

2023-2032

UTILITIES CAPITAL PROGRAM AND DCL PROJECT LIST

Engineering Services



Overview

The Utilities Capital Program identifies and assesses the utilities projects required to service the needs of forecasted development activity in the City, as covered in Council-approved land use policies. The Utilities Capital Program is the basis on which the Utilities Development Cost Levy (UDCL) is calculated. The Utilities DCL funds upgrades to neighbourhood serving utilities infrastructure.

Utilities Capital Program and Costs

Costs were prepared in 2022 dollars, include contingencies and do not include inflation.

Tables 1 and 2 below provide a high-level summary of the anticipated programs/projects included in the UDCL capital program. For a detailed list of projects, refer to the detailed lists provided in Table 3 and 4 and the associated maps. As shown, the gross capital program cost is \$2.1 billion. Removing costs that are not eligible for UDCLs; senior government or partner funding, post 2033 project costs, the benefit to existing costs, other funding sources and the municipal assist factor, the net recoverable UDCL cost is \$650 million. This is to be recovered from new development until 2032 by the Utilities DCL.

Table 1: Summary of 2023-2032 Utilities Capital Program

	Cost
Total Gross Cost for Projects	\$2,098,560,100
Senior Government / Partners Funding	- \$18,500,000
Post-Period (2033+) Costs for Projects	-- \$610,942,000
Benefit to Existing Costs	- \$737,944,500
Net Growth-Related Costs	- \$731,173,600
Other City Funding Sources	- \$74,585,000
Municipal Assist Factor	- \$6,827,100
DCL Rate Funded 2023-2032	\$649,763,100

Table 2: Summary of 2022-2032 DCL Recoverable Costs

Service	Total DCL Recoverable Costs
Sanitary & Drainage	\$636.9 M
Potable Water	\$12.8 M
Total	\$649.7 M

Selection of Projects

Upgrades for utilities are determined to be UDCL eligible if they service growth at a neighbourhood scale. A sewer project is deemed neighbourhood serving if it is a significant upgrade that services a population greater than 5000, or a large size pipe (e.g. greater than 600mm in diameter combined pipes or greater than 450mm in diameter for sanitary pipes), or it's downstream of a catchment of an existing trunk, or a tie in with a regional trunk pipe. Green rainwater infrastructure drainage projects are selected within growth sewersheds that offset impacts of increase impervious area and pollutant loading from growth. A water system upgrade is considered a UDCL project if it provides increased fire flow or domestic water capacity for the area.

Projects that only serve one development usually would not be considered for a UDCL project.

Timing of Projects

The Utilities DCL projects in this document are based on the anticipated pace and expected locations of future growth in the 2023-2032 timeframe. Should development and growth occur differently, then the timing of individual projects may have to change as well; therefore, the projects, and in particular their timelines and extents of work shown, should be regarded as conceptual and are subject to and expected to change.

If a developer would like to advance a UDCL capital project due to their timing, they may work with the City to complete the project themselves. The developer could then be reimbursed through the Front Ender Agreement (FEA) process for the growth portion of the project costs.

Updates

The information found in the Utilities Capital Program is based on the best technical program/project and costing information available at the time of completing the study. This includes the City's development forecast which is based on approved policy, as well as known and anticipated development, and their location and timing. The Utilities DCL Program reflects the needs arising from the forecast location, amount and timing of development. As community planning proceeds and development occurs, it is anticipated that the capital program needs will be adjusted to reflect the actual location, amount and timing of development. The City will review and adjust the UDCL capital program to ensure it reflects the intensity and location of growth. This update will include changes to the timing and nature of projects, and may include the substitution of projects, in and out of the program, to meet the servicing needs arising from development.

The UDCL project list has been updated since the initial project list published in 2018. A prioritization of the project list was conducted with the project selection criteria in mind. Projects that are no longer meeting the UDCL criteria were removed and new projects were added.

City of Vancouver – Engineering Services
2023-2032 Utilities Capital Program and DCL Project List

Table 3 Sewer and Drainage Related DCL Project List (2023-2032)

