



Notice of Meeting and Meeting Agenda Core Area Liquid Waste Management Committee

Wednesday, October 11, 2023

9:00 AM

6th Floor Boardroom
625 Fisgard Street
Victoria, BC V8W 1R7

Special Meeting

C. Coleman (Chair), D. Kobayashi (Vice Chair), M. Alto, S. Brice, J. Brownoff, J. Caradonna, Z. de Vries, B. Desjardins, S. Goodmanson, K. Murdoch, D. Murdock, C. Plant, L. Szpak, D. Thompson, S. Tobias

The Capital Regional District strives to be a place where inclusion is paramount and all people are treated with dignity. We pledge to make our meetings a place where all feel welcome and respected.

1. Territorial Acknowledgement

2. Approval of Agenda

3. Presentations/Delegations

4. Special Meeting Matters

4.1. [23-733](#) Service Planning 2024 - Wastewater Community Need Summary

Recommendation: The Core Area Liquid Waste Management Committee recommends the Committee of the Whole recommend to the Capital Regional District Board:
That Appendix A, Community Need Summary - Wastewater, be approved as presented and form the basis of the Provisional 2024-2028 Financial Plan.

Attachments: [Staff Report: Service Planning 2024 - Wastewater](#)
[Appendix A: Community Need Summary - Wastewater 2024](#)

- 4.2. [23-734](#) 2024 Core Area Liquid Waste Management Service Operating and Capital Budget
- Recommendation:** The Core Area Liquid Waste Management Committee recommends the Committee of the Whole recommend to the Capital Regional District Board:
1. Approve the 2024 Core Area Liquid Waste Management Service operating and capital budgets as presented;
 2. Direct staff to balance the 2023 actual revenue and expenses on the transfer to the operating reserve; and
 3. Direct staff to update carry forward balances in the 2024 Capital Budget for changes after year end.
- Attachments:** [Staff Report: 2024 Core Area Liquid Waste Management Operating and Capital Presentation: CALWM Service Operating and Capital Budget](#)
- [Appendix A: Budget Summary](#)
- [Appendix B: Five Year Capital Plan](#)
- [Appendix C: Long-Term Budget Overview](#)
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- 4.3. [23-708](#) 2023 Technical and Community Advisory Committee and Core Area Liquid Waste Management Committee Terms of Reference Update
- Recommendation:** The Core Area Liquid Waste Management Committee recommends to the Capital Regional District Board:
- That the updated Terms of Reference for the Core Area Liquid Waste Management Committee and Technical and Community Advisory Committee be approved as presented.
(NWA)
- Attachments:** [Staff Report: TCAC and CALWMC Terms of Reference Update](#)
- [Appendix A: TCAC Terms of Reference](#)
- [Appendix B: CALWMC Terms of Reference](#)
- [Appendix C: CALWMC Terms of Reference Redlined](#)

5. Adjournment

The next meeting is December 13, 2023 @ 9:00 am (Special).

To ensure quorum, please advise Jessica Dorman (jdorman@crd.bc.ca) if you or your alternate cannot attend.



**REPORT TO CORE AREA LIQUID WASTE MANAGEMENT COMMITTEE
MEETING OF WEDNESDAY, OCTOBER 11, 2023**

SUBJECT **Service Planning 2024 – Wastewater Community Need Summary**

ISSUE SUMMARY

To provide strategic context and an overview of services, initiatives and performance data related to the Wastewater Community Need.

BACKGROUND

The Capital Regional District (CRD) Board approved the 2023-2026 Board Priorities on March 8, 2023. Staff then developed the 2023-2026 CRD Corporate Plan which was approved by the CRD Board on April 12, 2023.

The CRD Corporate Plan presents the work the organization needs to deliver over the four-year term, along with the critical regional, sub-regional and local services, to meet the region's most important needs (i.e., Community Needs) and advance the Board's Vision and Priorities. Board Priorities, Corporate Plan initiatives and core service delivery form the foundation of the five-year financial plan.

The 2024 planning cycle marks the first year of the implementation of the 2023-2026 CRD Corporate Plan. The CRD's annual service plans, known as Community Need Summaries, provide an overview of the operational and strategic context, services levels, initiatives, and performance data for each Community Need. They also provide details of the initiatives, associated staffing, timing and service levels required to advance the work in future years.

The Wastewater Community Need Summary is attached as Appendix A. The desired outcome is efficient and effective management of the region's wastewater.

The CRD reports on the progress of its initiatives and services on a regular basis. The Board receives updates about the Board Strategic Priorities through the Chief Administrative Officer Quarterly Progress Reports. The Board also receives an overview of progress made on delivering the Corporate Plan twice a year at the strategic check-in and provisional budget meetings, which take place in the spring and fall respectively. The next strategic check-in will take place in spring 2024. During the year, standing committees and commissions also fulfill an oversight and advisory role in relation to the work.

ALTERNATIVES

Alternative 1

The Core Area Liquid Waste Management Committee recommends the Committee of the Whole recommend to the Capital Regional District Board:

That Appendix A, Community Need Summary – Wastewater, be approved as presented and form the basis of the Provisional 2024-2028 Financial Plan.

Alternative 2

The Core Area Liquid Waste Management Committee recommends the Committee of the Whole recommend to the Capital Regional District Board:

That Appendix A, Community Need Summary – Wastewater, be approved as amended and form the basis of the Final 2024-2028 Financial Plan.

IMPLICATIONS

Governance Implications

In 2024, staff have prioritized programs and initiatives that:

- Advance 2023-2026 Board Priorities or Corporate Plan initiatives;
- Operationalize capital investments; and/or
- Are necessary to maintain a core service level following a regulatory change or where there is a safety risk to customers, communities, or staff.

The Executive Leadership Team (ELT) has reviewed and assessed all business cases and confirmed alignment with the criteria. ELT has determined that the consolidated package of work is appropriate and a proportional response to the CRD Boards' and communities' expectations of the organization.

Financial Implications

To exercise constraint and cost containment, the CRD Board directed staff to keep the core inflationary adjustment to 3.5% through the 2024 Service and Financial Planning Guidelines. Staff and management have taken the necessary steps to mitigate the financial impact of proposed initiatives as well as cost escalation and high inflation rate experienced in 2022 through to 2023.

The 2024 operating costs include non-negotiable collective agreement increases from 2023 coupled with chemical and carbon media cost escalations and additional landfill tipping fees for biosolids delaying the receipt of tipping fee revenue contributed to the 2024 core operating cost increase exceeding the 3.5% threshold.

Financial and staff impacts for initiatives will be summarized and included in the provisional budget which will be presented at the Committee of the Whole meeting scheduled for October 25, 2023. Starting this year, this will also include a five-year forecast of staffing level changes, which will be reviewed annually.

A separate supplemental service budget report will be submitted to the Core Area Liquid Waste Management Committee.

Service Delivery Implications

Appendix A includes information about existing service delivery, operational considerations and performance. Additional information has been provided below about the proposed changes for 2024.

Staff are proposing to advance four new initiatives for the Wastewater Community Need that have financial implications for 2024, as shown in Table 1. The key drivers for the initiatives are:

1. advancing a Board or Corporate Plan Priority;
2. operationalizing capital investments; and
3. adjustments to core service levels to maintain safety.

Table 1. Wastewater Community Need Initiatives (2024)

Initiative	Implementation year(s)	Staff impacts (2024)	Incremental cost (2024)	Funding source
1a-1.1 Lab Technician (Core Area)	2024-2026	1 Term Extended	\$111,000	Requisition
1a-2.1 Environmental Monitoring Program – Environmental Technician Odour	2024-2026	1 Term Extended	\$111,000	Requisition
1a-2.2 Facilities Maintenance Worker	2024-ongoing	1 Term Converted	\$106,000	Other
1b-4.1 Biosolids Coordinator	2024-2027	1 Term Extended	\$111,000	Requisition

The information in Table 1 reflects the business case costs which ELT reviewed as part of their annual assessment of initiatives. The financial impacts reflect full program costs, including cost of staffing.

1a-1.1 Lab Technician Core Area

Lab Services are an essential component of wastewater service delivery and help ensure fewer contaminants enter the marine ecosystem. Since the CRD began operating the McLoughlin Wastewater Treatment Plant, Lab Services has relied on a term-based Laboratory Technician 2 position to fulfill ongoing operational requirements identified by Integrated Water Services. This position will expire in December 2023.

Initiative 1a-1.1 seeks to extend the term position for three years to ensure service levels are maintained to support the wastewater service going forward. This position is in the Environmental Services division.

1a-2.1 Environmental Monitoring Program - Environmental Technician Odour

Environmental monitoring is required by provincial regulators for all seven of the CRD’s wastewater treatment plants. The CRD has relied on a term-based environmental and wastewater sampling technician position since the implementation of the federal wastewater regulations in 2012. It was envisioned that the role would be reviewed once the McLoughlin Point Wastewater Treatment Plant was operational, and the ongoing wastewater sampling and odour support needs were determined. The position is expiring in December 2023.

The complexity and scope of monitoring requirements has increased with the commissioning of the new McLoughlin Point Wastewater Treatment Plant. In response, initiative 1a-2.1 seeks to extend the term position for three years to maintain service delivery and continuity of sampling and odour complaint response support to Integrated Water Services, and other internal divisions. This position is in the Environmental Services division.

1a-2.2 Facilities Maintenance Worker 4

Facilities Management (FM) continues to grow as the CRD centralizes maintenance and operations roles throughout the organization. In 2023, FM took on the responsibility of maintaining the buildings (pump stations) for the core area conveyance line to allow Integrated Water Services staff to concentrate on the systems. This transfer was phased over two years and a term position was recruited to provide temporary support to FM. The division is now expanding into other wastewater sites on a fee-for-service basis. It also provides project management services for a variety of projects cross-organization, from new building construction to interior renovations.

Initiative 1a-2.2 seeks to convert the term position to regular ongoing to ensure the Facilities Management & Engineering Services division can deliver the maintenance plan moving forward.

1b-4.1 Biosolids Coordinator

The management of biosolids is an integral component of the new core area wastewater system. Day-to-day coordination of core area biosolids has been more challenging than anticipated and is only expected to become more complex as short-term management options are implemented and operationalized, and as staff develop the long-term planning and ongoing management plan. The current auxiliary position expires in March 2024.

Initiative 1b-4.1 seeks to extend the term position for three years to ensure continuity of service to Integrated Water Services and its need to manage core area biosolids and optimize its distribution for beneficial reuse. This position is in the Environmental Services division.

CONCLUSION

Capital Regional District (CRD) staff are progressing initiatives identified in the 2023-2026 CRD Corporate Plan, including the CRD Board Priorities. The CRD Board and commissions with delegated authorities determine resourcing through the annual review and approval of the provisional financial plan. To support decision-making, staff provide recommendations on funding, timing and service levels through the service and financial planning processes.

RECOMMENDATION

The Core Area Liquid Waste Management Committee recommends the Committee of the Whole recommend to the Capital Regional District Board:

That Appendix A, Community Need Summary – Wastewater, be approved as presented and form the basis of the Provisional 2024-2028 Financial Plan.

Submitted by:	Alicia Fraser, P. Eng., General Manager, Integrated Water Services
Concurrence:	Larisa Hutcheson, P. Eng., General Manager, Parks & Environmental Services
Concurrence:	Ted Robbins, B. Sc., C. Tech., Chief Administrative Officer

ATTACHMENT

Appendix A: Community Need Summary – Wastewater

1 Wastewater



Efficient and effective management of the region’s wastewater

01 Strategy

STRATEGIES & PLANS

- › [Core Area Liquid Waste Management Plan](#)
- › [Saanich Peninsula Liquid Waste Management Plan](#)

CORPORATE PLAN GOALS

- 1a Optimize Core Area wastewater treatment system
- 1b Management of wastewater & treatment residuals

02 Contacts

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Jan Van Niekerk, Senior Manager, Customer & Technical Services	@ email	T. 250.474.9655
Jason Dales, Senior Manager, Wastewater Infrastructure Operations	@ email	T. 250.940.7402
Joseph Marr , Senior Manager, Infrastructure Engineering	@ email	T. 250.474.9656

03 Operating Context

ACHIEVEMENTS IN 2023

1. Completed Bowker Sewer Rehabilitation Phase 1. The aging Northeast Trunk - Bowker sanitary sewer system is made from large diameter cast-in-place brick and non-reinforced concrete pipes. Based on results of video inspection about 2,000 metres of sanitary sewer pipes from Foul Bay Road towards Currie Pump Station were deteriorating and in need of repair and rehabilitation. The pipes were lined from the inside using a trenchless technology method, cured-in-place-pipe, to minimize above ground disturbance.
2. Started Phase 1 of the Regional Wastewater Development Cost Charge Program. The need for such a program was identified in the CRD 2023-2026 Corporate Plan and will be used to fund future growth-related regional wastewater system improvements.
3. Various McLoughlin Wastewater Treatment Plant Improvement Projects. These projects refine and optimize operations at the McLoughlin Wastewater Treatment Plant to reduce cost, improve efficiency and odour controls.

