

March 18, 2019

2018 CAPITAL BUDGET - YEAR-END REVIEW

EXECUTIVE SUMMARY

2018 Annual Capital Expenditure Budget (\$ millions)				
Service Category	2018 Budget	Total Actuals	Variance \$	Variance %
HOUSING	\$41.1	\$14.9	\$26.2	64%
CHILDCARE	17.0	9.3	\$7.7	45%
PARKS, OPEN SPACES AND RECREATION	61.0	42.3	\$18.7	31%
COMMUNITY FACILITIES	26.9	19.4	\$7.5	28%
CIVIC FACILITIES	26.4	19.5	\$6.9	26%
TRANSPORTATION	79.0	57.0	\$22.0	28%
UTILITIES	129.4	95.1	\$34.3	27%
EQUIPMENT AND TECHNOLOGY	39.7	36.7	\$3.0	7%
CITY-WIDE	23.5	8.0	\$15.5	66%
TOTAL	\$444.0	\$302.1	\$141.9	32%

NOTE: Totals may not add due to rounding.

Capital expenditures for 2018 were \$302.1 million, reflecting notable progress made on major capital projects in the year, including the completion of the Central Library expansion of public space to levels 8 and 9, the continued construction of the new Fire Hall No. 5 with social housing, and the completion of final design and the start of construction for the redevelopment of Roddan Lodge/Evelyne Saller Centre. Five of the top ten projects in the 2018 Expenditure Budget, however, delivered outcomes less than what had been anticipated at the time the 2018 Expenditure Budget was developed and approved. Overall, capital expenditures in 2018 for the capital program represented 68% of the total 2018 Annual Capital Expenditure Budget of \$444.0 million, the underspend primarily attributable to changes in project execution timelines driven by changes in project scope, external factors such as contractor delays and land purchase opportunities (e.g., acquiring land for affordable housing), as well as unexpected complexities in the nature of some of the capital work undertaken (e.g., sewer main separation/replacement program). The expenditures for the delayed projects are carried into the 2019 capital project budgets in addition to the new projects approved as part of the 2019 capital budget.

CAPITAL BUDGET

While the Operating Budget reflects operating costs for one year only, the annual Capital Expenditure Budget reflects one year's expenditures for capital projects which may span multiple years. Therefore, capital projects are viewed on both an annual budget basis (Annual Capital Expenditure Budget) and a project budget basis (Multi-Year Capital Budget).

On December 12, 2017, Council approved the 2018 Capital Budget, including a 2018 Annual Capital Expenditure Budget of \$426.4 million. Council subsequently approved increases to the 2018 Annual Capital Expenditure Budget, raising it to \$444.0 million. This report comments on actual expenditures for 2018 compared to the revised 2018 Annual Capital Expenditure Budget.

Staff closely manage the capital spend to ensure optimal delivery of projects within the approved capital project budgets. Strategic review of progress on projects is conducted on a regular basis, and where the timing of projects is advanced or delayed, adjustments to the corresponding expenditure forecasts are made. Capital expenditure budgets are generally managed within the overall department Capital Expenditure Budget or, if necessary, within the overall total Citywide Annual Capital Expenditure Budget, whereby additions to individual project capital expenditure forecasts required as a result of a change in project scheduling or a procurement event, for example, are offset by corresponding reductions in project expenditure forecasts elsewhere within the overall department Capital Expenditure Budget or reductions in project expenditure forecasts for other projects within the overall total Citywide Capital Expenditure Budget. Under the revised Capital Budget Policy approved by Council in April 2018, the City Manager has the authority to approve changes to project capital expenditure budgets provided there is no increase to the Citywide total Annual Capital Expenditure Budget approved by Council. Increases to the Citywide Annual Capital Expenditure Budget require Council approval.

This report on 2018 capital expenditures reflects a continuing focus on aligning our budget with our capacity to deliver and spend, providing regular quarterly reports on actual and forecast expenditures, and appropriately scheduling projects.

A. 2018 CAPITAL EXPENDITURES vs. 2018 CAPITAL BUDGET by Service Category

Capital expenditures for 2018 were \$302.1 million, representing 68% of the total 2018 Annual Capital Expenditure Budget of \$444.0 million.

Table 2 summarizes 2018 capital expenditures versus expenditure budget by major service category.

