CITY OF NANAIMO
THE HARBOUR CITY

BUSINESS PLAN 2026

Public Works

ENGINEERING AND PUBLIC WORKS

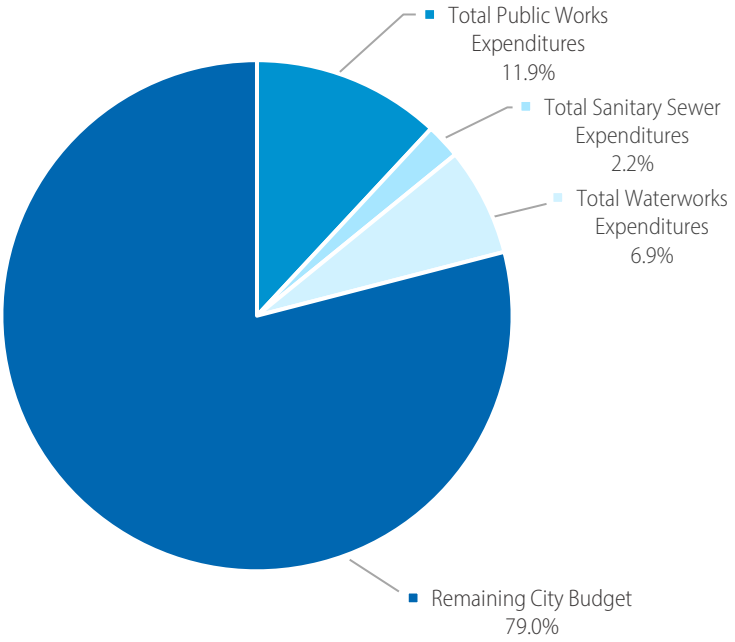
DEPARTMENT OVERVIEW

The Public Works Department constructs, operates and maintains critical City owned infrastructure. These include drinking water supply, treatment and distribution, sanitary sewer and storm drainage collection, sanitation, recycling, cemeteries, roads and traffic and corporate fleet services. Public Works and Engineering together plan, design, construct and maintain infrastructure while continually performing condition assessments and feedback to continue the asset management life cycle.

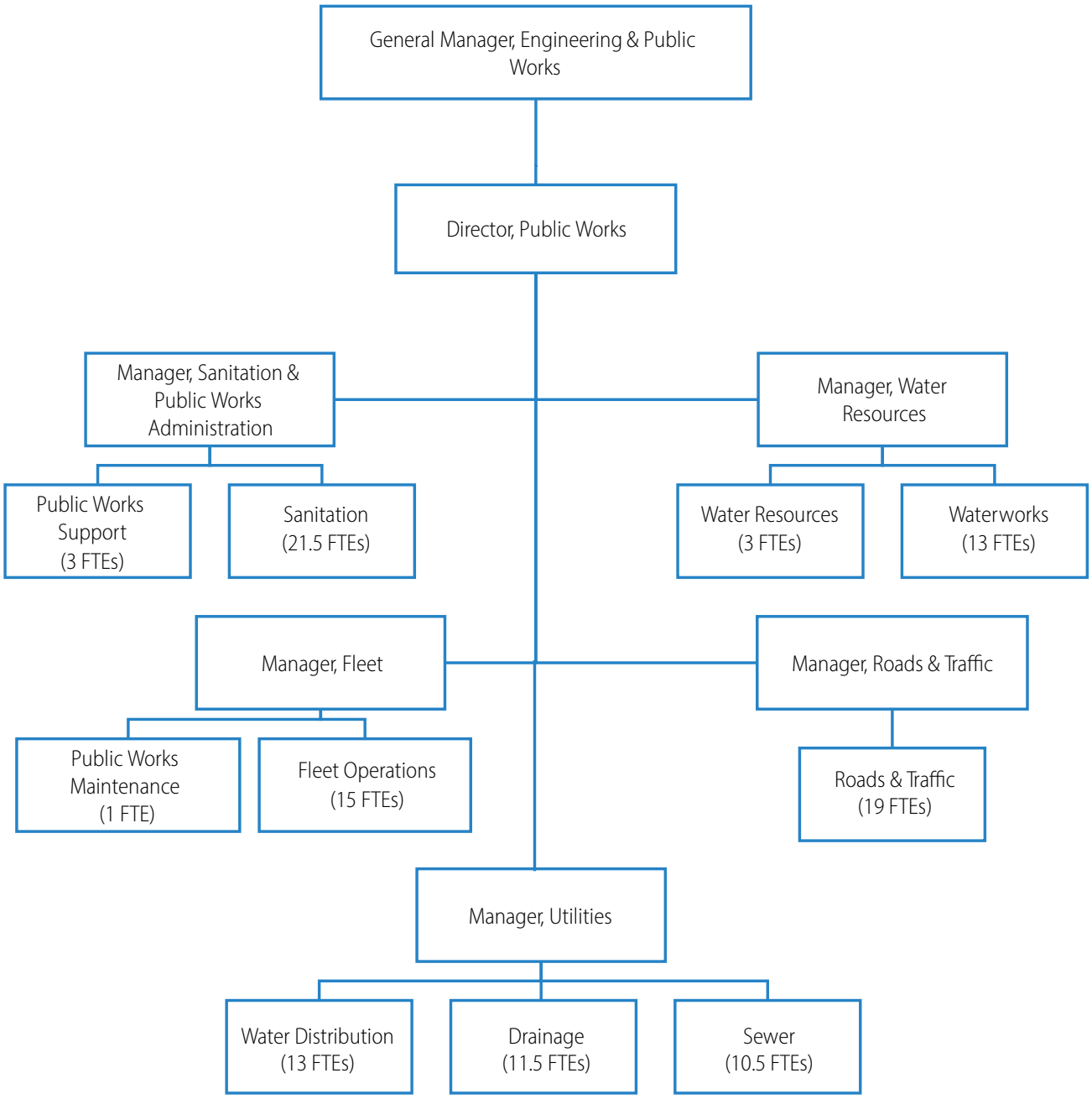
The Public Works Department is composed of six primary groups:

- Administration
- Sanitation & Cemeteries
- Roads and Traffic
- Utilities
- Water Resources
- Fleet

Department's Share of the Budget



Operating Expenditure Budget: $47,670,064



Excludes the following FTEs:

- Two Water Meter Readers, funded from Water and report to Finance.

