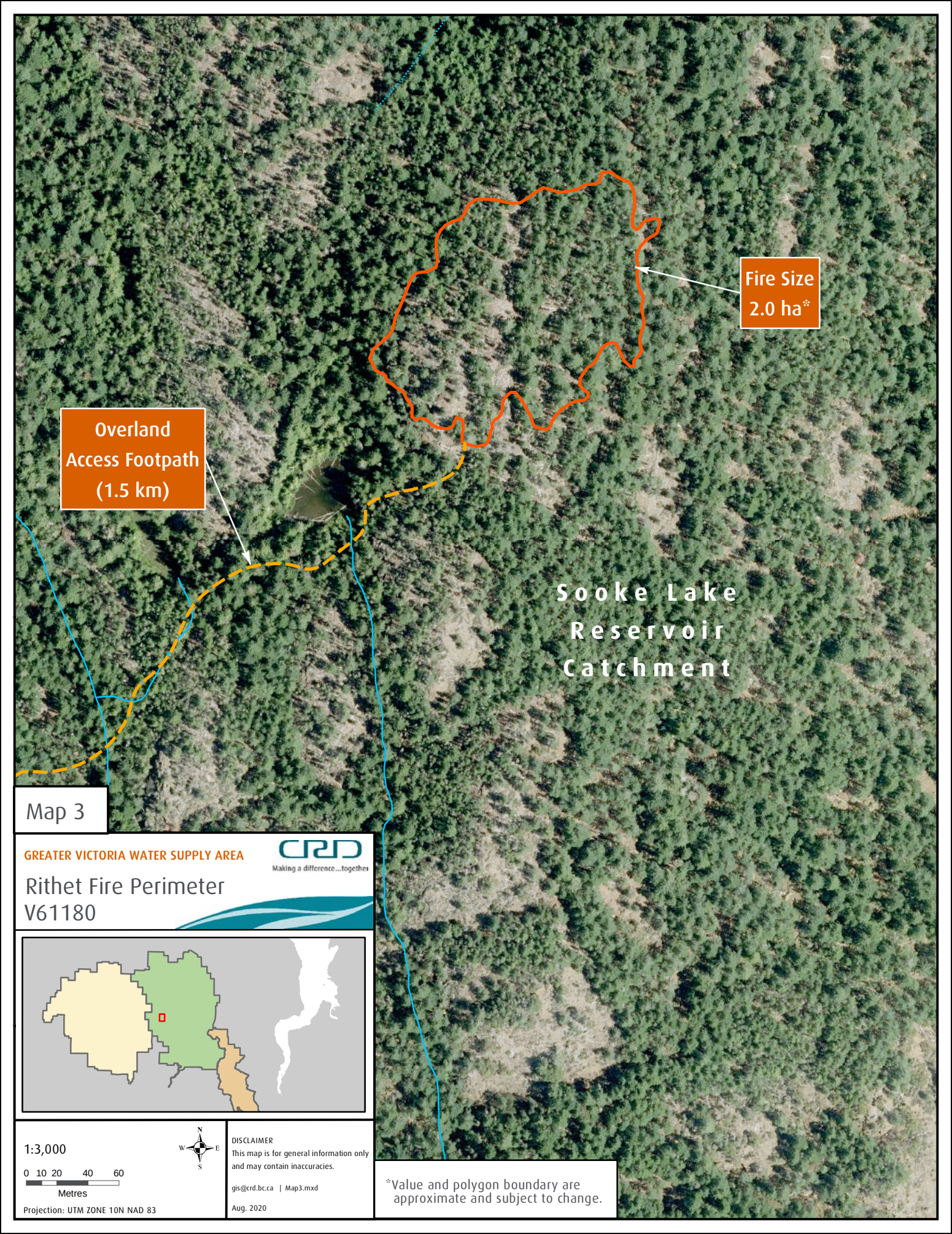
Projection: UTM ZONE 10N NAD 83

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

gis@crd.bc.ca | Map2.mxd

Aug. 2020

Values and boundary represented are approximate and are subject to change.