Table 2 - 2018 Annual Capital Budget Results By Service Category (\$000's)

Service Category	2018 Expenditure Budget	2018 Expenditures	Variance
01. Housing	41,108	14,873	26,235
02. Childcare	16,962	9,264	7,698
03. Parks, Open Spaces and Recreation	60,990	42,278	18,712
04. Community Facilities	26,859	19,361	7,498
05. Civic Facilities	26,384	19,466	6,918
06. Transportation	79,025	57,027	21,998
07. Utilities	129,427	95,094	34,332
08. Equipment and Technology	39,682	36,726	2,955
09. City-Wide	23,531	7,995	15,537
Grand Total	443,967	302,085	141,882

Explanations for variances between total 2018 expenditures and the 2018 Annual Capital Expenditure Budget by service category follow:

01. Housing	\$26.2 million below budget
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Housing projects are managed by Housing Policy & Projects, Vancouver Affordable Housing Agency (VAHA), and Real Estate & Facilities Management.

Capital expenditures for Housing projects in 2018 were \$26.2 million below budget, primarily due to:

- the timing of some social housing land acquisitions that had been expected in 2018 but now expected in 2019 or later;
- a change in the timing of an affordable housing land use payment, conditional upon commencement of a ground lease for the site, that was originally anticipated for 2018 but is now expected in 2019;
- a change in the planned timing of the disbursement of Housing capital grants as recipient organizations are requiring more time than originally planned to satisfy grant conditions.

02. Childcare	\$7.7 million below budget
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Childcare projects are managed by Arts, Culture & Community Services and Real Estate & Facilities Management.

Capital expenditures for Childcare projects in 2018 were \$7.7 million below budget, primarily due to:

- acceleration of a City contribution to a developer-constructed daycare facility that had been anticipated for the second quarter of 2018 but was paid in December 2017 upon earlier than expected acceptance of the facility by the City;
- lower expenditures now expected for the childcare projects at two Gastown parkades, reflecting a longer than planned detailed design consulting process resulting in a later than expected start of construction in 2018;
- lower expenditures in the year for City/Vancouver School Board child care facility partnership projects due to a later than planned start of construction.

03. Parks, Open Spaces and Recreation	\$18.7 million below budget
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Parks, Open Spaces and Recreation projects are managed by Parks and Recreation; Real Estate & Facilities Management; Arts, Culture & Community Services; Planning, Urban Design and Sustainability; and Engineering Services.

Capital expenditures for Parks, Open Spaces and Recreation projects in 2018 were \$18.7 million below budget, primarily due to:

- lower than anticipated expenditures for a new downtown park at Smithe & Richards. Construction was budgeted to begin in 2018, and continue into 2019. Due to increasing demand for construction projects in Vancouver, combined with a shortage in supply, the bids received for this project were above the proposed project budget. Staff are in the process of reassessing this project in an effort to reduce the overall cost while still maintaining key design features, with the intent to begin construction in 2019;
- postponing of expenditures that had been planned for 2018 for drainage improvements at the Langara golf course;
- lower than anticipated expenditures for the Stanley Park seawall repairs project as a result of consultant-related delays and phasing of a portion of the planned work to 2019;
- lower than anticipated expenditures in the year for several playground renewal projects as a result of an extended procurement process to combine design and tender phases into one package with construction expected to begin in late 2018 and continuing into 2019.

04. Community Facilities	\$7.5 million below budget
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Community Facilities projects are managed by various departments within the City including Real Estate & Facilities Management; Arts, Culture & Community Services; Planning, Urban Design and Sustainability; and Vancouver Public Library.

Capital expenditures for Community Facility projects in 2018 were \$7.5 million below budget, primarily due to a change in the planned timing of a major capital grant supporting artist production spaces in the Mount Pleasant neighbourhood that was anticipated for the first quarter of 2018 but is now on hold while the non-profit organizations finalize their facilities planning. As well, expenditures originally planned for 2018 for several Community Facilities projects were less than planned as a result of extended timelines required for project scope analysis and review, including projects for tenant improvements for a new Indigenous Wellness Centre in the Downtown Eastside and pre-move work in advance of the relocation of the

Vancouver Archives from its current location in Vanier Park to the Central Library building downtown.

05. Civic Facilities	\$6.9 million below budget
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Civic Facilities projects are managed by Real Estate & Facilities Management and Engineering Services.

Capital expenditures for Civic Facilities projects in 2018 were \$6.9 million below budget, primarily due to:

- lower expenditures now expected in the year for a couple of office space expansion projects, reflecting an extended timeline required for building lease finalization which in turn resulted in a later than planned start of construction of tenant improvements;
- lower expenditures for some Civic Facilities capital maintenance and renovation projects, including the VPD Safe Drug Lab project, the City-wide Fire Safety Program, and the Manitoba Yard fuel tank replacement project, reflecting a longer than anticipated timeline for the planning and design phases for the projects.