FACTORS THAT WILL AFFECT OUR OPERATIONS IN 2024 AND BEYOND

- **Core Area Wastewater System:**
- Monitoring programs for new wastewater infrastructure in the Core Area continue to be implemented and updated. Additional samples will need to be collected and analyzed on an ongoing basis to support the ongoing operational commissioning and refinement, and monitoring programs.
- Work continues to optimize the operation and maintenance of the new infrastructure. Activities include refining staffing requirements, infrastructure performance, and operations and maintenance functions to improve effluent quality and reduce community impacts related to the operation.
- The CRD continues to implement its short-term biosolids strategy, while also advancing long-term planning, options analysis and pilot testing.
- As the CRD gains more operating experience and implements the outcomes of ongoing optimization works across the Core Area Wastewater System, the annual operating budget will continue to be monitored closely and refined annually.
- **Operational cost increases:** the costs of essential wastewater system operating supplies, such as coagulant chemicals, have been increasing 30-40% year over year which is impacting the cost of service delivery. This trend has been seen across North America.
- **Asset Management:** the ongoing trend in reviewing, updating and completing asset management plans and the continuous upgrading, replacement and growth of assets in the water and wastewater systems rely on having an up-to-date asset registry, as well as an asset onboarding process. Both the Scottish Water Review in 2018 and the EMA Readiness Assessment of 2020 highlighted the need for a reliable asset registry for Water and Wastewater.
 - The risk of assets not being maintained, replaced in a timely manner and failing could impact the CRD's ability to provide the expected water and wastewater level of service and could even result in environmental and public health and safety risks.

- The asset registry is an important step in ensuring that assets are captured in the Maintenance Management System and Preventative Maintenance Plans are developed. This information is also critical with regards to capital and financial planning for the utility services.
- **Aging Infrastructure:** infrastructure is of various ages and in several cases large scale infrastructure renewal will be required to maintain a state of good repair.
- Facility Management's role in supporting maintenance of superstructures in wastewater is being defined.

04 Services

The services listed below rely on the support of several corporate and support divisions to operate effectively on a daily basis. More information about these services is available in the Corporate Services and Government Relations Community Need Summaries.

Wastewater systems and small wastewater systems

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.

SERVICE BUDGET REFERENCES¹

- › 3.717 Core Area Wastewater Operations
- › 3.798C Core Area Wastewater Capital
- › 3.718 Saanich Peninsula Wastewater
- › 3.720 Saanich Peninsula Liquid Waste Management Planning Budget
- › 3.750 Core Area Liquid Waste Management Planning Budget

1. WASTEWATER SYSTEM OPERATIONS

Description

Wastewater treatment, collection and transmission system operation and monitoring. System and facility maintenance, consumables management and preventative maintenance. Respond to wastewater system emergencies, service interruptions and wastewater overflows.

What you can expect from us

- ▶ 24/7 wastewater treatment
- ▶ Conveyance system operation
- ▶ System monitoring
- ▶ Customer service and odour monitoring/investigation
- ▶ System and facility maintenance
- ▶ Consumables management
- ▶ 24/7 operator response to system emergencies, service interruptions, wastewater overflows and public and environmental health protection

Staffing Complement

Wastewater Infrastructure Operations: **64 FTE (including 5 Managers and 2 Administrative Support)**

¹ Service budget(s) listed may fund other services

2. CAPITAL PROJECT DELIVERY

Description

Project design, procurement and delivery of projects planned each year, on time and budget. Installations, equipment replacement and capital projects support.

What you can expect from us

- ▶ Capital program for seven services
- ▶ Infrastructure renewal and upgrades
- ▶ Capital project support

Staffing Complement

Capital Projects: **8 FTE (including 1 Manager)**

3. INFRASTRUCTURE PLANNING

Description

Strategic asset management for all services/systems including modeling and capacity analysis, vulnerability assessment, infrastructure renewal plans.

What you can expect from us

- ▶ Asset management plans
- ▶ Manage capital plans for seven wastewater services
- ▶ Proactive capital planning for all seven wastewater services with a 15-year outlook
- ▶ Ongoing condition assessment to inform the capital program and ensure wastewater systems assets remain in a state of good repair
- ▶ Incorporating growth and expansion demands into future plans

Staffing Complement

Wastewater Engineering and Planning: **5 FTE (including 1 Manager)**

4. PROCESS ENGINEERING SERVICES

Description

Support of Infrastructure Operations through engineering services such as process, civil, electrical and mechanical investigation and optimization.

What you can expect from us

- ▶ Engineering support of utility operations for the seven wastewater services in the areas of process optimization and troubleshooting (including odour treatment systems and energy efficiency), management of change, and root cause failure analysis
- ▶ Long-range planning and implementation of treatment system improvements
- ▶ Feasibility studies, including cost estimates, technical reports and recommendations,

- ▶ Detailed technical research and analysis to support plant operations

Staffing Complement

Process Engineering: 2 FTE (including 1 Manager)

Environmental Protection

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.

SERVICE BUDGET REFERENCES²

- | | |
|---|--|
| ▶ 1.536 Stormwater Quality Management - Core Area | ▶ 3.700 Septage Disposal Agreement |
| ▶ 1.537 Stormwater Quality Management - Peninsula | ▶ 3.709 Inflow & Infiltration Enhancement Program |
| ▶ 1.538 Source - Stormwater Quality - Saanich Peninsula | ▶ 3.750 Liquid Waste Management Plan- Public Involvement Process |
| ▶ 1.577 Environmental Operations | ▶ 3.752 Stage 3 Harbour Studies |
| | ▶ 3.756 Harbours Environmental Action |

5. REGIONAL SOURCE CONTROL

Description

Administration, monitoring and reporting of compliance with regional bylaw.

What you can expect from us

- ▶ Inspect, monitor and enforcement for businesses and institutions connected to sanitary sewer
- ▶ Promote contaminant reduction associated with sanitary and stormwater systems

Staffing Complement

Environmental Protection: 8.25 FTE + leadership support

6. CORE AREA AND SAANICH PENINSULA WASTEWATER & MARINE ENVIRONMENTAL PROGRAM

Description

Oversight for wastewater monitoring and assessment and reporting to meet regulatory requirements.

What you can expect from us

- ▶ Marine outfall monitoring, assessment and reporting services to demonstrate compliance with federal and provincial legislation
- ▶ Update of Liquid Waste Management Plans

² Service budget(s) listed may fund other services

Staffing Complement

Environmental Protection: 3.5 FTE + leadership support

7. RESIDUALS TREATMENT FACILITY

Description

Administration of the Project Agreement for operation of the RTF and biosolids beneficial use strategy.

What you can expect from us

- ▶ Monitoring and compliance reporting.

Staffing Complement

Environmental Protection: 1.2 FTE + leadership support

8. ON-SITE WASTEWATER MANAGEMENT

Description

Regulatory oversight for onsite wastewater systems and education and outreach services across the region.

What you can expect from us

- ▶ Promote and monitor compliance with regional bylaw.

Staffing Complement

Environmental Protection: 0.7 FTE + leadership support

9. SEPTAGE SERVICE

Description

Administration, monitoring and reporting of regional septage service.

What you can expect from us

- ▶ Negotiate and manage one septage disposal contract servicing the capital region.

Staffing Complement

Environmental Protection: 0.1 FTE + leadership support

10. WATERSHED MANAGEMENT PROGRAM

Description

Promote environmental stewardship associated with sanitary and stormwater systems, contaminants and flows.

What you can expect from us

- ▶ Promote public awareness and stewardship initiatives.
- ▶ Public education and engagement in the region to promote sustainable behavior through campaigns, initiatives and services.

Staffing Complement

Environmental Protection: **1.5 FTE**

05 Initiatives

Below are the initiatives listed in the [Capital Regional District 2023-2026 Corporate Plan](#) and the related initiative business cases (IBCs), including financial and staffing impacts, proposed for 2024. The financial impacts reflect full program costs, including cost of staffing.

Initiative	Implementation year(s)	Impacts in 2024	
1a-1 Refine and optimize operations at the McLoughlin Wastewater Treatment Plant to reduce cost, improve efficiency and odour controls	2023-2024	\$111K requisition	1 Term Extended
▶ NEW IBC 1a-1.1 Lab Technician (Core Area)	2024-2026	\$111K requisition	1 Term Extended
1a-2 Support other infrastructure projects that form part of the Core Area wastewater treatment system, including the Residuals Treatment Facility and conveyance system	2023		
▶ NEW IBC 1a-2.1 Environmental Monitoring Program – Environmental Technician Odour	2024-2026	\$111K requisition	1 Term Extended
▶ NEW IBC 1a-2.2 Facilities Maintenance Worker	2024-ongoing	\$106K other	1 Term Converted
1b-1 Implement a development cost charge program for the Core Area wastewater service	2024	-	-
1b-2 Deliver master plans, capital plans and operations for wastewater treatment and conveyance to service current and future population, and address infrastructure deficiencies	Ongoing	-	-
1b-3 Update the Liquid Waste Management Plan for Saanich Peninsula and Core Area	2024-2025	-	-
1b-4 Develop and implement a long-term Biosolids Management Plan	2022-2024		existing
▶ NEW IBC 1b-4.1 Biosolids Coordinator	2024-2027	\$111K requisition	1 Term Extended

06 Performance

GOAL 1A: OPTIMIZE CORE AREA WASTEWATER TREATMENT SYSTEM

GOAL 1B: MANAGEMENT OF WASTEWATER & TREATMENT RESIDUALS

Targets & Benchmarks

Indicators benchmarked in 2022/2023 include:

- Energy use per megalitre of wastewater treated: n/a
- Utilization of gas generated at the Residuals Treatment Facility: n/a

Measuring Progress

Performance Measure(s)	Service	Type	2022 Actual	2023 Forecast	2024 Target
1. Volume of biosolids beneficially used	All Wastewater Services	Quantity	600	1,600	3,600
2. Wastewater effluent quality non-compliance events with provincial and federal regulatory requirements	Core Area Wastewater	Quantity	10	5	0
	Saanich Peninsula Wastewater	Quantity	0	0	0
	Salt Spring Island Liquid Waste	Quantity	6	8	0
	Local Services	Quantity	18	12	10
3. Number of wastewater overflows or flow exceedances	Core Area Wastewater	Quantity	36	20	0
	Saanich Peninsula Wastewater	Quantity	0	0	0
	Salt Spring Island Liquid Waste	Quantity	2	2	0
	Local Services	Quantity	17	15	15
4. Total volume of wastewater collected and treated ²	Core Area Wastewater	Quantity	33,851,491	34,000,000	34,500,000
	Saanich Peninsula Wastewater	Quantity	3,588,904	3,500,000	3,700,000
	Salt Spring Island Liquid Waste	Quantity	178,734	180,000	182,000
	Local Services	Quantity	301,043	300,000	305,000
5. Operating cost per megaliter of wastewater collected and treated ³	Core Area Wastewater	Quantity	686	807	811
	Saanich Peninsula Wastewater	Quantity	1,014	1,099	1,011
	Salt Spring Island Liquid Waste	Quantity	4,431	4,538	4,527
	Local Services	Quantity	5,300	5,579	5,404
6. Number of odour complaints related to operation	Core Area Wastewater	Quantity	98	95	90
	Saanich Peninsula Wastewater	Quantity	0	1	1
	Salt Spring Island Liquid Waste	Quantity	0	0	0
	Local Services	Quantity	2	2	2
7. Delivery of annual capital program ⁴	Core Area Wastewater	Quantity	6,500,000	24,000,000	32,500,000
	Saanich Peninsula Wastewater	Quantity	2,200,000	3,000,000	3,200,000
	Local Services	Quantity	802,000	7,000,000	4,000,000
8. Preventative maintenance completion ⁵	Core Area Wastewater	Quantity	70%	82%	85%
	Saanich Peninsula Wastewater	Quantity	87%	94%	95%
	Salt Spring Island Liquid Waste	Quantity	84%	88%	91%
	Local Services	Quantity	89%	95%	95%

² Volume is expressed in cubic meters

³ Expressed in dollars

⁴ Expressed in dollars spent

⁵ Expressed as percentage of planned maintenance work completed

07 Business Model

PARTICIPANTS

Core Area Municipalities (Colwood, Esquimalt, Langford, Oak Bay, Saanich, Victoria, View Royal) and Songhees and Esquimalt First Nations

Saanich Peninsula Municipalities (Central Saanich, North Saanich, Sidney) and Saanich Peninsula First Nations

Local Wastewater Service Areas in the Electoral Areas (Magic Lake, Port Renfrew, Ganges, Maliview, SSI Liquid Waste)

FUNDING SOURCES

Requisitions and user charges (Local Wastewater Service Areas)

GOVERNANCE

[Core Area Liquid Waste Management Committee](#)

[Saanich Peninsula Wastewater Commission](#)

[Electoral Areas Committee](#)

[Local Wastewater Service Area Committees and Commissions](#)



**REPORT TO CORE AREA LIQUID WASTE MANAGEMENT COMMITTEE
MEETING OF WEDNESDAY, OCTOBER 11, 2023**

SUBJECT **2024 Core Area Liquid Waste Management Service Operating and Capital Budget**

ISSUE SUMMARY

To provide an overview of the draft 2024 Core Area Liquid Waste Management Service (CALWM) budget, highlighting the changes from the 2023 budget and the proposed 2024 budget figures. The report generally follows the information provided in the attached draft budget document (Appendix A).

