



Notice of Meeting and Meeting Agenda Regional Parks Committee

Wednesday, June 25, 2025

9:30 AM

6th Floor Boardroom
625 Fisgard St.
Victoria, BC V8W 1R7

J. Brownoff (Chair), C. Harder (Vice Chair), C. Coleman, S. Goodmanson, G. Holman,
M. Tait, S. Tobias, K. Williams, R. Windsor, C. McNeil-Smith (Board Chair, ex officio)

The Capital Regional District strives to be a place where inclusion is paramount and all people are treated with dignity. We pledge to make our meetings a place where all feel welcome and respected.

1. Territorial Acknowledgement

2. Approval of Agenda

3. Adoption of Minutes

3.1. [25-0587](#) Minutes of the Regional Parks Committee Meeting of April 23, 2025

Recommendation: That the minutes of the Regional Parks Committee meeting of April 23, 2025 be adopted as circulated.

Attachments: [Minutes - April 23, 2025](#)

4. Chair's Remarks

5. Presentations/Delegations

5.1. Presentations

5.2. Delegations

5.2.1. [25-0788](#) Delegation - Mick Collins; Representing the Victoria Golden Rods and Reels Fishing and Social Club: Re: Agenda Item 6.2.: Elk Lake Oxygenation System Update

6. Committee Business

6.1. [25-0621](#) 2025 Summer Outreach and Education Overview

Recommendation: There is no recommendation. This report is for information only.

Attachments: [Staff Report: 2025 Summer Outreach and Education Overview](#)
[Presentation: Reg. Parks & Trails 2025 Summer Outreach & Education](#)

6.2. [25-0771](#) Elk Lake Oxygenation System Update

Recommendation: There is no recommendation. This report is for information only.

Attachments: [Staff Report: Elk Lake Oxygenation System Update](#)
 [Presentation: Elk Lake Oxygenation System Update](#)

7. Notice(s) of Motion**7.1. [25-0639](#) Motion with Notice: CRD Parks Parking Policy (M. Essery)**

Recommendation: [At the May 20, 2025 Accessibility Advisory Committee Meeting, the Committee passed the following motion with notice asking that it be referred to the Regional Parks Committee.

At the June 11, 2025 CRD Board meeting, the Board referred the motion with notice to the next meeting of the Regional Parks Committee.

The referral motion needs to be discussed and to be decided upon. The Regional Parks Committee has an opportunity to decide whether to direct staff as per the motion, amend it or not support it.]

The Accessibility Advisory Committee recommend to the Regional Parks Committee recommends to the Capital Regional District Board:

That the CRD Parks waive parking fees for people with disabilities where they require an extra accessible vehicle, similar to BC Parks parking policy.

Attachments: [Background: Draft Minutes \(Excerpt\) of AAC Meeting of May 20, 2025](#)

8. New Business**9. Motion to Close the Meeting****9.1. [25-0767](#) Motion to Close the Meeting**

Recommendation: That the meeting be closed for intergovernmental negotiations in accordance with Section 90(2)(b) of the Community Charter. [1 Item]

10. Adjournment

The next meeting is July 23, 2025.

To ensure quorum, please advise Tamara Pillipow (tpillipow@crd.bc.ca) if you or your alternate cannot attend.

Meeting Minutes

Regional Parks Committee

Wednesday, April 23, 2025

9:30 AM

6th Floor Boardroom
625 Fisgard St.
Victoria, BC V8W 1R7

PRESENT

Directors: J. Brownoff (Chair), C. Harder (Vice Chair), J. Bateman (for M. Tait) (EP), C. Coleman, S. Goodmanson, G. Holman (EP), S. Riddell (for R. Windsor), S. Tobias (EP), K. Williams

Staff: L. Jones, General Manager, Parks, Recreation & Environmental Services; M. MacIntyre, Senior Manager, Regional Parks; S. May, Senior Manager, Facilities Management and Engineering Services; N. Cann, Manager, Visitor Experience & Stewardship; J. Mooney, Manager, Park Operations, Regional Parks; A. Pickrell, Senior Parks & Trails Planner; R. Ince, Outdoor Recreation Specialist, Regional Parks; M. Lagoa, Deputy Corporate Officer; T. Pillipow, Committee Clerk (Recorder)

EP - Electronic Participation

Regrets: Directors C. McNeil-Smith, M. Tait, R. Windsor

The meeting was called to order at 9:30 am.

1. Territorial Acknowledgement

Director Coleman provided a Territorial Acknowledgement.

2. Approval of Agenda

MOVED by Director Goodmanson, **SECONDED** by Director Williams,
That the agenda for the Regional Parks Committee meeting of April 23, 2025 be
approved.
CARRIED

3. Adoption of Minutes

3.1. [25-0354](#) Minutes of the February 26, 2025 Regional Parks Committee Meeting

MOVED by Director Coleman, **SECONDED** by Director Williams,
That the minutes of the Regional Parks Committee meeting of February 26, 2025
be adopted as circulated
CARRIED

4. Chair's Remarks

There were no Chair's remarks.

5. Presentations/Delegations

There were no presentations or delegations.

6. Committee Business

6.1. [25-0351](#) Island View Beach Regional Park - Accessibility Improvements

N. Cann spoke to Item 6.1.

Discussion ensued regarding:

- the life span of Mobi-mats in salt water versus fresh water
- appreciation of staff engagement with community stakeholders
- including this initiative on the Island View Beach Regional Park webpage

**MOVED by Director Coleman, SECONDED by Director Harder,
The Regional Parks Committee recommends to the Capital Regional District Board:**

That CRD Regional Parks staff continue to collaborate with the District of Central Saanich and Tsawout First Nation, through the Island View Beach Working Group, to identify opportunities for partnership, on new initiatives to improve meaningful accessibility at Island View Beach Regional Park.

CARRIED

6.2. [25-0447](#) 2024 Regional Parks & Trails Strategic Plan Progress Report

M. MacIntyre presented Item 6.2. for information.

Discussion ensued regarding:

- park volunteer recruitment and retention efforts
- including year-over-year metrics in future reports
- learnings gained from the resident surveys
- the method of measuring regional trail and park usage
- estimating carbon sequestration from the parks
- potentially including a regional target for greenspace protection in the climate action strategy
- parks staff meeting with municipal park managers on a regular basis

7. Notice(s) of Motion

There were no notice(s) of motion.

8. New Business

8.1. [25-0493](#) Staff Appreciation

Director Goodmanson stated his appreciation of past staff in their forethought regarding land use planning which has enabled fallow land to be transformed into neighbourhood parks in developing communities.

9. Adjournment

MOVED by Director Coleman, **SECONDED** by Director Goodman,son,
That the Regional Parks Committee meeting of April 23, 2025 be adjourned at
10:18 am.

CARRIED

CHAIR

RECORDER

**REPORT TO REGIONAL PARKS COMMITTEE
MEETING OF WEDNESDAY, JUNE 25, 2025**

SUBJECT 2025 Summer Outreach and Education Overview

ISSUE SUMMARY

To inform the Regional Parks Committee of the summer 2025 priorities for public education and outreach that will be delivered by the Capital Regional District (CRD) Regional Parks Interpretive and Compliance and Enforcement Programs (Park Ranger Program).