ADMINISTRATION

The Administration of Public Works provides essential support to the City's operations and services. These are front-line staff who interact with the public, provide clerical and financial support, records management, organize and ensure that other staff have the day-to-day resources they need.

Administrative services for the Public Works Department is provided by three staff located at the Public Works yard. Seasonal and temporary staff provide additional support as required.

The strong and diverse knowledge base and high level of service and public interaction provided by Administration, deflect calls from supervisors and managers resulting in efficiency and higher operational productivity.

Level of Service

Public Works is the primary point of contact for the public for many operational requests, questions or concerns. A front counter is available at Public Works for the public to access and reach staff in Public Works during normal working hours.

- Provide information and generate work orders in a range of areas including: solid waste, street cleaning, roads, and utilities.
- Permit processing and approvals including water use, third party utility construction, etc.
- After Hours call response to emergency inquiries.
- 24/7 remote alarm monitoring of infrastructure throughout the City.
- Records management for the department.
- Assistance for financial transactions and processing of invoices.

Public Works Administration provides both an interface for residents and a dispatch centre for operations. Fleet Services also has internal administrative functions.

2025 Accomplishments

Of the phone calls and emails received, it is estimated that around 50 per cent are resolved by the Administration staff person providing the information. The rest result in the creation of a work order, for assignment to field personnel.

Administration staff received and responded to the following phone calls:

Calls Received	2022	2023	2024	2025 Projection
Number of Calls	21,250	20,000	12,250	18,150
Duration of Calls	628:22:14	600:00:00	319:13:07	360:00:00

Administration staff received and responded to the following emails:

Emails Received	2022	2023	2024	2025 Projection
Number of Emails Received	7,699	12,949	14,118	14,600
Number of Emails Sent	6,767	7,801	8,126	9,330
Total	14,446	20,750	22,244	23,930

Administration staff created, dispatched and closed:

- 7,667 work orders in 2019
- 7,418 work orders in 2020
- 8,826 work orders in 2021
- 8,560 work orders in 2022
- 5,438 for 2023 (Sept 11/23 Sewer & Drainage switched to Cartegraph work order system
- 45,624 tasks in 2024 (this is a new baseline based on the additional tracking granularity and detail that Cartegraph allows)
- Projecting 45,000 for 2025 (22,268 tasks as of June 30, 2025)

2026 Opportunities and Considerations

- The public-facing level of service in this area is high. Each resident who calls is able to speak with a member of the admin team, and residents are accustomed to this service. It is increasingly rare in cities of this size with many opting to move to an automated answering service, including taking advantage of the power of AI tools. While staff do not feel this is necessary at this time, there are events that make this high level of service hard to maintain. In 2026 staff will continue to use the voicemail box to provide information during periods of high call volumes.
- Call volumes decreased in 2024, likely as a result of two factors: detailed information included in phone tree messages and a shift to email as a preference. This reduction appears to have reversed somewhat in 2025.
- The implementation of Cartegraph for asset and work management tasks has streamlined administrative operations. While the number of individual tasks is a significant increase over prior years, the vast majority of these are generated by field staff as part of normal operations. Administration staff are generating approximately 10% of the tasks.

SOLID WASTE MANAGEMENT

The City provides weekly curbside collection of garbage, recycling and kitchen/yard waste organic materials. The service uses standardized carts and automated collection vehicles. User fees fully cover the costs of this service, which is provided to over 30,000 single-family and multi-family (up to and including four-plexes) residential addresses. Larger multi-family, strata, commercial and industrial solid waste collection is serviced by the private sector.

- Provide residential solid waste collection including weekly collection of food and yard waste and bi-weekly collection of residential garbage and recyclables.
- Monitor contamination of recycling and organic materials.
- Provide public education and promotion for waste reduction and recycling and support waste reduction activities and education for public events.
- Provide public spaces cleaning services.
- Support other departments in clean up of encampment debris.
- Sanitation services support the City Plan goals of Green Nanaimo - Resilient & Regenerative Ecosystems, Connected Nanaimo- Equitable Access, Healthy Nanaimo- Community Wellbeing & Livability, and Prosperous Nanaimo - Thriving & Resilient Economy.

Level of Service

- Servicing waste receptacles throughout the community.
- Collection of illegally dumped items from public property and dumped hazardous items including needles.

- The delivery of curbside collection services is a daily activity that requires a high level of management and effort to match the high degree of complexity. Any failure in delivery results in a high level of public interest.
- Clean up littering and other unsightly areas of public property.
- Perform daily cleaning and sweeping around the downtown area.

In addition to collection, the Sanitation Section facilitates other initiatives including:

- The Partners in a Cleaner Community Program - working with local community groups to litter pick city roadsides.
- Reuse Rendezvous - The city-wide swap meet.

- The Nanaimo Recycle Trunk Sale- a free event for residents to give used items a new life.
- A WildSafeBC coordinator - funded jointly with PRC and Development Engineering to provide education on preventing wildlife conflicts.

2025 Accomplishments

- Nanaimo has one of the few services that pick up three different types of waste with a single vehicle – many others use multiple vehicles.
- Injuries in the sanitation section have fallen by over 90 per cent since the implementation of the automated program in summer 2018.
- Continued optimization reducing service delays.
- Continued replacement of aging collection vehicles.
- Curbside audits of recyclables since summer 2023 have resulted in substantial reductions in contamination rates, sufficient for the Contamination Remediation Plan to no longer be required.
- Delivery of dedicated Clean Team vehicles specially equipped with pressure washers for spot cleaning.
- Addition of Assistant Manager position.
- Work orders relating to missed collections and other operational issues have reduced significantly.
- Renewal of Recycle BC curbside collection contract through 2029.
- Supported Finance in Secondary Suite Exemption account adjustments requiring cart exchanges to over 800 existing customers.
- In the first six months of 2025, new accounts were reduced by 35. This is a result of the updates to the secondary suite exemptions. Montly accounts continue to increase by approximately 45 accounts per month:

Service User (HH)	2022	2023	2024	2025 Projection
Total	29,933	30,144	30,340	30,400

- Notable increase in collected recyclable and organics volumes in 2024 over 2023, still far above pre-pandemic levels.
- The 2025 year-to-date diversion rate is 62 per cent.

