

June 5, 2020

2019 CAPITAL BUDGET – YEAR-END REVIEW

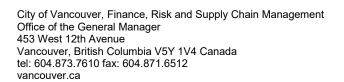
EXECUTIVE SUMMARY

Total capital expenditures for 2019 were \$366.4 million, representing 64% of the total adjusted 2019 Annual Capital Expenditure Budget of \$574.9 million. Expenditures in the year reflect the completion of the new Fire Hall No. 5 with social housing, and completion of upgrades to the entrance of the Vancouver Landfill, including the addition of two new weigh scales and a new scale house and capacity increases to the recycling centre. As well, capital expenditures in 2019 reflect notable progress on a number of major capital projects in the year, including landfill closure projects (Phase 3 Northeast, Phase 4 Southeast, Western 40 Hectares), renewal of Fire Hall No. 17, and Vancouver School Board/City of Vancouver partnership childcare facility projects.

Outcomes for six of the top ten projects based on the 2019 Annual Capital Expenditure budget were less than planned compared with what had been anticipated during development of the 2019 Budget, 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. Expenditures that had been planned but not incurred for these projects for 2019 were carried forward into 2020 capital project expenditure budgets.

Table 1 - 2019 Annual Capital Expenditure Budget - Year-to-Date Actual Expenditures (\$ millions)							
			2019 Full Year Expenditures				
Service Category	2019 Budget	Q4 Year-to- date Actuals	Forecast Exenditure	Variance (\$)	Variance (%)		
AFFORDABLE HOUSING	\$78.0	\$23.5	\$23.5	\$54.5	69.9%		
CHILDCARE	\$20.0	\$13.5	\$13.5	\$6.5	32.3%		
PARKS, OPEN SPACES AND RECREATION	\$54.2	\$35.4	\$35.4	\$18.7	34.6%		
COMMUNITY FACILITIES	\$34.4	\$11.2	\$11.2	\$23.2	67.5%		
ARTS AND CULTURE	\$21.4	\$11.1	\$11.1	\$10.3	47.9%		
PUBLIC SAFETY	\$20.9	\$16.7	\$16.7	\$4.2	20.2%		
CIVIC FACILITIES AND EQUIPMENT	\$45.2	\$25.9	\$25.9	\$19.3	42.7%		
TRANSPORTATION AND STREET USE	\$92.3	\$68.4	\$68.4	\$23.9	25.9%		
ONE WATER	\$103.9	\$89.4	\$89.4	\$14.5	14.0%		
RENEWABLE ENERGY	\$6.3	\$3.4	\$3.4	\$2.9	46.7%		
SOLID WASTE	\$46.5	\$32.9	\$32.9	\$13.6	29.3%		
TECHNOLOGY	\$33.6	\$28.8	\$28.8	\$4.7	14.1%		
CITY-WIDE	\$18.3	\$6.1	\$6.1	\$12.2	66.6%		
TOTAL	\$574.9	\$366.4	\$366.4	\$208.5	36.3%		

NOTE: Totals may not add up due to rounding.





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 expenditure basis (annual expenditure actuals vs. annual expenditure budget) and a multi-year project basis (multi-year project actuals vs. multi-year project budget).

On December 18, 2018, Council approved the 2019 Capital Budget, including a 2019 Annual Capital Expenditure Budget of \$562.7 million. Council subsequently approved adjustments to the capital budget, including increasing the 2019 Annual Capital Expenditure Budget to \$574.9 million. This report comments on actual expenditures relative to the revised 2019 Annual Capital Expenditure Budget.

A. 2019 CAPITAL EXPENDITURES vs. 2019 CAPITAL BUDGET by Service Category

Capital expenditures for 2019 were \$366.4 million, representing 64% of the total 2019 Annual Capital Expenditure Budget of \$574.9 million.

Table 1 above summarizes variances between 2019 capital expenditures and the corresponding expenditure budget by service category.

Explanations for variances between total 2019 expenditures and the 2019 Annual Capital Expenditure Budget by service category follow:

Affordable Housing

\$54.5 million below budget

Housing projects are managed by Housing Policy & Regulation in Planning, Urban Design and Sustainability Department, Affordable Housing Programs in Arts, Culture & Community Services, Real Estate & Facilities Management (REFM), Vancouver Affordable Housing Agency (VAHA) and Vancouver Affordable Housing Endowment Fund (VAHEF).

Capital expenditures for Affordable Housing projects in 2019 were \$54.5 million below budget, primarily due to:

- a change in the timing of some planned social housing land acquisitions that had been expected in 2019 but are now expected in 2020 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 2019 but is now expected in 2020;
- 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.

Childcare

\$6.5 million below budget

Childcare projects are managed by Arts, Culture & Community Services and Real Estate &

Facilities Management (REFM).

Capital expenditures for Childcare projects in 2019 were \$6.5 million below budget, primarily reflecting a later than planned start of construction for new childcare facilities now underway for two Gastown parkades, as a result of an extended timeline required for construction tendering and the complexity of the project.

Parks and Open Spaces

\$18.7 million below budget

Parks and Open Spaces projects are managed by Parks and Recreation; Real Estate & Facilities Management (REFM); Arts, Culture & Community Services; Planning, Urban Design and Sustainability; and Engineering Services.

