



Making a difference...together

MAGIC LAKE ESTATES WATER AND SEWER COMMITTEE

Notice of Meeting on **Tuesday, January 11, 2022 at 9:30 a.m. in the Goldstream Conference Room, 479 Island Highway, Victoria BC**

For members of the **public who wish to listen to the meeting** via telephone please call **1-833-353-8610** and enter the **Participant Code 1911461 followed by #**. You will not be heard in the meeting room but will be able to listen to the proceedings.

M. Fossil (Chair)
W. Foster

K. Heslop
D. Howe

J. Deschenes
D. Reed

AGENDA

1. APPROVAL OF AGENDA

2. ELECTION OF VICE CHAIR

3. ADOPTION OF MINUTES2

Recommendation: That the minutes of the December 14, 2021 meeting be adopted.

4. CHAIR'S REMARKS

5. PRESENTATIONS/DELEGATIONS

Due to limited seating capacity this meeting will be held by without the public present. A phone in number is provided above that will allow the public to listen to the meeting.

Presentation and Delegation requests can be made [online](#) or complete this [printable form](#) (PDF). Requests must be received no later than 4:30 p.m. two calendar days prior to the meeting.

6. COMMITTEE BUSINESS

6.1. Magic Lake Estates Wastewater Pump Station and Treatment Plant Upgrades RFP 2021-732 Consulting Services Contract.....6

Recommendation: That the Magic Lake Estates Water and Sewer Committee recommends the award of Contract 2021-732, Magic Lake Estates Wastewater Pump Station and Treatment Plant Upgrades – Consulting Engineering Services, in the amount of \$795,771 plus GST.

6.2. Water Update [Verbal]

6.3. Wastewater Update [Verbal]

6.4. Operations Update [Verbal]

6.5. Grants Discussion [Verbal]

7. CORRESPONDENCE

8. NEW BUSINESS

9. ADJOURNMENT

Next Meeting: Tuesday, February 8, 2022

*To ensure quorum, advise **Mikayla Risvold 250.474.9518** if you cannot attend.*



Making a difference...together

MINUTES OF A MEETING OF THE Magic Lake Estates Water and Sewer Committee, held Tuesday, December 14, 2021 at 9:30 a.m., Goldstream Conference Room, 479 Island Highway, Victoria, BC

PRESENT: **Committee Members:** M. Fossil (Chair); K. Heslop; J. Deschenes; P. Brent (EP)
Staff: I. Jesney, Senior Manager, Infrastructure Engineering; Matt McCrank, Senior Manager, Wastewater Infrastructure Operations (EP); Malcolm Cowley, Manager, Regional Wastewater; Denise Dionne, Administrative Coordinator; Mikayla Risvold, Committee and Administrative Clerk (recorder)

REGRETS: D. Howe, Electoral Area Director; W. Foster; D. Reed

EP = Electronic Participation

The meeting was called to order at 9:30 a.m.

1. ELECTION OF CHAIR

The Senior Manager called for nominations for the position of Chair of the Magic Lake Estates Water and Sewer Committee for the term ending October 31, 2022.

K. Heslop nominated M. Fossil. M. Fossil accepted the nomination.

The Senior Manager called for nominations a second time.

The Senior Manager called for nominations a third and final time.

Hearing no further nominations, the Senior Manager declared M. Fossil Chair of the Magic Lake Estates Water and Sewer Committee for the term ending October 31, 2022 by acclamation

2. APPROVAL OF AGENDA

MOVED by K. Heslop, **SECONDED** by P. Brent,
 That the agenda be approved.

CARRIED

3. ADOPTION OF MINUTES

MOVED by J. Deschenes, **SECONDED** by K. Heslop,
 That the minutes of the October 26, 2021 meeting be adopted.

CARRIED

4. CHAIR'S REMARKS

The Chair thanked K. Heslop for her many years as service as Chair.

5. PRESENTATIONS/DELEGATIONS

There were no presentations or delegations.

6. COMMITTEE BUSINESS

6.1. Water Update [verbal]

I. Jesney provided a verbal update on the following:

Design and Construction Buck Lake & Magic Lake Adjustable Intakes

Conceptual design drafted and circulated with Operations staff on operational requirements. Detailed design started on anchoring design with tendering in the spring.

Safety Improvements (Undertaken by Operations)

Minor improvements, such as danger tree removal, completed, with major improvements, such as vehicle pull-out for sampling in progress. Works completed to date within budget, with remaining work anticipated to be within remaining budget.

WTP SCADA Hot Standby (Undertaken by Operations)

Equipment installed, and functional, completed within budget.

