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MAGIC LAKE ESTATES WATER AND SEWER COMMITTEE
Notice of Meeting on **Tuesday, March 14, 2017 at 9:30 a.m.**
Main Conference Room, 479 Island Highway, Victoria, BC

Kathy Heslop (Chair)
Director Dave Howe

David Reed
Courtenay Rodash

Jim Petrie
Alex-Wilson

Joe Gill

AGENDA

1. Approval of Agenda
2. Adoption of Minutes of February 14, 2017
3. Water Update (verbal report with handout)
4. Wastewater Update (verbal report with handout)
5. Operations Report (verbal report with handout)
6. Motion to Close the Meeting
That the Magic Lake Estates Water and Sewer Committee close the meeting in accordance with the Community Charter, Part 4, Division 3, 90(1)(g) litigation or potential litigation affecting the municipality.
7. New Business
8. Adjournment

To ensure quorum, advise Lorrie Siemens 250.360.3087 or lsiemens@crd.bc.ca if you cannot attend.



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**Minutes of a Meeting of the Magic Lake Estates Water and Sewer Committee
Held Tuesday, February 14, 2017 in the Main Conference Room, 479 Island Highway,
Victoria, BC**

PRESENT: **Committee Members:** K. Heslop (Chair), A. Wilson, J. Gill, CRD Electoral Area Director Dave Howe, C. Rodash, D. Reed
Staff: I. Jesney, Senior Manager, Infrastructure Engineering, D. Robson, Manager, Saanich Peninsula and Gulf Islands Operations, S. Mason, Manager Water Engineering and Planning, R. Wiltshire (recorder)

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

1. Approval of Agenda

MOVED by J. Gill, **SECONDED** by A. Wilson,
That the agenda be approved as previously distributed.

CARRIED

MOVED by A. Wilson, **SECONDED** by C. Rodash,
That the group takes a 10 minute recess at 9:38 a.m.

CARRIED

Director Howe arrived at 9:40 a.m.

The committee reconvened at 9:48 a.m.

It was agreed that item 7 on the agenda be moved to item 2.

2. Motion to close the meeting

MOVED by J. Gill, **SECONDED** by A. Wilson
That the Magic Lake Estates Water and Sewer Committee close the meeting in accordance with the Community Charter, Part 4, Division 3, 90.1 (e) *the acquisition, disposition or expropriation of land or improvements, if the council considers that disclosure could reasonably be expected to harm the interests of the municipality.*

CARRIED

The Magic Lake Estates Water and Sewer Committee closed the meeting at 9:40 a.m. and resumed in open session at 10:25 a.m.

3. Adoption of Minutes of December 13, 2016

MOVED by D. Howe, **SECONDED** by C. Rodash,
That the minutes of December 13, 2016 be adopted as distributed.

CARRIED

4. Water Update

I. Jesney provided a verbal report and distributed a hand-out.

5. Wastewater Update

I. Jesney provided a verbal report and distributed a hand-out.

6. Operations Update

D. Robson provided a verbal report and distributed a hand-out. He also provided a plant tour itinerary for February 27, 2017.

7. New Business

Land Use

- Referral process discussed.

Grant Applications

- Prioritization and specifics discussed.
- Interchanging funds between projects was discussed.

MOVED by J. Gill, **SECONDED** by D. Reed,
That staff provide information on the financial close of projects and reconciliation of any surplus funds.

CARRIED

8. Adjournment

MOVED by D. Howe, **SECONDED** by C. Rodash,
That the meeting be adjourned at 11:35 a.m.

CARRIED



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File: 0360-20

Magic Lake Estates Water and Sewer Committee

Magic Lake Estates Water Service

Magic Lake North Dam License Agreement:

- The CRD Real Estate Services Division has contacted land owners and delivered draft non-exclusive licenses to both land owners for access. Negotiation in progress.

