

# Community Need

2022 Summary

## Wastewater

### Strategy

#### Target Outcome

We envision efficient and effective management of the region's wastewater.

#### Strategic Context

##### Strategies

- [Core Area Liquid Waste Management Plan](#)
- Transition to stable operation of McLoughlin Point Wastewater Treatment Plant (MPWWTP) and Residuals Treatment Facility.
- Transition of residual solids from other wastewater treatment facilities to the Residuals Treatment Facility.
- Continue to effectively operate and maintain the Saanich Peninsula Wastewater Treatment Plant.
- Continue to effectively operate and maintain five small wastewater systems in the Electoral Areas.

##### Trends, risks and issues

- Monitoring programs for new wastewater infrastructure in the Core Area continue to be implemented; ongoing commissioning and operational refinement requires additional samples to be collected and analyzed. Lab Services requires additional resources to support the wastewater operations at MPWWTP for 2021.
- Enhanced Key Manhole study to inform CRD source control initiatives and wastewater operations to be completed 2021-2022.
- Biosolids short-term implementation, and long term planning, options analysis and pilot testing.
- Commissioning of the Residuals Treatment Facility (RTF) has been extended, which has resulted in extra regulatory, technical and administrative oversight for CRD staff.
- Optimization of operation and maintenance of new infrastructure in the Core Area. Continued onboarding of new staff to operate and maintain the new infrastructure.
- Continue to operate and maintain the other wastewater infrastructure in the Core Area, Saanich Peninsula, and the Electoral Areas. This infrastructure is of various ages and in several cases large scale infrastructure renewal is required.
- Facilities Management's role in supporting maintenance of superstructures in wastewater is evolving.

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### Services

Core Services Levels	
Service	Levels
<b>Core Area, Saanich Peninsula Wastewater Systems and Small Wastewater Systems in the Electoral Areas</b> Services include wastewater conveyance and tertiary treatment for Core Area, and conveyance and secondary treatment for Saanich Peninsula, and the small wastewater systems in the Electoral Areas.	
<b>Wastewater System Operations</b> Wastewater treatment collection and transmission system operation and monitoring. System and facility maintenance, consumables management and preventative maintenance.	<ul style="list-style-type: none"> <li>Wastewater treatment</li> <li>System operation, monitoring and maintenance</li> <li>Consumables management</li> </ul>
<b>Emergency Response/System Failure</b> Wastewater overflows and unplanned service interruptions.	<ul style="list-style-type: none"> <li>Wastewater overflows and public and environmental health protection</li> <li>Unplanned service interruptions</li> </ul>
<b>Capital Project Delivery and Works</b> Project design, procurement and delivery of projects planned each year, on time and budget. Installations, equipment replacement and capital projects support.	<ul style="list-style-type: none"> <li>Capital program value for seven services</li> <li>Infrastructure renewal and upgrades</li> <li>Capital project support</li> </ul>
<b>Infrastructure planning</b> Strategic asset management for all services/systems including modeling and capacity analysis, vulnerability assessment, infrastructure renewal plans.	<ul style="list-style-type: none"> <li>Asset management Plans</li> <li>Manage capital plans for seven wastewater services</li> </ul>
<b>Engineering services</b> Support of Infrastructure Operations through engineering services such as process, civil, electrical and mechanical troubleshooting.	<ul style="list-style-type: none"> <li>Engineering support of utility operations for the seven wastewater services.</li> </ul>
<b>Environmental Protection</b> Regulatory and non-regulatory services and a support role across the organization that focuses on contaminant reduction, monitoring and assessment associated with liquid waste treatment.	
<b>Regional Source Control</b> Administration, monitoring, and reporting of compliance with regional bylaw.	<ul style="list-style-type: none"> <li>Inspect, monitor and enforcement for businesses and institutions connected to sanitary sewer.</li> <li>Promote contaminant reduction associated with sanitary and stormwater systems.</li> </ul> <p>↪ Service level adjusted, see IBC 8a-1.3</p>