06. Transportation	\$22.0 million below budget
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Transportation projects are managed by Engineering Services; and Planning, Urban Design and Sustainability.

Capital expenditures in 2018 for Transportation projects were \$22.0 million below budget, primarily due to shifts in the timing of expenditures from 2018 to 2019 for several projects and programs, including:

- major improvements to walking and cycling infrastructure that had been planned for 2018 for the Quebec Street & 1st Avenue area shifting to 2019 to accommodate delays in developer driven work in the area;
- a revised timeline for consultant engineering services for detailed design of roads and utilities for the Northeast False Creek Redevelopment project;
- contractor delays and revisions to conceptual design shifting a large component of detailed design for the Arbutus Corridor project into 2019.

07. Utilities	\$34.3 million below budget
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Utilities projects are managed by Engineering Services.

Capital expenditures for Utilities projects in 2018 were \$34.3 million below budget, primarily due to:

- lower expenditures for projects in the Sewer Main Replacement program as a result of resource deployment efficiencies and less than expected use of contingencies included in the budget;

- a change in the construction timeline for the replacement of the 7th Avenue & Glen Street pump station as a result of a longer than anticipated timeline required for stakeholder coordination and public engagement;
- a change in timeline for detailed design and partial construction of structural protection measures that had been planned for 2018 along the Fraser River foreshore at East Fraser Lands;
- a change in timeline from 2018 to 2019 for the procurement of a heat pump in the SEFC Neighbourhood Energy Utility;
- lower expenditures for Vancouver Landfill closure projects, reflecting revised cost estimates provided by the on-site contractors.

08. Equipment and Technology	\$3.0 million below budget
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Equipment and Technology projects are managed by Engineering Services and Information Technology departments.

Capital expenditures in 2018 for Equipment and Technology projects were \$3.0 million below budget, primarily reflecting:

- a shift in spend timing in the vehicles and equipment replacement program in order to align fleet procurement with the Greenest City Action Plan and increasing the number of CNG (natural gas) and electric powered vehicles in the City's fleet, as well as the higher complexity in applying these technologies to replacements of medium and heavy duty fleet vehicles;
- a revised timeline for the completion of the Fleet Management system as a result of updated estimates for subject matter expert support, data cleanup, change management and training, moving the anticipated project go-live date from September 2018 to April 2019.

09. City-Wide	\$15.5 million below budget
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This service category includes the cost of City staff supporting the capital program, as well as the financing fees the City incurs as part of the debenture program. This category also includes an expenditure budget contingency allowance that accumulates through the year as various projects experience delays or deferrals in planned spend timelines and corresponding project expenditure budgets are decreased. While individual project expenditure budgets are decreased to reflect the revised spend forecasts for the year, the overall Citywide expenditure budget approved by Council is left unchanged. These reductions in project spend budgets are accumulated and held as a contingency within the overall Citywide expenditure budget to offset increases to spend timelines and corresponding spend budgets that may also occur during the year. Under the revised Capital Budget Policy approved by Council in April 2018, the City Manager has the authority to approve changes to project capital expenditure budgets provided there is no increase to the Citywide total Annual Capital Expenditure Budget approved by Council.

Capital expenditures in 2018 for City-wide overhead costs were \$15.5 million below budget, primarily reflecting the net effect of individual project expenditure budget adjustments during

2018 totaling \$15.1 million (changes to project expenditure budgets during the year to align with revised spend timing forecasts).

B. TOP 10 CAPITAL PROGRAMS/PROJECTS: 2018 Anticipated vs. Actual Outcomes

Table 3 below summarizes outcomes related to the top ten projects by expenditure budget in the overall 2018 Annual Capital Expenditure Budget. As indicated in the table, outcomes for five of the ten projects were less than the original estimated outcomes for the year, primarily reflecting changes in project scope and deliverables timing driven by external factors such as land purchase opportunities and contractor delays, as well as unexpected complexities in the nature of some of the capital work undertaken. The expenditures for the delayed projects are carried into the 2019 capital project budgets.