Kilograms per household	2022	2023	2024	2025 Projection
Landfill	216	227	229	231
Recycling	114	106	119	122
Organics	271	255	276	287
Total	**601**	**588**	**624**	**640**

- Gradual increase in total collection due to population along with increases in household waste generation rates. Higher recycling and organics diversion rates contributed significantly to the overall waste volume increases:

Total Volume (tonne)	2022	2023	2024	2025 Projection
Landfill	6,694	6,848	6,944	7,000
Recycling	3,720	3,198	3,597	3,700
Organics	8,206	7,699	8,372	8,700
Total	**18,421**	**17,745**	**18,914**	**19,400**

2026 Opportunities and Considerations

- The Sanitation fleet consists of ten full-time and two spare trucks. Four new trucks are planned for 2025 to replace trucks at their end-of-life.
- Disposal cost (tipping fees) continue to increase.

Stream	2023	2024	2025	2026 Projection
Landfill Waste	$145.00	$150.00	$155.00	$160.00
Organic Materials	$114.87	$120.04	$120.04	$123.41

- Staff will continue to support RDN's implementation of mandatory waste separation in the ICI sector, primarily through educating developers and commercial and institutional property owners/managers.
- To ensure that residential curbside collection remains efficient and sustainable in the face of urban growth, an optimization of the fleet equipment lifecycle and spare equipment ratio was conducted, which found the lifecycle of collection trucks was reduced from 10 years to 8 years.

- In Q4 2024 (latest audit results), the contamination rate was 3.9 per cent down from over 6 per cent. It will take continued focus on auditing and education to ensure that the contamination rate does not worsen in 2025.
- Total waste generation and household generation continue to increase.
- Continued switch-out of existing streetside waste receptacles and expansion of service to new areas with the new receptacle enclosures will improve levels of service. Recyclables and organics receptacles will be considered for target areas.

CEMETARIES

The City owns, operates, and maintains three cemeteries:

Location	Status	Total internments
Townsite/ Chinese Cemetery	Open for sales of new plots.	1,088
Bowen Cemetery	Closed for sales of new plots. Open to burials in existing plots.	14,854
Wellington Cemetery	Closed for sales of new plots. Open to burials in existing plots (very uncommon).	125

Public Works operates these sites under the Cremation, Interment and Funeral Services Act and City of Nanaimo "Cemetery Bylaw 2009 No. 7084". A contractor maintains the cemetery grounds. As a public service, the cemeteries are operated as an alternative to private burial services. The Revenue Services Section (Finance Department) receives and administers requests for plot purchase, burials and genealogy research requests. The trend appears to be an increasing preference for cremation burials.

2025 Accomplishments

- Through September, there were 51 interments conducted, including six full burials and 45 cremation burials.
- Interment of cremated remains accounted for 88 per cent of interments in 2025, up from 80 per cent in 2024.

2026 Opportunities and Considerations

- There are currently no dedicated cemetery staff. This means that opportunities may be missed to develop and expand service offerings, revenue potential and cultural significance of the sites. Burial work is carried out by the sanitation section which can put undue pressure on the department who is primarily focused on delivering daily waste collection services.
- Transfer of some administrative tasks from Finance to Public Works Administration to improve customer service and operational effectiveness.
- The public interest in these sites can be tied to emotional reactions, so a high level of empathy and emotional intelligence is required for employees who come into contact with interested members of the public or family members of those interred.
- Townsite/Chinese Cemetery is the only site with remaining capacity for new plots. To continue offering burial services, alternative memorials could be explored including columbarium, ash gardens, etc.
- There is no asset management plan for facility renewals. As such, the office building at Bowen cemetery and the memorial archway at Townsite cemetery are in need of significant work to restore them to good condition.
- Staff launched a business model review in 2023 to address the limited space available for expansion and to provide a long-term and sustainable business model and service plan. This work is ongoing and supports City Plan's goals of a Thriving and Resilient Economy and Equitable Access and Mobility. Once complete, a report for decision is expected to be presented to Council for their consideration.

ROADS AND TRAFFIC

Apart from Provincial Highway 19 and Trans-Canada Highway 1, the City owns and maintains its road network, including pavement management, winter clearing, signage, and pedestrian and cycling facilities.

In 2024, there were:

- 527 kms of roads, 458 kms of sidewalks and 75 kms of bicycle lanes/cycle tracks,
- 54 signalized intersections, 9 roundabouts and 21,504 traffic signs,
- 1,576 pay parking spaces (285 on-street and 1,291 off-street),
- 20 bridges and 29 railroad crossings,
- 4,909 City owned streetlights and 4,189 lights leased from BC Hydro, and
- 1,227 marked crosswalks and 84 pedestrian activated crosswalk-warning beacons.

With ongoing development, new assets are being constructed and transferred to Public Works for operations and maintenance each year, increasing the average effort and expenditures required.

Level of Service

- Snow and Ice Control (SNIC) reduces risk and maintains functionality of the transportation network during adverse weather. Routes are prioritized with the goal of clearing major routes first, particularly emergency and transit routes. Local streets are the lowest priority and are cleared once higher priority routes have been completed. No service is provided to laneways.
- Potholes - Roads crews respond to complaints from the public and reports from staff, and repair as identified.
- Traffic Signals - 50 per cent of the system is inspected once per year, and conflict monitors are tested every year.
- Street Sweeping - Major roads are swept once per month, other streets once per year.
- Sidewalk Sweeping - Downtown sidewalks are swept twice per week.
- Sidewalk Cleaning - Downtown pressure washing takes place every second year.

- Street garbage receptacles are provided and maintained. Currently there are over 100 streetside receptacles in the city that are emptied at least weekly.
- Sidewalk settlements that are greater than 25 mm vertical displacement are repaired.
- Boulevard and roadside vegetation control is completed once per year during the summer.
- Centreline road markings are repainted every year. Stop signs and yield signs are inspected annually; other signs are replaced as needed.
- Crosswalks are inspected annually (including pedestrian flashers).
- Traffic Safety - Respond to traffic concerns and provide technical data collection and analysis.
- Provide and maintain transit amenities including bus shelters, benches, garbage cans and signs, in partnership with RDN Transit.
- Crack Sealing - Roughly 40,000 lineal metres of roadway is crack sealed every year. This is a decrease from prior years due to continued increases in pricing.
- Asphalt Rehabilitation and Patching – There are programs in place to patch and renew asphalt with the aim to maintain the travel and driving surfaces.
- Annual road works and dust suppression for gravel tracks on Protection Island.

