City of Coquitlam | 2024 Budget Overview Engineering and Public Works



Department Overview

Engineering and Public Works plans, implements, operates and maintains the systems that enable or support the delivery of: high-quality water for drinking and firefighting, sanitary waste disposal, solid waste collection, storm water management, environmental protection and transportation services, along with corporate fleet and GIS services. This work is carried out by the following divisions:

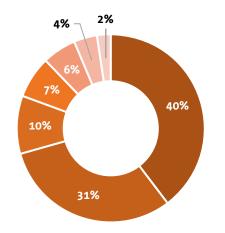
Engineering and Public Works Total 226.1 FTE							
Engineering Management 2.0 FTE	Design and Construction 30.5 FTE	Public Works 127.3 FTE	Transportation Services 21.0 FTE	Utilities 20.0 FTE	Environment 17.7 FTE	EPW Policy and Business Services 7.6 FTE	

Operating Budget

Breakdown by Division

Expenses by Division

	2024 (\$)
Public Works	7,750,000
Transportation Services	6,050,000
Design and Construction	1,960,000
Environment	1,410,000
Utilities	1,140,000
Policy and Business Services	780,000
Engineering Management	460,000
TOTAL	19,550,000

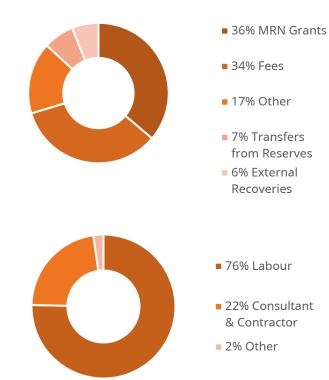


- Public Works
- Transportation Services
- Design and Construction
- Environment
- Utilities
- EPW Policy and Business Services
- Engineering Management



General Fund – Base Budget (excluding Utilities)

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2023	2024	% Change over 2023	
1,910,000	1,950,000	2%	
3,280,000	1,840,000	-44%	
540,000	890,000	65%	
380,000	380,000	0%	
380,000	330,000	-13%	
6,490,000	5,390,000	-17%	
14,680,000	14,730,000	0%	
3,960,000	4,380,000	11%	
2,110,000	440,000	-79%	
20,750,000	19,550,000	-6%	
14,260,000	14,160,000	-1%	
	2023 1,910,000 3,280,000 540,000 380,000 6,490,000 14,680,000 3,960,000 2,110,000 20,750,000	2023 2024 1,910,000 1,950,000 3,280,000 1,840,000 540,000 890,000 380,000 380,000 380,000 330,000 6,490,000 5,390,000 14,680,000 4,380,000 3,960,000 4,380,000 2,110,000 19,550,000	