Project Description	Project Priority	Total Gross Cost	Senior Gov. / Partners	Post-Period (2033+)	Benefit to Existing	Net Growth-Related Costs	Other City Funding Sources	Municipal Assist	DCL Rate Funded 2023-2032
Cambie Projects (Sanitary & Drainage Upgrades)									
Alberta Trunk	Short Term (1-4 years)	\$22,180,000	\$0	\$0	\$5,593,000	\$16,587,000	\$5,240,000	\$113,000	\$11,234,000
Kent-Yukon Sanitary Sewer	Medium Term (5-8 years)	\$3,330,000	\$0	\$0	\$470,000	\$2,860,000	\$0	\$29,000	\$2,831,000
Manitoba - SW Marine Sanitary Sewer	Medium Term (5-8 years)	\$2,900,000	\$0	\$0	\$392,000	\$2,508,000	\$0	\$25,000	\$2,483,000
Heather St	Medium Term (5-8 years)	\$11,015,000	\$0	\$0	\$0	\$11,015,000	\$7,700,000	\$33,000	\$3,282,000
Manitoba Trunk (in period share)	Long Term (8-10+years)	\$150,000,000	\$0	\$80,000,000	\$0	\$70,000,000	\$0	\$700,000	\$69,300,000
Alberta St - Columbia Park Blue-Green Corridor	Short Term (1-4 years)	\$18,600,000	\$0	\$0	\$0	\$18,600,000	\$0	\$186,000	\$18,414,000
Cambie Green Infrastructure	Short to Medium Term (1-10 years)	\$15,486,000	\$2,000,000	\$0	\$820,000	\$12,366,000	\$0	\$127,000	\$12,539,000
Broadway Projects (Sanitary & Drainage Upgrades)									
Willow Trunk (in-period share)	Long Term (8-10+years)	\$100,000,000	\$0	\$66,670,000	\$4,000,000	\$29,330,000	\$0	\$293,000	\$29,037,000
W 14th Ave	Medium Term (5-8 years)	\$5,500,000	\$0	\$0	\$990,000	\$4,510,000	\$0	\$45,000	\$4,465,000
W 1st Ave Tight Pipe	Medium Term (5-8 years)	\$34,500,000	\$0	\$31,500,000	\$0	\$3,000,000	\$0	\$30,000	\$2,970,000
Balaclava & 8Al Redirection	Medium Term (5-8 years)	\$19,800,000	\$0	\$15,300,000	\$0	\$4,500,000	\$0	\$45,000	\$4,455,000
Hemlock Storm Trunk Redirection	Medium Term (5-8 years)	\$17,000,000	\$0	\$16,000,000	\$0	\$1,000,000	\$0	\$10,000	\$990,000
Vine St Trunk Storm Upgrade/Separation	Medium Term (5-8 years)	\$9,300,000	\$0	\$0	\$4,000,000	\$5,300,000	\$0	\$53,000	\$5,247,000
East Park Tight Pipe	Short Term (1-4 years)	\$18,000,000	\$0	\$0	\$0	\$18,000,000	\$0	\$180,000	\$17,820,000
Pressure Diversion to East Park Outfall	Medium Term (5-8 years)	\$11,900,000	\$0	\$0	\$0	\$11,900,000	\$0	\$119,000	\$11,781,000
St George Storm Upgrade	Medium Term (5-8 years)	\$1,500,000	\$0	\$0	\$360,000	\$1,140,000	\$0	\$11,000	\$1,129,000
Innovation Hub Storm	Medium Term (5-8 years)	\$2,400,000	\$0	\$0	\$500,000	\$1,900,000	\$0	\$19,000	\$1,881,000
Terminal Ave Siphon	Medium Term (5-8 years)	\$3,000,000	\$0	\$0	\$0	\$3,000,000	\$0	\$30,000	\$2,970,000
China Creek (Cottrell ST) Storm Trunk Upgrade	Medium Term (5-8 years)	\$14,900,000	\$0	\$10,900,000	\$360,000	\$3,640,000	\$0	\$36,000	\$3,604,000
E 7th Storm Upgrade	Medium Term (5-8 years)	\$3,600,000	\$0	\$0	\$2,450,000	\$1,150,000	\$0	\$12,000	\$1,138,000