Shingle Creek Diversion Channel

During the recent rain event, Shingle Creek overtopped the diversion structure used to direct water into Buck Lake. The diversion channel subsequently overflowed its banks creating flooding on an adjacent property. There are no remedial actions planned at this time.

The Committee asked if there was any flooding damage to the adjacent property. Staff advised they are not aware of any damage, however the owner advised there was minor flooding of an outbuilding. Sandbags were placed along a part of the channel by the property owner.

6.2. Wastewater Update [verbal]

M. Cowley provided a verbal update on the following:

Collection System Upgrades

- Triahn Enterprises Ltd. has completed all of the pipe installation and paving work and is now completing deficiencies and clean-up work.
- The extreme rain events caused some damage to work that was nearly completed and identified some tie-in manholes that were not yet plugged and sealed from the old sewer system. This interim state did result in allowing some inflow and infiltration into the system.
- Staff shared photos with the Committee of rainwater damage due to rain events.
- The new pipe and manholes look good with no signs of infiltration. However, there are about 8 tie-in manholes that need to be better sealed. The contractor has been given a deficiency list and is working on completing them. He may have to come back in the spring to complete some items like ground settlement, seeding, etc. under the one-year warranty.
- The actual construction cost to end of October is \$1,823,391. The estimated cost to complete the contract is about \$2.25 million depending on the final quantities. The cost is higher than the initial \$2 million budget estimate primarily because of increased rock removal and house connection quantities (many properties have two connections).

Investing in Canada Infrastructure Grant – Pump Station and Wastewater Treatment Plant Upgrades - Phase 2 and 3

- A Request for Proposal (RFP) was issued on October 29 and closed on December 6 to request proposals from consultants to design the upgrades. Staff are currently evaluating the four proposals that were received and will provide a recommendation to the Committee and our CAO in January 2022.
- The scope of work to be completed under the grant generally includes:
 - Renewing 6 pumpstations (Buccaneer, Galleon, Schooner, Capstan, Cutlass, Masthead)
 - Replacing Cannon Wastewater Treatment Plant (WWTP) with a new pumpstation
 - Upgrading Schooner WWTP (new headworks, Equalization Tank (EQ tank), aeration tank, clarifiers, genset)
- The plan is to complete the design by summer 2022, tender in late summer, and start construction in the fall.

Updates will be posted on the CRD website and can be included in the Pender Post as the design work progresses.

Discussion ensued and staff responded to questions from the Committee regarding:

- The inflow and infiltration (I&I) impacts on both Cannon and Schooner WWTP's. Staff advised that slightly higher flows are being seen in both locations. Staff observed that majority of the I&I is coming from the Cutlass section, which flows down to Cannon. Staff observed a defect on the existing pipes underneath Cutlass Road beneath the pump station which is being repaired this week, noting there was an excessive amount of water flow during the storms.
- Excessive flows coming in from private connections. Staff advised the best way to address the private excessive flows is primarily by education.
- Technology or monitoring to see the flow, and where it is coming from. Staff advised there are flow meters at the plants. There are currently no flow meters at the pumpstation. There are temporary meters that can be installed to measure flows on an interim basis.
- Swamp area on phase three pipe replacement. Staff advised remaining funds from the grant will go towards the final pipe replacement project, subject to costs of the plant and funds being available.

6.3. Operations Update [verbal]

M. McCrank provided a verbal update on the following:

Water Operations Highlights:

- Oct 18th – Hydrant Inspections completed.
- Nov 1st – Frigate Reservoir draining, cleaning and inspection.
- Nov 4th – Captains Reservoir draining, cleaning and inspection.
- Nov 5th – Water system leak repairs and environmental reporting 2711 Privateers Road.

Wastewater Operations Highlights:

- Oct 25th – Windstorm response; extended hydro outage resulting in pump station septage hauling services to prevent sewage spills
- Nov 14/15th – Rainfall storm response; overflows at Schooner and Cannon WWTPs resulting in flooding of the facilities.
- Nov 24th – Chart Drive Pump Station site ground well pump replacement.

Capital Improvement work by Infrastructure Operations:

- Nov 10th – Water Service Connection for 27138 Schooner Way completed.

6.4. Grants Discussion [verbal]

Staff advised the CRD received the final agreement from the Province, which has been executed.

7. CORRESPONDENCE

There was no correspondence.

8. NEW BUSINESS

There was no new business.

9. ADJOURNMENT

MOVED by K. Heslop, **SECONDED** by J. Deschenes,
That the January 11, 2022 meeting be adjourned at 10:06.