BACKGROUND

The 2024 CALWM budget has been prepared for the Core Area Liquid Waste Management Committee’s (the Committee) consideration. The Committee will make budget recommendations to the Capital Regional District (CRD) Board through the Committee of the Whole in October. The draft 2024 budget has been prepared considering the CRD Board’s 2024 Service and Financial Planning Guidelines, which include identifying opportunities to realign or reallocate resources and seek potential efficiencies between departments and services, reviewing of service levels and adjustments related to regulatory compliance, and undertaking infrastructure improvements to maintain service levels across the service area. The following sections of the report address the 2023 year end surplus and the 2024 operating and capital budgets.

2023 Year End Financial Projections

The Committee received a staff report at its June 28, 2023 meeting, proposing a financial plan amendment, which addressed the need for \$3 million (M) additional funding for additional landfill tipping fees for biosolids and for loss of revenue from the Residuals Treatment Facility (RTF) acceptance and processing of third-party liquid waste (sludge). This budget overage was funded from the service’s operational reserves.

The 2023 total operating budget, after the June 28 amendment, was \$33.8M. Of this total budget, \$32.7M is operating costs, with \$1.1M contributions to reserves. The estimated year end variance is projected to be a surplus of \$0.2M or 0.5%. The following table lists variances by budget item:

Budget Item	Variance (\$)
Supplies - Chemicals & Other	\$203,460
Electricity & Utilities	-\$365,962
Other Costs	-\$22,163
Total Operating Expenditures	-\$184,665
Total Revenue	\$0
Total Revenue	\$0
Reserve Fund Transfers	\$184,665

Operating Budget

Conveyance and Treatment Operations

The 2024 conveyance and treatment operations budget is \$33.4M which represents a 2.3% increase over the 2023 amended budget, however a 12.8% increase from the original 2023 budget. Costs increases identified within the 2023 financial plan amendment are expected to be ongoing in nature, so while mitigated through reserve in the prior year, now will be funded by requisition.

The most notable operating budget changes are as follows:

- **Supplies - Chemical & Other:** The unit price of process chemicals increased on average by over 20% in 2024. This increase in the price of chemicals was further compounded by an increase in consumption of carbon media to reduce plant odours. This resulted in an overall increase of \$0.9M over the 2023 budget.
- **Integrated Water Services Operations Allocations:** Increase resulting from collective agreement obligations and worker safety needs for the service. This led to a \$0.7M increase over the 2023 budget.
- **RTF Operations and Biotreatment and Disposal:** As defined in the contract with the RTF service provider there was a 6.9% increase in the RTF Operations Allocations. This was offset by an assumption that, in 2024, 50% of the biosolids will be diverted from landfill to an alternate beneficial use, resulting in a net decrease of \$1.1M.
- **Allocations – Overhead and Engineering:** increases as a result of inflation and support for corporate programs and technical support resulted in an increase of \$0.4M.
- **Utilities:** Other operational increases have been offset by a \$0.2M decrease in water and electricity costs.
- **To mitigate requisition impact, \$0.4M will be transferred from the operating reserve with a plan to replenish the reserve level in subsequent years.**

Odour control and process optimization continues to be an operational priority at the McLoughlin Point Wastewater Treatment Plant (MPWWTP). The budget includes a \$0.4M ongoing costs to support four Initiative Business Cases outlined in the Wastewater Community Needs Summary.

The production and beneficial use of biosolids continues to pose a challenge for managing the operating budget for the RTF. Long and short-term management plans to mitigate risk and continued optimization of the processes for this new facility should help us achieve a successful outcome.

Environmental Services Programs Operations

There are several environmental programs that the CA Wastewater Service participates in as part of the liquid waste management function which are also critical to achieving the CRD's commitments under the Liquid Waste Management Plan (LWMP). These programs are summarized below. The requisition impact in 2024 for these programs are within or under the benchmark increase of 3.5%.

- **Regional Source Control Program** – The program is aimed at reducing contaminants that industries, institutions and households discharge into sanitary sewers. The program will be more important than ever in point-of-discharge contaminant reduction to protect the sewage collection and treatment systems, the quality of the treatment plant sludge and biosolids, the marine receiving environment, and public and worker health and safety.

- **Septage Disposal Program** – The program provides oversight for the contract between the CRD and SPL Wastewater Recovery Ltd. which provides septage receiving and processing services for the CRD.
- **Onsite Sewage System Management Program** – The program manages septic system maintenance through bylaw compliance monitoring and educational materials to reduce the impacts of failing septic systems on human health and the environment.
- **Core Area Liquid Waste Management Plan (LWMP) Administration** – The program manages the LWMP and oversees implementation of the commitments. The program also conducts all reporting and plan amendment preparation for the service.
- **Harbours Studies Program** – The program provides for the CRD to work in partnership with other stakeholders, including communities, local governments and senior governments, to protect and improve the environmental quality of Victoria and Esquimalt harbours.
- **Core Area Stormwater Quality Management Program** – Using an integrated watershed management approach, the program coordinates the management of stormwater quality, including investigations to assess shoreline discharges and contaminant sources, to protect the marine environment.
- **Inflow and Infiltration Enhancement Program** – The program provides for the CRD to engage with the participants to identify and reduce the amount of rain and ground water that enters the sanitary sewer systems. The program budget is funded through the conveyance and treatment budget.
- **Marine Monitoring Program** - The program provides for the marine environment sampling and testing and regulatory reporting related to the effluent discharges from CRD wastewater facilities. The program budget is funded through the conveyance and treatment budget.

Capital Budget

Capital Plan

The plan includes projects that will replace infrastructure at end-of-service life to ensure the system continues to operate reliably without service interruptions or risk to property, public health or the environment. The plan also includes projects that add conveyance capacity 'just in time' in order to convey flows to 2045 and utilize the ultimate design capacity of existing conveyance facilities, such as pump stations, and the MPWWTP.

As planned and approved in the close out report, the operating, debt and capital reserves received funds from the Core Area Wastewater Treatment Project (CAWTP) fund for the purpose of funding outstanding and future capital and operating obligations.

The capital budget for 2024 is \$32.8M and the total 2024-2028 capital budget is \$80.8M (see Appendix B). There are projects planned in each of the major asset categories including pump station upgrades, gravity sewer and manhole upgrades and replacements, pressure pipe upgrades, flow meter installations and replacements, system control and communications upgrades, and outfall retrofits.

Reserve Funding

There are currently four reserve funds established for this service. Reserves serve several specified purposes including stabilizing revenue requirements and funding capital renewal and replacement. The service has the following reserve funds (2023 estimated year-end balances):

- **Operating Maintenance Reserve (\$2.0M):** used to pay for significant Operations and Maintenance (O&M) expenses that do not occur on an annual basis, including the overages related to the biosolids, chemicals, tipping fees in 2023. Based on the CRD Operating Reserve Guidelines the Operating Maintenance Reserve is currently under funded, therefore 2024 operating maintenance reserve fund contributions are set at \$0.7M as a start to approach a reasonable target level of \$3.5M as per the guideline. It is planned that \$0.4M will be utilized in 2024, resulting in a \$0.3M increase to the fund in 2024.
- **Equipment Replacement Reserve (\$6.2M):** used to pay for ‘minor’ equipment replacement that typically has a service life of less than five years and/or a value of less than \$25,000. In 2024 and 2025 there will not be a contribution to the equipment replacement reserve fund, this will be reinitiated in 2026.
- **CAWTP Debt Retirement Reserve (\$17.8M):** used to accumulate funds sufficient to pay down the treatment program debt issuances, in full, as they hit their 10-year renewal option. The establishment of this fund aligns with the financing strategy approved by the CRD Board in 2019, which was designed to deliver the most cost-effective financing structure, with the lowest overall cost to the participants. The combined annual contribution to the Debt Retirement Reserve and the debt servicing costs for the CAWTP financing totals \$12M. Contribution to the Debt Retirement Reserve will continue to increase as debt on the CAWTP is paid down. This strategy is aimed at achieving full repayment of the CAWTP project debts at their first renewal in 10 years. After repayment, capacity will be used to reach capital reserve targets for the capital long range plan.
- **Capital Replacement Reserve (\$14.6M):** used to pay for ‘major’ equipment and infrastructure replacement that has a service life of five to 25 years or more. The replacement and funding of other components of the wastewater system that have a service life of up to 75 years, such as gravity trunk sewers and forcemains, large pumps, electrical distribution systems, concrete tanks and superstructures and major building components, will be part of the long-term capital plan and largely funded through a combination of reserves and long-term financing. Due to recent significant cost increases and in an effort to minimize the impact on requisitions, the reserve contribution has been temporarily reduced by \$1.0M, now set at \$2.1M instead of the previous \$3.1M. In 2025, the contribution will be reinstated to \$3.1M, and an additional \$1.0M will be added back in 2028 to offset the reduction in 2024. The reserve will be used to fund \$2.8M of the 2024 capital plan.

Funding Sources (Revenue)

There is a significant reduction in one-time funding from reserve by \$3.6M in 2024, compared to 2023. The reduced one-time funding will be balanced through a related increase in requisition.

Requisition

The 2024 requisition is \$53.2M after incorporating the requisition for capital, which includes debt servicing of the new and existing conveyance and treatment system works, and system operations. The 2024 requisition represents an 8.16% increase over the 2023 requisition. This increase is largely due to the delay in receiving revenue from the RTF as well as the additional cost of chemical increases, partial disposal of waste sludge, increased labour cost, and issuance of new long-term debt.

ALTERNATIVES

Alternative 1

The Core Area Liquid Waste Management Committee recommends the Committee of the Whole recommend to the Capital Regional District Board:

1. Approve the 2024 Core Area Liquid Waste Management Service operating and capital budgets as presented;
2. Direct staff to balance the 2023 actual revenue and expenses on the transfer to the operating reserve; and
3. Direct staff to update carry forward balances in the 2024 Capital Budget for changes after year end.

Alternative 2

The Core Area Liquid Waste Management Committee recommends the Committee of the Whole recommend to the Capital Regional District Board:

1. Approve the 2024 Core Area Liquid Waste Management Service operating and capital budgets as amended;
2. Direct staff to balance the 2023 actual revenue and expenses on the transfer to the operating reserve; and
3. Direct staff to update carry forward balances in the 2024 Capital Budget for changes after year end.

IMPLICATIONS

Financial Implications

The operating budget reflects costs by type required to support the wastewater treatment service level. The capital budget includes a five-year infrastructure investment to maintain the current system and required replacement of the aging conveyance lines. Together, with reserve contributions, the five-year plan sustains the service at the level required to ensure community needs are met. If the proposed budget is amended, the implications could vary depending on how the budget is amended and the impact on specific programs and initiatives, on-going operations, or the capital work program. 'One-time' reductions in reserve fund contributions could be considered by the Committee to help mitigate the budget and rate increases, but additional financing would result longer term.

CONCLUSION

This 2024 Core Area Liquid Waste Management Service budget has been prepared for the Core Area Liquid Waste Management Committee's (Committee) consideration. The Committee will make budget recommendations to the Capital Regional District (CRD) Board for final budget approval in March 2024. The 2024 budget reflects the operating costs of the McLoughlin Point Wastewater Treatment Plant (WWTP) and the conveyance system, as well as the existing and new capital costs and reserve fund contributions. The operating budget will continue to be refined as the operation of the WWTP is optimized as the CRD gains experience with the new operation. The CRD has resumed investment in the renewal of the conveyance system infrastructure that existed prior to the Core Area Wastewater Treatment Project, to ensure the system continues to operate reliably and without impacts on public health or the environment. The financial

implications of the 2024 operating and capital budget vary by participant, depending on the operating and capital cost apportionments associated with annual flow and allocated treatment capacity.

RECOMMENDATION

The Core Area Liquid Waste Management Committee recommends the Committee of the Whole recommend to the Capital Regional District Board:

1. Approve the 2024 Core Area Liquid Waste Management Service operating and capital budgets as presented;
2. Direct staff to balance the 2023 actual revenue and expenses on the transfer to the operating reserve; and
3. Direct staff to update carry forward balances in the 2024 Capital Budget for changes after year end.

