CAPITAL REGIONAL DISTRICT CORE AREA LIQUID WASTE MANAGEMENT PLAN

AMENDMENT NO. 13

SECTION 5

(Replaces Section 5 in Amendment No. 12)

MANAGEMENT OF INFILTRATION AND INFLOW AND CONTROL OF WASTEWATER OVERFLOWS

TYPE OF AMENDMENT: CRD INITIATED - MINOR

REGULATORY REQUIREMENT

The Municipal Wastewater Regulation (MWR), *Part 3, Division 2 – Overflows, and Inflow and Infiltration Requirements*, sets out the conditions for overflows and inflow and infiltration.

With respect to Overflows, MWR Article 42 (1) (a) states: "A discharger must ensure that an overflow does not occur during storm or snowmelt events with a less than 5-year return period, unless the person responsible for the municipal wastewater collection system develops and implements, as part of a liquid waste management plan, measures to eliminate overflows".

With respect to Inflow and Infiltration (I&I), MWR Article 44 (1) (a), states: "A discharger must ensure that inflow and infiltration does not occur such that the maximum daily flow exceeds 2 times the ADWF [average dry weather flow] at the treatment plant during storm or snowmelt events with a less than 5-year return period, unless the person responsible for the municipal wastewater collection system addresses, as part of a liquid waste management plan, how inflow and infiltration can be reduced".

On March 24, 2022, the Capital Regional District (CRD) was directed to "complete the separation of combined sewers in the Humber Catchment area by December 31, 2025" and to propose a new timeline for the separation of the Rutland Catchment that is "in line with the overarching commitment to reduce inflow and infiltration to below four times average dry weather by 2030."

GOAL

The goal of the Core Area Liquid Waste Management Plan is to meet the intent of the MWR by preparing inflow, infiltration and overflow management plans to achieve the following:

The primary objective is to reduce inflow and infiltration to eliminate overflows for storm events with less than a 5-year return period from all CRD facilities by 2030, except the Clover Point long outfall. The next key objective would be to eliminate overflows for storm events with less than a 5-year return period from all CRD facilities including the Clover Point long outfall by year 2045.

COMMITMENTS

To achieve the goals and objectives noted above, the CRD and participants discharging into the CRD wastewater system commit to the following actions:

CRD Commitments:

- 1) Monitoring municipal sewer flows into the core area trunk sewer system and assessing compliance with the peak flow allocations in CRD Bylaw No. 4304 (Table 1).
- 2) Analyzing available flow data for I&I on a periodic basis including flow data from the CRD cost sharing meters and municipal pump stations (when suitable).
- 3) Completing a study assessing the impacts of storm event overflows from the Clover Point long outfall including climate change implications, environmental impacts, social impacts, budget estimates to eliminate 5-year overflows, and impact on taxpayers.
- 4) Establishing an education program for homeowners and key stakeholders (i.e. home inspectors, realtors, plumbers) that promotes repair and maintenance of private property sewer laterals.
- 5) Assisting municipalities with catchment-specific studies designed to address high I&I and/or overflows (as budget allows).
- 6) Assessing storage and treatment options to reduce overflows caused by I&I at the Clover Point long outfall.
- 7) Reviewing and updating, if appropriate, the CRD model bylaw for private sewer lateral laterals (2015) for municipalities to consider adopting or incorporating into existing bylaws.
- 8) Creating a mass balance model/tool to assess, document, and improve the effectiveness of the municipal asset management plans and CRD I&I Management Plan for eliminating overflows at the Clover Point long outfall by 2045.
- 9) Submitting 5-year updates of the I&I Management Plan to the Province.

Participant Commitments:

- Performing detailed catchment investigations and preparing compliance plans for participant area inputs to the core area sewer system that both exceeds their sewer allocations and contributes to sub 5-year overflows.
- 2) Preparing asset management plans identifying sewer asset life span, when sewer assets will be replaced, the level of funding required, and how that will help to reduce inflow and infiltration over time as infrastructure is renewed.
- 3) Preparing drainage improvement strategies for those areas where building foundation drains are unable to connect to the storm drainage system.
- 4) Applying for grants targeted specifically to address catchment areas contributing to overflows with less than a 5-year return period.
- 5) Carrying out additional flow monitoring in catchments with elevated I&I, as appropriate.
- 6) Carrying out the recommendations outlined in the I&I Management Plan that relate to their specific participant area or collection system.
- 7) If sanitary municipal sewer flows exceed allotted flows from Bylaw No. 4304, implement a private sewer lateral replacement bylaw, or update existing sewer bylaws, to require the replacement of laterals that have exceeded their service life. The bylaw updates shall be complete by 2027 or within two years of initial non-compliance.

Table 1: Allocated Sewer Flows from Bylaw No. 4304

Allocation Point	Allocated Average Dry Weather Flow (ML/day)	Allocated Peak Daily Flow (ML/day)
COLWOOD		
Total (Parson's minus Meaford)	4.70	18.8
ESQUIMALT		
Esquimalt Panhandle	0.12	0.48
Lang Cove Pump Station	1.28	5.12
Dockyard	1.01	4.04
Kinver	0.44	1.76
Pooley Place	0.06	0.24
Devonshire	1.85	7.40
Wilson	0.37	1.48
Head	1.68	6.72
Anson	0.24	0.97
Total	7.10	28.40
LANGFORD		
Total (Meaford)	14.12	56.48
OAK BAY		
Windsor	2.92	11.68
Humber (combined sewers)	0.60	2.40
Rutland (combined sewers)	0.37	1.48
Currie Net	0.97	3.88
Currie Lift Station	1.62	6.48
Harling Point Pump Station	0.20	0.79
Total	6.62	26.48
SAANICH		
Marigold Pump Station	13.19	52.76
City Boundary	5.88	23.52
Harriet	3.27	13.08
Townley	0.61	2.44
Haultain	0.57	2.27
Arbutus	7.08	28.31
Haro	0.79	3.17
Penrhyn Lift Station	0.93	3.73
Total	32.89	131.56

APPENDIX A

AFFEN		
Allocation Point	Allocated Average Dry Weather Flow (ML/day)	Allocated Peak Daily Flow (ML/day)
VICTORIA		
Cecelia	3.14	12.57
Chapman & Gorge	0.35	1.40
Selkirk	0.28	1.11
Langford - Vic West	0.19	0.77
Hereward	1.91	7.65
Sea Terrace	0.33	1.32
Trent Net	7.33	29.32
Hollywood	0.54	2.16
Olive	23.06	92.24
Clover Net	1.50	6.01
Total	38.30	153.19
VIEW ROYAL		
Craigflower Pump Station	3.54	14.16
Shoreline Trunk	0.14	0.55
Total	3.54	14.16
ESQUIMALT NATION		
Total	0.07	0.28
SONGHEES NATION		
Songhees Nation	0.59	2.36
Maplebank	0.010	0.04
Total	0.66	2.64

AMENDMENT APPROVALS

Capital Regional District Board Approval	, 2025
Ministry of Environment and Parks Approval	, 202