CARRIED

CHAIR

SECRETARY



REPORT TO MAGIC LAKE ESTATES WATER AND SEWER COMMITTEE MEETING OF TUESDAY, JANUARY 11, 2022

SUBJECT **Magic Lake Estates Wastewater Pump Station and Treatment Plant Upgrades
RFP 2021-732 Consulting Services Contract**

ISSUE SUMMARY

To summarize the review of proposals received for the Magic Lake Estates Wastewater Upgrades and recommend awarding a consulting services contract.

BACKGROUND

The Capital Regional District (CRD) requires an engineering consultant to provide services associated with the design, tendering and construction administration of the wastewater pump station and treatment plant work. The upgrades are required to address failing infrastructure and capacity issues. This work is a part of the \$7.7 million Investing in Canada Infrastructure Program grant that was received in August 2021 (see Appendix A for a copy of the February 11, 2020 staff report for the grant application). A summary of the funding sources for the grant is noted as follows:

• Government of Canada	= \$3,083,740 (40%)
• Province of British Columbia	= \$2,569,526 (33.33%)
• Magic Lake Estates Sewer	= <u>\$2,056,084</u> (26.67%)
Total	= \$7,709,350 (100%)

The scope of work to be completed under the grant generally includes:

- Renewing 6 pump stations (Buccaneer, Galleon, Schooner, Capstan, Cutlass, Masthead);
- Replacing Cannon Wastewater Treatment Plant (WWTP) with a new pump station; and
- Upgrading Schooner WWTP (new headworks, equalization tank, aeration tank, new blowers, clarifiers, a new electrical and control building, genset and site improvements).

The Magic Lake Estates Sewer share of the costs are coming from the \$6 million loan that was approved by referendum in 2019. As of December 31, 2021 about \$2.32 million has been spent on design and construction of about 3km of failing asbestos cement (AC) sewer and on project management/grant application. Any remaining funds from the \$6 million loan, (after paying for the sewer replacement work and \$2.056 million grant share), will be used to complete as much of the remaining AC sewer pipe as possible and/or cover any potential cost increases on the pump stations and treatment plant upgrades associated with COVID/supply chain/market condition changes.

PROPOSAL REVIEW

The request for proposal (RFP) for an engineering consultant to provide design, tendering and construction services, was issued on October 29, 2021, and closed on December 6, 2021. Four proposals were received and reviewed by the Evaluation Team in accordance with the CRD Procurement Policy and as described within the RFP document.

Magic Lake Estates Water and Sewer Committee – January 11, 2022
Magic Lake Estates Wastewater Pump Station and Treatment Plant Upgrades RFP 2021-732 Consulting Services Contract

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Based on the criteria, all proponents were evaluated on their technical proposal first, and financial proposals were only opened for the proponents who were within 15% of the highest technical score, which resulted in one of the financial proposals not being opened.

McElhanney Ltd. received the highest technical score and has experience/expertise on similar scope projects. Their team includes the necessary specialists to complete this work and they have provided engineering services for many successful CRD projects. McElhanney's fee proposal of \$795,771 plus GST is within the budget estimate for this project. They have also indicated that should the design and procurement proceed as planned (without supply or COVID delays), that construction work could commence in the fall of 2022.

Upon the Committee's recommendation, the Chief Administrative Officer will award the contract to McElhanney Ltd. and exercise his delegated signing authority limit of \$5 million, as defined in the CRD Delegation Bylaw.

ALTERNATIVES

Alternative 1

That the Magic Lake Estates Water and Sewer Committee recommends the award of Contract 2021-732, Magic Lake Estates Wastewater Pump Station and Treatment Plant Upgrades – Consulting Engineering Services, in the amount of \$795,771 plus GST.

Alternative 2

That the Magic Lake Estates Water and Sewer Committee refer this report back to staff for additional information.

IMPLICATIONS

McElhanney has submitted a detailed proposal showing how they can successfully complete this assignment and their fee proposal is within the budget estimate for this project. If awarded a contract in January 2022, it is anticipated that the design could be complete by summer and construction could start in the fall subject to approvals being received by the various regulatory authorities. Financial implications related to COVID and supply chain/market conditions should also be considered in a procurement strategy prior to tendering for equipment supply and construction contracts.

CONCLUSION

A RFP was issued to retain an engineering consultant to provide services associated with the design, tendering and construction administration of pump stations and treatment plant upgrade work. Four proposals were received and there were three good technical submissions. The proposals were evaluated in accordance with the CRD's Procurement Policy and McElhanney's proposal received the highest total score.