BACKGROUND

With over nine million visits per year as of 2024, CRD regional parks and trails continue to see growing popularity, particularly between June and September, which account for 42% of annual visits. To ensure a positive experience for all visitors while preserving park values, the Park Ranger and Interpretive Programs work together to provide proactive engagement, education and management. Rangers focus on visitor safety and compliance, while interpreters foster an appreciation for the natural and cultural heritage of the region. Through their combined efforts, they help mitigate conflicts, protect the environment and instill a lasting sense of stewardship.

The Park Ranger Program plays a vital role in managing this high visitation, ensuring both safety and environmental integrity. Led by a senior ranger and supported by full-time and auxiliary staff during peak months, rangers patrol the parks, enforce regulations, support wildfire prevention efforts and assist with public awareness campaigns. The Interpretive Program complements these efforts by engaging visitors through education and outreach. With a team led by an interpretation coordinator and including an Indigenous cultural programmer, park interpreters deliver school programs, guided walks, and community events to foster stewardship and responsible park use. Their efforts ensure that rising visitation translates into meaningful connections with the parks and a commitment to their protection.

As visitation trends continue to rise, both programs are preparing for the summer of 2025 with seasonally strengthened staffing levels. Throughout June to September, Park Rangers will log a total of 1,593 patrol hours and Interpreters will contribute 2,740 hours to public education. Their combined presence will ensure CRD parks remain welcoming, safe and well-protected for all visitors.

2025 Work Plan Summary

Overarching priorities for summer of 2025 will include:

Visitor safety in parks, including water safety – Park rangers allocate 30% of their patrol hours to busy swimming locations such as Thetis Lake, Elk/Beaver Lake and Sooke Potholes to remind park visitors about recreating safely in and on the water. Rangers will also be collaborating with partner agencies such as Transport Canada Boating Safety Officers and the Lifesaving Society of BC to share vital safety information with park visitors. In addition, park rangers will also work alongside CRD Bylaw Enforcement Officers who will be patrolling regional parks and educating

park visitors about the regional parks rules and regulations and addressing unsafe behaviour related to alcohol, drugs and other cognitive inhibitors.

Wildfire prevention – During the summer of 2025, park rangers will dedicate 27% of their hours to patrolling regional parks, trails and campgrounds to address wildfire prevention. Their patrol efforts will focus on engaging with visitors who are smoking or having unauthorized campfires and taking steps to mitigate the associated fire risks. In addition to these regular patrols, park rangers will collaborate with BC Park Rangers to monitor backcountry areas, such as Sea to Sea Regional Park and the neighbouring Sooke Mountain Provincial Park, for signs of fire activity in remote parts of the region. Moreover, in parks that are closer to urban areas, park rangers will work alongside Island Health's Tobacco and Vapour Enforcement Officers to address smoking-related fire risks and ensure compliance with regulations. These combined efforts aim to reduce fire hazards and promote safety throughout the region.

Prioritize safe regional trail use – Park rangers will allocate 16% of their patrol hours to the regional trails, with the assistance of e-bikes. These patrols are highly effective in covering large stretches of the trail system and engaging with many trail users. Park rangers will watch for trail users who are not adhering to posted signage, travelling excessively fast or who are utilizing the trail in a manner that may pose a safety risk to others. Ensuring trail users are sharing the trail, minding their speed and not disturbing others are all pillars of CRD's annual Cruise with Courtesy campaign which will begin again in July, supported by both the park rangers and park interpreters.

Public education and engagement – The summer of 2025 will see the interpreters delivering 95 programs in nine different regional parks across the region. The team will also attend community events, including National Indigenous Peoples Day at Royal Roads University, World Ocean Day at Parks Canada and at the Shaw Centre for the Salish Sea, Power to Be's Have a Go Event and Go by Bike Week with Capital Bike. Interpretive staff will also host three festival-style drop-in events which encourage visitors to connect with nature and culture through activities, games, crafts and guided walks and will partner with 23 different organizations to deliver partnered programs and enhance drop-in events.

Improve access and equity – Park interpreters established a strategic partnership with the City of Victoria to increase access to regional parks. This summer, on three occasions, the City of Victoria will provide a recreation bus and drive visitors from a central meeting point to a regional park that has poor public transit access and visitors will participate in a guided walk with an interpreter. The interpretive team will also continue a successful partnership with Power to Be to provide accessible programs for those who face physical, cognitive or financial barriers to accessing nature. For these programs, participants can borrow adaptive equipment from Power to Be and staff provide modifications or personalized support as required.

Improve cultural safety, appreciation and education in parks – This summer, the Indigenous cultural programmer will continue to offer public walks exploring Indigenous perspectives for different audiences (storytelling for preschoolers, guided walks for all ages and some open only to adults). Special requests for this program continue to be popular with many organizations booking a program as part of their staff development or Reconciliation journey. The Indigenous cultural programmer ensures there is cultural content at each drop-in event and is also working with Royal Roads University and several First Nations organizations to plan the National Indigenous Peoples Day event at Royal Roads.

CONCLUSION

Outreach, education and compliance are crucial to ensuring visitor safety, fostering cultural appreciation and preserving the ecological integrity of regional parks. During the summer of 2025, staff will remain flexible and responsive to the evolving needs of park management and visitor dynamics. The park ranger and interpretation teams play an essential role in meeting visitor expectations and cultivating an accessible, welcoming atmosphere. Both programs are founded on proven practices and continue to adapt, delivering exceptional service to communities across the region.

RECOMMENDATION

There is no recommendation. This report is for information only.

Submitted by:	Mike MacIntyre, Senior Manager, Regional Parks
Concurrence:	Luisa Jones, MBA, General Manager, Parks, Recreation & Environmental Services
Concurrence:	Ted Robbins, B. Sc., C. Tech., Chief Administrative Officer

ATTACHMENT

Presentation: CRD Regional Parks & Trails 2025 Summer Outreach and Education Overview