2025 Accomplishments

- Renewed asphalt road surface including patching on Marlborough Rd., Brierley Hill, Szasz Dr. and Tenth St.
- Full road rehabilitation of Railway Ave.
- Completed upgrade of rail crossing at Albert St. in partnership with Southern Railway.
- Ongoing maintenance work of Wellcox Trestle completed including replacement of steel girder, sidewalk support and timber decking repairs.
- Completed 37,900 lin. m. of crack sealing.
- Promptly and effectively responded to pothole and sidewalk repair requests.
- Provided a high level of service in supporting other City Utility operations with sidewalk reinstatement and paving repairs following underground utility work.
- Supported Culture and Events section in completing the street banner program.
- Supported Downtown Nanaimo Business Improvement Area and Old City Quarter in their local promotions (banners, custom street name signs, etc.).
- Supported Engineering in project delivery.
- Installation of new and upgraded traffic signals and pedestrian accessibility improvements.
- Coordinated efforts with Parks to clear Active Transportation corridors.
- Continued to work with Urban Design Roster artists to wrap traffic control cabinets.

2026 Considerations and Opportunities

- There is a steady rise in expectations for levels of service. This ranges from concerns with congestion or lack of sidewalk connectivity, to feelings of inadequate parking. Balancing resources to meet these expectations is a major challenge for staff.
- Staff retention and succession planning is critical as most of the entry level positions within the department are temporary or casual. This prevents junior staff from acquiring the full range of skills necessary to qualify for more senior positions.
- With implementation of new Complete Street Standards, operation and maintenance requirements are increasing as well. Public Works has engaged a contractor to clear debris from Metral Drive cycle tracks as a way to gauge service levels and future maintenance costs for other similar infrastructure.
- Wellcox Trestle is deteriorating rapidly and requires significant ongoing maintenance efforts and investment until such time as it can be replaced.
- Road Rehabilitation Asset Management – The asphalt on the City's roads is deteriorating faster than it is being rehabilitated. The City typically has funding for several million dollars per year of asphalt renewal, unchanged significantly for years. As part of the financial plan, staff included a consideration for additional spending towards asphalt rehabilitation.
- Rail Crossings and Cost – There are 29 rail crossings in the City for either roads or trails. There are annual costs attributed to maintaining these crossings and considerable costs any time road or trail improvements are undertaken near the crossing. Significant changes to Federal rail standards mean these crossings are a financial and regulatory barrier to undertaking road and trail improvements along the entire length of the tracks in the city.
- Traffic Medians and Boulevard Maintenance – The increase in assets continues to cause challenges for operations and maintenance. The level of service demanded by the public is higher than what the City is currently able to provide (financially and personnel). Public Works and Parks Operations are reviewing options to allow residents to beautify boulevards fronting their properties.
- Continuing escalation of material and contract costs may result in reduced quantity of work if budgets remain unchanged.

WATER SUPPLY, TREATMENT AND DISTRIBUTION

The City operates and manages a water supply and distribution system for consumption and fire protection to the residents and businesses of Nanaimo, South West Extension, Snuneymuxw First Nation and the District of Lantzville. This infrastructure includes dams, reservoirs, pump stations, pressure reducing stations, supply mains, distribution mains, services and water meters. The City's drinking water supply originates from the protected South Nanaimo River Watershed, consisting of over 209 km^2 of privately managed forest land. The City owns and operates two dams within the watershed to ensure consistency of supply throughout the year and release of water to maintain the environmental health of the river.

Two parallel pipelines run from the South Fork dam in the watershed to the South Fork Water Treatment Plant (WTP). The plant filters and conditions the water to a quality exceeding Canadian Drinking Water Guidelines. Following treatment, drinking water is distributed through approximately 30 kms of transmission mains to nine balancing reservoirs with a combined storage of 59 million liters. Water is then delivered to customers, primarily by gravity, through approximately 600 kms of supply and distribution piping.

Characteristics of the system include:

- Two Water Supply Dams
- 668 kms of distribution watermain as of July 2025
- 92 kms of transmission watermain as of July 2025
- Nine reservoirs (storage tanks)
- 3,400 Fire Hydrants
- 11,963 valves
- Jump Lake Dam Reservoir
- South Fork Dam Intake
- South Fork Water Treatment Plant
- Six pump stations
- 27,882 service connections
- Energy Recovery Facility
- 13.2 billion litres of treated water produced and supplied in 2024
- 7.1 billion litres of treated water produced and supplied as of July 2025
- Two Water Filling Stations
- One Emergency Pump Station

Level of Service

- Operate and maintain water storage and distribution infrastructure including main flushing, water testing, air valve and valve maintenance and inspection in compliance with the Drinking Water Protection Regulation.
- Complete dam inspections and reporting for 10 dams (two for potable water and eight for recreation/conservation), in accordance with the British Columbia Dam Safety Regulations and Canadian Dam Association Guidelines.
- Operate telemetry system to monitor water system 24/7 in real time.
- Operation of a membrane water filtration plant to supply the entire City and neighbouring communities, max capacity 116 million litres per day.
- Rigorous raw and treated water sampling and testing program.
  - 49 raw water tests in the watershed
  - 1,379 treated water tests at the WTP
  - 99 treated water tests at in town reservoirs
  - 1,200 treated water tests throughout the system
- Provide water for fire suppression.
- Watermain Breaks – Provide 24/7 response by certified water operators.
- Current Water Audit revealed a very low level of real losses of 1,139 million litres, corresponding to an Infrastructure Leakage Index (ILI) of 1.13, (the lowest level of losses that can be achieved).
- 500 Hydrants flushed during annual flushing program.