Buck Lake Intake:

- The existing intake line was pressure and vacuum tested. Both tests confirm that the pipeline is not leaking.
- Intake line and pump system assessed with the pump supplier and determined the pump selection is correct for the system hydraulics.
- The pump supplier indicated that air locks can be expected periodically do to the long length of the intake line and due to the fact there is a high point along the alignment.
- The CRD has completed a design/specification for a new air release (high point) and automatic priming system (water addition) for the intake line.
- Staff will present the solution, and budget required, in a staff report at a future committee meeting.
- Upgrades to the intake line are planned to be completed at the same time as the siphon upgrade (below) to reduce mobilization costs.

Magic Lake Dam Safety Upgrade (Siphon):

- The existing siphon line inspected and confirmed to be in satisfactory condition; however, valves and appurtenances need replacement.
- Design and specifications completed for valve upgrade. Work will be undertaken by CRD Operations staff in the summer of 2017.

Signal Hill, Schooner and Capstan Way PRV's:

- The CRD staff, WorkSafe BC and an independent safety consultant, have developed a conceptual design that can be applied to all three sites design to retrofit the existing underground PRV stations and remove confined space entry constraints.
- Removing the confined space entry constraints will reduce operations effort associated with maintenance and improve response time if issues arise with the PRV's.
- The detailed survey has been completed for all three stations.
- A Request for Proposal (RFP) will be issued in March to complete the detailed design and administer construction contract.
- Works will be tendered externally and construction for all three sites is scheduled to take place in the summer of 2017.

Chemical (ISOPAC) Storage and Handling:

- This project has not been initiated but a plan will be developed in the spring.

Buck Lake East Dam Detailed Design:

- The preliminary design has been completed.
- The CRD is currently developing a new dam safety philosophy; and as such, this project has been put on hold.

Public Engagement for Future Projects and Referendum:

- It is proposed to complete the water (and wastewater) Strategic Asset Management plans to determine the comprehensive future capital implications before conducting the public engagement and subsequent referendum.

Prepared by: Ian Sander, Scott Mason, and Stephen Henderson



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File: 0360-20

Magic Lake Estates Water and Sewer Committee

March 14, 2017

Magic Lake Estates Wastewater

Wastewater Infrastructure Projects – Phase 1 Update

Chart Drive

- Assembling as-built drawings, Operation and Maintenance (O&M) Manuals, Project Close-Out documentation
- We have received an interim license to occupy Lot 64 until the Crown Grant is issued

Sewer Pipe Replacement – Buck Lake & Privateers Road

- Survey work is complete and draft base plan is prepared
- Arranging for CCTV inspection of the pipe
- Evaluate replacement options and costs (present to Committee when complete)

Inflow & Infiltration Program

- Flow meters installed to monitor 5 sub-catchment areas (data is being evaluated)
- Arranging to re-install the rain gauge at the Water Treatment Plant (WTP)
- Arranging for CCTV and manhole (MH) inspections of all sewer pipes and manholes
- Analyze pipe condition and prepare defect report

Schooner Tank Assessment

- Prepare document to retain a consultant/material testing firm
- Complete the inspection later this spring

Financial Status of Phase 1 Projects

Project	Budget	Actual Cost to Date	Remaining Cost to Complete	Variance
Chart Drive	\$810,000	\$712,140	\$20,000	\$77,860
Sewer Pipe Replacement – Buck Lake and Privateers Road	\$628,000	\$25,468	\$602,532	\$0
Inflow & Infiltration Program	\$217,000	\$5,152	\$211,848	\$0
Schooner Tank Assessment	\$20,000	\$0	\$20,000	\$0
Total Project	\$1,675,000	\$742,760	\$854,380	\$77,860

Funding for the Phase 1 projects comprised of \$145,000 from the capital reserve fund and \$1,530,000 from Loan Authorization Bylaw (LAB) (**see Attachment 1**). As noted in the LAB, the approved scope of work is for the above noted projects. Therefore, in accordance with the Local Government Act, the debt can be used to fund only those projects. (ie. the money cannot be

borrowed to spend on a completely different project). Currently, only \$745k of the \$1,530k has been borrowed and the plan is to borrow the remaining \$785k this fall. CRD staff will make every effort to borrow only as much as is required to complete the projects. Any savings resulting from borrowing less than the budgeted amount of \$1,530,000 may be transferred to the Capital Reserve Fund to be used for other capital projects as approved by the Committee.