CRD Regional Parks and Trails 2025 Summer Outreach and Education Overview

Regional Parks Committee
June 25, 2025

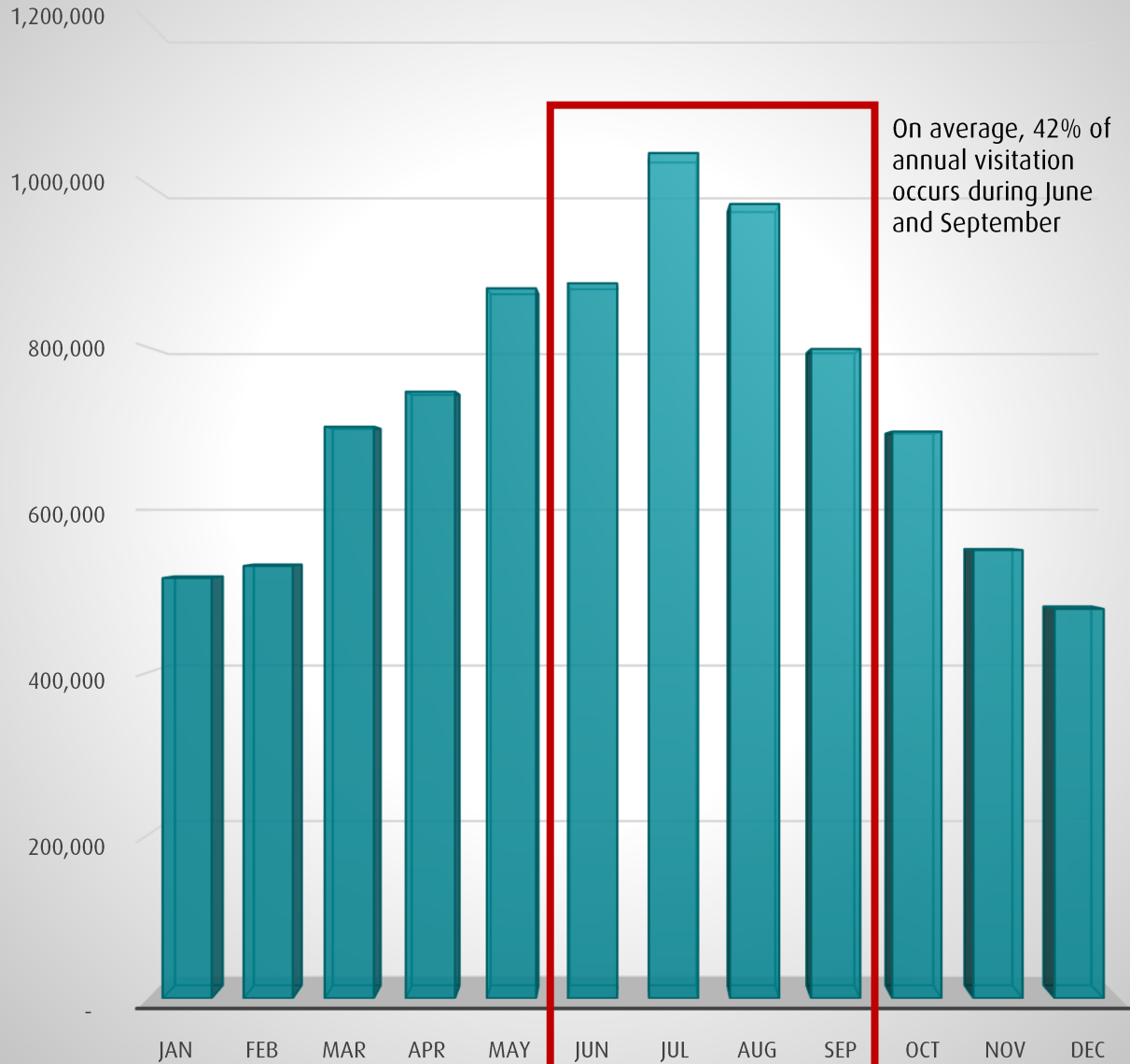
- ▶ Keep right except to pass
- ▶ Alert other trail users when passing
- ▶ Control speed, especially on e-bikes
- ▶ Yield to pedestrians, horse riders & farm equipment
- ▶ Respect fellow trail users & the trail environment
- ▶ Keep dogs leashed & under control

Agenda

1. Summer Visitation Rates
2. Park Ranger Overview
3. Park Ranger Summer Workplan
4. Themes & Priorities for Summer Ranger Patrols
5. Park Interpreter Overview
6. Park Interpreter Summer Workplan
7. Themes & Priorities for Summer Nature Programs
8. Conclusion



2020-2024 Regional Parks AVG Visitation



Summer in Regional Parks

- Increase in visitation
- Multitude of recreational opportunities
- Visitor use issues
- Optimal public outreach time



Park Rangers:



Patrol regional parks throughout the year



Promote voluntary compliance to park regulations and enforce parks bylaws



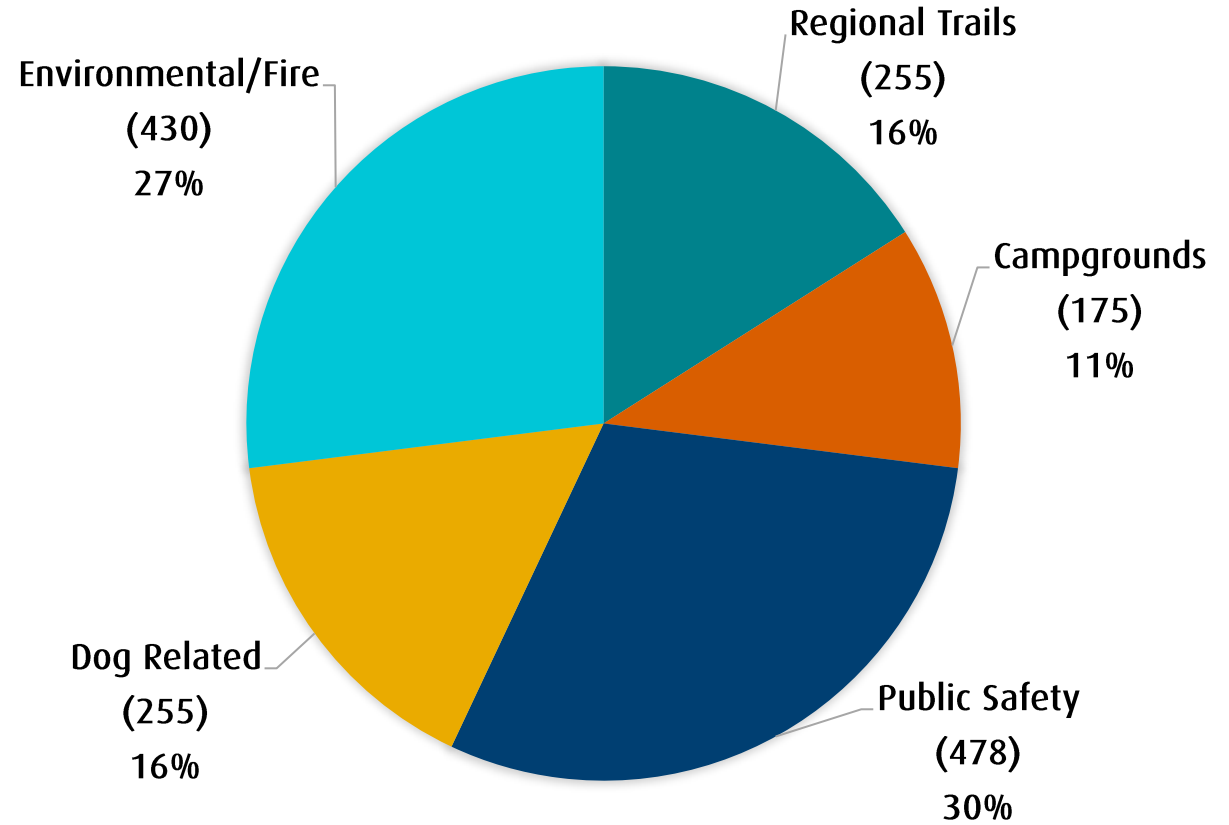
Collaborate with partner agencies



Investigate serious violations

Summer 2025 Work Plan Focus - Park Rangers:

PATROL HOUR FORECASTING JUNE TO SEPTEMBER 2025



Rangers will patrol a total of 1,593 hours between June and September.