Submitted by:	Alicia Fraser, P. Eng., General Manager, Integrated Water Services
Concurrence	Larisa Hutcheson, P. Eng., General Manager, Parks & Environmental Services
Concurrence	Rianna Lachance, BCom, CPA, CA, Acting Chief Financial Officer
Concurrence:	Ted Robbins, B. Sc., C. Tech., Chief Administrative Officer

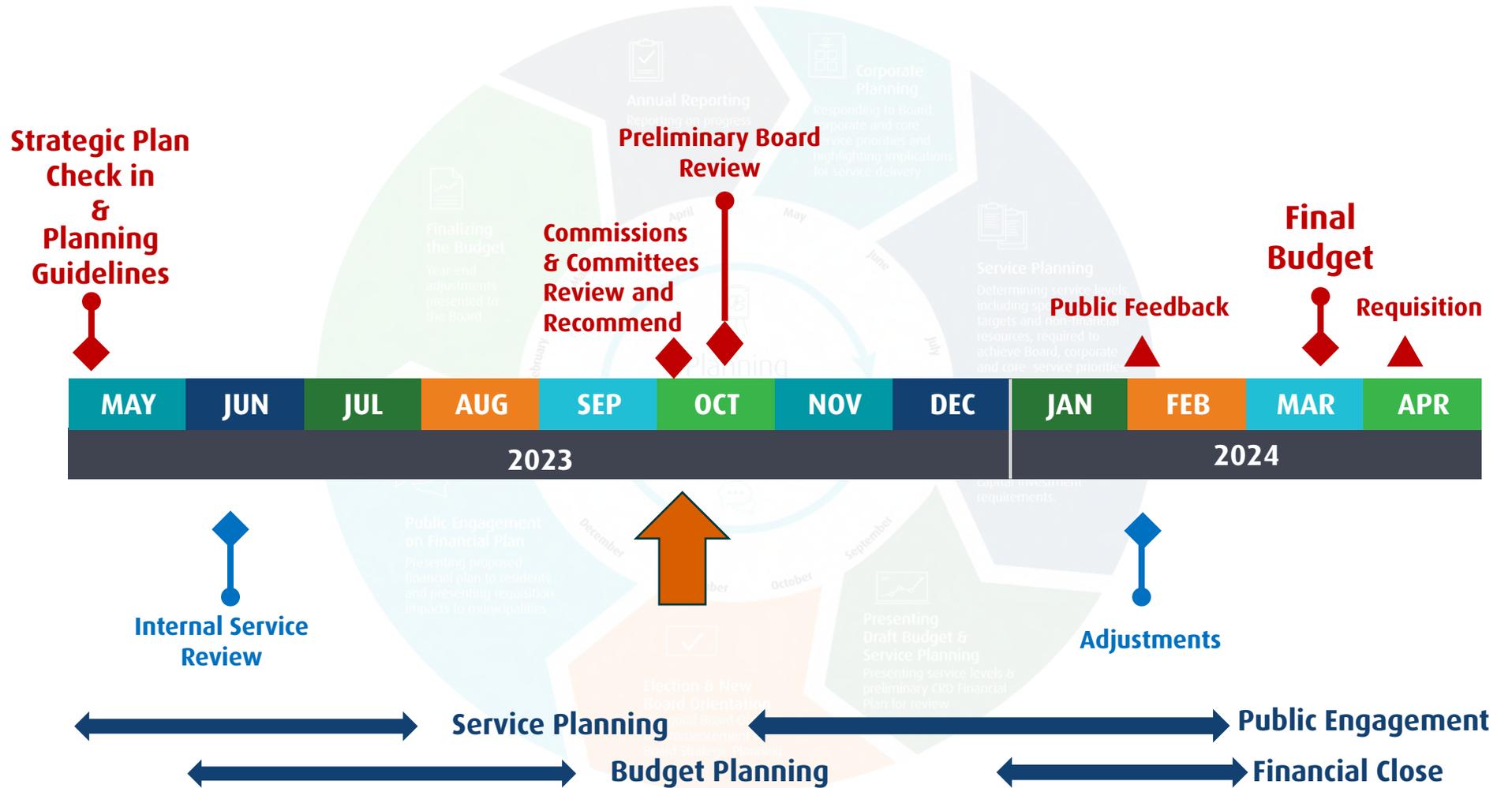
ATTACHMENTS

- Appendix A: Budget Summary
- Appendix B: Five Year Capital Plan
- Appendix C: Long-term Budget Overview

Core Area Liquid Waste Management Budget Overview

Core Area Liquid Waste Management Committee
October 11, 2023

Budget Process Overview



Current System Overview
Wastewater Treatment
Conveyance
and Biosolids Management

McLoughlin Treatment Plant
with treatment capacity of 108 ML/day



92 km Conveyance System



18 Pumping Stations





2024 Budget Considerations

- 2023 Budget – year end budget projections
- Community Needs Summary
- Existing Asset Condition, Infrastructure Growth and Resiliency Needs
- Operating budget adjustments
- Capital funding & debt servicing
- Biosolids disposal alternatives

2023 Year End Projections

Budget Item	Variance (\$) from June 2023 Amended Budget*
Supplies - Chemicals & Other	\$203,460
Electricity & Utilities	-\$365,962
Others	-\$22,163
Total Revenue	No variance
Reserve Fund Transfers	\$184,665

* The Committee received a staff report June 28, 2023 which addressed the need for \$3 million additional funding resulting from additional landfill tipping fees for biosolids and loss of revenue from the Residuals Treatment Facility (RTF) acceptance and processing of third-party liquid waste (sludge). This budget overage was covered with the service's operational reserves.

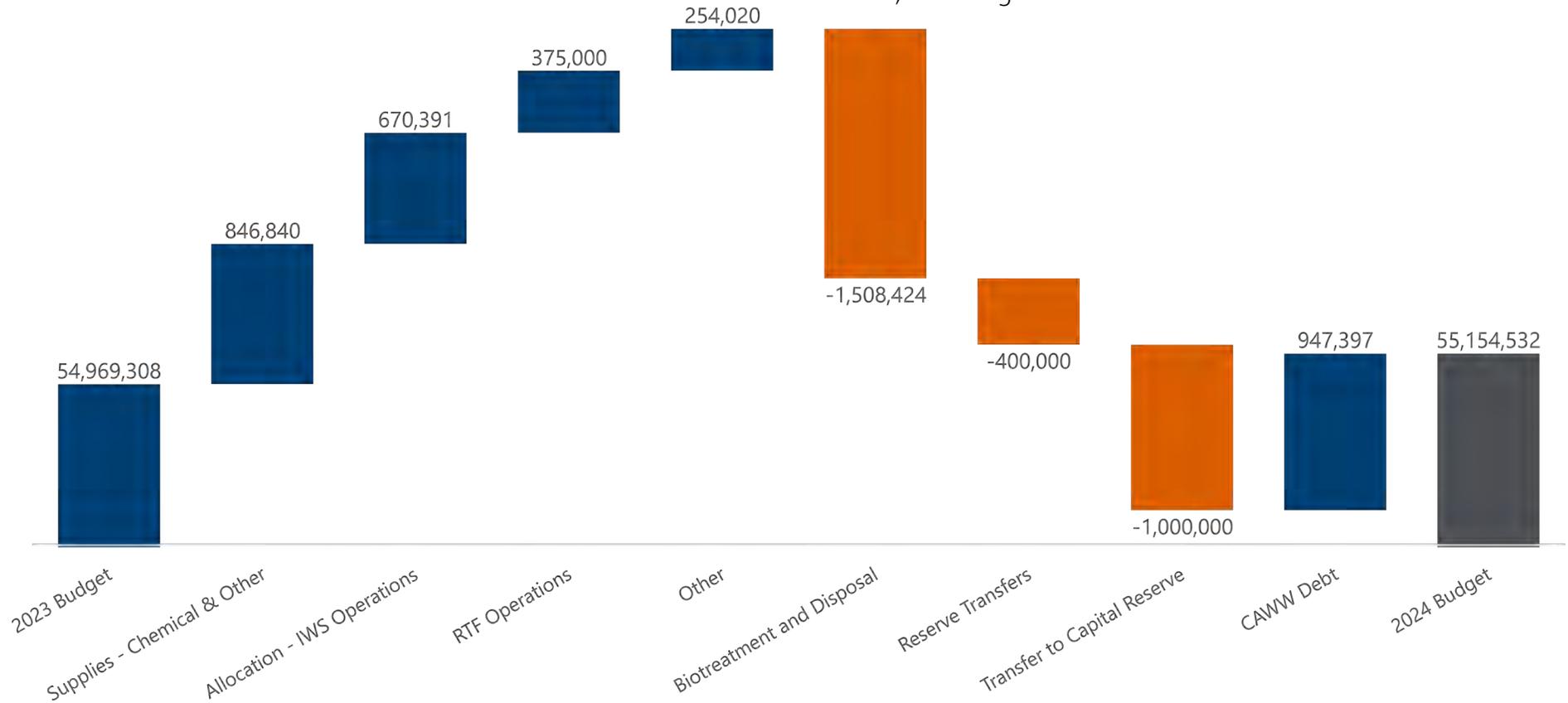
2024 Budget Overview – Conveyance & Treatment Operating Costs

Overview:

Operations Costs: \$33,422,131 (+2.32%*)

Highlights:

- Incorporates cost escalations in chemical and biosolids disposal identified in 2023
- Increases resulting from inflationary pressures and collective agreement obligations retroactive from 2023
- Includes four increased service level initiatives continuing from 2023, no budget variance



* Variance from 2023 amended budget, however a 12.8% increase from the original 2023 budget.

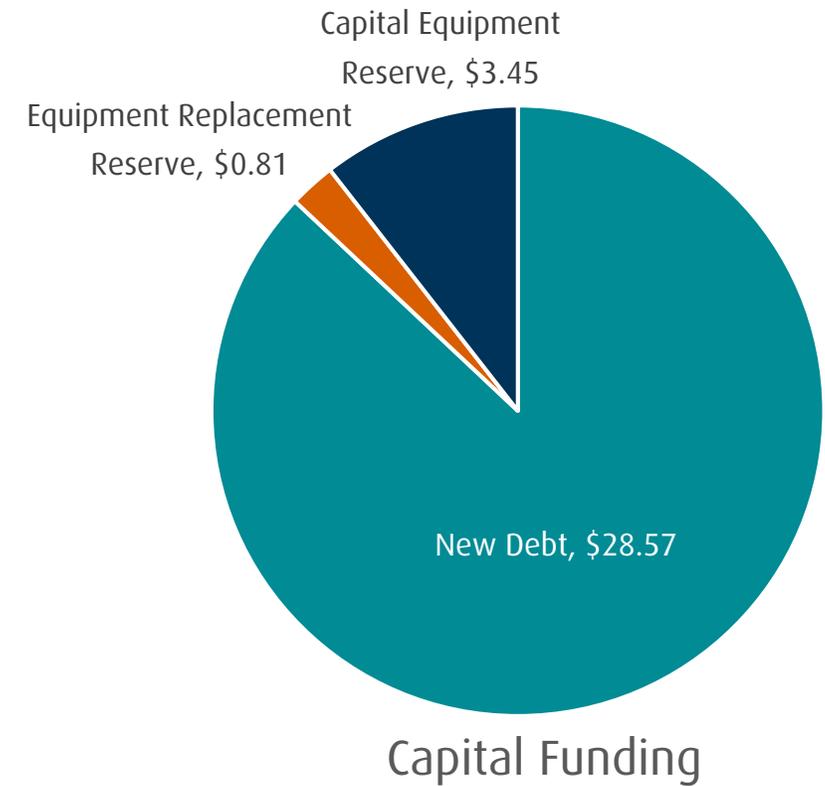
2024 Budget Overview – Environmental Services Programs Operations

Core Area Wastewater Service supports CRD's commitments under the Liquid Waste Management Plan (LWMP) through participation in the following programs:

- Regional Source Control Program
- Septage Disposal Program
- Onsite Sewage System Management Program
- Core Area Liquid Waste Management Plan (LWMP) Administration
- Harbours Studies Program
- Core Area Stormwater Quality Management Program
- Inflow and Infiltration Enhancement Program
- Marine Monitoring Program

2024 Budget Overview Capital Budget

Overview	Core Capital (millions)
Projects in Progress	\$6.77
2024 Capital Budget	\$32.82
5-Year Capital Budget	\$80.77



2024 Budget Overview

RTF Capital and Reserve Funding

Overview:

Capital & Reserve: \$13,697,224 (-7.38%)

RTF Capital: \$5,529,745 (0%, contractual obligation)