Broadway Green Infrastructure	Short to Medium Term (1-10 years)	\$25,730,000	\$2,100,000	\$0	\$3,130,000	\$20,500,000	\$0	\$205,000	\$20,295,000
City Wide Projects (Sanitary & Drainage Upgrades)									
W29 & Marguerite St	Medium Term (5-8 years)	\$2,200,000	\$0	\$0	\$479,000	\$1,721,000	\$0	\$17,000	\$1,704,000
Cambie St	Medium Term (5-8 years)	\$2,660,000	\$0	\$0	\$1,550,000	\$1,110,000	\$0	\$11,000	\$1,099,000
Seymour and Richards	Medium Term (5-8 years)	\$1,140,000	\$0	\$0	\$137,000	\$1,003,000	\$0	\$10,000	\$993,000
Little Mountain	Short Term (1-4 years)	\$26,605,000	\$0	\$0	\$7,376,000	\$19,229,000	\$0	\$192,000	\$19,037,000
Shaughnessy Outfall	Medium Term (5-8 years)	\$8,650,000	\$0	\$0	\$1,732,000	\$6,918,000	\$0	\$69,000	\$6,849,000
Oak St	Short Term (1-4 years)	\$11,733,000	\$0	\$0	\$0	\$11,733,000	\$10,615,000	\$11,000	\$1,107,000
EFL Projects	Medium Term (5-8 years)	\$8,091,000	\$0	\$0	\$0	\$8,091,000	\$0	\$80,910	\$8,010,090
Portion of Regional Sewer Upgrades	Long Term (8-10+years)	\$480,000,000	\$0	\$384,640,000	\$0	\$95,360,000	\$0	\$954,000	\$94,406,000
General City-wide Sewer/Sanitary Capacity Upgrades	Medium Term (5-8 years)	\$29,155,000	\$0	\$0	\$3,711,000	\$25,444,000	\$6,080,000	\$194,090	\$19,169,910
Sewer Renewal	Short to Medium Term (1-10 years)	\$673,000,000	\$0	\$0	\$605,700,000	\$67,300,000	\$0	\$673,000	\$66,627,000
City-wide Green Infrastructure	Short to Medium Term (1-10 years)	\$53,475,000	\$14,400,000	\$0	\$17,340,000	\$21,735,000	\$0	\$217,000	\$21,518,000
Pump Station									
Thornton Pump Station	Short Term (1-4 years)	\$7,300,000	\$0	\$0	\$0	\$7,300,000	\$0	\$73,000	\$7,227,000
Kent Ave Pump Station	Medium Term (5-8 years)	\$3,000,000	\$0	\$0	\$0	\$3,000,000	\$0	\$30,000	\$2,970,000
EFL Pump Station	Medium Term (5-8 years)	\$12,825,000	\$0	\$0	\$0	\$12,825,000	\$0	\$128,250	\$12,696,750
Sanitary Pump Station Upgrades / Other Stations	Medium Term (5-8 years)	\$4,000,000	\$0	\$0	\$0	\$4,000,000	\$0	\$40,000	\$3,960,000
Pump Station Renewal	Short to Medium Term (1-10 years)	\$40,000,000	\$0	\$0	\$36,000,000	\$4,000,000	\$0	\$40,000	\$3,960,000
Other									
Hydraulic Model & Monitoring	Short to Medium Term (1-10 years)	\$75,450,000	\$0	\$0	\$35,500,000	\$39,950,000	\$0	\$400,000	\$39,550,000
Planning & Other Studies	Short to Medium Term (1-10 years)	\$79,300,000	\$0	\$0	\$4,860,000	\$74,440,000	\$0	\$744,000	\$73,696,000
Emerging Priorities		\$50,624,000	\$0	\$0	\$0	\$50,624,000	\$0	\$507,000	\$50,118,000
Available DCL Reserves		\$0	\$0	\$0	\$0	\$0	\$25,616,000	\$0	-\$25,616,000
TOTAL		\$2,059,849,000	\$18,500,000	\$605,010,000	\$737,450,000	\$698,889,000	\$55,251,000	\$6,692,000	\$636,947,000

Notes:

All Costs are in 2022 Dollars

Other Funding* includes funds provided from other sources including rezoning conditions and Federal and Provincial grants.

* Non-growth costs are preliminary and are subject to change based on identified projects

City of Vancouver – Engineering Services
2023-2032 Utilities Capital Program and DCL Project List

Table 3 Water Related DCL Project List (2023-2032)

Project Description	Project Priority	Total Gross Cost	Senior Gov. / Partners	Post-Period (2033+)	Benefit to Existing	Net Growth-Related Costs	Other City Funding Sources	Municipal Assist	DCL Rate Funded 2023-2032
Cambie Projects (Water System Upgrades) 35% of eligible works noted below									
Alberta St, W 43rd to W 42nd	Short to Long Term (1-10 years)	\$6,380,000	\$0	\$0	\$0	\$6,380,000	\$0	\$63,800	\$6,316,200
Alberta St, W 44th to W 43rd									
Ash St, W 45th to South									
Baillie St, W 37th Ave to W 41st Ave									
Cambie St (East Side), W 39th to W 40th									
Cambie St (East Side), W 63rd to W 64th									
Cambie St (West Side), W 62nd to W 63rd									
Cambie St (West Side), W 64th Ave to 65th									
Cambie St, W 65th to SW Marine									
Cambie St, W 70th to W 71st									
Elizabeth St, W 39th to W 41st									
Fremlin St, W 49th to 51st									
Kersland Dr, W 33rd to W 35th									
Kersland Dr, W 35th to W 37th									
L/W Cambie St, W 24th to W King Edward									
Laurel St, W 49th to W 52nd									
Laurel St, W 57th to W 55th									
Lord St, W 65th to SW Marine									
Manson, W 39th Ave to W 41st Ave									
Oak St, W 38th, to W 41st									
Oak St, W 57th to W 55th									
Tisdall St, W 42nd to W 45th									
W 23rd Ave, Cambie to Yukon St									
W 23rd, Manitoba to Ontario									
W 26th Ave, Manitoba to Ontario									
W 27th Ave, Willow to Heather									
W 37th Ave, Heather to Ash									
W 37th Ave, Oak to Heather									
W 38th Ave, Cambie to Alberta									
W 38th Ave, Oak to Willow									

