



Notice of Meeting and Meeting Agenda Magic Lake Estates Water and Sewer Committee

Tuesday, February 11, 2025

9:30 AM

Goldstream Conference Room
479 Island Hwy
Victoria BC

MS Teams Link: [Click Here](#)

P. Brent (EA Director), J. Deschenes, M. Fossil, B. Mongeon

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. Election of Chair

3. Election of Vice Chair

4. Approval of Agenda

5. Adoption of Minutes

5.1. [25-0097](#) Minutes of the October 29, 2024 Magic Lake Estates Water and Sewer Committee

Recommendation: That the minutes of the Magic Lake Estates Water and Sewer Committee meeting of October 29, 2024 be adopted as circulated.

Attachments: [Minutes: October 29, 2024](#)

6. Chair's Remarks

7. Presentations/Delegations

The public are welcome to attend CRD meetings in-person.

Delegations will have the option to participate electronically. Please complete the online application at www.crd.bc.ca/address no later than 4:30 pm two days before the meeting and staff will respond with details.

Alternatively, you may email your comments on an agenda item to the CRD Board at crdboard@crd.bc.ca.

8. Commission Business

8.1. [25-0111](#) Senior Manager's Verbal Update

Recommendation: There is no recommendation. This verbal update is for information only.

8.2. [25-0101](#) Capital Projects and Operational Update - February 2025

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

Attachments: [Staff Report: Capital Projects & Operational Update – Feb 2025](#)

9. Notice(s) of Motion

10. New Business

11. Adjournment

The next meeting is at the call of the Chair.

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



Making a difference...together

MINUTES OF A MEETING OF THE Magic Lake Estates Water and Sewer Committee, held Tuesday, October 29, 2024 at 9:30 a.m., In the Goldstream Conference Room, 479 Island Highway, Victoria, BC

PRESENT: **Committee Members:** M. Fossil (Chair); J. Deschenes (Vice Chair) (EP); P. Brent (EA Director) (EP); M. Rondeau (EP)

Staff: J. Marr, Senior Manager, Infrastructure Engineering; D. Robson, Manager, Saanich Peninsula and Gulf Islands Operations; J. Kelly, Manager, Capital Projects, L. Xu, Manager, Local Services and Corporate Grants; M. Cowley, Manager, Wastewater Engineering and Planning; L. Hardiman, Manager, Asset Management; M. Risvold (Recorder)

REGRETS: A. Cyr; R. Sullivan; D. Reed

EP = Electronic Participation

The meeting was called to order at 9:32.

1. TERRITORIAL ACKNOWLEDGEMENT

The Chair provided the Territorial Acknowledgement.

2. APPROVAL OF AGENDA

MOVED by P. Brent, **SECONDED** by J. Deschenes,
That the agenda be approved as circulated.

CARRIED

3. ADOPTION OF MINUTES

MOVED by P. Brent, **SECONDED** by J. Deschenes,
That the minutes of the August 20, 2024 Magic Lake Estates Water and Sewer Committee meeting be adopted as circulated.

CARRIED

4. CHAIR'S REMARKS

The Chair made no remarks.

5. PRESENTATIONS/DELEGATIONS

There were none.

6. SENIOR MANAGER'S REPORT

J. Marr provided the following updates:

- Private property winterization. The Capital Regional District (CRD) is running a campaign to inform homeowners within small water systems the benefits of winterizing their properties to prevent leaks during the cold season. Information has been shared on social media platforms and on the respective CRD Drinking Water Systems webpages.

- Grant application for water conservation signage. CRD was successful in receiving a grant from the Union of British Columbia Municipalities for permanent water conservation signage. The signage will display current water restriction levels and will be installed in the community, replacing the current sandwich boards. It is anticipated that there will be no cost to the service for the signs or installation.

7. COMMITTEE BUSINESS

7.1. Magic Lake Estates Water and Sewer Service 2025 Operating and Capital Budget

J. Marr spoke to item 7.1.

Staff responded to the following questions regarding:

- Severe weather event resiliency funding: Staff advised there is no separate resiliency funds. The operating and capital reserve funds are used to mitigate emergency responses and to create system resilience.
- Ability for ratepayers to pre-pay debt to reduce annual taxes: Staff advised that a one-time option was previously provided as a courtesy by the CRD in consultation with BC Assessment and the Provincial Government. This is no longer available as the CRD is not structured to collect taxes at the property level and will not be offered for future debt.
- Operating budget challenges due to circumstances such as leaks and corrective maintenance: Staff advised the CRD has many services running at a deficit due to rising costs, particularly in corrective maintenance. Factors like aging equipment and climate change are contributing to increased emergency responses, such as water main breaks and wastewater system issues. While the new wastewater treatment plant may reduce some of these challenges, the budget doesn't fully account for corrective maintenance, so the operating reserve fund is used to support the operating budget.