Themes & Focus of Summer 2025

Park Ranger patrols:

- **Park visitor safety:**
 - Share information with visitors on park and water safety.
 - Collaborate with partner agencies on swimming and boating safety.
 - Mitigate unsafe behavior in parks, including drugs and alcohol.
- **Wildfire prevention:**
 - Conduct regular patrols through parks, backcountry, regional trails and campgrounds.
 - Educate the public and enforce the parks bylaw as it relates to smoking.
 - Act as incident support with provincial and municipal partners.
- **Regional trail safety:**
 - Act as a presence on trail to monitor, encourage and enforce good regional trail etiquette.
 - Support the annual Cruise with Courtesy public awareness and safety campaign.
 - Partner with local police in commitment to shared safety in and around the regional trail corridors.



Park Interpreters:



Educate and engage visitors about responsible park use, park values, stewardship and cultural values



Reach over 10,000 visitors annually and welcome 4000 visitors into two nature centres

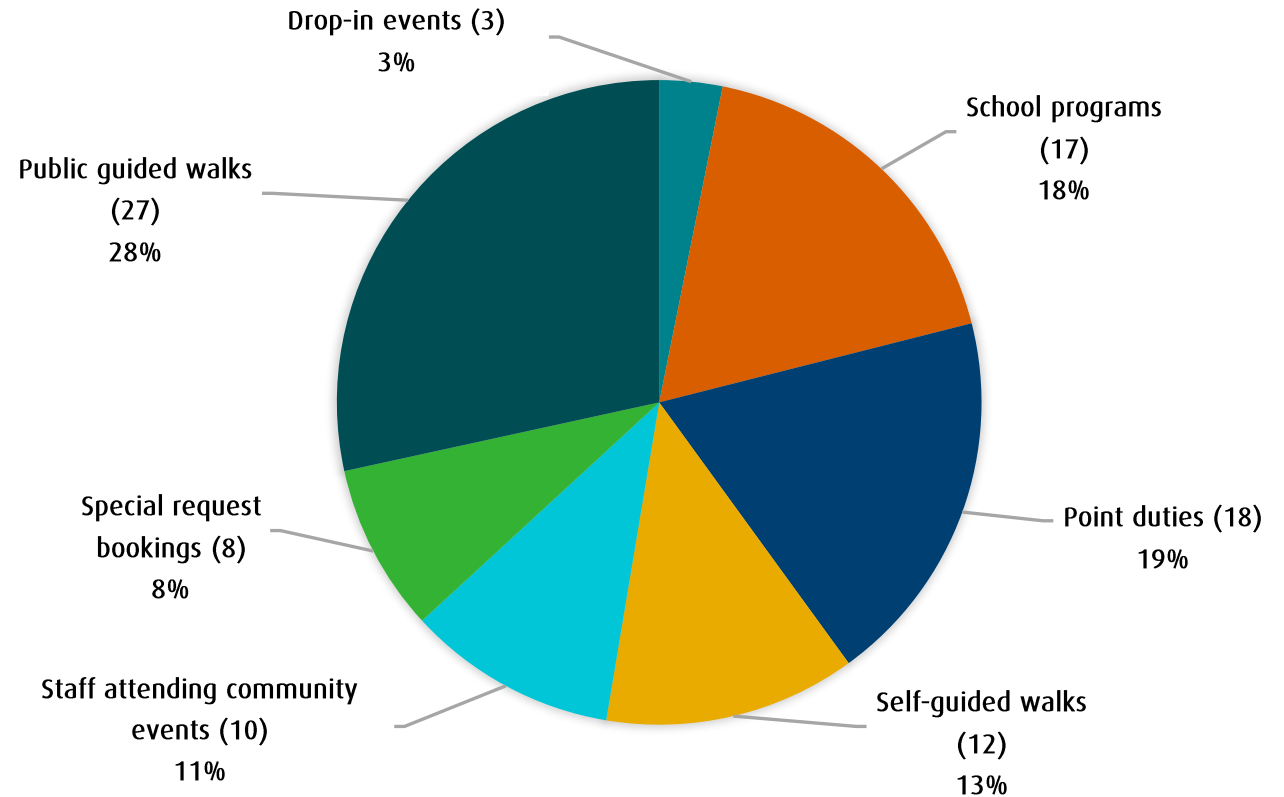


Collaborate with local partners and interest holders to offer free or low cost accessible and equitable nature programming



Summer 2025 Work Plan Focus - Interpretive Team:

TOTAL NUMBER OF PROGRAMS/PERCENTAGE OF OVERALL PROGRAMMING



Staff will work a total of 2,740 hours between June and September.



Themes & Focus of Summer 2025 Interpretive Programming:

- Respectful park use.
- Stewardship etiquette for beach visitors.
- Importance of staying on trail.
- Continued education on Indigenous perspectives.
- Increasing access and equity in parks.



Conclusion

- Outreach and education are integral to park visitor safety, cultural appreciation and ensuring lasting ecological integrity of parks.
- Staff will adapt to respond to visitor needs and park management issues, as necessary.
- Park ranger and interpretive programs continue to grow and evolve.



Questions?

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Capital Regional District



CRDVictoria



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**REPORT TO REGIONAL PARKS COMMITTEE
MEETING OF WEDNESDAY, JUNE 25, 2025**

SUBJECT Elk Lake Oxygenation System Update

ISSUE SUMMARY

To update the Regional Parks Committee on the operation of the oxygenation system in Elk/Beaver Lake Regional Park.

BACKGROUND

The Board-approved 2020 Elk/Beaver Lake Watershed Management Plan outlines a comprehensive initiative to improve water quality in Elk Lake. The initiative prioritizes:

- Reducing phosphorus runoff from surrounding land to limit nutrient pollution.
- Restoring streams and riparian habitats to enhance natural filtration.
- Implementing an oxygenation system to improve lake health and mitigate algae blooms.
- Engaging landowners and community stewards in best management practices.

Cyanobacteria (commonly known as blue-green algae) are naturally occurring aquatic organisms that can multiply very quickly under favourable conditions, such as warm temperatures, high nutrient concentrations and stable conditions. These blooms can occur in a variety of colours, including blue-green, green, brown, blue, white and red. Phosphorus is the key nutrient limiting algal growth in the majority of BC lakes. Increased concentrations of nutrients often lead to increased algal production and increased risk of a bloom forming. Evidence suggests that climate warming favours cyanobacteria, as warmer lake temperatures are known to accelerate blue-green algae growth. As the air warms, the atmosphere will also have a greater capacity to hold water, leading to more intense rainfalls and increased surface runoff. The increased spread of invasive species, such as carp, which are known to disturb the bottom sediments of lakes and re-suspend nutrients, also contributes to the rise in blue-green algae blooms due to changes in the food web structure.

Water quality issues in Elk/Beaver Lake have negatively impacted ecological, cultural and recreational values of the regional park since the 1980s. Elevated phosphorus levels in the lake have contributed to frequent blue-green algae blooms that threaten the health of the lake, the health of park visitors and the overall visitor experience. Details about water quality are available in the Elk/Beaver Lake Watershed Management Plan, approved by the CRD Board in 2020.

Most of the phosphorus comes from lake bottom sediments that have accumulated over decades and is released back into the water column under low oxygen conditions, a process known as internal phosphorus loading. In 2019, the Capital Regional District (CRD) Board carried a staff recommendation to remediate the lake, and in 2020, the Board committed partial funding for remediation, supplemented by a \$750,000 provincial grant from the Ministry of Forests, Lands, Natural Resource Operations and Rural Development.