Map 3

GREATER VICTORIA WATER SUPPLY AREA

CRD
Making a difference...together

Rithet Fire Perimeter
V61180

1:3,000

0 10 20 40 60
Metres

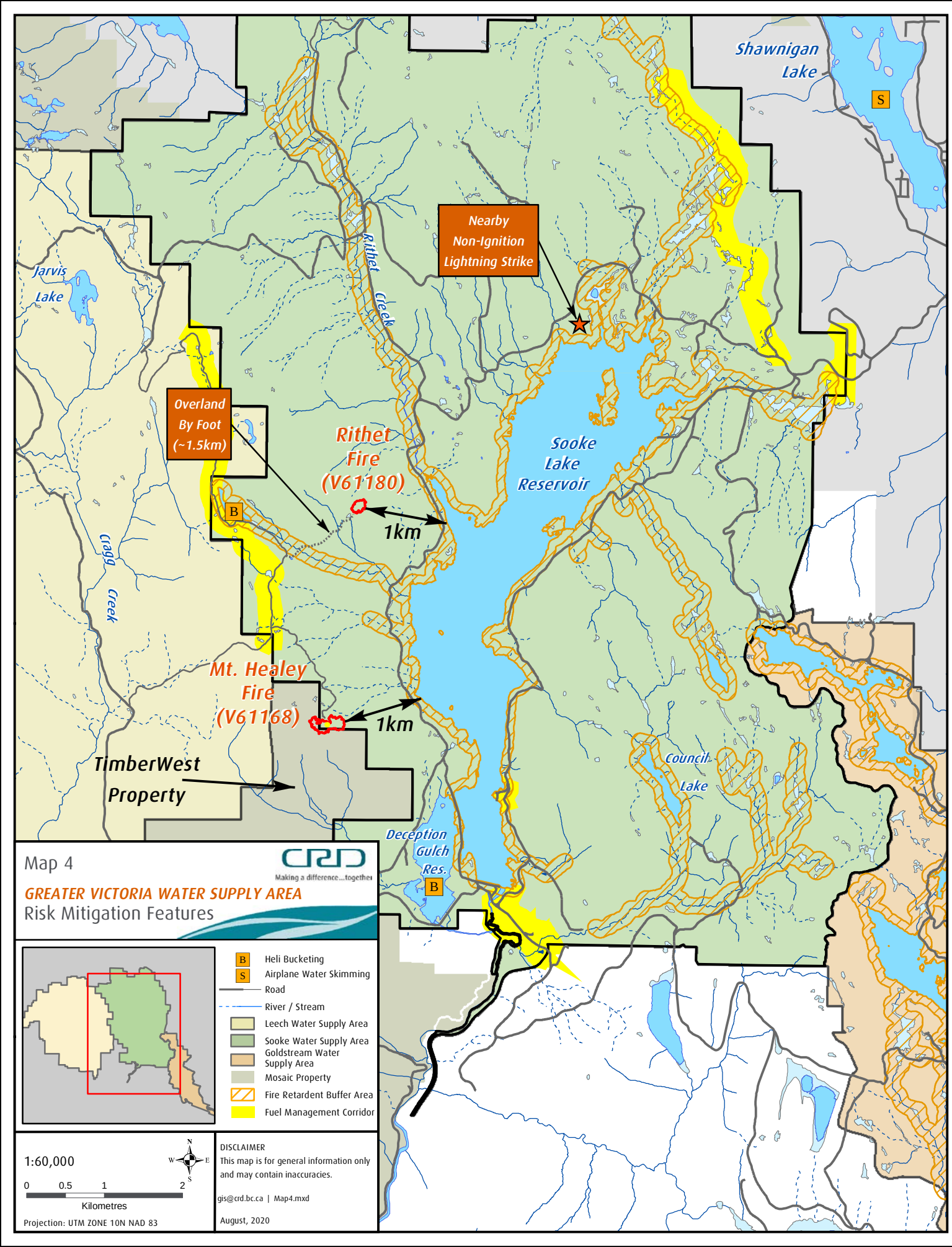
Projection: UTM ZONE 10N NAD 83

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

gis@crd.bc.ca | Map3.mxd

Aug. 2020

*Value and polygon boundary are approximate and subject to change.


Shawnigan Lake
S
Nearby Non-Ignition Lightning Strike
Rithet Creek
Jarvis Lake
Overland By Foot (~1.5km)
Rithet Fire (V61180)
Sooke Lake Reservoir
B
1km
Cragg Creek
Mt. Healey Fire (V61168)
1km
TimberWest Property
Council Lake
Deception Gulch Res.
B
Map 4
Making a difference...together
GREATER VICTORIA WATER SUPPLY AREA
Risk Mitigation Features
B Heli Bucketing
S Airplane Water Skimming
Road
River / Stream
Leech Water Supply Area
Sooke Water Supply Area
Goldstream Water Supply Area
Mosaic Property
Fire Retardent Buffer Area
Fuel Management Corridor
1:60,000
N
W
E
S
0 0.5 1 2
Kilometres
Projection: UTM ZONE 10N NAD 83
DISCLAIMER
This map is for general information only and may contain inaccuracies.
gis@crd.bc.ca | Map4.mxd
August, 2020

Making a difference...together

CAPITAL REGIONAL DISTRICT
SAANICH PENINSULA WATER COMMISSION
Thursday, July 16, 2020

MEETING HOTSHEET
(ACTION LIST)

The following is a quick snapshot of the FINAL Saanich Peninsula Water Commission decisions made at the meeting. The minutes will represent the official record of the meeting.