Transfer to Reserves: \$8,167,479

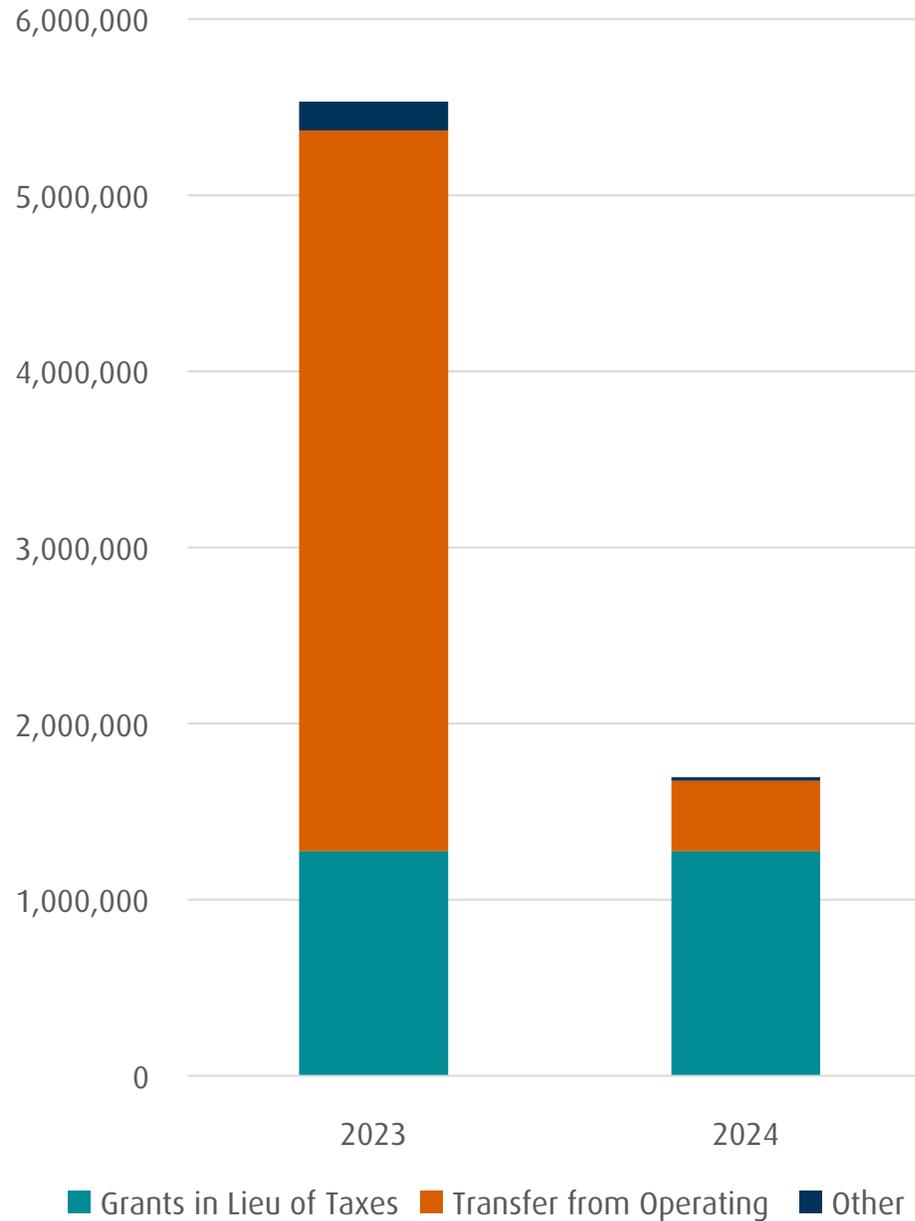
Highlights:

- Operating Maintenance Reserve is under funded* after 2023 draw
- Contributions to Capital Replacement and Equipment Reserves were reduced for 2024 to manage recent cost escalations and resulting requisitions

Reserve	2023 Estimated Year-End Balance	2024 Contribution	2024 Draw	Projected 2024 Year End
Operating Maintenance	\$1.96M	\$0.70M	\$0.40M	\$2.28M
Equipment Replacement	\$6.24M	\$0M	\$0.81M	\$5.44M
CAWTP Debt Retirement	\$17.82M	\$12.00M	\$6.66M	\$23.65M
Capital Replacement	\$14.64M	\$2.12M	\$2.75M	\$14.01M

* Based on the CRD Operating Reserve Guidelines target fund level is \$3.5M

2024 Budget Overview Revenue



Non-Requisition Revenue: 1,696,030 (-69%)

2023 operating reserve transfer required to fund chemical cost increases, the additional landfill tipping fees for biosolids, loss of revenue from the RTF acceptance and processing of third-party liquid waste (sludge)

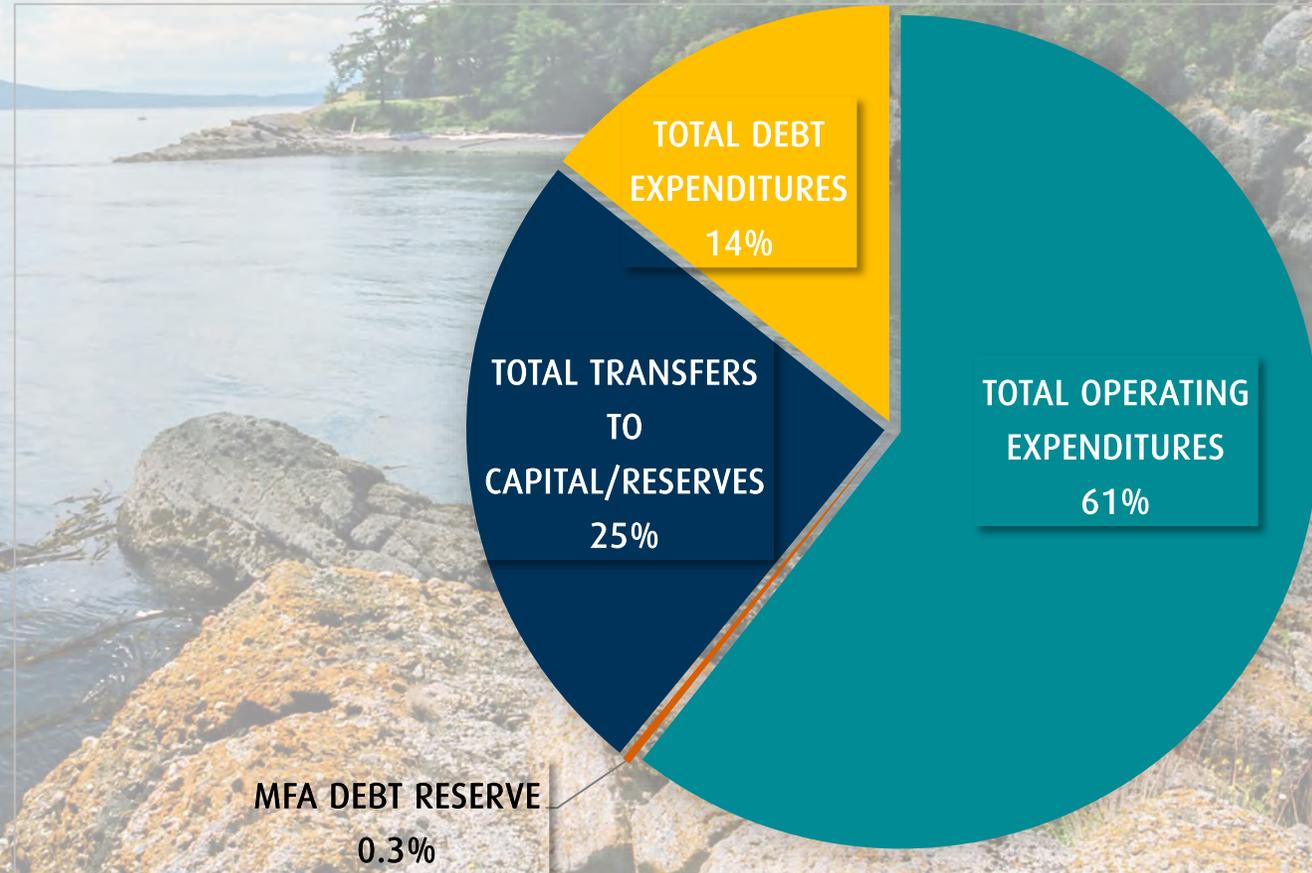
Requisition: \$53,246,262 (8.16%)

2024 Budget Overview

Total Costs: \$55,154,532 (0.34% increase)

Total Non-Requisition Revenue: \$1,696,030 (69% decrease)

Total 2024 Requisition: \$53,246,262 (8.16% increase)

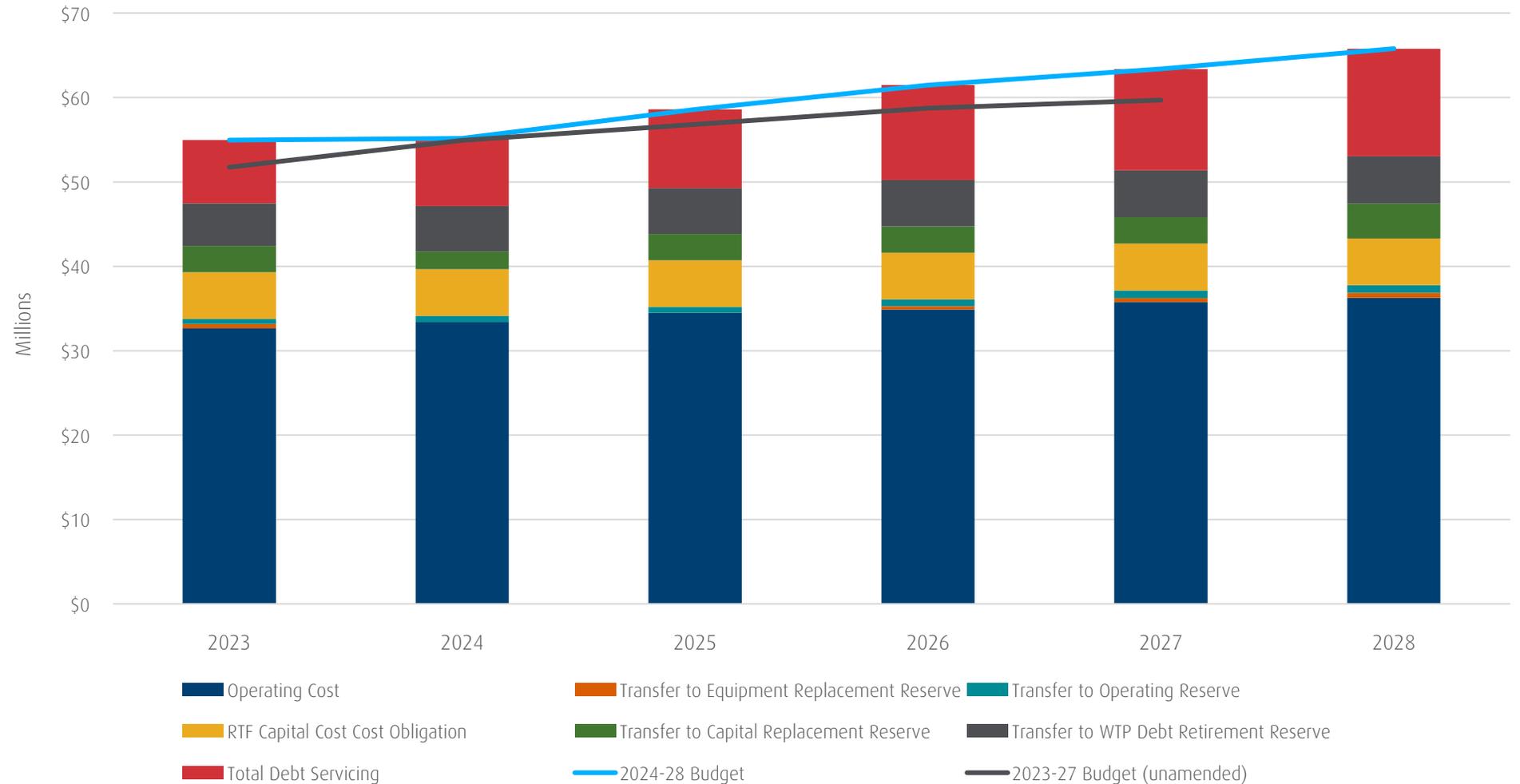


Breakdown of Costs

5 Year Budget Projection

Highlights:

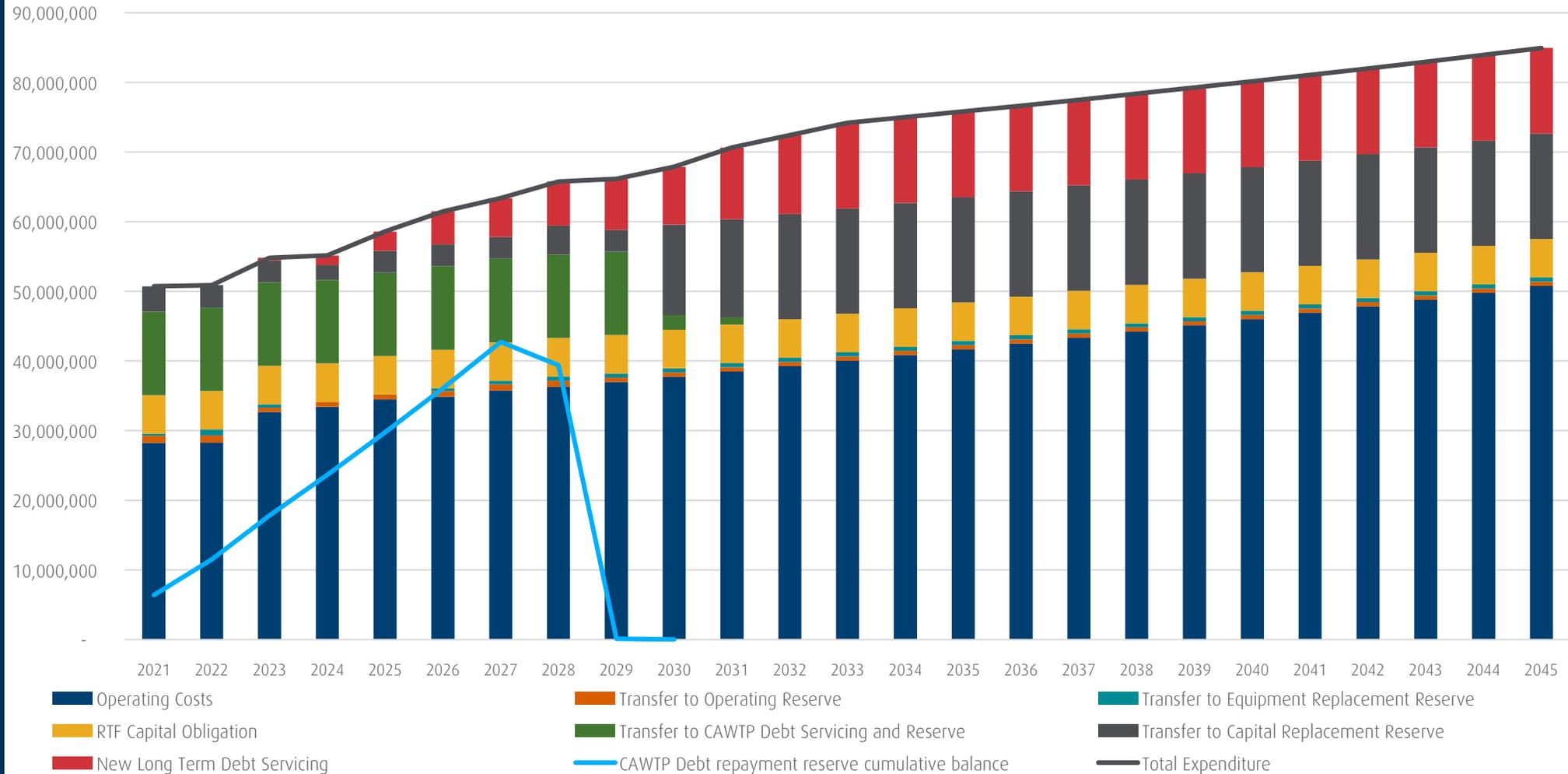
- Average annual increase of 3.68%, range between 3.1% and 6.25%
- 2024 projected costs are higher than 2023 due to increases sustained in chemical costs and biosolids disposal costs
- Look to mitigate future year projection by improving resiliency of biosolids disposal
- Operating Maintenance Reserve is projected to be aligned with guidelines by 2027



Long Term Budget Overview

Highlights:

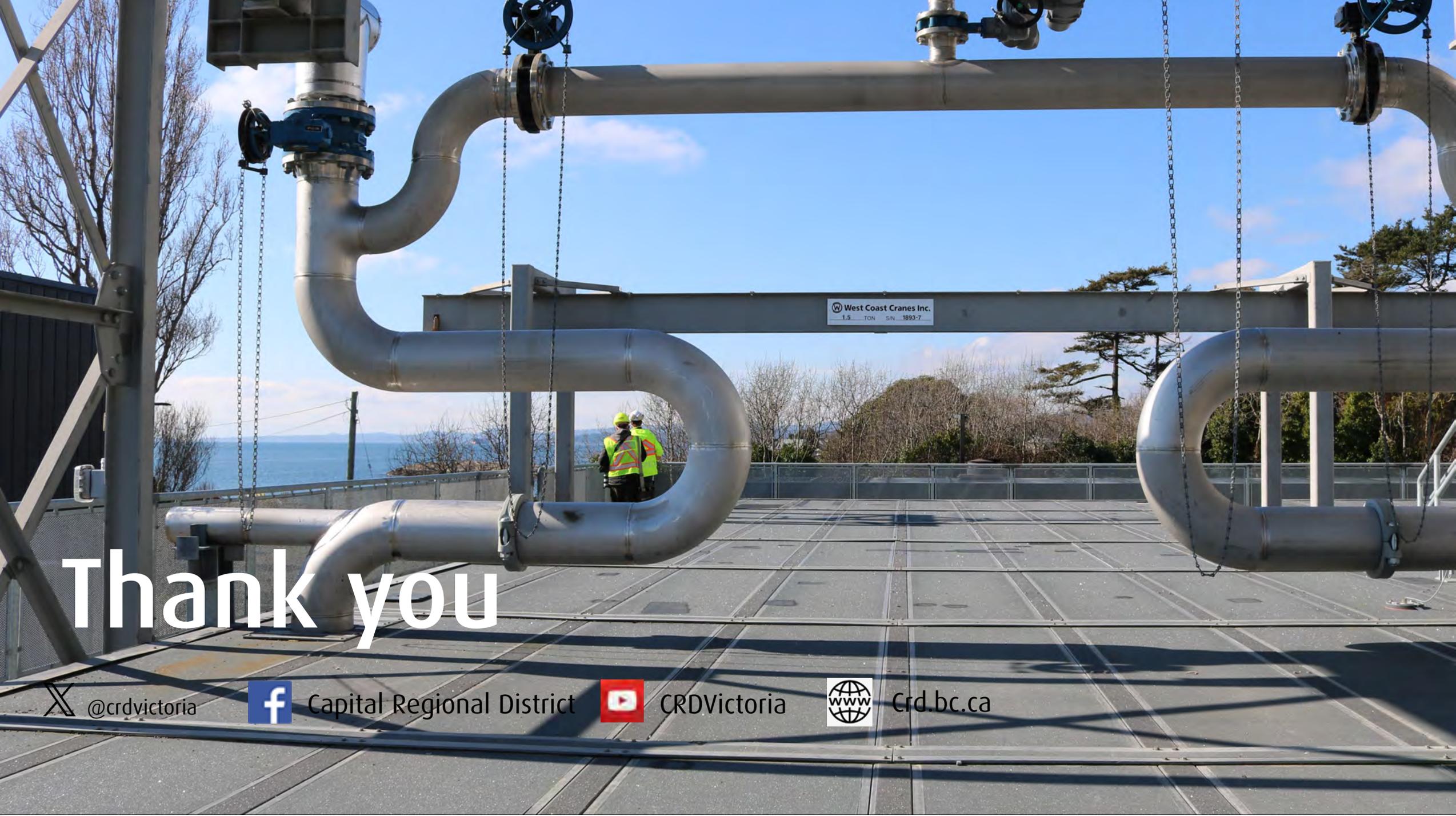
- CAWTP Debt will be repaid in 2031
- In 2030 contributions will be diverted to the Capital Replacement Reserve



Budget Recommendations



1. Review and approve the 2024 Core Area Liquid Waste Management Service operating and capital budgets as presented; and
2. Direct staff to balance the 2023 actual revenue and expenses on the transfer to the operating, equipment, and capital replacement reserves; and
3. Direct staff to update carry forward balances in the 2024 Capital Budget for changes after year end.



West Coast Cranes Inc.
1.5 TON S/N 1893-7

Thank you

 @crdvictoria

 Capital Regional District

 CRDVictoria

 crd.bc.ca

**CAPITAL REGIONAL DISTRICT
FIVE YEAR CAPITAL EXPENDITURE PLAN SUMMARY - 2024 to 2028**

Service No.	3.798C Debt - Core Area Wastewater Treat	Carry Forward from 2023	2024	2025	2026	2027	2028	TOTAL
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EXPENDITURE

Buildings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Equipment	\$300,000	\$550,000	\$0	\$0	\$0	\$0	\$0	\$550,000
Land	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Engineered Structures	\$6,465,000	\$32,270,000	\$16,300,000	\$7,475,000	\$12,025,000	\$12,150,000	\$12,150,000	\$80,220,000
Vehicles	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	\$6,765,000	\$32,820,000	\$16,300,000	\$7,475,000	\$12,025,000	\$12,150,000	\$12,150,000	\$80,770,000

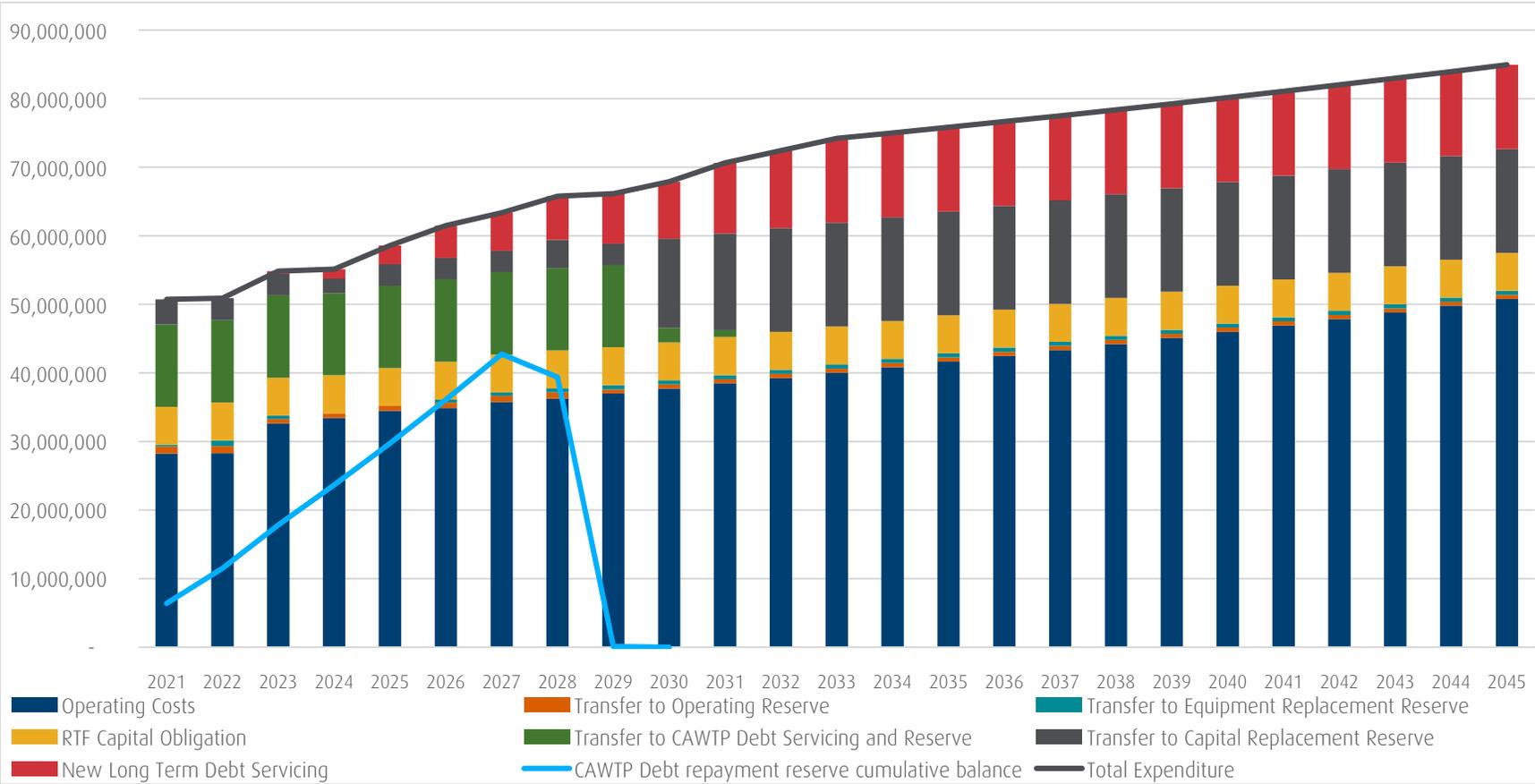
SOURCE OF FUNDS

Capital Funds on Hand	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Debenture Debt (New Debt Only)	\$5,665,000	\$28,565,000	\$14,600,000	\$6,075,000	\$10,275,000	\$10,750,000	\$10,750,000	\$70,265,000
Equipment Replacement Fund	\$400,000	\$805,000	\$700,000	\$400,000	\$750,000	\$400,000	\$400,000	\$3,055,000
Grants (Federal, Provincial)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Donations / Third Party Funding	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Reserve Fund	\$700,000	\$3,450,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$7,450,000
	\$6,765,000	\$32,820,000	\$16,300,000	\$7,475,000	\$12,025,000	\$12,150,000	\$12,150,000	\$80,770,000