A hypolimnion (deep-water) direct oxygenation injection system was selected, designed and constructed in Elk Lake and in November 2023 the system was operationalized, and fully commissioned in March 2024. The objectives of the oxygenation system include:

1. Eliminate deep-water oxygen depletion (anoxia).
2. Decrease internal phosphorus loading.
3. Maintain suitable cold-water fish native habitat below 15°C.
4. Reduce frequency and duration of blue-green algae blooms.

The oxygenation system diffuses high-purity oxygen into the deepest part of the lake to help reduce oxygen depletion, which keeps most of the phosphorus bound in the lake bottom sediments. Oxygen injection is expected to improve fish habitat and reduce the amount of phosphorus available to blue-green algae in the lake. The oxygenation system only targets the deep-water sources of phosphorus and is not expected to have any impact on shallow-water sources or external inputs.

IMPLEMENTATION UPDATE

Staff engaged experts to evaluate the oxygenation system's effectiveness, assess water quality objectives and provide recommendations moving forward. The Elk Lake Oxygenation System 2024 Annual Report details the first year of oxygenation operation and evaluates data against the water quality objectives for Elk Lake. The review compared water quality data before (2019-2023) and after (2024) the system was installed. While some data has been collected in 2025, it has not yet been compiled and analyzed. When comparing 2024 results to pre-oxygenation conditions, results have indicated an improvement in lake health, including:

1. Deep-water oxygen levels improved in 2024, with a shorter anoxia period (2 months versus 5 months in previous years).
2. Total phosphorus in deep water was reduced by 80% in 2024 compared to previous years.
3. Average deep-water temperatures increased in summer 2024 (12.5°C) compared to previous levels (8°C); however, they did not exceed 15°C to maintain optimal native fish habitat.
4. Blue-green algae blooms continued to occur and were longer lasting than in previous years.

Water quality improved significantly in 2024; however, blue-green algae blooms persisted throughout the year. This was likely due in part to environmental conditions (heavy rainfall in July and August, warm temperatures and stable wind conditions), which were ideal growing conditions for blue-green algae. In addition, blue-green algae bloom conditions in 2025 across the region and province have been some of the worst on record. Specific to Elk Lake oxygenation, some of these worsening conditions were expected temporarily after system installation due to the stabilization of the various sources of phosphorus in the lake. Overall, findings highlight the need to continue addressing all nutrient sources impacting lake health through the operation of the oxygenation system and actions outlined in the Elk/Beaver Lake Watershed Management Plan.

While early 2025 conditions appear to show an increase in blue-green algae blooms, it is not uncommon for Elk Lake to experience spring blooms (e.g., 2021). Unfortunately, the persistent presence of blue-green algae blooms continues to disrupt lake activities. On May 25, 2025, the IRONMAN 70.3 Victoria event was affected, leading to the cancellation of the 1.9 km swimming portion of the race. This decision was made due to elevated algae levels in Elk Lake, raising concerns about potential health risks for competitors.

Preliminary analysis in 2025 indicates that water quality improvements observed in 2024 have persisted this year, which aligns with our expectations. A wholesome evaluation of the data to assess the continued impact of the oxygenation system will occur by the end of the year, after the

water has turned over in the fall. As of the beginning of June, the deep-water remains oxygenated (not anoxic) and total phosphorus levels are well below historical averages. However, external sources of phosphorus and weather-related influences (such as elevated precipitation in March and warm days with stable winds in April and early May) may continue to stimulate algal blooms.

Staff will continue to monitor water quality, track changes over time and inform the optimization of the oxygen system. Ongoing water quality monitoring is critical to guiding system operation, evaluating effects on Beaver Lake and assessing key actions in the watershed management plan. Performance monitoring in the coming years will determine if further remediation is needed for Beaver Lake.

The oxygenation system worked as expected in its first year, and CRD staff, with assistance from consultants, continue to optimize the system to increase efficiency and reduce future operating costs.

IMPLICATIONS

Environmental Implications

Improvements to the water quality of Elk/Beaver Lake benefit diverse ecological values in the regional park, including the provision of critical habitat for the Pacific Coast population of western painted turtle, federally threatened under the *Species at Risk Act*. The lake also provides important habitat for many native aquatic and riparian species downstream, including coho salmon and coastal cutthroat trout in the Colquitz River.

Climate Implications

The presence of blue-green algae is expected to increase across the globe in response to climate change. Increased temperatures and drought, followed by heavy rainfall events that carry nutrients from the land into nearby water bodies, support optimal conditions for blooms and will continue to affect lake health and pose threats to human and pet health. Continued actions to reduce external sources of nutrients through the implementation of the watershed management plan should be prioritized to adapt to climate change.

Financial Implications

The CRD is grateful for the Province of BC's \$750,000 contribution to facilitate the purchase of the \$1.6 million oxygenation system. Annual costs to maintain the system include the following, with expected increases due to inflation and tariffs:

Expense Category	2024 Costs	2025 Anticipated Costs
Electricity	\$60,000	\$60,000
System maintenance	\$20,000	\$40,000
Water quality monitoring	\$35,000	\$30,000
Expert consultation	\$20,000	\$15,000
Staff time	\$30,000	\$30,000
TOTAL	\$165,000	\$175,000

Intergovernmental Implications

From 2016 to 2019, the CRD led an intergovernmental working group to coordinate lake remediation efforts. CRD staff continue to collaborate with government partners to support water quality objectives, particularly in the implementation of the Elk/Beaver Lake Watershed Management Plan. Since installing the system, staff have provided support and resources to several interested parties across Canada to contribute to improved understanding of water quality issues and remediation options.

Service Delivery Implications

CRD staff oversee the water quality monitoring program, including its implementation, operational management and the maintenance of the system's services. They are also responsible for issuing public alerts when blue-green algae blooms are detected in parks, along with providing educational resources about blue-green algae through the CRD website and public signage. While this report does not directly affect service delivery, it highlights ongoing efforts to enhance system efficiency and advance the implementation of the watershed management plan.

Social Implications

Blue-green algae blooms continue to affect recreational values in and around the lake. The disruption of large, permitted events such as the IRONMAN 70.3 Victoria is an example of why the work to implement the watershed management plan is critical. The oxygenation system and implementation of the watershed management plan are anticipated to continue to improve water quality outcomes for the lake, thereby improving recreational values. Local experts and community groups, like the Beaver Elk Environmental Stewards and Victoria Golden Rods and Reels Fishing and Social Club, have played a key role in these efforts. Staff meet regularly with local stewards to share updates and knowledge.

CONCLUSION

After just over one year of operation, the oxygenation system improved deep-water oxygen levels, reduced phosphorus and maintained optimal water temperatures; however, blooms persisted throughout the year and into 2025 due to climate-related impacts and the continued stabilization of the various nutrient sources within the lake. Staff will continue to operate the oxygenation system, coordinate water quality monitoring and implement actions in the Elk/Beaver Lake Watershed Management Plan to reduce internal and external sources of nutrients that contribute to blue-green algae blooms in the lake. Staff will report to the Board annually on system performance and water quality progress.

RECOMMENDATION

There is no recommendation. This report is for information only.