2. ADOPTION OF MINUTES

That the minutes of the June 18, 2020 meeting be adopted.

CARRIED

3. APPROVAL OF RESOLUTION

1. That this resolution applies to the Saanich Peninsula Water Commission for the meetings being held between July 1, 2020 and December 31, 2020.
2. That the attendance of the public at the place of the meeting cannot be accommodated in accordance with the applicable requirements or recommendations under the *Public Health Act*, despite the best efforts of the Saanich Peninsula Water Commission, because:
    a. The available meeting facilities cannot accommodate more than (8) people in person, including members of the Saanich Peninsula Water Commission and staff, and
    b. There are no other facilities presently available that will allow physical attendance of the Saanich Peninsula Water Commission and the public in sufficient numbers; and
3. That the Saanich Peninsula Water Commission is ensuring openness, transparency, accessibility and accountability in respect of the open meeting by the following means:
    a. By allowing the public to hear or participate via teleconference or electronic meeting software,
    b. By providing notice of the meeting in newspaper or local notice Board, including the methods for providing written or electronic submissions,
    c. By making the meeting agenda, as well as the other relevant documents, available on the CRD website, and directing interested persons to the website by means of the notices provided in respect of the meeting,
    d. By strongly encouraging the provision of, and subsequently receiving and distributing to members, written correspondence from the public in advance of the meeting, and
    e. By making the minutes of the meeting available on the CRD website following the meeting.

That the Saanich Peninsula Water Commission adopt the resolution as presented.

CARRIED

6. COMMISSION BUSINESS

6.1. Summary of Recommendations from Other Water Commissions

That the Summary of Recommendations from other water commissions be received for information.

CARRIED

6.2. Water Watch Report

That the July 6, 2020 Water Watch Report be received for information.

CARRIED

7. NEW BUSINESS

MOVED by Commissioner Barnhart, **SECONDED** by Commissioner Weisenberger,
That the Saanich Peninsula Water Commission, subject to the ability to appoint alternate representatives to the Water Advisory Committee, appoint Mike Doehnel as alternate to Ron Barnhart to the Water Advisory Committee.

CARRIED

File No. 902-03

CAPITAL REGIONAL DISTRICT - INTEGRATED WATER SERVICES

Water Watch

Issued September 08, 2020

Water Supply System Summary:

1. Useable Volume in Storage:

Reservoir	September 30 5 Year Ave		September 30/19		September 6/20		% Existing Full Storage
	ML	MIG	ML	MIG	ML	MIG	
Sooke	63,429	13,954	64,289	14,144	68,078	14,977	73.4%
Goldstream	5,377	1,183	4,117	906	6,685	1,471	67.4%
Total	68,806	15,137	68,406	15,049	74,763	16,448	72.9%

2. Average Daily Demand:

For the month of September	187.0 MLD	41.13 MIGD
For week ending September 06, 2020	184.3 MLD	40.55 MIGD
Max. day September 2020, to date:	200.1 MLD	44.03 MIGD

3. Average 5 Year Daily Demand for September

Average (2015 - 2019)	141.9 MLD [1]	31.22 MIGD [2]

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

4. Rainfall September:

Average (1914 - 2019):	64.7 mm
Actual Rainfall to Date	0.0 mm (0% of monthly average)

5. Rainfall: Sep 1- Sep 6

Average (1914 - 2019):	9.6 mm
2019/2020	0.0 mm (0% of average)