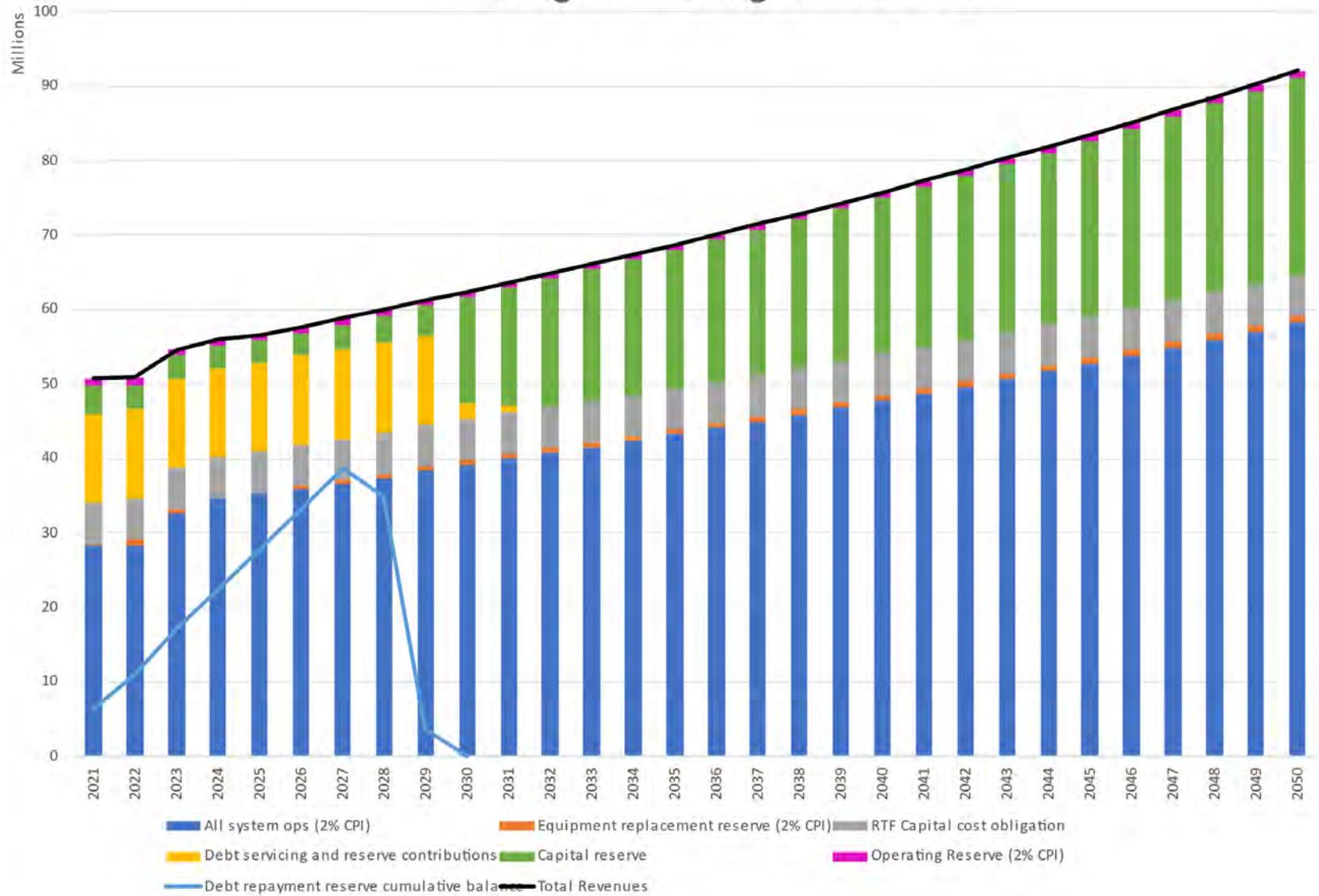
Service #: **3.798C**
Service Name: **Debt - Core Area Wastewater Treatment Program**

Project Number	Capital Expenditure Type	Capital Project Title	Capital Project Description	PROJECT BUDGET & SCHEDULE											
				Total Project Budget	Asset Class	Funding Source	Carryforward	2024	2025	2026	2027	2028	5 - Year Total		
25-01	Renewal	Admirals Siphon Assessment	The Admirals Siphon is PVC pipe, and has never been flushed or assessed. Flushing and assessment of the pipe is required.	\$ 500,000	S	Debt	\$ -	\$ -	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 500,000
24-12	Renewal	Harriet Siphon Cleaning and Assessment	Specialized flushing and cleaning to remove solids from both 400m siphons.	\$ 500,000	S	Res	\$ -	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 500,000
24-13	Renewal	Craigflower Inlet Reconfiguration	Increasing flows and off-gassing from the vortex drop are generating odours and causing corrosion. Re-alignment of the influent sewer is required to mitigate odours, corrosion and address health and safety concerns.	\$ 1,700,000	S	Debt	\$ -	\$ 1,700,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,700,000
24-14	Renewal	Parsons Siphon/Bridge Connection Repairs	The siphon pipe support connections to the Parsons Bridge require repairs.	\$ 400,000	S	Res	\$ -	\$ 400,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 400,000
25-03	Renewal	Harriet Siphon Inlet Chamber Upgrade	Assess concrete corrosion and replace seized control gates.	\$ 1,500,000	S	Debt	\$ -	\$ -	\$ 1,500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,500,000
27-01	Study	Forcemain Pipe Assessment Study	There are several forcemain pipes downstream from each pump station that have never been assessed. A study is proposed to investigate various technologies to evaluate the condition of the pipes.	\$ 250,000	S	Debt	\$ -	\$ -	\$ -	\$ -	\$ 250,000	\$ -	\$ -	\$ 250,000	
FLOW METERS															\$ -
21-15	Replacement	Parsons Meter Replacement	Based on KWL's 2018-19 Flow Meter Audit review, Parsons meter is to be replaced with two doppler meters and one magmeter on Wilfert PS (includes install of meters, kiosk and conduit).	\$ 400,000	S	Debt	\$ 170,000	\$ 320,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 320,000
21-16	New	Gorge & Chapman Meter	Based on KWL's 2018-19 Flow Meter Audit review, KWL recommended a new flodiar meter to measure the unmetred Gorge and Chapman catchments. Includes installation of new metering manhole.	\$ 230,000	S	Debt	\$ 100,000	\$ 200,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 200,000
21-17	New	Esquimalt Nation Meter	Based on KWL's 2018-19 Flow Meter Audit review, KWL recommended a new custom weir, kiosk and conduit to measure the unmetred Esquimalt Nation catchment.	\$ 300,000	S	Debt	\$ 165,000	\$ 265,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 265,000
21-18	New	Shoreline Trunk Meter	Based on KWL's 2018-19 Flow Meter Audit review, KWL recommended a new flodiar meter to measure the unmetred Shoreline catchment. Includes installation of FloDar meter, kiosk and conduit.	\$ 340,000	S	Debt	\$ 200,000	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 250,000
21-19	New	Selkirk Meter	Based on KWL's 2018-19 Flow Meter Audit review, KWL recommended a new flume meter to measure the unmetred Selkirk catchment (install weir, kiosk and conduit).	\$ 340,000	S	Debt	\$ 160,000	\$ 310,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 310,000
GENERAL															\$ -
21-22	Study	Asset Management Plan Update	Previous condition assessment studies will be updated and incorporated into a long-term asset management plan to meet expected level-of-service requirements.	\$ 250,000	S	Debt	\$ 250,000	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 250,000
21-23	Study	DCC Program Development	With the completion of CAWTP and amendment of the Service Establishment Bylaw, it was noted that a DCC Program would be established to fund future wastewater projects related to growth. This project is to create the program, consult with stakeholders and prepare a new DCC bylaw.	\$ 400,000	S	Debt		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
21-24	Renewal	Record Drawing and Wastewater Agreement Updates	The old as-built drawings, connection points and wastewater agreements with the contributing municipalities has not been updated in many years. Updates are required to reflect changes in the system, identify clear demarcation points, and reflect updates in the LWMP.	\$ 1,100,000	S	Debt	\$ 30,000	\$ 230,000	\$ 250,000	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ 730,000
21-25	Renewal	SCADA and Radio Assessment	Majority of the radio and SCADA equipment are nearing end of life, technological advances do not allow for straight replacements, funding is required for assessments of existing equipment and site requirements.	\$ 3,900,000	S	Debt		\$ 750,000	\$ 750,000	\$ 750,000	\$ 750,000	\$ -	\$ -	\$ -	\$ 3,000,000
22-03	Renewal	Acquisition of Outstanding Right-of-Ways	Some of the infrastructure is located on privately owned land that do not have rights-of-way. A plan is being developed to acquire SRW's for all infrastructure over time. Initial spending requires a study and plan prior to acquisition.	\$ 1,200,000	S	Debt		\$ -	\$ 500,000	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ 1,000,000
21-27	New	New Infrastructure Optimization	Unforeseen and unplanned optimization at a number of new facilities to improve operation and health and safety requirements.	\$ 500,000	S	Debt	\$ 300,000	\$ 300,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 300,000
22-04	New	Microwave Radio Upgrades	To provide a high bandwidth communications backbone to the CAWWT system, a microwave communications system will be installed.	\$ 600,000	S	ERF	\$ 100,000	\$ 200,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ -	\$ 500,000
23-07	New	Enterprise Data Historian Management System	A data historian is required to store large amounts of data that is required for compliance reporting to regulators, operational performance reports, cost allocation, and engineering analysis.	\$ 300,000	E	Debt	\$ 300,000	\$ 300,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 300,000
28-01	Decommission	Mariogld Surge Tank Deconstruction	The old Mariogld Surge Tank has been abandoned for many years, is becoming a safety concern for youth, a needs to be removed.	\$ 1,800,000	S	Debt	\$ -	\$ -	\$ -	\$ -	\$ 300,000	\$ 1,500,000	\$ -	\$ -	\$ 1,800,000
24-15	Replacement	IT Core Infrastructure Replacement	Replacement of Core IT infrastructure such as servers, network switches, UPS, etc for equipment end of life	\$ 505,000	S	ERF	\$ -	\$ 55,000	\$ -	\$ -	\$ 350,000	\$ 100,000	\$ -	\$ -	\$ 505,000
ANNUAL PROVISIONAL															\$ -
21-26	Replacement	Annual Provisional Emergency Repairs	Unforeseen and unplanned emergency repairs can occur which require immediate attention.	\$ 5,000,000	S	Res	\$ -	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 5,000,000
23-06	Replacement	Annual Provisional Equipment Replacement	Replacement of at end of service life, including valves, variable frequency drives, capacitors.	\$ 1,500,000	S	ERF	\$ -	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 1,500,000
23-08	New	Process & Mechanical Upgrades	Upgrades to the Core Area Wastewater Treatment and Conveyance infrastructure in order to optimize operations	\$ 4,250,000	S	Debt	\$ -	\$ 850,000	\$ 850,000	\$ 850,000	\$ 850,000	\$ 850,000	\$ 850,000	\$ 850,000	\$ 4,250,000
23-09	New	Safety & Security Upgrades	Upgrades to the Core Area Wastewater Treatment and Conveyance infrastructure to improve worker health and safety	\$ 2,400,000	S	Debt	\$ -	\$ 600,000	\$ 600,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 2,400,000
OUTFALLS / OVERFLOWS															\$ -
24-08	Renewal	Clover Point Outfall Retrofit	The existing Clover outfall is no longer operated on a regular basis since wastewater is now conveyed to McLoughlin WWTP, but it must be ready for operation during peak storm events. As a result, the existing outfall will need to be assessed for best operational and maintenance practices based on limited use.	\$ 500,000	S	Debt	\$ -	\$ -	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 500,000
25-02	Renewal	Macaulay Point Outfall Retrofit	A section of coating the emergency short outfall has failed and the pipe is corroding, and the long outfall needs to be modified to suit reduced usage. This project is to repair the coating, provide shoreline protection, and prepare a plan to maintain the deep outfall based on limited use.	\$ 750,000	S	Debt	\$ -	\$ -	\$ 750,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 750,000
27-02	Renewal	Broom Overflow Pipe Rehabilitation	Overflow pipe is cracked and severed in multiple locations and H2S gases and odours are present.	\$ 575,000	S	Debt	\$ -	\$ -	\$ -	\$ -	\$ 75,000	\$ 500,000	\$ -	\$ -	\$ 575,000
RESIDUAL SOLIDS															\$ -
24-09	New	Centrate Return Line Automated Monitoring	Installation of level transducer at manhole 48 to monitor the centrate line level to avoid surcharging of the man hole and potential spill.	\$ 175,000	S	Debt	\$ -	\$ -	\$ -	\$ 175,000	\$ -	\$ -	\$ -	\$ -	\$ 175,000
24-16	New	Biosolids Particle Size Optimization	Installation of equipment to ensure biosolids particle size meets reuse option specifications.	\$ 250,000	E	Debt	\$ -	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 250,000
DCC PROJECTS															\$ -
GRAND TOTAL				\$ 107,120,000			\$ 6,765,000	\$ 32,820,000	\$ 16,300,000	\$ 7,475,000	\$ 12,025,000	\$ 12,150,000	\$ -	\$ -	\$ 80,770,000

Long Term Budget Overview



Long Term Budget Overview





**REPORT TO CORE AREA LIQUID WASTE MANAGEMENT COMMITTEE
MEETING OF WEDNESDAY, OCTOBER 11, 2023**

SUBJECT **2023 Technical and Community Advisory Committee and Core Area Liquid Waste Management Committee Terms of Reference Update**

ISSUE SUMMARY

This report presents updated 2023 Core Area Liquid Waste Management Committee and Technical and Community Advisory Committee Terms of Reference.

