



**REPORT TO CORE AREA LIQUID WASTE MANAGEMENT COMMITTEE
MEETING OF WEDNESDAY 25 MARCH 2009**

SUBJECT **CORE AREA INFRASTRUCTURE UPGRADE PROJECTS FOR 2009**

PURPOSE

To seek approval for completing infrastructure upgrades for 2009 as identified in the core area Liquid Waste Management Plan (LWMP) and/or the five-year capital budgets (Schedule G of various 2009 Environmental Services trunk sewer budgets).

BACKGROUND

Chapter 16 of the core area LWMP and Schedule G of various trunk sewer five-year capital budgets, include upgrading of the Capital Regional District (CRD) sewer infrastructure to address capacity, structural deficiencies, health and safety issues and other needs.

The CRD Board approved the updated Chapter 16 of the core area LWMP on 12 January 2005 and the Core Area Liquid Waste Management Committee (CALWMC) approved Schedule G of the 2009 environmental services budgets at the 22 October 2008 meeting. The Liquid Waste Management Core Area and Western Communities Service Establishment Bylaw, No. 2312, provides the authority to undertake the proposed works.

This report identifies the infrastructure upgrade projects that are to be completed in 2009. Appendix A describes the projects and why they are needed. Appendix B presents the cost-sharing proportions for the projects based on each participant's contributory flow at each of the facilities.

ALTERNATIVES

1. That the committee recommend to the Board that authorization be given to proceed with the infrastructure upgrading projects identified in Appendix A; that costs be shared as outlined in Appendix B; and that funding be provided by the trunk sewer reserve fund in the amount of \$995,000, which had \$3,525,479 uncommitted as of January 31, 2009.
2. That the committee recommend to the Board to proceed with an amended list of infrastructure upgrading projects.

FINANCIAL IMPLICATIONS

There are sufficient funds available in each participant's trunk sewer reserve fund to pay for the proposed infrastructure upgrades. No loan authorizations or requisitions are required.

SUMMARY/CONCLUSIONS

Each year certain infrastructure upgrades are required, as identified in the core area LWMP and Schedule G of the annual budget, to address deficiencies, health and safety issues, and keep the system running well. Eight projects with a total estimated cost of \$995,000 have been identified for 2009.

RECOMMENDATIONS

That the Core Area Liquid Waste Management Committee recommend to the Board that:

1. authorization be given to proceed with the infrastructure upgrading projects identified in Appendix A;
2. costs be shared as outlined in Appendix B; and
3. funding be provided by the trunk sewer reserve fund in the amount of \$995,000, which had \$3,525,479 uncommitted as of January 31, 2009.

Malcolm J. Cowley, PEng
Manager, Engineering Design Services

Larisa Hutcheson, PEng
Acting General Manager, Environmental Services
Concurrence

Kelly Daniels
CAO Concurrence

COMMENTS

Attachments: 2
MJC:cl

APPENDIX A

**CORE AREA INFRASTRUCTURE UPGRADE PROJECTS FOR 2009
(IDENTIFIED IN THE LWMP AND SCHEDULE G OF THE 2009 BUDGET)**

Item	Improvement	Estimated Cost	Description and Need
1	Cecelia Ravine – Northwest Trunk Sewer Protection	\$200,000	<ul style="list-style-type: none"> • trunk sewer is located on a “bench” above the Galloping Goose trail that could become unstable during a seismic event. • the slope above the exposed sewer pipe could also destabilize and falling debris could damage the pipe. • a design would be completed to improve the trunk’s stability and protect it from falling debris.
2	Currie lift station – Electrical Upgrade	\$200,000	<ul style="list-style-type: none"> • the existing motor control centre (MCC) is 20 years old, is located below ground in a wet environment, and does not meet current code requirements. • A new MCC and pump level controls are required to ensure that the lift station will not fail.
3	Clean and Inspect the Northeast Trunk Sewer – Clover Section	\$200,000	<ul style="list-style-type: none"> • the trunk sewer has never been inspected or cleaned since it was constructed some 30 years ago. • cleaning is required to improve performance, reduce odours, and assess its condition.
4	Ross Bay Flow Meter Upgrade	\$100,000	<ul style="list-style-type: none"> • the existing level sensor does not function correctly in measuring flows. • accurate measurement is required for cost sharing and I&I purposes.

APPENDIX A

**CORE AREA INFRASTRUCTURE UPGRADE PROJECTS FOR 2009
(IDENTIFIED IN THE LWMP AND SCHEDULE G OF THE 2009 BUDGET)**

Item	Improvement	Estimated Cost	Description and Need
5	Cathodic Protection Assessment and Upgrades	\$60,000	<ul style="list-style-type: none"> • existing steel and ductile iron pipes can corrode over time if they are not assessed and/or protected. • the pipes can be assessed to see if there is a potential for corrosion and cathodic protection can be installed to protect them if needed.
6	Clover Pump Station - Load Bank Upgrade	\$50,000	<ul style="list-style-type: none"> • genset is required to be tested each year using a load bank to ensure that they will run to their full power. • a load bank panel is required to safely couple the load bank cables to the generator.
7	Currie and Penrhyn Pump Stations – Load Bank Upgrades	\$75,000	<ul style="list-style-type: none"> • load bank panels are required at these stations to safely couple the load bank cables to the generators.
8	Marigold Forcemain – Air Valve Upgrade Marigold Pump Station – Load Bank Upgrade	\$110,000	<ul style="list-style-type: none"> • the existing air valves are old and sometimes do not function as intended so they need to be replaced to ensure that the forcemain operates at full capacity. • a load bank panel is required to safely couple the load bank cables to the generator.

APPENDIX B

**CORE AREA PROJECTS FOR 2009
(IDENTIFIED IN THE LWMP AND SCHEDULE G OF THE 2009 BUDGET)**

COST SHARING

Item	Improvement	Estimated Cost	Cost Sharing (% / Allocation)		
			Victoria	Saanich	Oak Bay
1	Cecelia Ravine – Northwest Trunk Sewer Protection	\$200,000	14.9% \$29,800	85.1% \$170,200	
2	Currie lift station – Electrical Upgrade	200,000	39.5% \$79,000	30.1% \$60,200	30.4% \$60,800
3	Clean and Inspect the Northeast Trunk Sewer – Clover Section	200,000	63.0% \$126,000	18.4% \$36,800	18.6% \$37,200
4	Ross Bay Flow Meter Upgrade	100,000	39.5% \$39,500	30.1% \$30,100	30.4% \$30,400
5	Cathodic Protection Assessment and Upgrades	60,000	36.3% \$21,780	35.9% \$21,540	27.8% \$16,680
6	Clover Pump Station - Load Bank Upgrade	50,000	63.0% \$31,500	18.4% \$9,200	18.6% \$9,300
7	Currie and Penrhyn Pump Stations – Load Bank Upgrades	75,000	39.5% \$29,625	30.1% \$22,575	30.4% \$22,800
8	Marigold Forcemain – Air Valve Upgrade Marigold Pump Station – Load Bank Upgrade	110,000		100% \$110,000	
Total		\$995,000	\$357,205	\$460,615	\$177,180