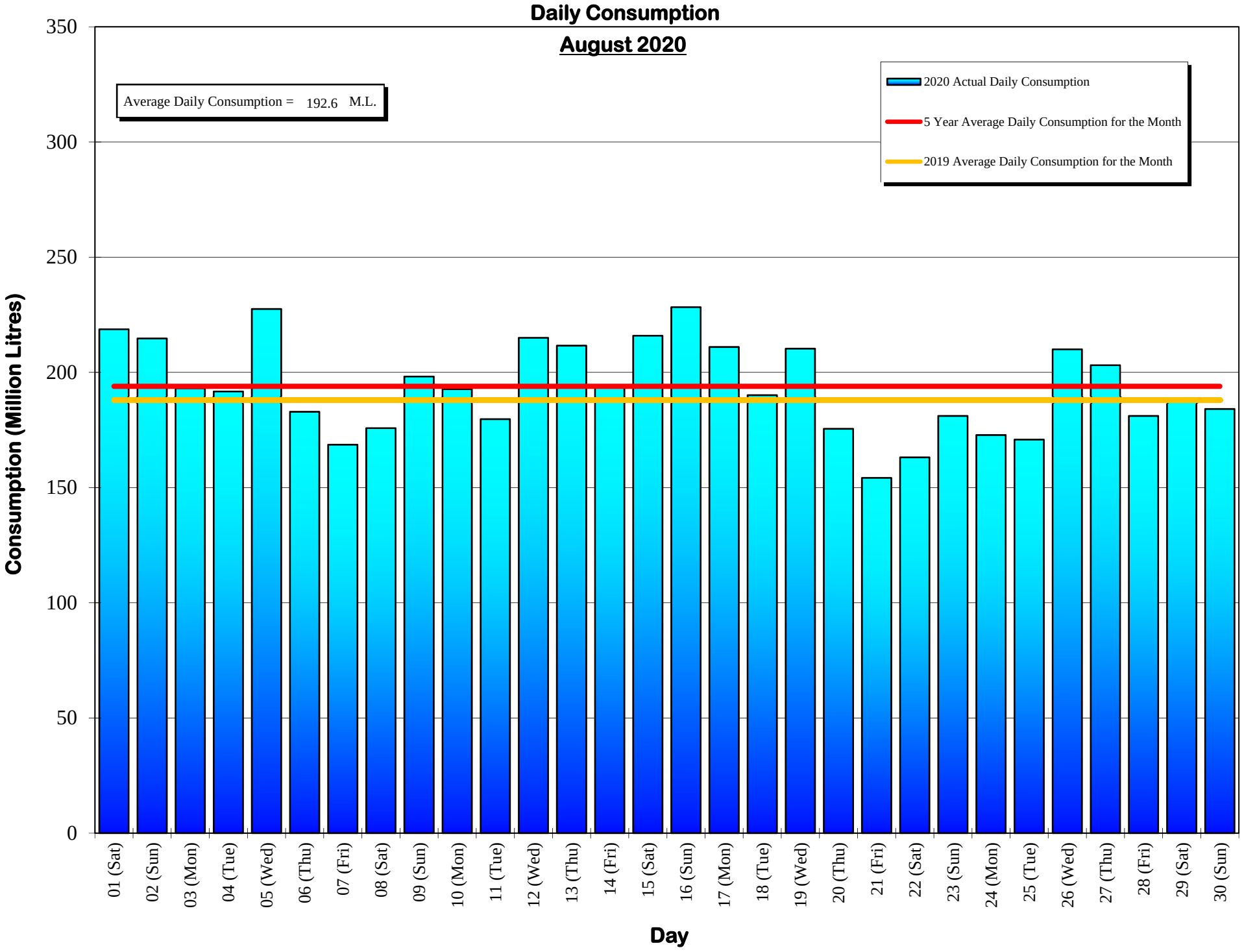
6. Water Conservation Action Required:

CRD's Stage 1 Water Conservation Bylaw is now in effect through to September 30, 2020.
Visit www.crd.bc.ca/water for scheduling information.

If you require further information, please contact:

Ted Robbins, B.Sc., C.Tech
General Manager, CRD - Integrated Water Services
or
Glenn Harris, Ph D., RPBio
Senior Manager - Environmental Protection

