

**REPORT TO CORE AREA LIQUID WASTE MANAGEMENT COMMITTEE
MEETING OF WEDNESDAY, SEPTEMBER 13, 2017**

SUBJECT **Core Area Inflow and Infiltration Management Plan – 2017 Update (Five-Year Update)**

ISSUE

To present the Core Area Inflow and Infiltration (I&I) Management Plan 2017 Update to the Core Area Liquid Waste Management Committee.

BACKGROUND

The Core Area Liquid Waste Management Plan (LWMP) sets out goals and commitments for the municipalities and Capital Regional District (CRD) to manage inflow and infiltration (I&I). In 2012, the CRD met its commitment to prepare a Core Area I&I Management Plan and submit it to the Ministry of Environment. The CRD has committed to updating the plan at five-year intervals. An Executive Summary can be found in Appendix A, and the complete Inflow and Infiltration Management Plan 2017 Update is provided as Appendix B.

Each of the core area municipalities has participated in the development of its own individual municipal I&I management plan based on a common, systematic approach. For this approach, municipalities are divided into catchments: the catchments are flow monitored and catchments found to have elevated I&I are investigated to determine rehabilitation needs. The plans are comprehensive but not prescriptive, allowing for flexibility and change, where appropriate. Like a road map, the plan can be used as a guide for the CRD and core area municipalities to carry out I&I reduction in a responsible, municipality-specific, cost effective, integrated and well-planned manner.

Efforts to address I&I from private property are continuing. The CRD created a sample model bylaw that the core area municipalities plan to incorporate into their existing sewer bylaws. The CRD has documented best practices related to private property I&I from around North America and will be assisting each municipality with the development and implementation of custom plans to meet their needs. The CRD is developing detailed education materials that target the needs of key stakeholders (i.e., plumbers, realtors and home owners) and is updating general education materials to focus on homeowner protection, primarily the prevention of basement flooding.

Additional work will be needed to meet the LWMP commitment of reducing wet weather flows below four times average dry weather flow at Clover Point and the McLoughlin Point Treatment Plant by 2030. Colwood, Langford, Saanich and View Royal, which generally have young sewers and low I&I, are focused on I&I prevention. Esquimalt, Oak Bay, and Victoria have older sewers with inherently higher I&I. These municipalities have expended significant effort to date to address age-related sewer deficiencies that result in elevated I&I; however, they may need to allocate additional resources and accelerate their I&I reduction efforts to meet their respective I&I reduction targets.

ALTERNATIVES

Alternative 1

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

1. That the Core Area Inflow and Infiltration Management Plan 2017 Update be received for information; and
2. That staff be directed to submit the plan update to the Ministry of Environment and Climate Change Strategy.

Alternative 2

That the Committee request additional information about the plan and report back to the Core Area Liquid Waste Management Committee.

FINANCIAL IMPLICATIONS

The forecasted projections showing which municipalities will likely meet the four times average dry weather performance target by 2031 were based on I&I reductions resulting from infrastructure improvements and current CRD and municipal funding levels for I&I and sewer service budgets. In the newer municipalities of Colwood, Langford, Saanich and View Royal, the current level of funding is expected to maintain I&I at less than four times average dry weather flow. The older municipalities of Esquimalt, Oak Bay and Victoria may need to accelerate their individual programs, involving both public and private property, in order to reach their I&I reduction targets.

ENVIRONMENTAL IMPLICATIONS

By implementing this plan, along with the sanitary sewer overflow management plan that was submitted to the Ministry of Environment in 2014, I&I and overflows will be reduced, which will have a positive impact on local creeks, beaches and ecosystems.

SOCIAL IMPLICATIONS

Reduced I&I and overflows will reduce the number of beach closures. As residents and businesses become more aware of I&I through ongoing public education and outreach programs, there will be a greater understanding of how everyone can reduce I&I to protect infrastructure investment.

CONCLUSION

The Ministry of Environment requested that the CRD prepare an I&I Management Plan as part of the Core Area LWMP. This report is the five-year update to the I&I Management Plan. The preparation of the plan has been a collaborative process between municipal and CRD staff. The plan fulfills the LWMP commitment and its implementation will support the Region's long-term objectives of reducing I&I and overflows.

RECOMMENDATION

That the Core Area Liquid Waste Management Committee recommend to the Capital Regional District Board:

1. That the Core Area Inflow and Infiltration Management Plan 2017 Update be received for information; and
2. That staff be directed to submit the plan update to the Ministry of Environment and Climate Change Strategy.

Submitted by:	Stephen May, P.Eng., Senior Manager, Facilities Management & Engineering Services
Concurrence:	Larisa Hutcheson, P.Eng., General Manager, Parks & Environmental Services
Concurrence:	Robert Lapham, MCIP, RPP, Chief Administrative Officer

JM:mr

Attachments: Appendix A – Core Area Inflow & Infiltration Management Plan – Executive Summary
Appendix B – Core Area Inflow & Infiltration Management Plan – 2017 Update (Kerr Wood Leidal and CRD)