2025 Accomplishments

- Continued implementation of operational resiliency within the Water Resources group. Continuing efforts focused on building a proactive, strengthened and adaptable team and water supply system that can deliver objectives and manage the risks.
- Commissioning of the Midtown Water Supply infrastructure in 2024 changed the way the City supplies water throughout the network, removing the risk of massive failure and providing redundancy for the middle of the city. In addition, operating observations have identified benefits from the project, residual testing in the northern sections of the network are now observed, verifying the improved quality of the water supplied and an annual $28,000 electricity cost saving for reducing the pumping needs.
- Completed landscape restoration and trail improvements along sections of the Midtown Water Supply Project alignment. Landscape restoration continues with 1,480 trees planted for the project restoration as of July 2025.
- Completed construction and commissioning of a new siphon power generation facility at Jump Lake Reservoir.
- Continued with communication and security upgrades at the Jump Creek and South Fork Reservoirs.
- Updated Water Supply and Recreational Dam Emergency Plans.
- Continued water conservation demand management measures. The average daily consumption of water for all users in Nanaimo during 2024, was approximately 325 liters per person per day. The average daily consumption of water for residential users in 2024, was approximately 179 liters per person per day.
- Continued the Formal Dam Safety Reviews for the five City dams required to have DSRs done every 10 years.
- Complete the 2025 Formal Annual Dam Safety inspections in the fall.
- Completed the hydraulic analysis and dam safety review assessment for Middle Chase River Dam with a feasibility analysis to be completed for the recommended options.
- Continued the Cross Connection Control (CCC) Program which improves the level of protection to the water supply system and reduces the risk of contamination. By the end of 2024, a total of 3,008 backflow devices across 1,498 facilities were managed with registered accounts under this bylaw.

- Revenue from the sale of electricity to BC Hydro Reservoir No. 1 Energy Recovery Facility for 2024 was $94,246.
- Water filling stations generated $96,375 after the first half of 2025 with 22,216 m^3 of water used. To date from January 2020 to June 2025 the stations have pulled 270,187 m^3 of water through the three ports for a total of $1,016,894.
- Completed the four-year membrane age study with University of British Columbia for the South Fork Water Treatment Plant.
- Provided 24/7 emergency response for watermain breaks and all water supply and distribution emergencies by certified water operators.
- Continued valve maintenance on supply and distribution systems.
- Completed the 2025 flushing program, maintaining high quality of potable water.
- Continued implementation of the Water Supply Strategy recommendations, goals and objectives as part of City Plan. This will develop further understanding of the impacts of climate change on drinking water supply and the infrastructure upgrades needed to support the future population of the region.

2026 Opportunities and Considerations

- Update and development of an Operations and Maintenance Manual for Water Supply.
- Completion of 2026 Formal Annual Dam Safety inspections for all water supply and recreational dams.
- Continue the Water Supply Cathodic Protection review and installation of 4 cathodic protection sites to extend the life of steel water supply mains.
- Review timing and priority of capital projects such as the Towers Reservoir project, North End Water Supply project, South End Water Supply project, review and prioritize the 10-Year and Long Term Plans.
- Aging Watermain Infrastructure – The City has a mixture of pipes and other components ranging from very new to very old that form the Water Distribution System. Infrastructure such as pipes, have a limited lifespan and eventually require renewal to remain reliable. Approximately 6 per cent of the infrastructure (with a value of about $60 million) is near the end of the typical useful life and requires heightened monitoring and eventual replacement.
- Watermain Breaks – The majority of breaks are on pipes made from Asbestos Cement that were installed in the 1960's and 1970's. Typically, the City experiences several breaks a year on this type of pipe. Significant progress has been made replacing AC watermain older than 40 years with pressure of 80 psi or higher, whenever repaving, and if adjacent to a capital project.
- Individual service connection piping to each property has reached the end of its lifespan and causing water leaks throughout the city; while not major, these create nuisance and expense for property owners and the City.
- WorkSafeBC regulation changes such as asbestos pipe, confined spaces and traffic control enhance the safety of workers; however, they often have an impact on efficiency and increase costs.
- The growth in population and corresponding increase in infrastructure, such as more pipes, valves, pump stations, reservoirs, etc., requires additional staff resources and operational funding. Over the past 10 years, the City has seen population growth of about 23 per cent without a corresponding increase in staffing. Over this 10-year time period, an additional $6 million in water distribution infrastructure has been added to the City through transfer from development. A business case will be put forward for an additional water operator when budget conditions allow for staff increase.

SANITARY SEWER

The City provides and maintains a safe and healthy sanitary sewer collection system for residential, multi-family, commercial and industrial properties. The City works closely with the RDN who operate the Greater Nanaimo Pollution Control Centre, treating sewage to a secondary level before discharge to the ocean.

Characteristics of the system include:

- 578 km of gravity sewer mains and 18 km of forcemains (pressure pipes from pump stations).
- 26,776 lateral sewer service lines totalling 288 km to individual properties.
- 9,129 manholes and 15 pump stations.
- Four low-pressure sewer systems in specific neighborhoods.
- 15 flow monitor stations.
- Three chemical injection sites to control fat buildup or odours.

Level of Service

- Ongoing maintenance and upgrades of sewer services to properties in the City.
- Conduct routine sewer main flushing of certain pipes. There are pipes on 3, 6 and 12 month flushing programs to ensure they remain operational.
- Ongoing maintenance and cleaning of sewer pump stations.
- Provide 24/7 emergency response for all sewer related emergencies by certified wastewater operators.
- Video inspections of sewers to monitor and evaluate physical condition.
- Maintain annual Pipe Condition Assessment program.
- Conduct inflow and infiltration monitoring and remediation program.

2025 Accomplishments

- Maintain yearly sewer flow and rainfall monitoring program for city wide sewer model calibration.
- Ongoing implementation of Cartegraph Asset Management Software for sewer.
- Video inspection and condition assessment of 66 kms of sewer pipe completed by City staff and contractor to date.
- Manhole inspections for public safety and infiltration and inflow issues.
- Infiltration and inflow maintenance in easements and rights-of-ways.
- Large scale smoke testing program in Harewood area revealing eight residential and two commercial cross connections of storm to sanitary sewer.
- Responded to and completed 4,024 Cartegraph tasks to date (Dec 31, 2024).
- 104 service repairs/ upgrades to date.
- 89 kms flushed.
- Upgrade remote data acquisition and recording of pump station maintenance information.
- Upgraded Seventh & Park Sewer lift station with two additional new 110 hp sewer pumps and odour mitigation stations, bringing the second wet well on line.