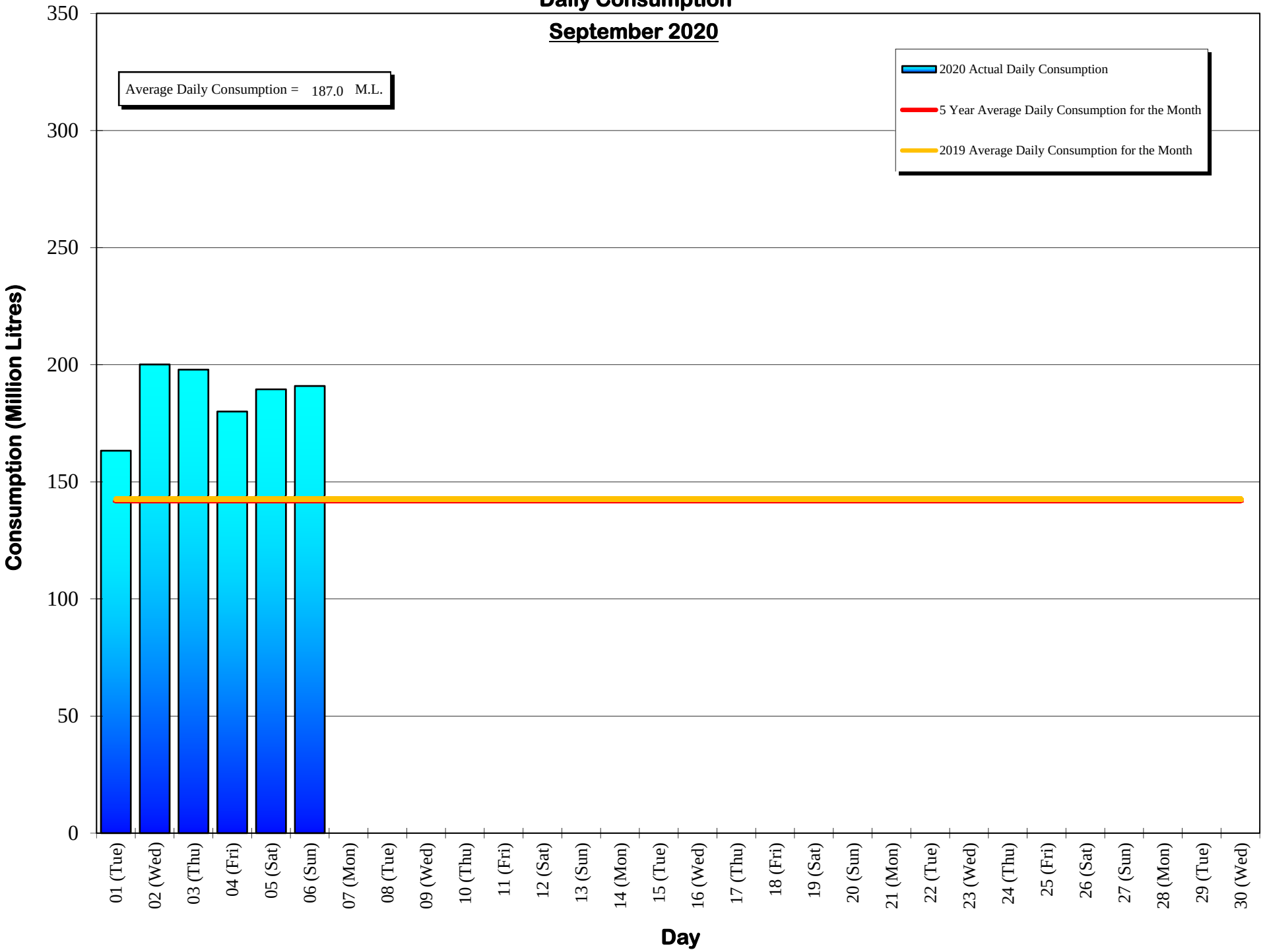
Capital Regional District Integrated Water Services
479 Island Highway
Victoria, BC V9B 1H7
(250) 474-9600