Submitted by:	Mike MacIntyre, Senior Manager, Regional Parks
Concurrence:	Luisa Jones, MBA, General Manager, Parks, Recreation & Environmental Services
Concurrence:	Ted Robbins, B. Sc., C. Tech., Chief Administrative Officer

ATTACHMENT

Presentation: Elk Lake Oxygenation System Update



Elk Lake Oxygenation System Update

Regional Parks Committee
June 25, 2025

Presentation Content

1. Context
2. Goals & Objectives
3. How does it work?
4. Has it been successful?
5. Lessons Learned
6. Next Steps



Context

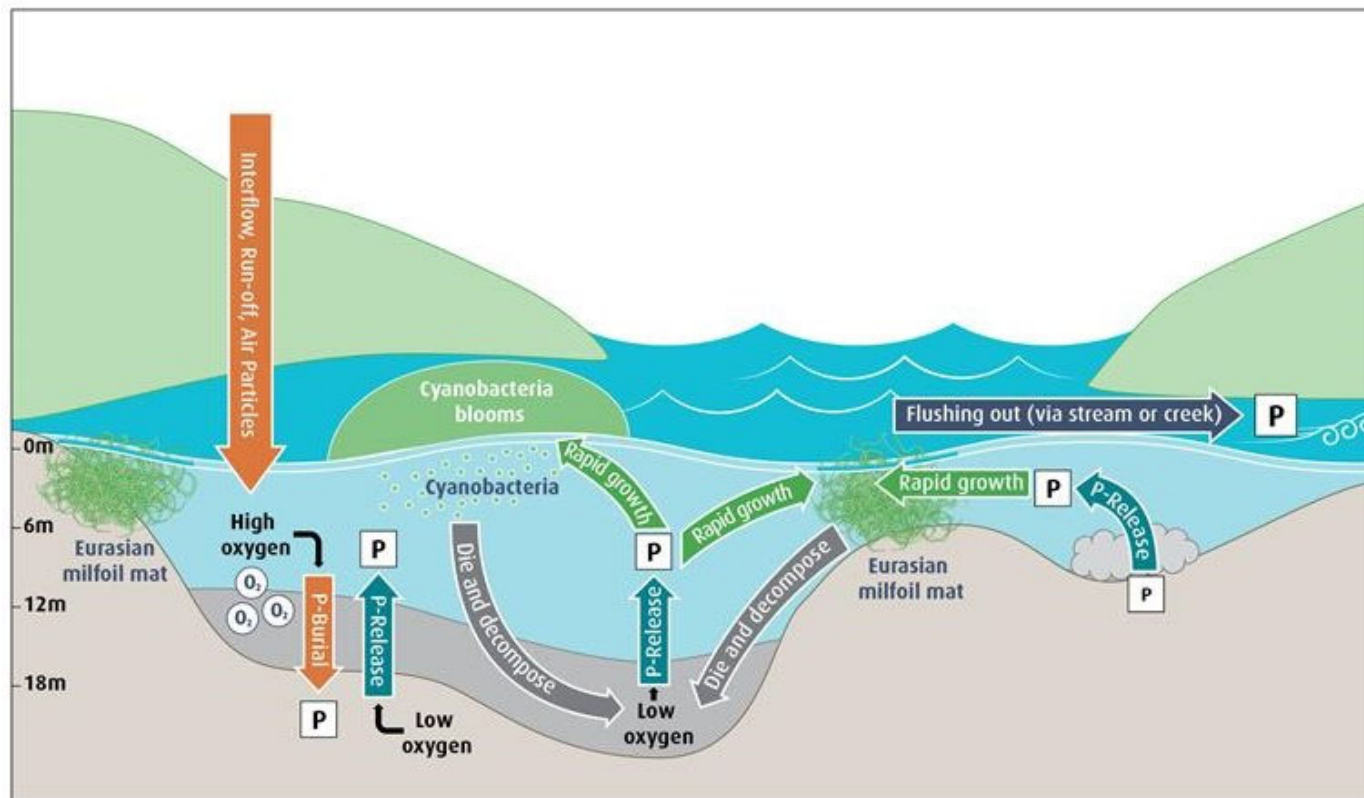


The Elk/Beaver Lake Initiative was established in 2016 to address water quality concerns:

- Blue-green algae
- Eurasian water milfoil
- Poor fish habitat

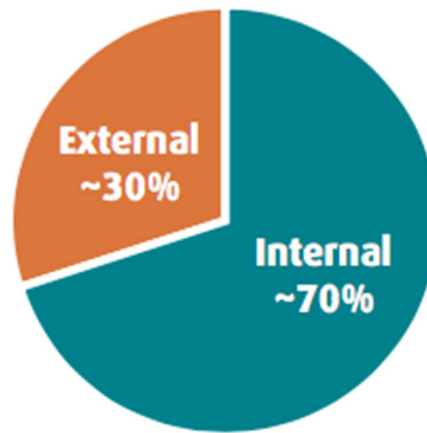
These issues are largely due to high phosphorus levels in the lake.

Context



Understanding Phosphorus and Oxygen Levels

P – Phosphorus
O – Oxygen



- Reduces external nutrient loading

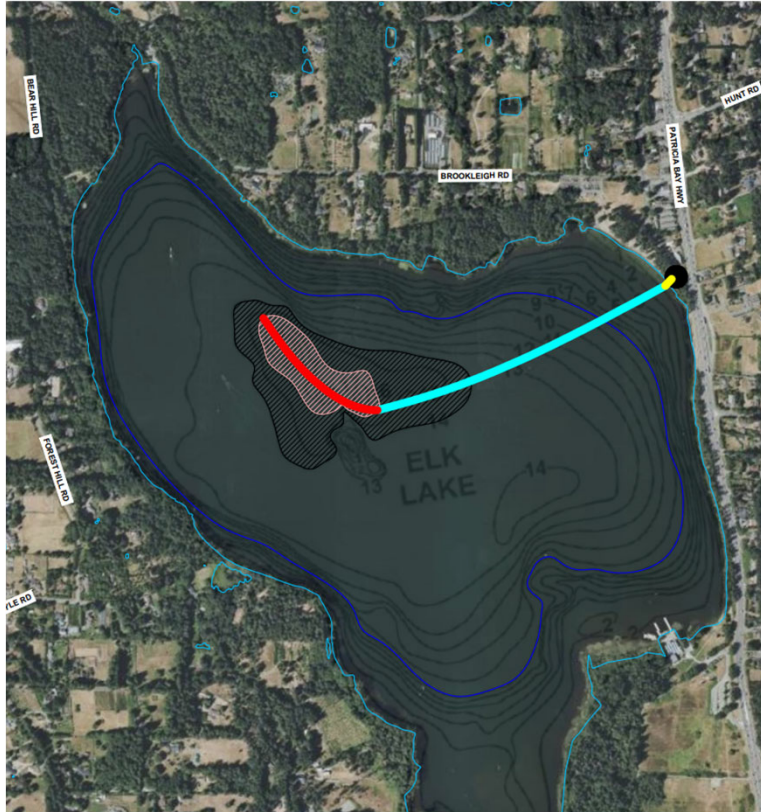
- Reduces internal nutrient loading

Objectives of the Oxygenation System

1. Eliminate deep-water oxygen depletion (anoxia)
 - Deep water dissolved oxygen should be more than 2mg/L (ideally more than 5mg/L)
2. Decrease internal phosphorus loading
 - Deep water total phosphorus should not exceed 50ug/L
3. Maintain suitable cold-water native fish habitat
 - Deep water temperature should not exceed 15°C
4. Reduce frequency and duration of blue-green algae blooms
 - Reduced park advisories for blooms