W 39th Ave, Manson to Ash St									
W 40th Ave, Cambie to Alberta									
W 42nd Ave, Across Oak St									
W 42nd Ave, Willow to Tisdall									
W 43rd Ave, Across Oak St									
W 48th Ave, E of Cambie to Yukon									
W 48th Ave, Oak to Osler									
W 62nd Ave, Cambie to Yukon									
W 65th Ave, Lord to Cambie									
Willow St, L/N W 44th to W 46th									
Willow St, W 35th to South									
Willow St, W 37th to W 41st									
Willow St, W 42nd to L/N W 44th									
Yukon St, W 46th to W 48th									
Yukon St, W 62nd to W 61st									
Yukon St, W King Edward to W 26th									
Broadway Projects (Water System Upgrades)									
E 12th Ave, Sophia St to Kingsway	Short Term (1-4 years)	\$410,000	\$0	\$0	\$0	\$410,000	\$0	\$4,100	\$405,900
E 13th and Main - Hydrant Reconfiguration	Short Term (1-4 years)								
E 13th and Sophia Hydrant Reconfiguration	Short Term (1-4 years)								
Sophia St, E 11th to E 12th	Short Term (1-4 years)								
Cypress St, W 5th to W 4th (Transmission Main)	Medium Term (5-8 years)	\$1,483,000	\$0	\$0	\$0	\$1,483,000	\$0	\$14,830	\$1,468,170
Pine St, W 1st to W 6th	Medium Term (5-8 years)								
W 4th Ave, Maple to Burrard	Medium Term (5-8 years)								
W 6th Ave, Cypress to Granville (Transmission Main)	Medium Term (5-8 years)								
City Wide Projects (Water System Upgrades)									
Grandview Woodlands Upgrades	Short Term (1-4 years)	\$690,000	\$0	\$0	\$0	\$690,000	\$0	\$6,900	\$683,100
Grandview Woodlands Upgrades	Medium Term (5-8 years)	\$1,148,000	\$0	\$0	\$0	\$1,148,000	\$0	\$11,480	\$1,136,520
False Creek Flat Upgrades	Medium Term (5-8 years)	\$332,000	\$0	\$0	\$0	\$332,000	\$0	\$3,320	\$328,680
Jericho Upgrades	Medium Term (5-8 years)	\$283,000	\$0	\$0	\$0	\$283,000	\$0	\$2,830	\$280,170
Mount Pleasant Upgrades	Short Term (1-4 years)	\$108,000	\$0	\$0	\$0	\$108,000	\$0	\$1,080	\$106,920
Other Citywide Growth Upgrades		\$1,629,000	\$0	\$0	\$397,000	\$1,232,000	\$0	\$12,320	\$1,219,680
Emerging Priorities		\$1,166,000	\$0	\$0	\$0	\$1,166,000	\$0	\$12,000	\$1,154,000
Available DCL Reserves		\$0	\$0	\$0	\$0	\$0	\$573,000	\$0	-\$573,000
Other									
Hydraulic Model Update	Short to Long Term (1-10 years)	\$390,000	\$0	\$0	\$97,500	\$292,500	\$0	\$2,925	\$289,575
TOTAL		\$38,711,000	\$0	\$5,932,000	\$495,000	\$32,285,000	\$19,333,000	\$135,000	\$12,817,000

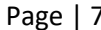
Notes:

All Costs are in 2022 Dollars

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* Non-growth costs are preliminary and are subject to change based on identified projects

Utilities Development Cost Levies: 10 Year Capital Program 2023-2032: Sanitary & Drainage



Utilities Development Cost Levies: 10 Year Capital Program
2023-2032: Waterworks Eligible Projects

