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**REPORT TO CORE AREA LIQUID WASTE MANAGEMENT COMMITTEE
MEETING OF WEDNESDAY 29 JUNE 2011**

SUBJECT CORE AREA INFRASTRUCTURE UPGRADE PROJECTS FOR 2011

ISSUE

To seek approval for completing infrastructure upgrades for 2011 as identified in the Core Area Liquid Waste Management Plan (LWMP) and/or the five-year capital 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 Board approved the Operating and Capital Financial Plans (including Schedule G) at the March 30, 2011 meeting. The *Liquid Waste Management Core Area and Western Communities Service Establishment Bylaw No. 2312*, as amended by Bylaw No. 3028 and 3319, provides the authority to undertake the proposed work.

This report identifies the infrastructure upgrade projects for 2011. Attached are Appendix A, which describes the projects and why they are needed, and Appendix B, which presents the cost-sharing apportionment based on each participant's flow as specified in the governing Bylaw.

ALTERNATIVES

Alternative 1

That the Core Area Liquid Waste Management Committee recommend to the CRD 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 \$530,000, of which \$5,126,603.48 was uncommitted as of April 27, 2011.

Alternative 2

That the Core Area Liquid Waste Management Committee recommend to the CRD Board to proceed with an amended list of infrastructure upgrade projects.

IMPLICATIONS

Alternative 1

Appendix A provides details of the proposed improvements and the justification for the work. There are sufficient funds available in each participant's trunk sewer reserve fund to pay for the proposed infrastructure projects as detailed in Appendix B. No loan authorizations or additional requisitions are required.

The need for these projects is not affected by the Core Area Liquid Waste Management Project.

Alternative 2

If the proposed work is deferred, there will be an increased risk of equipment failures resulting in a loss of service and potentially sewage overflows.

CONCLUSION

Each year various 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 to keep the system in good operating condition. Five projects with an estimated cost of \$530,000 have been identified for 2011.

RECOMMENDATION

That the Core Area Liquid Waste Management Committee recommend to the CRD Board authorization 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 \$530,000.

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Attachments: 2

APPENDIX A
 CORE AREA INFRASTRUCTURE UPGRADE PROJECTS FOR 2011
 (IDENTIFIED IN THE LWMP AND SCHEDULE G OF THE 2011 BUDGET)

Date: May 13, 2011

Item	Improvement	Estimated Cost	Description and Need
1	Marigold Pump Station (NWT) -pump and electric motor upgrade/replacement.	\$350,000	<ul style="list-style-type: none"> • Three of the existing pumps and motors (#4, #5 and #6) have come to end of their serviceable life and require replacement. Pumps and motors #1, #2 and #3 were previously replaced in 1998 • Replacement will result in increased reliability and lower maintenance cost over long term.
2	Langcove Pump Station (NWT) -electrical load bank connection panel.	\$50,000	<ul style="list-style-type: none"> • An electrical load bank test of the emergency generator is required each year to ensure the pump station can operate at full power during a hydro outage. • A load bank equipment panel is required to safely couple the load bank cable to the generator.
3	Shoreline Trunk Sewer (NWT) -closed circuit television (CCTV) inspection.	\$30,000	<ul style="list-style-type: none"> • This trunk sewer has never been inspected or serviced since it was constructed over 35 years ago. • The CCTV inspection will identify any deficiencies including capacity issues and also prepare background for the planned future upgrade of this trunk main.
4	Penrhyn Pump Station (ECI) -engineering design services for genset upgrade.	\$75,000	<ul style="list-style-type: none"> • The existing genset is over 20 years old and cannot provide enough power to operate all the essential equipment during a power outage. • This upgrade will ensure the continued operation of the facility under all operating conditions.
5	Currie Road Pump Station (ECI) -electrical Power Measurement Logic (PML) metering upgrade.	\$25,000	<ul style="list-style-type: none"> • The existing electrical metering system is outdated and does not provide the necessary information required to properly access incoming electrical service data. • Installing the PML metering system will assist operations staff to examine, troubleshoot and solve electrical issues experienced at Currie with the prospect of reducing damage to expensive electronic equipment.

APPENDIX B
 CORE AREA INFRASTRUCTURE UPGRADE PROJECTS FOR 2011 - CRD
 (IDENTIFIED IN THE LWMP AND SCHEDULE G OF THE 2011 BUDGET)
 COST SHARING

Date: May 13, 2011

Item	Improvement	Estimated Cost	Cost Sharing (%/Allocation)						
			View Royal	Songhees IR	Esquimalt IR	Esquimalt and DND	Victoria	Saanich	Oak Bay
1	Marigold Pump Station pump and motor replacement	\$ 350,000	-	-	-	-	-	100.00% \$ 350,000	-
2	Langcove Pump Station loadbank upgrade	\$ 50,000	-	-	-	100% \$ 50,000	-	-	-
3	Shoreline Trunk Sewer CCTV pipe inspection	\$ 30,000	19.23% \$ 5,769	42.31% \$ 12,693	25.00% \$ 7,500	13.46% \$ 4,038	-	-	-
4	Penrhyn Pump Station generator upgrade - design	\$ 75,000	-	-	-	-	-	100.00% \$ 75,000	-
5	Currie Pump Station electrical PML metering	\$ 25,000	-	-	-	-	43.93% \$ 10,983	30.05% \$ 7,513	26.01% \$ 6,503
Total		\$ 530,000	\$ 5,769	\$ 12,693	\$ 7,500	\$ 54,038	\$ 10,983	\$ 432,513	\$ 6,503
Current amount available in Sewer Reserve Fund (as of April 27, 2011)			\$ 359,567	\$ 196,128	\$ 11,128	\$ 143,032	\$ 1,443,777	\$ 2,123,296	\$ 857,716

Note: There are no projects planned that require cost sharing from Langford or Colwood.