Wastewater Projects - 2017 Capital Plan

Schooner WWTP Blower and Electrical Room Roof Replacement

- The new roofing work is tentatively planned for summer 2017.

Schooner Outfall Protection

- A consultant will be retained to design the new protective cover.
- The work will be scheduled for summer 2017 during low tide.

Phase 2 Wastewater Infrastructure Upgrades – Public Consultation

- Much of the existing wastewater infrastructure is 50 years old now and needs to be upgraded or replaced including: the pump stations, treatment plants, and sewer pipe.
- Options and cost implications will be developed for Phase 2 of the infrastructure upgrades and presented to the community for input and feedback.
- A public open house will be held in 2017 to communicate the need, rationale, and costs of the upgrades.
- To minimize public engagement costs, the open house will also include water infrastructure projects too.
- Once feedback has been received on the options, a referendum will be scheduled to obtain elector assent for fund the proposed upgrades.

Schooner and Cannon Outfall Inspections

- This project is scheduled for 2018, but the CRD is completing other outfall inspections in other service areas, so a provisional item will be included in the contractor's Request for Proposal to inspect the MLE WWTP outfalls too.
- It will be more cost-effective to inspect the outfalls all under one contract (less administration, economy-of-scale, etc.).
- The provisional cost to inspect the outfalls will be presented to the Committee for consideration once the tender amounts have been received.

High Level Float Alarm in Schooner and Cannon Aeration Tanks

- At the Feb 27, 2017 MLE facility tour with the Committee, the need for a high level alarm was brought to the Committee's attention.
- This work was reviewed by the CRD Electrical and Instrumentation group and the estimated cost to complete it is about \$3,500 per site (this includes, materials, labour, and programming).
- It was determined that there are not sufficient funds in the Operating Budget to undertake this work, so it is recommended that the Committee pass a motion to use up to \$7,000 Capital Reserve Funds, and amend the 5-year capital plan, if they want this work to proceed. The Capital Reserve fund balance at the end of 2016 was \$61,240.

Report Prepared by: Malcolm Cowley and Dale Puskas



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OPERATIONS REPORT

Water Operations Highlights:

- Relocation of water pipe (approx.100 pcs) stored at the Schooner Wastewater Treatment Plant (SWWTP) to the recently repurposed Buck Lake storage facility. The pipe was initially stored at the Magic Lake Water Treatment Plant however as a result of the capital project the pipe was temporarily stored at SWWTP.
- Installation of chemical spray safety curtains around potassium permanganate injection equipment.

Wastewater Operations Highlights:

- Operating Permit Regulatory Non-compliance reporting for February 2017:

Facility	# of Reports Issued	Cause
Schooner WWTP	3	UV failure (effluent disinfection system) as a result of power outages (typically).
Schooner Pump Station	1	Raw sewage overflow as a result of extended power outage at the facility.
Cannon WWTP	6	Exceeding maximum daily flows due to storm water entering through I&I.

- A significant number of lengthy power outages occurred this month resulting in several emergency responses including emergency backup generator pumping at some of the wastewater lift stations.
- Installation of safety barrier around the sludge settling tanks at Schooner Wastewater Treatment Plant. During a recent safety inspection a falling hazard was identified that had the potential for Operators to fall into the wastewater treatment process tank.

Capital Improvement work:

- Completed the installation of the safety equipment (emergency eyewash/shower system) in the Magic Lake Water Treatment Plant. This work is part of the approved 2016 MLE water capital plan.
- Provided assistance with some of the Phase 1 Wastewater Infrastructure Projects.

Prepared by: Dan Robson and Matt McCrank
Integrated Water Services