5-Year Trend - Revenues



5-Year Trend - Expenditures



New Requests – General Fund

Request funded from Reserves - General Fund Austin Works Yard Phased Decommissioning 150,000 150,000 0.00 Funded by City Initiatives Reserve. e-Mobility Manager 1TFT 145,700 95,700 0.00 - mobility. Funded by Carbon Offset Reserve and 2-year BC Hydro grant. Roads Section Contractor Budget Top-Up 300,000 300,000 0.00 - mobility. Funded by City Initiatives Reserve. Report to follow early 2024. Community Request - Immigrant Link Centre 120,000 120,000 0.00 - reduce food waste and insecurity. Funded by City Initiatives Reserve. Net Zero Labour Conversion Engineer - TS, Lighting & Transportation Systems 1RFT 130,700 - 0.00% 1.0 Self-Funded - General Fund Conversion of existing contract budget. Offset by additional revenue from Encroachment Fees and Inspections. One-time vehicle purchase included in Capital P (\$48k). Sustainability Programs Specialist 1TFT 93,800 - 0.00 1.0 Setrice Enhancement - General Fund Orthophoto and LiDAR Request - Reads (Operating Costs) 25,000 25,000 0.01 - To align with inflation and demand. New Vehicle Request - Regring Costs) 12,000 12,000 0.01 - To align with inflation and demand.	Description	Value (\$)	Net Cost (\$)	Tax Impact (%)	FTE Impact	Comments
Austin Works Yard Phased Decommissioning150,000150,0000.00Funded by City Initiatives Reserve.e-Mobility Manager 1TFT145,70095,7000.00-To sustain delivery on key programs such as EV, shared mobility. Funded by Carbon Offset Reserve and 2-year BC Hydro grant.Roads Section Contractor Budget Top-Up300,000300,0000.00-To address inflationary pressures. Funded by City Initiatives Reserve. Report to follow early 2024.Community Request - Immigrant Link Centre Society - Pilot Project120,0000.00-To support pilot program to reduce food waste and insecurity. Funded by City Initiatives Reserve.Total715,700665,7000.00%-Total715,700665,7000.00%-Total715,700665,7000.00-Total130,700-0.001.0Self-Funded - General Fund Conversion to Electrical IRFT130,700-0.00Total130,700-0.001.0Sustainability Programs Specialist 1TFT93,800-0.001.0Service Enhancement - General Fund Orthophoto and LiDAR Acquisition Program25,0000.01-Total185,800-0.001.0Service Enhancement - General Fund Orthophoto and LiDAR Request -25,0000.01-Total185,800-0.001.0Service Enhancement - General Fund Orthophoto and LiDAR Request Coperating Budget Increase (Year 2 of <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
e-Mobility Manager 1TFT145,70095,7000.00programs such as EV, shared mobility. Funded by Carbon Offset Reserve and 2-year BC Hydro grant.Roads Section Contractor Budget Top-Up300,000300,0000.001To address inflationary pressures. Funded by City Initiatives Reserve. Report to follow early 2024.Community Request - Immigrant Link Centre120,000120,0000.00-To support pilot program to reduce food waste and insecurity. Funded by City Initiatives Reserve.Total715,700665,7000.00%-Net Zero Labour Conversion Request - General Fund Conversion to Electrical 	Austin Works Yard Phased			0.00	-	
Roads Section Contractor Budget Top-Up300,000300,0000.00pressures. Funded by City Initiatives Reserve. Report to follow early 2024.Community Request - Immigrant Link Centre Society - Pilot Project120,0000.00-To support pilot program to reduce food waste and insecurity. Funded by City Initiatives Reserve.Total715,700665,7000.00%-Net Zero Labour Conversion Request - General Fund Conversion to Electrical Engineer. TS, Lighting & 130,700-0.001.0Self-Funded - General Fund130,700-0.00%1.0Self-Funded - General Fund Engineering Inspector 2 Reclaist 1TFT92,000-0.00%1.0Sustainability Programs Specialist 1TFT93,800-0.001.0Offset by additional revenue from Encroachment Fees and Inspections. One-time vehicle purchase included in Capital P (\$48k).Total185,800-0.00%1.0Service Enhancement - General Fund Orthophoto and LiDAR Acquisition Program Roads (Operating Costs)25,0000.01To align with inflation and demand.New Vehicle Request - Roads (Operating Costs)12,00012,0000.01To align with inflation and demand.Sustainability Increase (Year 2 of 3)142,0000.08-0.08Service Inhancement Operating Roads (Operating Costs)142,0000.08-Service Inhancement Operating Roads (Operating Costs)142,0000.08-Service Inhancement Operating Roads (Operating Costs) <td>e-Mobility Manager 1TFT</td> <td>145,700</td> <td>95,700</td> <td>0.00</td> <td>-</td> <td>programs such as EV, shared mobility. Funded by Carbon Offset Reserve and 2-year BC</td>	e-Mobility Manager 1TFT	145,700	95,700	0.00	-	programs such as EV, shared mobility. Funded by Carbon Offset Reserve and 2-year BC
Community Request - Immigrant Link Centre120,000120,0000.00reduce food waste and insecurity. Funded by City Initiatives Reserve.Total715,700665,7000.00%-Net Zero Labour Conversion Request - General Fund Conversion to Electrical Engineer - ITS, Lighting & Total130,700-0.001.0Self-Funded - General Fund 		300,000	300,000	0.00	-	pressures. Funded by City Initiatives Reserve. Report to