2026 Opportunities and Considerations

- The City has a mixture of pipes, manholes and other components ranging from very new to very old that form the sewer system. Infrastructure, such as pipes, have a limited lifespan and eventually require renewal to remain reliable. Approximately four per cent of the sewer infrastructure, with a value of about $25 million, is near the end of the typical useful life and requires heightened monitoring and near term replacement.
- Continued reduction of infiltration and inflows into sanitary sewer system, reducing the costs of treatment, through manhole grouting and smoke testing of the sewer system.
- Pipes in poor condition introduce unnecessary flow from rainfall and groundwater infiltration in the system causing system capacity reduction and treatment issues.
- Some of the major trunk sewers have greater volume than the Provincial requirements allow and monitoring stations have been installed to better understand the risks.

- Revenue from user fees and development cost charges are not keeping up with the need to expand sewers, creating financial pinch points.
- Population growth and the increase in infrastructure will need staff resources and operational funding. Over the past 10 years, the City has seen population growth of about 15 per cent without a corresponding increase in staffing. Additional pipes require flushing, inspection and maintenance. As growth continues, without additional funding and staff, the condition and reliability of the sanitary sewer system infrastructure will decline. Over this 10 year time period, an additional $5.5 million in sanitary sewer infrastructure has been added to the City through transfer from development. A business case will be put forward for an additional sewer operator when budget conditions allow for staff increase.
- Climate change impacts capacity and inflow and infiltration. With increasing storm intensity and rainfall events, the peak flows the system is required to handle increase.
- Continue to work closely with RDN on source control issues and monitoring.

DRAINAGE (RAINWATER)

Drainage infrastructure, such as pipes, ditches, culverts, catch-basins and detention ponds delivers rainwater to natural water bodies. The overall goals are to convey water away from roads, properties and buildings in a safe and sustainable way, while mitigating adverse impacts on natural watercourses, and contribute to the health of natural areas.

Characteristics of the system include:

- 605 kms of storm drainage mains
- 558 kms of ditches
- 16,549 storm lateral services totalling 156 km
- 7,471 manholes
- 13,929 catchbasins
- 42 detention or pond facilities

Level of Service

- Catchbasins (Road and Boulevard) are cleaned annually to prevent harmful sediments entering waterways and ensure environmental sustainability.
- Inlets and outlets are inspected regularly before and during major rainfall events to ensure storm drainage working correctly, mitigating flooding.
- Monitoring and maintenance of natural watercourse to ensure flow of water and to prevent flooding.
- Ongoing monitoring of the North Slope erosion area during king tides and major rainfall.
- Flushing and video inspection of storm pipe and culvert infrastructure.
- Annual vegetation control maintenance around storm infrastructure such as inlets, outlets, and detention ponds to ensure free flow and access.
- Inspections of storm water infrastructure in new subdivisions.
- Water Quality Control program sampling for City of Nanaimo swimming beach areas to ensure safe recreational swimming and published on City of Nanaimo website to ensure public access.

2025 Accomplishments

- Video inspection and condition assessment of 1.6 kms of drainage pipe to date.

- Maintain yearly storm drainage monitoring program for two flow stations and nine level stations.
- Continued implementation of Cartegraph Asset Management Software for drainage.
- 11,350 catchbasins cleaned to prevent sediment and heavy metal contaminants from entering storm system to date.
- Coordination of Road Rehab and Traffic Calming programs to improve safety.
- Responded to 29 oil spills, implemented remediation measures and reporting of spills to Ministry of Environment.
- Cleaned and rehabilitated portion of Cottle Creek in conjunction with DFO and completed in August 2025.
- Completed City wide storm drain infrastructure inventory for SD model.
- Replaced and upgraded over 250 m of failed corrugated steel pipe.
- Responded to 23,674 Cartegraph tasks to date.
- Upgraded and repaired 47 storms services.
- Conducted seasonal water sampling program from May to September for fecal coliform on local area beaches.
- Installed Stormceptor at bottom of PW Yard to prevent pollution of Northfield Ck.
- Initiated contract with Generating Resources for Tomorrow (GRT) for environmentally friendly disposal of catch basin waste, street sweeping waste and hydro vac waste. Transported 305.7 metric tonnes of CB spoil to site.

2026 Opportunities and Considerations

- Climate change has increased the intensity and strength of storm events. Drainage infrastructure may not be able to handle events especially the short duration, high intensity events. Increased flooding of low lying areas and properties may result due to more frequent storm events.
- Sea level rise is expected to restrict the amount of storm water runoff and increase erosion on shorelines.
- Annual water quality coliform testing program at various water courses and swim beaches within the City.
- Managing growth of storm infrastructure with competing priorities for General Revenue funding and staffing needs.
- Increased focus on Cottle Creek, Departure Creek and Wexford Creek for sediment removal to prevent flooding of properties during heavy winter and spring flows.
- The City will need to upgrade funding model to budget for an aging drainage infrastructure, and consider the benefits of a storm water utility.
- Ongoing GIS data collection program to fill in gaps in existing records.
- Increased attention to minor catchbasin repairs (grouting), extending the life of existing utilities and avoiding added costs of full replacements.
- There are increasing amounts of private drainage infrastructure that play an important environmental role in both quantity and quality of storm water. These systems require maintenance to prevent contamination and continued operation. Education and messaging to property owners will be important as these systems age and need attention.

FLEET

The Fleet section provides support, oversight and maintenance of the City's transportation and mobile equipment inventory. The group includes 17 permanent staff and a manager.

Characteristics of the system include:

- Maintains over 280 fleet assets which include light, medium, and heavy-duty vehicles, tractors, backhoes, loaders, excavators, trailers, fire trucks, and ice resurfacers. Twenty-five of these assets are 100 per cent battery electric, which includes 21 light-duty vehicles and four ice resurfacers.
- Maintains over 450 pieces of equipment including generators, mowers, compressors, trailers, attachments, etc.
- Maintains 43 emergency generators and pumps located across the City.
- Generates and completes over 3,500 work orders per year for vehicle maintenance and repair.
- Maintenance facility includes six service bays, one welding bay, andone small equipment shop.