J:\WATERENG\HYDROLGY\AMRIT\MONTHEND.20\H2o watch 2020Cons. Chart

Daily Consumption

September 2020



J:\WATERENG\HYDROLGY\AMRIT\MONTHEND.20\H2o watch 2020Cons. Chart

Daily Consumptions: - August 2020

Date	Total Consumption (ML) [1]		(MIG) [2]	Air Temperature @ Japan Gulch High (°C)	Low (°C)	Weather Conditions	Precipitation @ Sooke Res.: 12:00am to 12:00am Rainfall (mm)	Snowfall [3] (mm)	Total Precip.
01 (Sat)	218.7		48.1	26	14	Sunny / P. Cloudy	0.0	0.0	0.0
02 (Sun)	214.7		47.2	25	13	Sunny / P. Cloudy / Shower	0.3	0.0	0.3
03 (Mon)	193.1		42.5	26	16	Sunny / P. Cloudy / Shower	0.3	0.0	0.3
04 (Tue)	191.7		42.2	28	14	Sunny	0.0	0.0	0.0
05 (Wed)	227.5		50.0	28	15	Sunny	0.0	0.0	0.0
06 (Thu)	182.9		40.2	20	13	Sunny / P. Cloudy / Showers	7.6	0.0	7.6
07 (Fri)	168.6		37.1	21	11	Sunny / P. Cloudy / Showers	3.0	0.0	3.0
08 (Sat)	175.8		38.7	20	12	Cloudy / P. Sunny	0.0	0.0	0.0
09 (Sun)	198.2		43.6	23	11	Sunny / P. Cloudy	0.0	0.0	0.0
10 (Mon)	192.7		42.4	24	13	Sunny	0.0	0.0	0.0
11 (Tue)	179.7		39.5	21	12	Sunny	0.0	0.0	0.0
12 (Wed)	215.0		47.3	21	10	Sunny / P. Cloudy	0.0	0.0	0.0
13 (Thu)	211.6		46.5	23	9	Sunny	0.0	0.0	0.0
14 (Fri)	193.9		42.7	24	11	Sunny / P. Cloudy	0.0	0.0	0.0
15 (Sat)	215.9		47.5	29	13	Sunny	0.0	0.0	0.0
16 (Sun)	228.3	<=Max	50.2	31	15	Sunny / P. Cloudy	0.0	0.0	0.0
17 (Mon)	211.0		46.4	29	19	Sunny / P. Cloudy	0.0	0.0	0.0
18 (Tue)	190.1		41.8	25	16	Sunny	0.0	0.0	0.0
19 (Wed)	210.3		46.3	24	14	Cloudy / Showers / P. Sunny	1.0	0.0	1.0
20 (Thu)	175.5		38.6	19	15	Cloudy / Showers	12.7	0.0	12.7
21 (Fri)	154.2	<=Min	33.9	20	13	Cloudy / Showers	7.6	0.0	7.6
22 (Sat)	163.1		35.9	21	11	Sunny / P. Cloudy	0.0	0.0	0.0
23 (Sun)	181.1		39.9	22	10	Sunny / P. Cloudy	0.0	0.0	0.0
24 (Mon)	172.8		38.0	22	13	Sunny / P. Cloudy	0.0	0.0	0.0
25 (Tue)	170.8		37.6	24	11	Sunny	0.0	0.0	0.0
26 (Wed)	210.0		46.2	24	11	Sunny	0.0	0.0	0.0
27 (Thu)	203.1		44.7	23	12	Sunny	0.0	0.0	0.0
28 (Fri)	181.1		39.8	26	11	Sunny	0.0	0.0	0.0
29 (Sat)	187.5		41.2	19	11	Sunny / P. Cloudy	0.0	0.0	0.0
30 (Sun)	184.1		40.5	21	9	Sunny / P. Cloudy / Showers	0.8	0.0	0.8
31 (Mon)	168.2		37.0	19	11	Sunny / P. Cloudy	0.0	0.0	0.0
TOTAL	5971.2 ML		1313.6 MIG				33.3	0	33.3
MAX	228.3		50.23	31	19		12.7	0	12.7
AVG	**192.6**		42.37	23.5	12.5		1.1	0	1.1
MIN	154.2		33.92	19	9		0.0	0	0.0

1. ML = Million Litres
2. MIG = Million Imperial Gallons
3. 10% of snow depth applied to rainfall figures for snow to water equivalent.

Average Rainfall for August (1914-2019)	29.3 mm
Actual Rainfall: August	33.3 mm
% of Average	114%
Average Rainfall (1914-2019): Sept 01 - Sep 06	9.6 mm
Actual Rainfall (2020): Sept 01 - Sep 06	0.0 mm
% of Average	0%

Number days with precip. 0.2 or more
8

Daily Consumptions: - September 2020

Date	Total Consumption (ML) [1]		(MIG) [2]	Air Temperature @ Japan Gulch High (°C)	Low (°C)	Weather Conditions	Precipitation @ Sooke Res.: 12:00am to 12:00am Rainfall (mm)	Snowfall [3] (mm)	Total Precip.
01 (Tue)	163.3	<=Min	35.9	24	11	Sunny	0.0	0.0	0.0
02 (Wed)	200.1	<=Max	44.0	24	13	Sunny	0.0	0.0	0.0
03 (Thu)	197.9		43.5	25	13	Sunny	0.0	0.0	0.0
04 (Fri)	180.0		39.6	28	14	Sunny	0.0	0.0	0.0
05 (Sat)	189.5		41.7	22	14	Sunny	0.0	0.0	0.0
06 (Sun)	190.9		42.0	24	13	Sunny	0.0	0.0	0.0
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	1121.7 ML		246.79 MIG				0.0	0	0.0
MAX	200.1		44.03	28	14		0.0	0	0.0
AVG	**187.0**		41.13	24.5	13.0		0.0	0	0.0
MIN	163.3		35.93	22	11		0.0	0	0.0