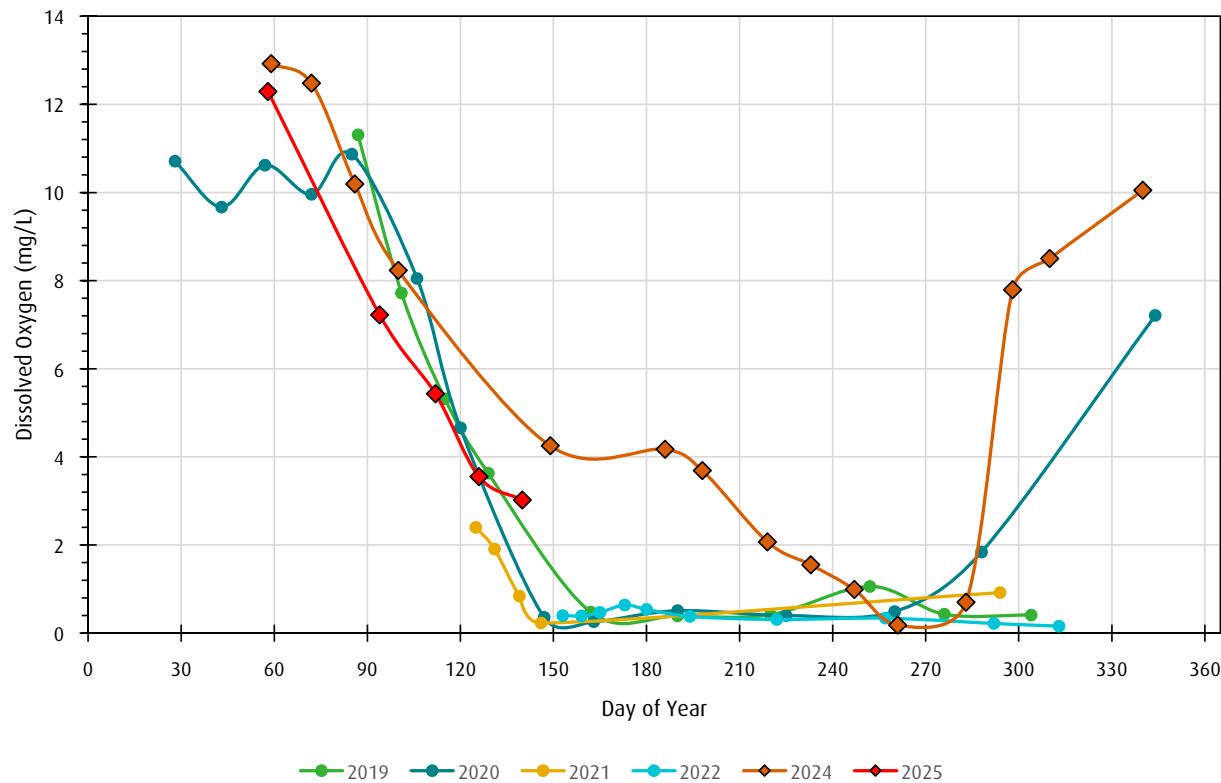



How does it work?




Has it been successful?

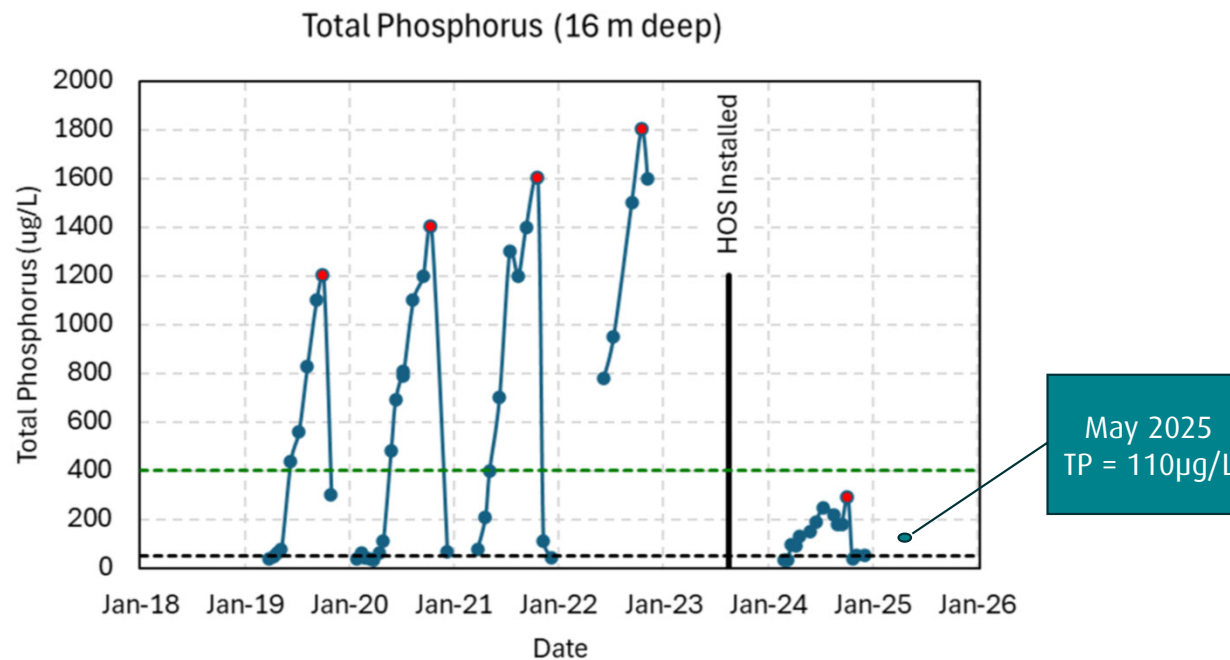
Dissolved Oxygen Comparison (16m)



 **Objective 1**
Eliminate deep-water oxygen depletion (anoxia)

 **Status: ON TRACK**
Deep water dissolved oxygen of greater than 5mg/L has not yet been achieved but is expected to be over time.

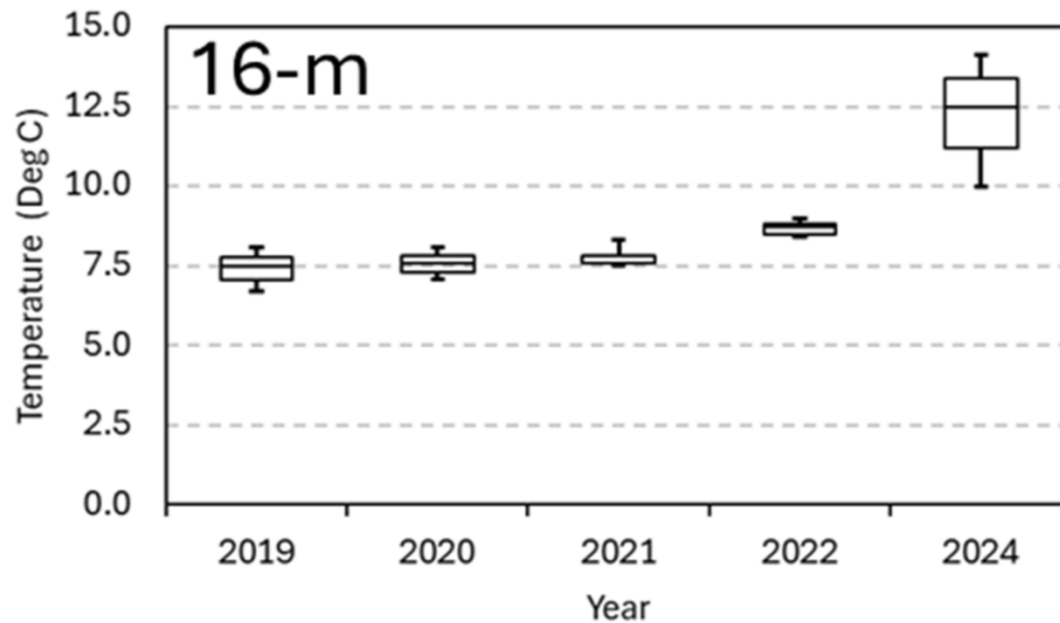
Has it been successful?