BACKGROUND

Under the *Local Government Act* and the Capital Regional District (CRD) Board Procedures Bylaw, the CRD Board Chair has the authority to establish standing committees and appoint members to provide advice and recommendations to the Board.

On December 14, 2022, the CRD Board approved the 2023 Terms of Reference for standing committees. Terms of Reference (TOR) serve to clarify the mandate, responsibilities and procedures of standing committees and provide a point of reference and guidance for the Committees and members.

At its July 12, 2023 meeting, the CRD Board directed staff to reconvene the Technical and Community Advisory Committee (TCAC). The TCAC will assist the Core Area Liquid Waste Management Committee (CALWMC) in making appropriate recommendations to the CRD Board in the areas of:

- Inflow and Infiltration program
- Sanitary sewer overflows
- Biosolids management and beneficial use

Also at this meeting, an updated TOR for the TCAC from the June 28, 2023 CALWMC meeting was adopted by the CRD Board. That document contained one error in the membership list.

The TOR for the TCAC has been amended (Appendix A) by amending the list of “Membership, Selection and Appointment” to remove the member from the Roundtable on the Environment (this group no longer exists) and adding a Vice-Chair from the Core Area Liquid Waste Management Committee. Another minor change is that all appointments to committees, being a Closed meeting matter, are now dealt with by the CRD Board.

The existing TOR for the CALWMC refers to the TCAC’s role in Core Area and West Shore Sewage Treatment matters. With the Core Area Wastewater Treatment Program now in operation, there is now a need to broaden the definition of the TCAC’s role in order to support the CALWMC in making recommendations on Core Area Liquid Waste Management Plan matters as required.

These changes are reflected in the updated TOR in Appendix B. A redlined version of the TOR showing this change is attached in Appendix C. The TOR are being provided for review by the Committee. Any proposed revisions to the TOR will require ratification by the Board.

ALTERNATIVES

Alternative 1

The Core Area Liquid Waste Management Committee recommends to the Capital Regional District Board:

That the updated Terms of Reference for the Core Area Liquid Waste Management Committee and Technical and Community Advisory Committee be approved as presented.

Alternative 2

The Core Area Liquid Waste Management Committee recommends to the Capital Regional District Board:

That the Terms of Reference for the Core Area Liquid Waste Management Committee and Technical and Community Advisory Committee be referred to staff for changes.

CONCLUSION

Terms of Reference serve to clarify the mandate, responsibilities and procedures of committees and provide a point of reference and guidance for the committees and their members.

The Terms of Reference for the Core Area Liquid Waste Management Committee requires minor updates to reflect the committee’s current advisory needs and the Terms of Reference for the Technical and Community Advisory Committee requires updating to correct an error in the membership list and include other minor updates.

RECOMMENDATION

The Core Area Liquid Waste Management Committee recommends to the Capital Regional District Board:

That the updated Terms of Reference for the Core Area Liquid Waste Management Committee and Technical and Community Advisory Committee be approved as presented.

Submitted by:	Glenn Harris, Ph.D., R.P.Bio., Senior Manager, Environmental Protection
Concurrence:	Alicia Fraser, P. Eng., General Manager, Integrated Water Services
Concurrence:	Larisa Hutcheson, P. Eng., General Manager, Parks & Environmental Services
Concurrence:	Ted Robbins, B. Sc., C. Tech., Chief Administrative Officer

ATTACHMENTS

- Appendix A: 2023 TCAC Terms of Reference
- Appendix B: 2023 CALWMC Terms of Reference
- Appendix C: 2023 CALWMC Terms of Reference Redlined

Terms of Reference

CRD

TECHNICAL AND COMMUNITY ADVISORY COMMITTEE

PREAMBLE

The CRD has a mission to be local government leaders in providing cost effective, innovative and environmentally responsible sewage treatment to the residents in the core area (Esquimalt, Colwood, Langford, Oak Bay, View Royal, Saanich, Victoria, and Songhees and Esquimalt First Nations).

With the Core Area Wastewater Treatment Program now in operation, future decisions will be needed in a number of areas related to the service, including the following:

- Inflow and infiltration program
- Sanitary sewer overflows
- Biosolids management and beneficial use

The Capital Regional District (CRD) Technical and Community Advisory Committee (TCAC) is an advisory committee established by the CRD Board and will assist the Core Area Liquid Waste Management Committee (the steering committee) in making appropriate recommendations to the CRD Board in the areas outlined above.

The Committee's official name is to be:

Technical and Community Advisory Committee

1.0 PURPOSE

The mandate of the Committee is to respond to requests from the steering committee for technical and community consultation advice and input in order to facilitate informed decision-making in a variety of areas, including those outlined above.

2.0 ESTABLISHMENT AND AUTHORITY

- a) The committee will provide advice and input in an advisory capacity to the Core Area Liquid Waste Management Committee for review, comment and decision;
- b) The Chair and Vice Chair shall be the Chair and Vice Chair of the Core Area Liquid Waste Management Committee; and
- c) The term of the Committee will be for the period required to address the matters, as determined by the CALWMC.

3.0 COMPOSITION

- a) Members will be appointed by the CRD Board;
- b) Members will serve without remuneration; and
- c) Including the chair, there will be 26 members:
 - 1 - Chair of the Core Area Liquid Waste Management Committee – TCAC Chair
 - 1 - Vice-Chair of the Core Area Liquid Waste Management Committee – TCAC Vice-Chair
 - 7 - municipal engineering or other technical representatives
 - 5 - members at large via public advertisement
 - 2 - members nominated by environmental groups
 - 2 - members nominated by the Esquimalt and Songhees First Nations
 - 1 - member nominated by the Department of National Defence
 - 1 - member nominated by the Greater Victoria Chamber of Commerce
 - 1 - member nominated by the West Shore Chamber of Commerce
 - 1 - member from a post secondary institute
 - 1 - member from the Victoria Labour Council
 - 1 - member from Tourism Victoria
 - 1 - member from CRD Solid Waste Advisory Committee
 - 1 - member nominated by the Esquimalt Chamber of Commerce

4.0 PROCEDURES

- a) The Committee shall meet on monthly basis and have special meetings, as required, at the call of the Chair;
- b) The agenda will be finalized in consultation between staff and the Committee Chair and any Committee member may make a request to the Chair to place a matter on the agenda through the Notice of Motion process;
- c) A quorum is a majority of the Committee membership and is required to conduct Committee business; and
- d) The CRD Board rules of order will apply.

5.0 RESOURCES AND SUPPORT

- a) The Senior Manager of the Environmental Protection division will act as a liaison to the Committee;
- b) Minutes and agendas are prepared and distributed by the Environmental Protection division; and
- c) The Environmental Protection division will provide additional administrative support as required.

- d) Staff representatives from the following organizations will be invited to attend Committee meetings to provide information as required:
- Ministry of Environment and Climate Change Strategy
 - Environment Canada
 - Vancouver Island Health Authority
- e) A consulting engineering expert in sewage treatment and related matters will also attend Committee meetings to provide advice and information.

Approved by _____ on _____

Terms of Reference



CORE AREA LIQUID WASTE MANAGEMENT COMMITTEE

PREAMBLE

The Capital Regional District (CRD) Core Area Liquid Waste Management Committee (CALWMC) is a standing committee established by the CRD Board and will oversee and make recommendations to the Board regarding the Core Area Liquid Waste Management Plan (CALWMP).

The Committee's official name is to be:

Core Area Liquid Waste Management Committee

1.0 PURPOSE

- a) The mandate of the Committee is to oversee and make recommendations to the Board regarding the:
 - i. administration and regulatory reporting for the Core Area Liquid Waste Management Plan
 - ii. Core area trunk sewers and sewage disposal systems
- b) The Committee will act as the steering committee of the Technical and Community Advisory Committee, as outlined in Appendix A.

2.0 ESTABLISHMENT AND AUTHORITY

- a) The Committee will make recommendations to the Board for consideration.
- b) The Board Chair will appoint the Committee Chair, Vice Chair and Committee members annually.

3.0 COMPOSITION

- a) The membership is comprised of all directors on the CRD Board from the following municipalities that are participants in the Core Area Liquid Waste Management Plan:
 - Colwood
 - Esquimalt
 - Langford
 - Oak Bay
 - Saanich
 - Victoria
 - View Royal
 - An elected representative and alternate from each of the Songhees Nation and Esquimalt Nation Councils (Board Procedures Bylaw No. 3828)

- b) All Board members are permitted to participate in standing committee meetings, but not vote, in accordance with the CRD Board Procedures Bylaw; and
- c) First Nation members are permitted to participate in standing committee meetings at their pleasure, in accordance with the CRD Procedures Bylaw, where the Nation has an interest in matters being considered by the committee.

4.0 PROCEDURES

- a) The Committee shall meet quarterly and have special meetings as required at the call of the Committee Chair;
- b) The agenda will be finalized in consultation between staff and the Committee Chair and any Committee member may make a request to the Chair to place a matter on the agenda through the Notice of Motion process;
- c) With the approval of the Committee Chair and Board Chair, Committee matters of an urgent or time sensitive nature may be forwarded directly to the Board for consideration; and
- d) A quorum is a majority of the Committee membership and is required to conduct Committee business.

5.0 RESOURCES AND SUPPORT

- a) The General Manager, Integrated Water Services and General Manager, Parks & Environmental Services will act as a liaison to the Committee with support from other departments, as required; and
- b) Minutes and agendas are prepared and distributed by the Corporate Services Department. proved by CRD Board

APPENDIX A

STEERING THE TECHNICAL AND COMMUNITY ADVISORY COMMITTEE

In accordance with the Terms of Reference of the Technical and Community Advisory Committee (TCAC) approved by the Capital Regional District Board (CRD), October 11, 2023, the Core Area Liquid Waste Management Committee (CALWMC) will steer the TCAC as follows:

- Make requests to TCAC for appropriate technical and community consultation advice and input in order to facilitate informed decision-making in a variety of CALWMP matters
- Dissolve the TCAC at a time determined by the CALWMC

Terms of Reference



CORE AREA LIQUID WASTE MANAGEMENT COMMITTEE

PREAMBLE

The Capital Regional District (CRD) Core Area Liquid Waste Management Committee (CALWMC) is a standing committee established by the CRD Board and will oversee and make recommendations to the Board regarding the Core Area Liquid Waste Management Plan (CALWMP) and certain aspects of the Core Area Wastewater Treatment Project (CAWTP).

The Committee's official name is to be:

Core Area Liquid Waste Management Committee

1.0 PURPOSE

- a) The mandate of the Committee is to oversee and make recommendations to the Board regarding the:
 - i. Administration and regulatory reporting for the Core Area Liquid Waste Management Plan
 - ii. Core area trunk sewers and sewage disposal systems
- b) The Committee will act as the steering committee of the Technical and Community Advisory Committee, as outlined in Appendix A.

2.0 ESTABLISHMENT AND AUTHORITY

- a) The Committee will make recommendations to the Board for consideration.
- b) The Board Chair will appoint the Committee Chair, Vice Chair and Committee members annually.

3.0 COMPOSITION

- a) The membership is comprised of all directors on the CRD Board from the following municipalities that are participants in the Core Area Liquid Waste Management Plan:
 - Colwood
 - Esquimalt
 - Langford
 - Oak Bay
 - Saanich

APPENDIX A

**STEERING THE TECHNICAL AND COMMUNITY ADVISORY COMMITTEE
~~CORE AREA AND WEST SHORE SEWAGE TREATMENT~~**

In accordance with the Terms of Reference of the Technical and Community Advisory Committee Core Area and West Shore Sewage Treatment (TCAC) approved by the Capital Regional District Board (CRD), ~~August 14, 2013~~October 11, 2023, the Core Area Liquid Waste Management Committee (CALWMC) will steer the TCAC as follows:

- ~~• Make recommendations to the CRD Board to appoint TCAC members~~
- Make requests to TCAC for appropriate technical and community consultation advice and input in order to facilitate informed decision-making in a variety of CAWTP CALWMP matters ~~that have not been delegated to the CAWT Project Board~~
- Dissolve the TCAC ~~at the end of the planning stage of the Core Area and West Shore sewage treatment project or~~ at a time determined by the CALWMC