Net Zero Labour Conversion Request - General FundConversion to Electrical Engineer - ITS, Lighting & 130,700 - 0.00Conversion of existing contract budget.Total130,700 - 0.00%1.0Self-Funded - General Fund-0.00%1.0Engineering Inspector 2 1RFT92,000 - 0.00-0.001.0Sustainability Programs 	Immigrant Link Centre Society – Pilot Project			0.00	-	reduce food waste and insecurity. Funded by City
Conversion to Electrical Engineer - ITS, Lighting & Transportation Systems 1RFT130,7000.001.0Conversion of existing contract budget.Total130,7000.00%1.00.00%1.0Conversion of existing contract budget.Self-Funded - General Fund92,000-0.00%1.0Offset by additional revenue from Encroachment Fees and Inspections. One-time vehicle 	Total	715,700	665,700	0.00%	-	
Total130,700-0.00%1.0Self-Funded - General FundOffset by additional revenue from Encroachment Fees and Inspections. One-time vehicle purchase included in Capital P (\$48k).Offset by additional revenue from Encroachment Fees and Inspections. One-time vehicle purchase included in Capital P (\$48k).Sustainability Programs Specialist 1TFT93,800-0.00-To address growing demand or sustainability issues. Funding from FortisBC grant.Total185,800-0.00%1.0Service Enhancement - General Fund0.01-To align with inflation and demand.Orthophoto and LiDAR Acquisition Program25,00025,0000.01-To align with inflation and demand.New Vehicle Request - Roads (Operating Costs)12,00012,0000.01-To align with inflation and demand.Extreme Weather Operating Budget Increase (Year 2 of 3)142,000142,0000.08-Request to phase-in additional operating funding required to sustain winter response activit over 3 years.	Conversion to Electrical Engineer - ITS, Lighting &	-	General Fu		1.0	Conversion of existing contractor budget.
Engineering Inspector 2 1RFT92,000-0.001.0Offset by additional revenue from Encroachment Fees and Inspections. One-time vehicle 		130,700	-	0.00%	1.0	
Engineering Inspector 2 1RFT92,000-0.001.0from Encroachment Fees and Inspections. One-time vehicle purchase included in Capital P (\$48k).Sustainability Programs Specialist 1TFT93,800-0.00-To address growing demand or sustainability issues. Funding from FortisBC grant.Total185,800-0.00%1.0Image: constraint of the second secon						
Sustainability Programs Specialist 1TFT93,800-0.00-sustainability issues. Funding from FortisBC grant.Total185,800-0.00%1.0Service Enhancement - General Fund25,00025,0000.01To align with inflation and demand.Orthophoto and LiDAR Acquisition Program25,00025,0000.01To align with inflation and demand.New Vehicle Request - Roads (Operating Costs)12,00012,0000.01Request to phase-in additional operating funding required to sustain winter response activit over 3 years.	Engineering Inspector 2	92,000	-	0.00	1.0	from Encroachment Fees and Inspections. One-time vehicle purchase included in Capital Plan
Service Enhancement - General Fund Orthophoto and LiDAR Acquisition Program 25,000 25,000 0.01 To align with inflation and demand. New Vehicle Request - Roads (Operating Costs) 12,000 12,000 0.01 One-time vehicle purchase included in Capital Plan (\$70k). Extreme Weather Operating Budget Increase (Year 2 of 3) 142,000 142,000 0.08 Request to phase-in additional 	· ·	93,800	-	0.00	-	, , , , , , , , , , , , , , , , , , , ,
Orthophoto and LiDAR Acquisition Program25,00025,0000.01To align with inflation and demand.New Vehicle Request - Roads (Operating Costs)12,0000.010.01One-time vehicle purchase included in Capital Plan (\$70k).Extreme Weather Operating Budget Increase (Year 2 of 3)142,0000.08Request to phase-in additional operating funding required to sustain winter response activit over 3 years.	Total	185,800	-	0.00%	1.0	
Acquisition Program25,00025,0000.01demand.New Vehicle Request - Roads (Operating Costs)12,00012,0000.01One-time vehicle purchase included in Capital Plan (\$70k).Extreme Weather Operating Budget Increase (Year 2 of 3)142,000142,0000.08Request to phase-in additional operating funding required to sustain winter response activit over 3 years.		eral Fund				
Roads (Operating Costs)12,00012,0000.01included in Capital Plan (\$70k).Extreme Weather Operating Budget Increase (Year 2 of 3)142,0000.08Request to phase-in additional operating funding required to sustain winter response activit over 3 years.	-	25,000	25,000	0.01	-	-
Extreme Weather Operating Budget Increase (Year 2 of 142,000 142,000 0.08 3) over 3 years.	•	12,000	12,000	0.01	-	One-time vehicle purchase included in Capital Plan (\$70k).
Total 179.000 179.000 0 10% -	Budget Increase (Year 2 of	142,000	142,000	0.08	-	Request to phase-in additional operating funding required to sustain winter response activity over 3 years.
	Total	179,000	179,000	0.10%	-	