Objective 2
Decrease internal phosphorus loading

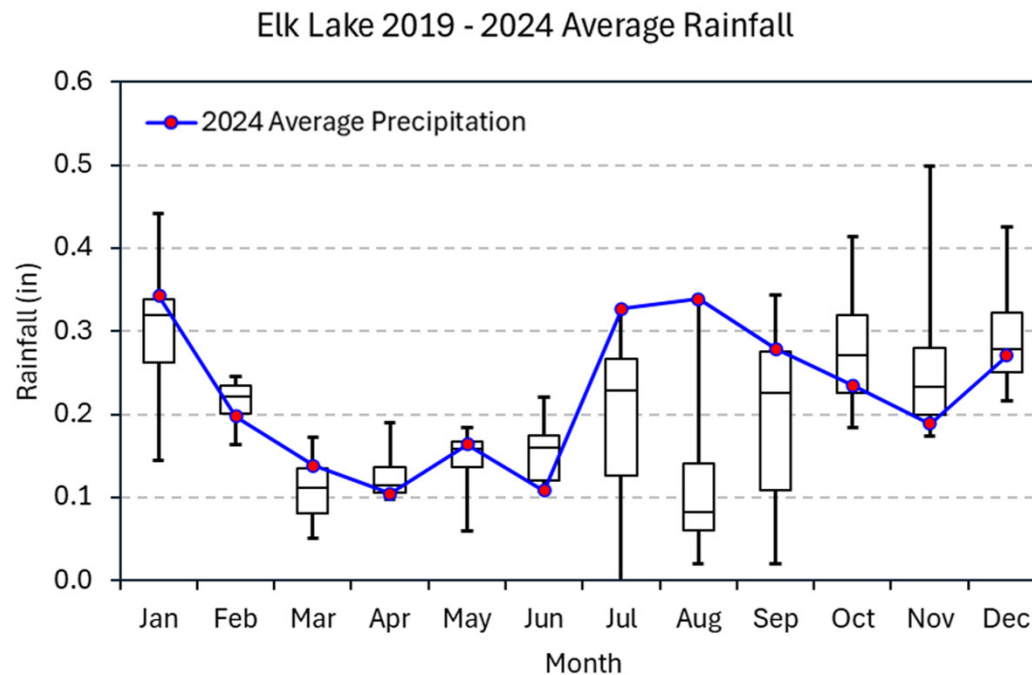
Status: ACHIEVED
80% reduction in deep water phosphorus levels.


Has it been successful?




- Objective 3
- 🎯 Maintain suitable cold-water native fish habitat
- ✅ Status: ACHIEVED
- Average temperature through summer 2024 was 12.5°C.

Has it been successful?



 **Objective 4**
Reduce frequency and duration of blue-green algae blooms

 **Status: ON TRACK**
Blue-green algae blooms continue to occur and were longer lasting than previous years

2025 Interim Update

- As of early June 2025:
 - Deep-water DO concentrations above 2mg/L
 - Deep-water phosphorus levels near 100µg/L
 - Deep-water temperatures are below 8°C
- Spring bloom that caused the cancellation of the Ironman 70.3 swim appears to be receding



Lessons Learned



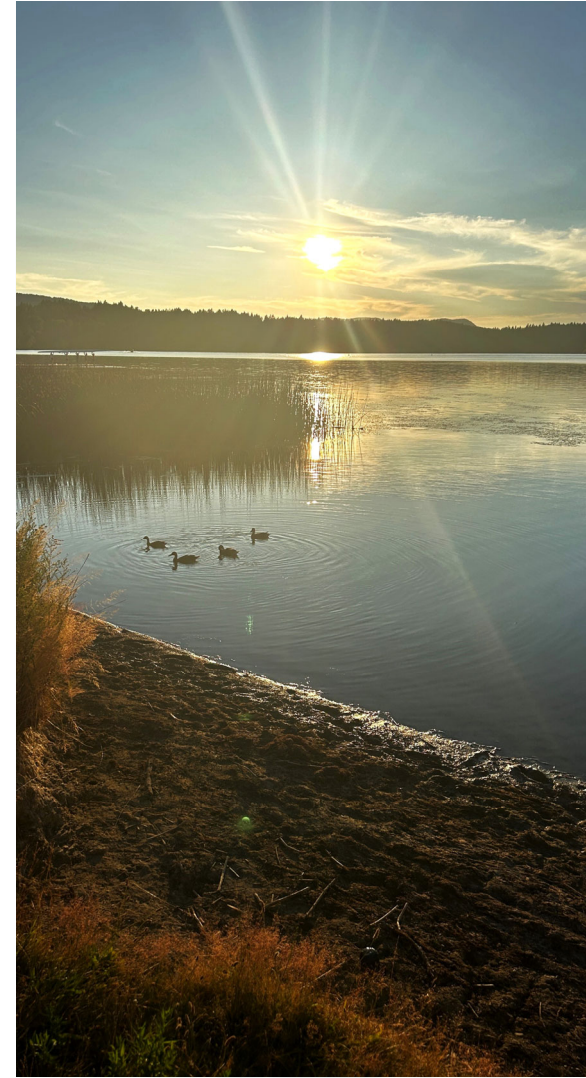
Operational Considerations

- Reduced air compressor capacity.
- Reduced flow rate.
- Positioning error of equipment.

Next Steps

Overall, 2024 was a success. In 2025, we can expect:

- Planned system upgrades.
- Continued improvements in water quality.
- Continued water quality monitoring (including Beaver Lake).
- Annual report on system performance and water quality progress.
- Collaboration with Districts of Saanich, Central Saanich and stewardship groups on the actions identified in the Elk Lake Watershed Management Plan.





Thank you!

Questions?



Capital Regional District



CRDVictoria



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7.1 Motion with Notice: CRD Parks Parking Policy (M. Essery)

M. Essery spoke to Item 7.1.

Discussion ensued on the following:

- financial implications and disincentives to requiring additional vehicle fees for accessible camping
- removal of barriers to foster and promote equity and inclusion of someone with disabilities to experience camping without limitations

MOVED by J. Parr, SECONDED by M. Essery,

The Accessibility Advisory Committee recommend to the Regional Parks Committee recommends to the Capital Regional District Board:

That the CRD Parks waive parking fees for people with disabilities where they require an extra accessible vehicle, similar to BC Parks parking policy.

CARRIED