Magic Lake Estates Water and Sewer Committee – January 11, 2022
Magic Lake Estates Wastewater Pump Station and Treatment Plant Upgrades RFP 2021-732 Consulting Services Contract

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RECOMMENDATION

That the Magic Lake Estates Water and Sewer Committee recommends the award of Contract 2021-732, Magic Lake Estates Wastewater Pump Station and Treatment Plant Upgrades – Consulting Engineering Services, in the amount of \$795,771 plus GST.

Submitted by:	Malcolm Cowley, P.Eng. Manager, Wastewater Engineering & Planning
Concurrence:	Ian Jesney, P.Eng. Senior Manager, Infrastructure Engineering
Concurrence:	Ted Robbins, B.Sc., C.Tech., General Manager, Integrated Water Services
Concurrence:	Robert Lapham, MCIP, RPP, Chief Administrative Officer

ATTACHMENT

Appendix A: Staff report dated February 11, 2020

**REPORT TO MAGIC LAKE ESTATES WATER AND SEWER LOCAL SERVICES COMMITTEE
MEETING OF TUESDAY, FEBRUARY 11, 2020**

SUBJECT Investing in Canada Infrastructure Program - Green Infrastructure Grant
Application for the Magic Lake Estates Wastewater System Renewal Project

ISSUE SUMMARY

A Capital Regional District (CRD) Board resolution is required to endorse the *Investing in Canada Infrastructure Program (ICIP) - Green Infrastructure – Environmental Quality*, grant application for the Magic Lake Estates (MLE) wastewater system renewal project.

BACKGROUND

Staff have been working with the MLE Water and Sewer Committee and the community to address the issues facing the aging and failing sewer infrastructure in Magic Lake Estates. The condition of the MLE wastewater infrastructure has been well documented in past reports and presented at a number of Public Open House meetings held on November 22, 2014; June 6, 2015; February 27, 2016; and April 27, 2019. On November 23, 2019, the electors of the MLE sewer service approved borrowing \$6 million to complete Phase 1 upgrade to the system.

The estimated cost to complete the entire upgrades (Phase 1, 2 and 3) is about \$12.15 million. Therefore, at its meeting held December 10, 2019, the committee directed staff to proceed with the preparation of the ICIP grant application to help fund the remainder of the project. The new grant program will fund up to 73.33% of eligible costs with the MLE sewer property owners funding the remaining eligible costs of 26.67% plus any ineligible project costs. The 2020 intake (which has an application deadline of February 26, 2020) is the second intake under this program and is to support cost sharing of infrastructure projects in communities across the province.

Project Overview

The proposed scope of work to complete the entire project (Phase 1, 2 and 3) was summarized on an information board that was presented at the April 27, 2019 open house (see Attachment 1).

The new grant program will fund upgrades that promote environmental quality improvements including upgrades to Schooner wastewater treatment plant (WWTP), decommissioning of Cannon WWTP (by pumping to Schooner), and upgrades at all six pump stations. The program will not fund upgrades related to sewer and manhole replacement as the Province believes that the replacement of aging sewers to be the local utility's responsibility.

Project Costing

- Total eligible costs are estimated at about \$7.35 million including engineering and contingency amounts.
- Reimbursable costs are estimated at \$5.39 million (73.33% of \$7.35 million).
- Ineligible costs are estimated at \$4.8 million (for sewer pipe and manhole replacement).
- Total costs to be borne by the MLE sewer property owners are estimated at \$1.96 million (26.67% of \$7.35 million) plus ineligible costs of \$4.8 million which totals \$6.76 million.

Magic Lake Estates Water and Sewer Committee – February 11, 2020
Investing in Canada Infrastructure Program - Green Infrastructure Grant Application for
the Magic Lake Estates Wastewater System Renewal Project **2**

Project Funding

As noted, the grant program could provide up to \$5.39 million and the MLE sewer property owners would be responsible for \$6.76 million. The MLE sewer service electors recently approved borrowing up to \$6 million, so the remaining \$0.76 million would have to be either trimmed from the scope or funded from the MLE sewer capital reserve fund (CRF) in the future (the CRF only has about \$0.22 million at the end of 2019).

Because the MLE sewer property owners have already approved funding up to \$6 million, that could make the ICIP grant application more favourable to senior governments due to the certainty of the community's commitment.

ALTERNATIVES

Alternative 1

That the Magic Lake Estates Water and Sewer Local Services Committee recommends to the Electoral Areas Committee and the Capital Regional District Board that:

1. Staff be directed to submit an application for an *Investing in Canada Infrastructure Program - British Columbia – Green Infrastructure - Environmental Quality* grant for the project's grant-eligible costs for the Magic Lake Estates Wastewater System Renewal Project; and,
2. The recent referendum approval to borrow up to \$6 million be used to commit to the community's 26.67% share of costs for the Magic Lake Estates Wastewater System Renewal Project.