Level of Service

- Operates several fleet maintenance shifts from 6 am - 8 pm to ensure adequate coverage and avoid equipment downtime.
- Maintains a government certified Designated Inspection Facility Licence. Preventative maintenance work and commercial vehicle inspections are completed to government standards and timelines. Annual audits from Commercial Vehicle Safety and Enforcement are conducted for compliance.
- Maintains fuel management system and provides monthly fuel consumption statistics for all departments.
- Works with ICBC and service providers to maintain insurance on the fleet.
- Provides oversight and advisory services for purchases or new additions to the fleet.
- Procures and deploys 15-25 new vehicles and pieces of equipment per year.
- Conducts eight to 10 "WorkSafeBC recognized" equipment operator training sessions per year.

2025 Accomplishments

- Continued to implement City's Green Fleet Strategy in order to reduce Green House Gas (GHG) emissions and fuel consumption.
- Continued participation in province-wide fleet management group.
- Generated over 3,500 work orders for vehicle maintenance and repair.
- Completed over 60 commercial vehicle inspections.
- Purchased three more 100 per cent battery electric vehicles, which are Ford F-150 Lightning trucks.
- Conducted eight heavy equipment training sessions that allowed 48 staff to complete "WorkSafeBC-recognized" courses.
- Increased driver training effectiveness by completing a new guidebook for drivers.
- Insurance discount increased by 1 per cent due to a decrease in the amount of insurance claims.
- Implemented a fleet management system upgrade that integrates with the City's Corporate Asset Management System.

2026 Opportunities and Considerations

- The Fleet Services facility is not adequately meeting the needs of the diverse fleet that the City maintains. A number of units within the City's fleet are unable to be serviced inside the facility due to the length of the units being greater than the building. In order to meet the growing needs of the community, and to continue to provide a high-level of maintenance to the City's fleet and small equipment, further advancement of a new fleet facility is required.
- As the City continues to grow, the size and complexity of the City's fleet and equipment is also increasing. Staffing levels and operational funding will need to increase to accommodate this growth.

- As advancement in green technologies continue, fleet services continues to pursue the corporate Green Fleet Strategy by exploring alternative fuel solutions in order to reduce GHG emissions and decrease fuel consumption. Electric vehicles are becoming more accessible; however, they are still not prevalent in the medium and heavy duty vehicle class. Switching to renewable diesel could reduce emissions while the electric vehicle market is still developing.
- Create a new Fleet SharePoint website to increase efficiency and better communication with all departments.
- Work alongside IT to develop and implement a new asset management system for small equipment.
- Increase the number of heavy equipment training sessions to 12, which will give 72 staff members the ability to complete "WorkSafeBC recognized" courses.
- Continue to build strong relationships with other municipalities and local governments. The sharing of technical specifications and procurement solutions is highly beneficial amongst agencies.

2026 KEY INITIATIVES

Strategic Priority: Implementing City Plan

IAP Priority Action #6 - City Fleet Electrification: Continue to implement Green Fleet Strategy.

IAP Priority Action #14 - Chase River Hydrology Study: Develop and update a hydrology model for the Chase River watershed to account for extreme weather events and climate change and determine flood flows. Use results to complete floodplain modeling for Chase River.

IAP Priority Action #15 - Departure Creek Enhancement: Continue to work with the Pacific Salmon Foundation, Departure Creek Streamkeepers, and Snuneymuxw First Nation partners to enhance the Departure Creek intake and side channel project with riparian restoration and consider creating wetland habitat and flood management at Departure Bay Centennial Park on Departure Creek.

IAP Priority Action #20 - Water Supply Strategy: Implemented Water Supply Strategy which applies current climate science to estimate water supply storage and distribution infrastructure required to meet future growth and build resilience.

IAP Priority Action #21 - Drinking Water and Watershed Protection Plan: Continue to support the Regional District of Nanaimo's Drinking Water and Watershed Protection Technical Advisory Committee.

IAP Priority Action #22 - Water Conservation: Continue the City's Water Saving Rebate Programs to reduce water consumption.

IAP Priority Action #23 - Sewer Inflow and Infiltration: Continue to work with the Regional District of Nanaimo towards reducing infiltration and inflow from the City's sewer system in support of the Regional District of Nanaimo's Liquid Waste Management Plan.

IAP Priority Action #27 - Stormwater Utility: Investigate and pursue a stormwater utility to support viability and resilience of the City's grey and green stormwater system.

IAP Priority Action #28 - Midtown Water Supply: Complete the Mid-Town Water Supply upgrade to provide redundancy and resilience in the water supply. Phase 1 | Pryde Avenue to Labieux Road. Phase 2 | College Drive to Pryde Avenue. Phase 3 | Labieux Rd to Vanderneuk Road.

IAP Priority Action #29 - Vanderneuk Water Reservoir: Construct a new reservoir at Vanderneuk to support future growth and resilience.

IAP Priority Action #30 - Solid Waste Governance: Develop and implement a construction recycling, deconstruction, and demolition bylaw. The bylaw will include measures to reduce the amount of waste that goes to landfill from construction and demolition activities and promote re-use of construction materials in Nanaimo.

IAP Priority Action #31 - Zero Waste: Develop public events program as part of a waste reduction effort and experiential community education program.

IAP Priority Action #33 - Zero Waste: Continue with Zero Waste education campaigns such as Waste Reduction Week, Single Use Item Reduction, and Green Giving.

IAP Priority Action #34 - Zero Waste: Continue expanded City services such as Reuse Rendezvous and Trunk Sale to promote Zero Waste.

IAP Priority Action #49 - Midtown Connector: Beban Park Link – in collaboration with the Mid-Town Water Supply infrastructure upgrades which includes a trail connection between the E&N Trail and Parkway Trail, complete an urban hard surface trail connection through Beban Park in accordance with the Beban Park Master Plan.

IAP Priority Action #112 – Explore partnering opportunities in areas related to skill development and training with Snuneymuxw First Nation.