Discussion ensued regarding:

- Assessing the possibility of increasing the operating reserve fund for 2026.
- Tax increases.
- The importance of considering the taxpayers' interests.
- Current water debts being paid off in 2025, 2026, 2027, and 2028.
- Wastewater debts being settled in 2026, 2027, and 2028.
- Allocating funds to increase leak detection in 2025.
- The capital reserve fund being under target.

MOVED by J. Deschenes, **SECONDED** by P. Brent,
The Magic Lake Estates Water and Sewer Committee

1. That the Magic Lake Estates Water System Local Service 2025 operating and capital budget be approved as presented and that the 2024 actual operating deficit be balanced on the 2024 Reserve Funds transfer (Capital Reserve Fund and/or Operating Reserve Fund);
2. That the Magic Lake Estates Sewerage System Local Service 2025 operating and capital budget be approved as presented and that the 2024 actual operating surplus or deficit be balanced on the 2024 Reserve Funds transfer (Capital Reserve Fund and/or Operating Reserve Fund); and
3. The Magic Lake Estates Water and Sewer Committee recommends that the Electoral Areas Committee recommend that the Capital Regional District Board approve the 2025 Operating and Capital Budget and the five-year Financial Plan for the Magic Lake Estates Water and Sewer Services as presented.

CARRIED

The committee thanked staff for the work that went into the preparation of the budget.

7.2. Project and Operations Update

J. Marr introduced item 7.2 and provided an update on water capital projects.

D. Robson provided an update on water operations.

M. Cowley provided an update on the sewer utility, advising once the pump station and treatment plant upgrades are completed, a tour will be arranged for the committee followed by a public open house at an appropriate time.

D. Robson provided an update on wastewater operations.

The report was received for information.

7.3. Asset Replacement Report Card

L. Hardiman spoke to item 7.3.

The Electoral Area Director inquired whether the asset management report card could be included in the annual report, as it would be more understandable for the average user. It also highlights the potential capital overhang, which is important for system users to be aware of. Staff will review the ability to append the asset replacement report card to the annual report.

The report was received for information.

8. CORRESPONDENCE

There was no correspondence.

9. NEW BUSINESS

The Chair asked about the frequency of meetings.

Staff advised that Local Service Committees meet three times a year, with additional meetings scheduled at the call of the Chair. The Magic Lake Estates Water and Sewer Committee had been meeting monthly during the large treatment plant project. Moving forward, the committee agreed to meet three times per year, with the option for additional meetings as needed.

10. ADJOURNMENT

MOVED by J. Deschenes, **SECONDED** by P. Brent,
That the October 29, 2024 Magic Lake Estates Water and Sewer Committee meeting be
adjourned at 10:35 am.

CARRIED

CHAIR

SECRETARY

**REPORT TO MAGIC LAKE ESTATES WATER AND SEWER COMMITTEE
MEETING OF TUESDAY, FEBRUARY 11, 2025**

SUBJECT **Capital Projects and Operational Update - February 2025**

ISSUE SUMMARY

To provide the Magic Lake Estates Water and Sewer Committee with capital project status reports and operational updates.

BACKGROUND

The Magic Lake Estates (MLE) Water and Sewer Systems are located on the south shore of North Pender Island in the Southern Gulf Islands Electoral Area and provides drinking water and wastewater services to approximately 1,072 customers. Capital Regional District (CRD) Infrastructure and Water Services is responsible for the overall operation of the water and wastewater systems with day-to-day operation, maintenance, design and construction of water and wastewater system facilities provided by the CRD Infrastructure Engineering and Operations Divisions. The quality of drinking water provided to customers in the MLE Water System is overseen by the CRD Water Quality Section.

CAPITAL PROJECT UPDATE

Magic Lake Estates Water

23-03 | SCADA and Radio Communication Upgrades

Project Description: Replace Supervisory Control and Data Acquisition (SCADA) communication infrastructure with a modern radio system based on Radio Pathway Study completed under wastewater capital project 21-01.

Project Rationale: Upgrade communication equipment at water facilities as part of the wastewater upgrades (under Project 21-01) to make the entire system more secure and reliable.

Project Update and Milestones:

- The scope of work for the SCADA and Radio upgrades was included in the Wastewater Upgrade Tender.
- Contract 2022-846 – Magic Lake Estates Wastewater Pump Station and Treatment Plant Upgrades was awarded to Coast Utility Contracting Ltd. in April 2023.
- All radio equipment has been installed, tested and commissioned at the Water Treatment Plant, Lively Peak, Captain's Reservoir, Frigate Reservoir, Magic Lake Pump Station, Bosun Pump Station, Galleon Pump Station, Buck Lake Pump Station, and Schooner Pump Station and Cannon Pump Station.
- This project is complete and can be removed from future reports.
- Ongoing monitoring of the communication signal strength will be assessed, (particularly during storm events), to see if additional optimization is required.