Outcomes for expenditures in 2018 for the following projects were less than originally anticipated for the year:

- The actual outcome for 2018 expenditures in the vehicles and equipment replacement program was less than what was originally anticipated for the year, primarily reflecting a shift in spend timing to align fleet procurement with the Greenest City Action Plan and increasing the number of CNG (natural gas) and electric powered vehicles in the City's fleet. As well, the higher complexity in applying these technologies to medium and heavy duty fleet vehicles resulted in a smaller than planned number of unit replacements in 2018.
- Elements of the Bikeways and Greenways program were deferred into 2019 to align with internal crew availability/scheduling and to coordinate with the developer driven work happening at one of the project sites.
- The completion of the Fire Hall No. 5 replacement project, including a social housing component, that was expected in 2018 is now scheduled for 2019 due to a longer than expected construction phase as a result of unfavorable weather conditions earlier in the year and unforeseen unfavourable site conditions encountered in the pre-construction phase of the project.
- The construction contract for the Vancouver Landfill Phase 3 North East Closure & Gas Works Phase 3 Northeast closure work was awarded later in the year than planned and once underway the work progressed slower than planned. Gas wells have been installed and liner installation is in progress but will likely not be completed before the start of prolonged wet weather.
- Construction planned for 2018 for the replacement of the 7th and Glen pump station started later than planned in order to coordinate with other work in the area and to accommodate a longer than planned public engagement process; completion is now expected in 2019.

Table 3 - Outcomes for Top 10 Projects and Programs in 2018 based on budgeted expenditures (\$ millions)

Program/Project	2018 Annual Expenditure Budget (FINAL)	2018 Total Expenditures	Variance	Anticipated Outcomes for 2018 (based on original 2018 Expenditure Budget)	Actual Outcomes for 2018
Sewer main replacement (Annual program)	29.5	22.7	\$6.9	<i>In 2018, a minimum of 4.0 kms of combined sewer separation is planned to be delivered including the following multi-branch coordinated projects: St. Catherines, Fraser Street, and sewer projects in the 64th-Cartier-Park and Montcalm areas</i>	2018 planned outcome achieved: 5.4 kms of combined sewer separation delivered. The expenditure budget variance reflects a lower cost of performing work with City crews instead of a trenchless contract as originally planned.
Vehicles and equipment replacement (Annual program) (Original 2018 budget \$17.8 million)	13.8	13.4	\$0.4	<i>Replacement of 115 to 125 end of life equipment and vehicles by the end of 2018; mix of heavy duty and light duty items.</i>	2018 planned outcome was less than anticipated: Number of replacements in 2018 was less than originally anticipated, reflecting an alignment of fleet procurement with the Greenest City Action Plan and increasing the number of CNG and electric powered vehicles in the City's fleet. Due to the complexity in applying these technologies to medium and heavy duty fleet vehicles, a smaller number of units were replaced in 2018.
Bikeways and greenways (Original 2018 budget \$17.3 million)	23.1	17.6	\$5.5	<i>Key projects will expand and improve the cycling network by approximately 10km. Upgrades to the network include the improvements to achieve cycling routes for all ages and abilities (AAA). With a recalibration of the percentage of AAA cycling facilities, this will bring the City to over 1/4 of all bike facilities being AAA.</i>	2018 planned outcome was less than anticipated: Some of the project work originally planned for 2018 has been deferred to 2019 due to internal crew availability and also to coordinate with the timing of the developer work happening at one of the project sites. Expenditures in 2018 include work on developer/Translink-requested (and funded) projects that were added to this capital program in the year.
Replacement of Fire Hall No.5 (including Social Housing) (Original 2018 budget \$10.3 million)	7.6	7.8	-\$0.2	<i>Construction is anticipated to complete in 2018.</i>	2018 planned outcome less than anticipated: Construction of the fire hall progressed slower than anticipated due to unfavorable weather and unforeseen site conditions. The construction is now anticipated to be substantially completed by spring 2019.
Vancouver Landfill Phase 3 North East Closure & Gas Works (Original 2018 budget \$10.0 million)	15.0	7.6	\$7.4	<i>In 2018, approximately 10 hectares of the Landfill will be closed in Phase 3NE. In addition, gas works will be constructed in Phase 3NE and Phase 4.</i>	2018 planned outcome was less than anticipated: Contract for Phase 3 NE landfill closure work was awarded later in the year than planned and the work also progressed slower than planned. Gas wells have been installed and liner installation is in progress.
Distribution Main Replacement (Annual program)	9.9	10.24	-\$0.3	<i>Replace approximately 0.5% of the total distribution main system. Approximately 20 separate capital projects are planned including major projects on Fraser St, Nanaimo St. and Adanac.</i>	2018 planned outcome achieved: 8.1 kms of mains delivered during 2018.
Landfill Western 40 Hectare Closure	9.5	10.9	-\$1.4	<i>In 2018, the second stage of the Western 40 Hectare closure will be completed, closing the next 15 hectares of the area. In addition, gas works will be constructed as part of the closure.</i>	2018 planned outcome achieved: Closure progress was faster than expected for 2018 as a result of favourable weather conditions, with 24.5 hectares completed by the end of the year. The 2018 expenditure variance reflects the higher than planned progress for the year, but the total expenditure forecast remains within the overall project budget.
Roddan Lodge Redevelopment and Evelyn Saller Centre (Original 2018 budget \$8.2 million)	5.2	3.8	\$1.4	<i>Demolition and commence construction (anticipated completion 2020).</i>	2018 planned outcome achieved: Construction started fall 2018; construction to take 24 months, with occupancy in 2020.