1. ML = Million Litres

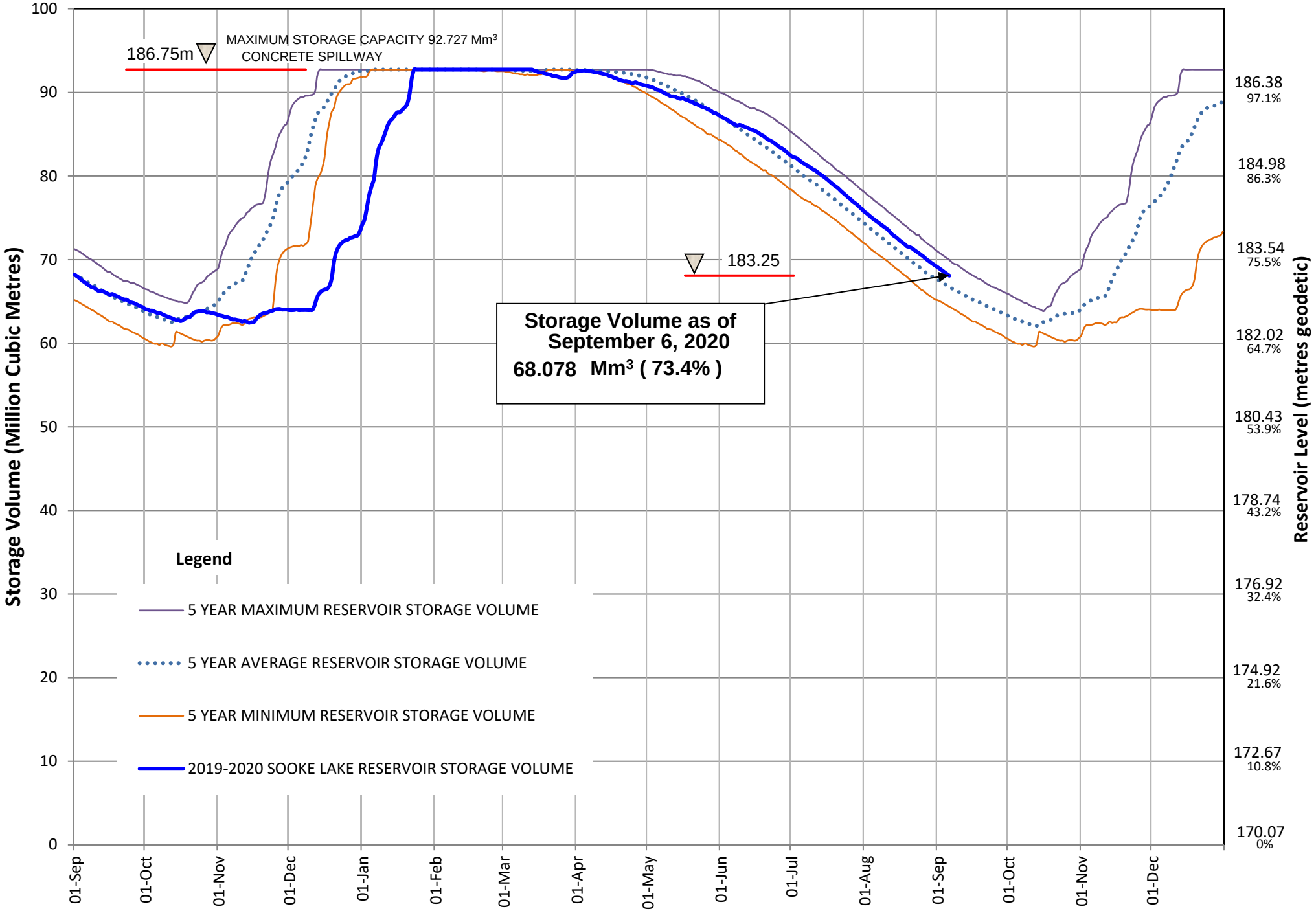
2. MIG = Million Imperial Gallons

3. 10% of snow depth applied to rainfall figures for snow to water equivalent.

Average Rainfall for September (1914-2019)	64.7 mm
Actual Rainfall: September	0.0 mm
% of Average	0%
Average Rainfall (1914-2019): Sept 01 - Sep 06	9.6 mm
Actual Rainfall (2020): Sept 01 - Sep 06	0.0 mm
% of Average	0%