Milestone	Completion Date
Detailed Design	January 2023
Tender	March 2023
Construction	May 2023 – July 2024
Commissioning Period	September – November 2024
Substantial Completions	December 10, 2024
Warranty	December 10, 2025

21-04 | Buck Lake Dam Repairs – Phase 1

Project Description: Conduct additional inspections, minor repairs, and performance analysis highlighted in the 2019 Dam Safety Review. Phase 2 dam improvements to be completed in the following five years.

Project Rationale: Resulting from the Hatch 2019 Dam Safety Review, funds are required to conduct additional inspections, minor dam repairs, and performance analysis. Phase 2 dam improvements to be completed in the following five years.

The November 26, 2020, staff report outlines the detailed expenditure plan for Phase 1.

Project Update and Milestones:

- Detailed scope of work and acceptable options for preventing high live loads at Buck Lake Dam's west dam have been developed. This was reviewed during the 2022 annual inspection and a scope for warning signage is being proposed to be installed in 2023.
- Consultant was retained to conduct a dam breach analysis for both dams to confirm the dam flood area and improve the dam emergency plan. This report was finalized in January 2023.
- Operations to coordinate with CRD Protective Services so that dam emergencies are part of CRD's Public Alert Notification System (PANS).
- CRD staff have started compiling required information for the dam emergency plan and Operating and Maintenance Manuals. Updates were completed January 2023.
- In 2023, engineering is assessing options for installation of a v-notch weir to monitor lower flow seepage rates and will continue with design work into 2024.
- Engineering consultant onboarded for design in July 2024.
- Design complete and weir plate fabrication underway in Q3 2024.
- Design complete and fabrication completed in Q4 2024.
- CRD will commence contacting local Contractors in Q2 of 2025 with hopes of constructing in the summer/fall dry weather window.

Milestone	Completion Date
Consultant retained to conduct dam breach analysis	December 20, 2021
Draft Dam Breach Analysis Complete and Comments returned	July 14, 2022
Final Dam Breach Analysis Complete	January 2023
Design of Seepage Weir on West Dam	Q2 2024
Fabrication of Weir Plate Complete	Q4 2024

WATER SYSTEM OPERATIONAL UPDATE

This is a water system operational update report for October through December 2024.

- Watermain leak location and repair completed on Buck Lake Dam (Spyglass). Significant resources deployed for this work that included the use of leak detection gas to assist in pinpointing the exact location of the water leak. This leak “finding” technology minimized the amount of excavation taking place in the dam structure due to Provincial regulatory requirements.
- Three watermain leak repairs:
 - One on Galleon Way
 - Two on Schooner Way
- Cutlass Crescent standpipe leak repair.
- Buck Lake raw water pump station: communications investigation and repair.
- Buck Lake raw water pump station potassium permanganate pretreatment processes equipment troubleshooting corrective maintenance.
- Magic Lake raw water intake pipe floating event. Corrective maintenance was completed including re-sinking of the pipe through high-rate flushing after the Magic Lake raw water algae event was deemed over. The system was placed back into full normal operation with a blend ratio of 80%/20% Buck Lake/Magic Lake.
- Completed water system winterization maintenance in preparation for inclement weather.
- Capstan pressure regulating station corrective maintenance completed. Pressure regulating issues were identified after the of portable pressure monitoring equipment was deployed to assist with ongoing water system leak detection efforts.

Magic Lake Estates Sewer Utility

21-01 | Wastewater Improvements – Pump Station and Treatment Plant Upgrades

Project Description:

1. Renew Galleon and Schooner Pump Stations (upgrade communications at Buccaneer, Capstan, Cutlass and Masthead Pump Stations).
2. Replace Cannon Wastewater Treatment Plant (WWTP) with a new pump station.
3. Upgrade Schooner WWTP.

Project Rationale: Successfully received an Infrastructure Canada grant to complete upgrades on pump stations, install a new pump station at Cannon to pump to Schooner WWTP, and upgrade Schooner WWTP to treat flow from Cannon and renew many components to bring the wastewater system into compliance with environmental regulations.

Project Update and Milestones:

- Notice to Proceed for Contract 2022-846 was issued to Coast Utility Contracting Ltd. in May 2023. The contractor mobilized in late June/early July.
- **Schooner WWTP**
 - All equipment has been installed, tested and commissioned.
 - The plant officially started treating wastewater on September 19.
 - Two sets of effluent samples have been sent to the lab, and the effluent quality is excellent and meeting all regulatory requirements.
 - Parts of the old WWTP have now been demolished and removed from site.
 - The project was declared substantially complete on December 10, 2024.