Strategic Priority: Social, Health and Public Safety Challenges
Continue to support CSO and Bylaw and provide public space cleaning with Clean Team 7 days a week.
Continue to implement and install new public waste receptacles to provide public space recycling in targeted locations.
Strategic Priority: Maintaining and Growing Current Services
Complete update to Asphalt Maintenance Plan, incorporating Level of Service study and latest condition assessment data.
Assess and implement maintenance requirements for Complete Streets Standards.
Continue the curbside collection program for single family dwellings and eligible multi-family dwellings (duplexes, triplexes, and fourplexes), conduct collection analysis and perform.
Support RDN Mandatory Source Separation Bylaw through education and development referral processes.
Strategic Priority: Capital Projects
Coordinate asphalt rehabilitation and patching with capital projects to optimize necessary expenditures.
Continue to support maturation of Corporate Asset Management Systems (CAMS) - Cartegraph.
Strategic Priority: Communicating with the Community
Provide operations and maintenance project update information to homeowners, businesses and the traveling public.
Upgrade to a new refuse collector trucks onboard computer system, and continue use of ReCollect App, Waste Wizard, and other communication channels.
Continue Zero Waste education campaigns such as waste reduction week, public events educational booth, recycling contamination reduction campaign and Single-Use item reduction.
Governance and Corporate Excellence
Implement Council Policies for Winter Maintenance, Pothole Repairs and Sidewalk Repairs.
Develop Green Event policy to ensure waste created in public events are properly diverted, recovered and disposed of.

PROPOSED OPERATING BUDGET - PUBLIC WORKS

	2025 Approved Budget	2026 Draft Budget	2027 Draft Budget	2028 Draft Budget	2029 Draft Budget	2030 Draft Budget
Revenues						
Cemetery Operations	$ 87,000	$ 87,000	$ 82,670	$ 83,497	$ 84,333	$ 85,176
Drainage	7,985	1,385	1,413	1,441	1,470	1,499
Fleet Operations	-	-	-	-	-	-
Public Works Support Services	1,230,000	1,136,000	1,156,560	1,177,139	1,198,918	1,220,734
Solid Waste Management	9,021,083	9,437,706	9,135,149	9,137,266	9,076,546	9,171,447
Transportation	57,022	47,365	47,839	48,318	48,801	66,789
Annual Operating Revenues	**$ 10,403,090**	**$ 10,709,456**	**$ 10,423,631**	**$ 10,447,661**	**$ 10,410,068**	**$ 10,545,645**
Expenditures						
Cemetery Operations	$ 311,256	$ 299,311	$ 304,055	$ 308,658	$ 313,827	$ 318,865
Drainage	2,624,727	2,695,307	2,719,883	2,739,365	2,770,463	2,796,518
Fleet Operations	3,961,966	4,024,817	4,077,755	4,126,926	4,187,504	4,243,968
Public Works Support Services	2,854,614	2,860,027	2,897,676	2,932,236	2,975,077	3,015,261
Solid Waste Management	9,298,018	9,608,699	9,208,247	9,178,649	9,083,678	9,153,355
Transportation	7,626,584	7,616,447	7,722,097	7,802,586	7,897,090	7,922,514
Annual Operating Expenditures	**$ 26,677,165**	**$ 27,104,608**	**$ 26,929,713**	**$ 27,088,420**	**$ 27,227,639**	**$ 27,450,481**
Net Annual Operating Expenditures	**$ 16,274,075**	**$ 16,395,152**	**$ 16,506,082**	**$ 16,640,759**	**$ 16,817,571**	**$ 16,904,836**
Staffing (FTEs) - Budgeted	**77.2**	**75.2**	**75.2**	**75.2**	**75.2**	**75.2**

The CUPE contract is set to expire on December 31, 2025, a contingency for wage increases has been included in the Financial Plan under Corporate Services.

PROPOSED OPERATING BUDGET - SANITARY SEWER

	2025 Approved Budget	2026 Draft Budget	2027 Draft Budget	2028 Draft Budget	2029 Draft Budget	2030 Draft Budget
Revenues						
Sanitary Sewer	$ 10,308,953	$ 10,817,805	$ 11,249,052	$ 11,697,534	$ 12,163,942	$ 12,648,993
Annual Operating Revenues	**$ 10,308,953**	**$ 10,817,805**	**$ 11,249,052**	**$ 11,697,534**	**$ 12,163,942**	**$ 12,648,993**
Expenditures						
Sanitary Sewer	$ 4,637,431	$ 5,011,647	$ 5,102,879	$ 5,181,772	$ 5,276,343	$ 5,367,538
Annual Operating Expenditures	**$ 4,637,431**	**$ 5,011,647**	**$ 5,102,879**	**$ 5,181,772**	**$ 5,276,343**	**$ 5,367,538**
Net Annual Operating Revenues	**$ 5,671,522**	**$ 5,806,158**	**$ 6,146,173**	**$ 6,515,762**	**$ 6,887,599**	**$ 7,281,455**
Staffing (FTEs) - Budgeted	**10.8**	**10.8**	**10.8**	**10.8**	**10.8**	**10.8**

The CUPE contract is set to expire on December 31, 2025, a contingency for wage increases has been included in the Financial Plan under Corporate Services.

PROPOSED OPERATING BUDGET - WATERWORKS

	2025 Approved Budget	2026 Draft Budget	2027 Draft Budget	2028 Draft Budget	2029 Draft Budget	2030 Draft Budget
Revenues						
Water	$ 26,675,622	$ 28,281,756	$ 29,433,802	$ 30,056,200	$ 30,691,690	$ 31,340,561
Annual Operating Revenues	**$ 26,675,622**	**$ 28,281,756**	**$ 29,433,802**	**$ 30,056,200**	**$ 30,691,690**	**$ 31,340,561**
Expenditures						
Water	$ 14,737,768	$ 15,553,809	$ 15,930,419	$ 16,208,593	$ 16,531,187	$ 16,838,610
Annual Operating Expenditures	**$ 14,737,768**	**$ 15,553,809**	**$ 15,930,419**	**$ 16,208,593**	**$ 16,531,187**	**$ 16,838,610**
Net Annual Operating Revenues	**$ 11,937,854**	**$ 12,727,947**	**$ 13,503,383**	**$ 13,847,607**	**$ 14,160,503**	**$ 14,501,951**
Staffing (FTEs) - Budgeted	**32.5**	**32.5**	**32.5**	**32.5**	**32.5**	**32.5**

The CUPE contract is set to expire on December 31, 2025, a contingency for wage increases has been included in the Financial Plan under Corporate Services.