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Core Services Levels	
Service	Levels
<p><b>Core Area and Saanich Peninsula Wastewater &amp; Marine Environmental Program</b></p> <p>Oversight for wastewater monitoring and assessment and reporting to meet regulatory requirements.</p>	<ul style="list-style-type: none"> <li>• Marine outfall monitoring, assessment and reporting services to demonstrate compliance with federal and provincial legislation.           <ul style="list-style-type: none"> <li>↳ Service level adjusted, see IBC 8a-1.5</li> </ul> </li> <li>• Update of Liquid Waste Management Plans.</li> </ul>
<p><b>Residuals Treatment Facility</b></p> <p>Administration of the Project Agreement for operation of the RTF and biosolids beneficial use strategy.</p>	<ul style="list-style-type: none"> <li>• Monitoring and compliance reporting.           <ul style="list-style-type: none"> <li>↳ Service level adjusted, see IBC 8a-1.4</li> </ul> </li> </ul>
<p><b>On-site Wastewater Management</b></p> <p>Regulatory oversight for onsite wastewater systems and education and outreach services across the region.</p>	<ul style="list-style-type: none"> <li>• Promote and monitor compliance with regional bylaw.</li> </ul>
<p><b>Septage Service</b></p> <p>Administration, monitoring and reporting of regional septage service.</p>	<ul style="list-style-type: none"> <li>• Negotiate and manage one septage disposal contract servicing the capital region.</li> </ul>
<p><b>Watershed Management Program</b></p> <p>Promote environmental stewardship associated with sanitary and stormwater systems, contaminants and flows.</p>	<ul style="list-style-type: none"> <li>• Promote public awareness and stewardship initiatives.</li> <li>• Public education and engagement in the region to promote sustainable behavior through campaigns, initiatives and services.</li> </ul>
<p><b>Support Services</b></p> <p>The core services listed rely on the support of several corporate and support divisions to effectively operate on a daily basis. These services are reported on in the Accountability Community Need Summary.</p>	<ul style="list-style-type: none"> <li>• Services include Human Resources &amp; Corporate Safety, Corporate Communications, Asset Management, Financial Services, Information Technology &amp; GIS, Information Services, Legislative Services, Facility Management, Fleet Management, Legal Services, Risk &amp; Insurance and Real Estate Services.</li> </ul>

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## 2022 Summary

Initiatives					
Ref	Initiative	Description	Year(s)	2022 impacts	
8a-1.3	Saanich Peninsula Liquid Waste Management Plan	Development of a detailed inflow and infiltration reduction program for the Peninsula.	2022	--	\$65K requisition
8a-1.4	Biosolids Research Assistant (Term)	Development of short- and long-term biosolids management plans.	2022-23	+1.0 FTE Term	\$92K requisition
8a-1.5	Lab Services CAWTP	Support for lab services during evaluation of longer-term CAWTP requirements.	2022	+1.0 FTE Term	\$105K requisition

## Business Model

Funding
<p><b>Who contributes</b></p> <ul style="list-style-type: none"> <li>Core Area Municipalities (Colwood, Esquimalt, Langford, Oak Bay, Saanich, Victoria, View Royal) and Songhees and Esquimalt First Nations.</li> <li>Saanich Peninsula Municipalities (Central Saanich, North Saanich, Sidney) and Saanich Peninsula First Nations Bands.</li> <li>Local Wastewater Service Areas in the Electoral Areas.</li> <li>Support Services: varies per service.</li> </ul> <p><b>Funding Sources</b></p> <ul style="list-style-type: none"> <li>Requisitions</li> </ul>

Reporting Structure
<ul style="list-style-type: none"> <li><a href="#">Core Area Liquid Waste Management Committee</a></li> <li><a href="#">Saanich Peninsula Wastewater Commission</a></li> </ul>

Performance			
Definition and Source	2020 Actual	2021 Forecast	2022 Target
TBC			

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### Discussion

#### Link to Target Outcome

The following KPIs link to the CRD's goals of safe, resilient and environmentally sound wastewater conveyance and treatment for our customers in the capital region and protection of the environmental and public health. These KPIs are being established with new performance targets that will be reported in future service plans.

- Compliance with provincial and federal regulatory requirements and operational certificates
- Total volume of wastewater collected and treated
- Operating cost per megaliter of wastewater collected and treated
- Energy use per megalitre of wastewater treated
- Volume/percent of biosolids beneficially used
- Utilization of gas generated at the Residuals Treatment Facility
- Annual number of wet-weather related sanitary sewer overflow events from CRD systems (resulting in near-shore discharges/beach closures)
- Delivery of annual capital program
- Number of complaints related to operation (noise/odour)