Utilities Operating Plan

Utilities – Base Budget

2		Sewer &	
	Water	Drainage	Solid Waste
MVRD 2024 Increase	9.0%	28.2%	5.5%
MVRD Portion of Budget	53%	40%	12%
City Portion of Budget	47%	60%	88%
Base Rate Increase	5%	6%	2%
New Requests	1%	1%	-
Total Flat Rate Increase	6%	7%	2%
Total Metered Rate Increase	18%	18%	-

New Requests – Utilities Fund

			Тах		
	Value	Net Cost	Impact	FTE	
Description	(\$)	(\$)	(%)	Impact	Comments
Requests Funded from	Reserves				
Expanded Sanitary CCTV (3 Years)	200,000	200,000	0.00	-	Increase inspection of older pipe material showing significant signs of wear to phase replacement or rehabilitation costs. Funded by Sewer Asset Replacement Reserve.
In-Stream Maintenance Budget Top-Up	300,000	300,000	0.00	-	One-time top up to address costs and scope escalation. Funded by Sewer Operating Surplus Reserve.
Total	500,000	500,000	0.00%	-	
Net Zero Labour Conve	rsion Reque	est – Utility Fu	und		
Sub-Foreman Engineering Operations - Sewer	89,700	-	0.00	1.0	Conversion of existing contractor budget.
Total	89,700	-	0.00%	1.0	
Service Enhancement -	Utility Fund	d			
New Vehicles (2) Request for Sewer and Drainage Utility	24,000	24,000	0.00	-	2 vehicles required to support operations.
Total	24,000	24,000	0.00%	-	

				% Change
Water	2023	2024	Change	over 2023
Revenue				
Fees & External Recoveries	34,365,000	37,079,000	2,714,000	8%
Transfer from DCC Reserves	427,000	486,000	59,000	14%
Other Revenue	839,000	817,000	(22,000)	(3%)
	35,631,000	38,382,000	2,751,000	8%
Expenditure				
Water Purchase Costs (MV)	18,248,000	20,280,000	2,032,000	11%
Transfer to Water Asset Repl Rsv	4,340,000	4,449,000	109,000	3%
Labour	4,088,000	4,416,000	328,000	8%
Admin and Other	4,056,000	4,374,000	318,000	8%
Overhead Allocation	3,425,000	3,178,000	(247,000)	(7%)
Contingency	1,004,000	995,000	(9,000)	(1%)
Transfer to Water Capital	470,000	690,000	220,000	47%
	35,631,000	38,382,000	2,751,000	8%