- The plant will continue to be optimized over the next several months and an additional membrane may be required to meet peak flow capacity.
 - Other components of the old plant (not included in Coast's scope) can be removed over time.
 - The remaining tasks include final road surfacing, landscaping, completion of deficiencies, and preparing project close-out documentation.
 - An Open House can be planned in the Spring to present the completed project to the Committee and the public.
- **Cannon Pump Station**
 - This pump station is substantially complete and was commissioned on November 5.
 - It is performing very well as expected.
 - The remaining tasks include final road surfacing and completion of deficiencies.
 - Operations can drain the tanks from the old WWTP into the pump station and various components can be removed over time.
- **Schooner Pump Station**
 - This pump station is substantially complete and was commissioned on June 7.
 - It is performing very well as expected.
- **Galleon Pump Station**
 - This pump station is substantially complete and was commissioned on May 27.
 - It is performing very well as expected.
- The Habitat Restoration Plan for compensation of disturbing the wetland area adjacent to Schooner WWTP has been completely planted and the ponds are performing well. Residents in the area have been appreciative of the work that was completed.
 - Overall, the project is about 99% complete.
 - As of January 15, 2025, the total actual and committed cost is at \$9,047,950 and the remaining costs for the project is anticipated to be within the revised total budget of \$9,205,045.
 - As of January 13, 2025, we have received a total of \$4,863,607 of the total eligible grant amount of \$5,653,266 and a final claim has been submitted for up to the entire grant amount. See the milestone table and photos below showing some of the progress.

Milestone	Completion Date
Preliminary Design (30%)	September 2022
Detailed Design (90%)	December 2022
Tender Period	January 27 – March 14, 2023
Construction Period	May 2023 – November 2024
Commissioning Period	September - November 2024
Substantial Completion	December 10, 2024
Warranty Period	December 10, 2026



Schooner WWTP in Operation



Schooner WWTP and Tanks



Schooner WWTP Operations Building



Permeate Pump Room



Chemical Clean Room



Blower Room



Electrical Room



Lab/Office Room



Fine Screen and Washer/Compactor



Standby Generator



Cannon Pump Station



Schooner Pump Station and Genset



Galleon Pump Station and Genset



Wetland Restoration beside Galleon PS and Buck Lake

WASTEWATER SYSTEM OPERATIONAL UPDATE

This is a wastewater system operational update report for October through December 2024.

- Ongoing operational support for the sewer improvement capital project. This reporting period includes significant involvement operationally with the Schooner Wastewater Treatment Plant commissioning and operational training provided by the consultants, contractors, and equipment suppliers.
- Cutlass Pump Station Pump No. 1 failure: after troubleshooting and assessment, the pump deemed not repairable. Procurement of a replacement pump was initiated that will impact the 2024 operating budget.
- Emergency response to the new Schooner WWTP because of an intense rainstorm event that pushed the treatment process to capacity resulting in a facility bypass event.
- Portable towable generator corrective maintenance completed. Generator would not start due to a failed battery charger. This equipment is planned for replacement in 2025.

Table 1: Operating Permit Regulatory Non-compliance reporting for October through December 2024

Facility	October to December Reports Issued	Reports YTD 2024	Total Reports 2023	Cause
Schooner WWTP	4	13	10	Environmental Incidence Reports are issued typically as a result of: 1. Facility power outage causing loss of UV disinfection resulting in exceedance of fecal coliform (FC) regulatory requirements (permit <200 cfu/100ml). 2. Exceedance of permitted daily maximum flows (< 640m3/day). Flow exceedances are due to excessive collection system inflow and infiltration (I&I). 3. Exceedance of permitted total suspended solids (TSS) (<45mg/l). This is type of exceedance is the result of high I&I.
Schooner Pump Station	0	0	0	Typically, these are overflow events into the marine environment (Boat Nook) due to extended power failures in the area. There is no standby power at the facility.
Cannon WWTP	0	10	5	Exceeding maximum daily flows due to storm water entering through I&I. However other non-compliances can be: • Permit exceedance: total suspended solids (TSS) (<60mg/l) and carbonaceous biochemical oxygen demand (CBOD) (<45mg/l) • Toxicity testing

RECOMMENDATION

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

Submitted by:	Jared Kelly, P.Eng., Manager, Capital Projects
Submitted by:	Malcolm Cowley, P.Eng., Manager, Wastewater Engineering and Planning
Submitted by:	Dan Robson, A.Sc.T., Manager, Saanich Peninsula and Gulf Islands Operations
Concurrence:	Jason Dales, B.Sc., WD IV., Senior Manager, Infrastructure Wastewater Operations
Concurrence:	Joseph Marr, P.Eng., Senior Manager, Infrastructure Planning and Engineering
Concurrence:	Alicia Fraser, P.Eng., General Manager, Infrastructure and Water Services