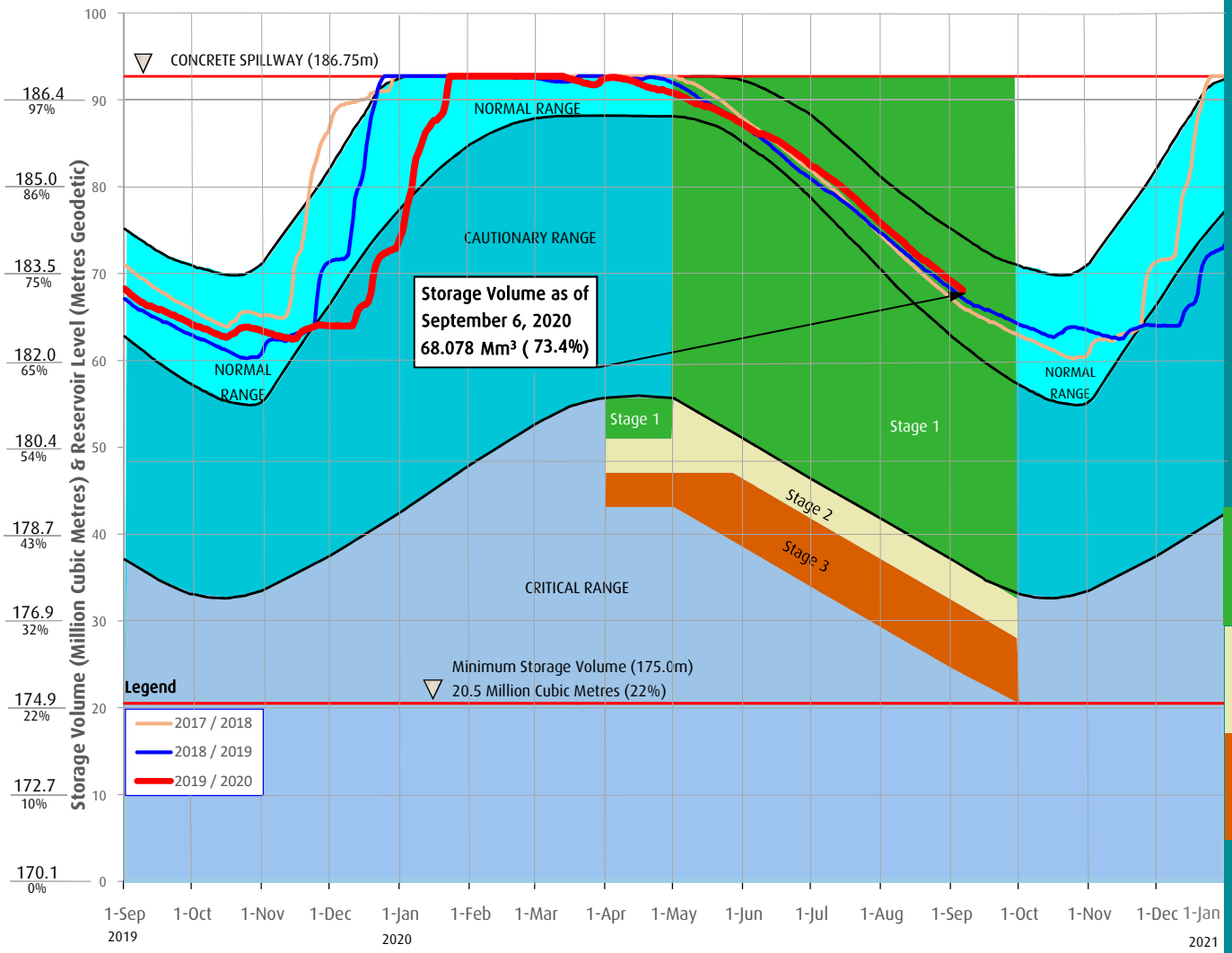
Number days with precip. 0.2 or more
0

SOOKE LAKE RESERVOIR STORAGE SUMMARY
2019 / 2020



Sooke Lake Reservoir Storage Level

Water Supply Management Plan



FAQs

How are water restriction stages determined?

Several factors are considered when determining water use restriction stages, including,

1. Time of year and typical seasonal water demand trends;
2. Precipitation and temperature conditions and forecasts;
3. Storage levels and storage volumes of water reservoirs (Sooke Lake Reservoir and the Goldstream Reservoirs) and draw down rates;
4. Stream flows and inflows into Sooke Lake Reservoir;
5. Water usage, recent consumption and trends; and customer compliance with restriction;
6. Water supply system performance.

The Regional Water Supply Commission will consider the above factors in making a determination to implement stage 2 or 3 restrictions, under the Water Conservation Bylaw.

At any time of the year and regardless of the water use restriction storage, customers are encouraged to limit discretionary water use in order to maximize the amount of water in the Regional Water Supply System Reservoirs available for nondiscretionary potable water use.

Stage 1 is normally initiated every year from May 1 to September 30 to manage outdoor use during the summer months. During this time, lawn watering is permitted twice a week at different times for even and odd numbered addresses.

Stage 2 Is initiated when it is determined that there is an acute water supply shortage. During this time, lawn water is permitted once a week at different times for even and odd numbered addresses.

Stage 3 Is initiated when it is determined that there is a severe water supply shortage. During this time, lawn watering is not permitted. Other outdoor water use activities are restricted as well.

For more information, visit www.crd.bc.ca/drinkingwater

CRD

Making a difference...together

Useable Reservoir Volumes in Storage for September 06, 2020