Course 9 Ducino no				% Change
Sewer & Drainage	2023	2024	Change	over 2023
Revenue				
Taxation and Fees	40,622,000	44,052,000	3,430,000	8%
Service Connection Fees	938,000	938,000	-	-
Transfer from DCC Reserves	1,806,000	1,706,000	(100,000)	(5%)
Other Revenue	304,000	673,000	369,000	121%
	43,670,000	47,369,000	3,699,000	8%
Expenditure				
Metro Vancouver Levy	14,596,000	18,712,000	4,116,000	28%
Admin and Other	7,169,000	7,785,000	616,000	9%
Tsf to Sewer Asset Repl Rsv	7,161,000	7,443,000	282,000	4%
Labour	4,332,000	4,681,000	349,000	8%
Overhead Allocation	4,008,000	4,339,000	331,000	8%
Contingency	5,118,000	3,123,000	(1,995,000)	(39%)
Tsf to Swr & Drng Capital	1,286,000	1,286,000	-	-
	43,670,000	47,369,000	3,699,000	8%

				% Change
Solid Waste	2023	2024	Change	over 2023
Revenue				
Fees Charged	9,301,000	9,465,000	164,000	2%
Other Revenue	66,000	217,000	151,000	229%
	9,367,000	9,683,000	315,000	3%
Expenditure				
Garbage Contract	2,988,000	3,096,000	108,000	4%
Green Waste	2,580,000	2,612,000	32,000	1%
MV Dumping Fee	1,183,000	1,210,000	27,000	2%
Labour	914,000	1,012,000	98,000	11%
Overhead Allocation	540,000	583,000	43,000	8%
Admin and Other	446,000	434,000	(12,000)	(3%)
Tsf to Waste Bin Repl Rsv	333,000	333,000	-	-
Contingency	212,000	231,000	19,000	9%
Recycling	171,000	171,000	-	-
	9,367,000	9,682,000	315,000	3%



- 53% Water Purchase Costs (Metro Vancouver)
- 12% Transfer to Water Asset Repl Reserve
- 12% Labour
- 11% Admin and Other
- 8% Overhead Allocation
- 3% Contingency
- 2% Transfer to Water Capital



- 40% GVS & DD Levy (Metro Vancouver)
- 16% Admin and Other
- 16% Tsf to Sewer Asset Repl Rsv
- 10% Labour
- 9% Overhead Allocation
- 7% Contingency
- 3% Tsf to Swr & Drng Capital



- 32% Garbage & Green Waste Contract
- 27% Green Waste Collections and Processing Fees
- 13% MV Dumping Fee
- 11% Labour
- 6% Overhead Allocation
- 4% Admin and Other
- 3% Contribution to Waste Bin Repl Reserve
- 2% Contingency
- 2% Recycling

Capital Plan

Base Capital Plan

Transportation

- Ongoing rehabilitation of the City's transportation network including an acceleration of the Local Road Network Paving Program (increasing the annual program from \$1.3M to \$3.5M for five years until 2025)
- Micromobility projects (\$5.2M in 2024) including Regan Avenue (Gatensbury to Mundy Park), King Albert and Guildford Way
- Sidewalk, traffic signal, street light and other structural rehabilitation work as identified in the comprehensive review of EPW assets (\$3.1M in 2024)
 - Improvement of bridges located at Schoolhouse and Lucielle Way (\$1.3M in 2024)
- Frontage Works Program (\$2.9M in 2024)
 - Dansey Avenue (Blue Mountain to Marmont)
- Sidewalk Program (\$1.8M in 2024)
 - Schoolhouse Street (Como Lake Ave to Foster Avenue)
 - Cornell Avenue (Schoolhouse Street to Gatensbury Street)
 - Haversley Avenue (Poirier Street to Laurentian Crescent)
 - Ivy Avenue (Fairview Street to Ivy Avenue)
- \$1.7M Metro Vancouver contribution for the Pipeline Road Upgrade (Guildford to David West) which is part of the Coquitlam 4 Water Main project

Fleet

• Fleet Replacement Program include replacements of fire trucks, backhoes, dump trucks, and pickup trucks. \$12.2M is related to the replacement of fire trucks being advanced to 2024 (5 trucks) and 2025 (1 truck), in response to significant supply chain challenges resulting in procurement timelines of 3 years.