Table 3 - Outcomes for Top 10 Projects and Programs in 2018 based on budgeted expenditures (\$ millions)

Program/Project	2018 Annual Expenditure Budget (FINAL)	2018 Total Expenditures	Variance	Anticipated Outcomes for 2018 (based on original 2018 Expenditure Budget)	Actual Outcomes for 2018
Upgrade & Replace Pump Station <i>(Original 2018 budget \$7.3 million)</i>	3.1	0.4	\$2.6	Major replacement of the 7th & Glen pump station which will take place in 2018, along with other pump station works such as system upgrades, repairs and planning work for future pump station replacement and refurbishment projects.	2018 planned outcome was less than anticipated: Coordination with other work in the area and a longer than planned public engagement process have delayed the planned timing of tendering for the 7th & Glen design phase. Completion of the pump station at this location is now expected by the end of 2019.
Central Library Expansion of Public Space <i>(Original 2018 budget \$6.8 million)</i>	7.7	8.4	-\$0.7	Construction complete and operation to start in summer.	2018 planned outcome achieved: Project progress was slower than planned due to site condition and contractor delays; however, substantial completion was achieved in the summer, with the expanded space officially opened to the public in September.
Total	124.5	102.9	21.5		

C. MULTI-YEAR CAPITAL PROJECT EXPENDITURES vs. BUDGET

As of December 31, 2018, the active Multi-Year Capital Project Budgets for current open capital programs/projects totaled \$1.283 billion (not including new multi-year capital projects in the 2019 Capital Budget approved by Council on December 18, 2018).

D. 2015-2018 CAPITAL PLAN

The 2015-2018 Capital Plan was approved in October 2014 at \$1.085 billion (RTS 10507) and as of December 31, 2018, with subsequent Council approved changes, was \$1.553 billion covering projects across all City departments and agencies. As part of the quarterly adjustment and closeout process, a further increase of \$0.7 million to the 2015-2018 Capital Plan was approved by Council February 27, 2019 (RTS 12473) for funding contributed in 2018 by the Vancouver Public Library Foundation toward the capital project for the expansion of public space at Central Library levels 8 and 9, bringing the total 2015-2018 Capital Plan to \$1.554 billion.

In July 2018, Council approved the 2019-2022 Capital Plan. Recommended funding allocations from the 2019-2022 Capital Plan to new capital project budgets will be brought to Council for approval through the regular annual and quarterly capital budgeting processes.

E. RISKS AND OPPORTUNITIES

Given the longer-term timeframe for capital projects, forecast capital expenditures are subject to change as a result of City capital priorities shifting during the year or as a result of factors beyond the City's control, including for example:

- delays or acceleration in third-party contracted construction progress,
- unforeseen site conditions encountered in construction projects,
- resolution of factors external to the City, such as partnership funding commitments.

Opportunities to initiate or accelerate the timing of capital investment in the City's capital infrastructure may also arise as the City actively pursues funding contributions/participation from senior levels of government (e.g., Build Canada Fund, Community Works Fund) and private and community partnerships (e.g., BC Housing, developers).

CONCLUSION

The City incurred \$302.1 million in capital expenditures in 2018, representing 68% of the total 2018 Annual Capital Expenditure Budget of \$444.0 million. Outcomes for five of the top ten projects based on 2018 Annual Capital Expenditure budget were less than planned. The lower than budgeted expenditures for these projects, as well as generally for other underspent capital projects, reflect changes in the timing of planned expenditures as a result of progress delays arising from changes in project scope, or external factors such as land purchase opportunities and contractor delays, as well as unexpected complexities in the nature of some of the capital work undertaken. The expenditures for the delayed projects are carried into the 2019 capital project budgets in addition to the new projects approved as part of the 2019 capital budget.