Alternative 2

That the Magic Lake Estates Water and Sewer Local Services Committee directs staff not to proceed with a grant application to the *Investing in Canada Infrastructure Program (ICIP) - Green Infrastructure – Environmental Quality* program.

IMPLICATIONS

If the recommendation is approved, staff will complete and submit the grant application at an estimated cost of \$10,000. The Committee approved the cost to complete the application from the Capital Reserve Fund at its meeting held December 10, 2019. Should the grant be approved, there could be up to a \$5.39 million benefit to the community. Should the grant not be approved, Phase 1 of the project can still commence at an estimated cost of \$6 million that was approved by referendum. Improvements to the wastewater system are required and will start to bring the service back into compliance with the regulations and benefit the environment.

CONCLUSION

At the request of the Magic Lake Estates Water and Sewer Local Services Committee, staff have commenced with preparing an application to the *Investing in Canada Infrastructure Program*. A resolution from the Capital Regional District Board is required to endorse the application. The deadline for submitting the grant application is February 26, 2020.

Magic Lake Estates Water and Sewer Committee – February 11, 2020
Investing in Canada Infrastructure Program - Green Infrastructure Grant Application for
the Magic Lake Estates Wastewater System Renewal Project **3**

RECOMMENDATION

That the Magic Lake Estates Water and Sewer Local Services Committee recommends to the Electoral Areas Committee and the Capital Regional District Board that:

1. Staff be directed to submit an application for an *Investing in Canada Infrastructure Program - British Columbia – Green Infrastructure - Environmental Quality* grant for the project's grant-eligible costs for the Magic Lake Estates Wastewater System Renewal Project; and,
2. The recent referendum approval to borrow up to \$6 million be used to commit to the community's 26.67% share of costs for the Magic Lake Estates Wastewater System Renewal Project.

Submitted by:	Malcolm Cowley, P.Eng., Manager Wastewater Engineering and Planning
Concurrence:	Ian Jesney, P.Eng., Senior Manager, Infrastructure Engineering
Concurrence:	Ted Robbins, B. Sc., C. Tech., General Manager, Integrated Water Services
Concurrence:	Robert Lapham, M.C.I.P., R.P.P., Chief Administrative Officer

ATTACHMENT

Attachment 1: Magic Lake Estates Open House Board – Proposed Phased Upgrades and Costs

CRD INTEGRATED WATER SERVICES | MAGIC LAKE ESTATES WASTEWATER SYSTEM

Proposed Phased Upgrades and Costs

Phase 1: Initial Upgrades

Proposed Upgrades	Cost Estimate (2019 \$)
Improvements at Schooner WWTP: <ul style="list-style-type: none"> • Sewage screen and grit removal • New equalization tank • Electrical upgrades (with temp seacan building) • Standby generator 	\$1.7M
Renew 3 Pump Stations (Buccaneer, Galleon and Schooner) <ul style="list-style-type: none"> • Pumps • Valves • Piping • Electrical kiosk 	\$1.1M
Pipe Replacement: <ul style="list-style-type: none"> • Replace 4.6km of failing asbestos cement pipe • Rehabilitate 84 manholes • Install 0.75km of 100mm PVC forcemain (in common trench) for future Cannon Pump Station 	\$3.2M
Total	\$6M

Phase 2: Second Phase

Proposed Upgrades	Cost Estimate (2019 \$)
Improvements at Schooner WWTP: <ul style="list-style-type: none"> • Add second aeration tank • Replace clarifiers • Electrical upgrades in a permanent building 	\$2.1M
Replace Cannon WWTP: <ul style="list-style-type: none"> • Install new pump station to divert flow to Schooner WWTP • Decommission Cannon WWTP 	\$0.9M
Total	\$3M

Phase 3: Final Upgrades

Proposed Upgrades	Cost Estimate (2019 \$)
Improvements at Schooner WWTP: <ul style="list-style-type: none"> • Replace manual sludge thickening tanks with new thickening system 	\$0.7M
Renew 3 Remaining Pump Stations: (Capstan, Cutlass and Masthead) <ul style="list-style-type: none"> • Pumps • Valves • Piping • Electrical Kiosk 	\$0.85M
Pipe Replacement: <ul style="list-style-type: none"> • Replace 1.8km of failing asbestos cement pipe • Rehabilitate 36 manholes 	\$1.6M
Total	\$3.15M