Utilities Capital Plan

Water

- Watermain Replacement Program (\$3M in 2024)
- Foster Avenue Watermain (\$1.3M in 2024)
- Foster Pump Station Expansion (\$650K in 2024)

Drainage

- 1445 Harbour Drive Retaining Wall Replacement (\$650K in 2024)
- Storm Sewer Structural Rehab (\$850K per year)
- Storm Main Replacement Program (\$350K in 2024 and \$10.5M for 2025-2028)
- Partington Creek Channel (\$2.7M in 2025)
- Nelson Stormwater Improvements (\$200K in 2024 and \$3.8M for 2025-2028)

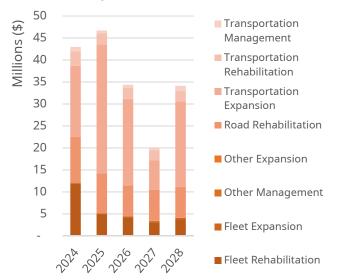
Sewer

- Sanitary Sewer Main Replacement (\$4.8M in 2024) due to force-main failure and pipe hole
- Sanitary Sewer Structural Rehab (\$940K in 2024)
- Cedar Drive project (\$162K in 2024)
- Austin Heights Sewer Upgrades (\$1.7M in 2024 and \$2.3M in 2025)
- Stoney Creek Trunk Sewer (\$3M in 2026-2027)

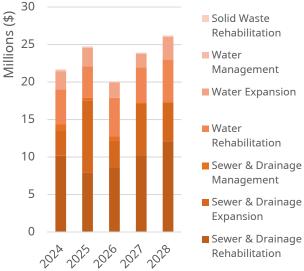
Waste

- Waste Bin Replacement Program (\$100k annually)
- Tent structure at Town Centre Park Depot (\$52K in 2024)

General Fund Capital Plan (\$178M)



Utility Fund Capital Plan (\$117M)





Capital Plan (\$000s) 2024 2025 2026 2027 2028 Total **Fleet Expansion** 11,836 3,110 27,784 4,855 4,161 3,822 **Fleet Rehabilitation** 250 250 250 250 250 1,250 Other Management 35 35 35 35 35 175 25 25 25 25 125 **Other Expansion** 25 40,530 **Road Rehabilitation** 10,406 9,080 6,973 7,014 7,057 6,700 **Transportation Expansion** 16,102 29,247 19,660 19,356 91,065 Transportation Rehabilitation 3,325 2,527 2,597 2,283 2,379 13,111 **Transportation Management** 990 705 705 705 1,205 4,310 **Total General Fund Capital** 46,724 34,406 20,122 42,969 34,129 178,350 Sewer & Drainage Rehabilitation 10,165 7,910 8,650 10,250 12,107 49,082 Sewer & Drainage Expansion 3,354 9,600 3,563 6,813 5,123 28,453 Sewer & Drainage Management 810 360 560 235 210 2,175 Water Rehabilitation 4,696 4,233 5,126 4,649 5,541 24,245 Water Expansion 2,384 2,457 2,009 1,780 3,043 11,673 Water Management 135 85 85 85 85 475 Solid Waste Rehabilitation 152 100 100 100 100 552 **Total Utility Funds Capital** 21,696 24,745 20,093 23,912 26,209 116,655 **Grand Total** 71,469 64,665 54,499 44,034 60,338 295,005

New Capital Requests (\$000s)	Total	2024	2025-2028	Funding Source
Stoney Creek Enhancements	1.200	1,200	_	Sew & Drain. Op Surplus
Stoney Creek Enhancements	1,200	1,200	_	Contribution from Other
James Park Storm Extension	300	300	-	Sew & Drain. Op Surplus
Local Government Climate Action Program (LGCAP)	444	444	-	LGCAP Reserve
Total	1,944	1,944	-	