Capital expenditures for Parks and Open Spaces projects in 2019 were \$18.7 million below budget, primarily due to:

- lower than budgeted expenditures for the Langara Golf Drainage project in 2019 as the revised project delivery model will be implemented in-house by the golf maintenance staff over a number of years to reduce impact on services caused by course closure;
- lower than anticipated expenditures in the year for several playground renewal projects as a result of an extended design and bundled procurement process; construction started on several playgrounds in the fall, continuing into 2020;
- expenditures that had been planned for 2019 for the grass playfield renewal program were rescheduled to 2020 to align with other Park Board priorities;
- lower than anticipated expenditures in the year for the Stanley Park Seawall project as a result of a delay in the construction phase due to unfavorable weather conditions;
- lower than anticipated expenditures in 2019 for the construction of a new park in the Southeast False Creek area as a result of staff resourcing constraints.

Community Facilities

\$23.2 million below budget

Community Facilities projects are managed by various departments including Real Estate & Facilities Management (REFM); Arts, Culture & Community Services; Parks and Recreation; Planning, Urban Design and Sustainability; and Vancouver Public Library.

Capital expenditures for Community Facilities projects in 2019 were below budget by \$23.2 million, primarily due to:

- lower than planned expenditures in 2019 for the Marpole Community Centre Redevelopment project as the completion of the Oak Park Master Plan, which the community centre redevelopment project is dependent on, is requiring more time to complete than originally anticipated due to its large scope and complexity;
- lower than planned expenditures in 2019 for the Britannia Community Services Centre Redevelopment project as a result of a longer than anticipated timeline required for land rezoning, delaying the start of master plan consulting; and

 a change in the planned timing of the disbursement of Social Facility and Façade Rehabilitation program capital grants as recipient organizations are requiring more time than originally planned to meet grant conditions.

Arts and Culture

\$10.3 million below budget

Arts and Culture projects are managed by various departments including Real Estate & Facilities Management (REFM); Arts, Culture & Community Services; Parks and Recreation; Planning, Urban Design and Sustainability; and Hastings Park/Pacific National Exhibition (PNE).

Capital expenditures for Arts and Culture projects in 2019 were below budget by \$10.3 million, primarily due to:

- a change in the planned timing of a major capital grant disbursement supporting artist production spaces in the Mount Pleasant neighbourhood that had been anticipated for 2018 and then 2019 but continues to be on hold while the non-profit organizations finalize their facilities planning;
- lower than anticipated expenditures in 2019 for installation of new Public Art due to longer than planned time taken for negotiations with external stakeholders;
- lower than anticipated expenditures in 2019 for the Playland Redevelopment project reflecting a shift in timing for the design phase that had been planned for 2019 but now moved to 2020 to accommodate additional project scope recommended by the project steering committee; and
- lower than anticipated expenditures in 2019 for building envelope maintenance planned for Heritage Hall, reflecting a revised timeline to accommodate tenant's available window for construction.

Public Safety

\$4.2 million below budget

Public Safety projects are managed by Real Estate & Facilities Management (REFM) and Engineering Services.

Capital expenditures in 2019 for Public Safety projects were \$4.2 million below budget, reflecting lower than anticipated expenditures for the Renewal of Fire Hall 17 project in the fourth quarter of 2019 and lower than originally planned expenditures in the year for replacement of police and fire vehicles/equipment as a result of equipment procurement resource availability constraints earlier in the year.

Civic Facilities and Equipment

\$19.3 million below budget

Civic Facilities and Equipment projects are managed by Real Estate & Facilities Management (REFM) and Engineering Services.

Capital expenditures in 2019 for Civic Facilities and Equipment projects were \$19.3 million below budget, primarily due to:

- the deferral of the 2019 Energy Optimization program to 2020 as staff focus on developing various projects for 2020 to accelerate the implementation of the Renewable Energy Strategy, including additional deep emission retrofit reduction projects for Cityowned buildings, as directed by Council in April 2019;
- lower than anticipated expenditures in 2019 for capital maintenance of City facilities reflecting an enhanced and longer than anticipated planning and prioritization phase;
- lower than anticipated expenditures in the year for renewal of City Hall precinct facilities as a result of a longer than anticipated timeline required for consulting services for the planning and design phases;
- lower than anticipated expenditures for 2019 for replacement of end-of-life City vehicles and equipment, reflecting equipment procurement resource availability constraints earlier in the year.

Transportation

\$23.9 million below budget

Transportation projects are managed by the Engineering Services department.

Capital expenditures in 2019 for Transportation projects were \$23.9 million below budget, reflecting:

- the deferral of some of the project scope and expenditures that had been planned for 2019 to 2020 for the Northeast False Creek Redevelopment project, as result of a longer than anticipated timelines required for rezoning enactments;
- the deferral to 2020 of some of the program scope originally planned for 2019 for two of the major projects in the 2019 Active Transportation Corridors and Spot Improvements program, to accommodate crew scheduling and to refine final details in project scope;
- the deferral to 2020 of some of the project scope and expenditures that had been planned for 2019 for the Granville Bridge Upgrade/Rehabilitation project, reflecting a refinement of the project timeline with the construction contract awarded in late June 2019; and
- lower than anticipated expenditures in 2019 for the Arbutus Greenway Fraser River Extension project reflecting a longer than anticipated timeline for consultation with the Musqueam community.

One Water

\$14.5 million below budget

One Water projects are managed by the Engineering Services department.

Capital expenditures in 2019 for One Water projects were below budget by \$14.5 million, primarily due to:

- lower than anticipated expenditures in the year for the Water Transmission Main replacement program, reflecting slower than expected progress in the water main replacement work tied to additional pressure testing performed on the work underway;
- lower than anticipated expenditures in 2019 for the Pump Station Replacement program, reflecting a change to the project construction schedule as a result of a longer than

anticipated timeline required for construction procurement;

- lower than anticipated expenditures in 2019 for the Sewer Main Reconstruction/Sewer Separation program as one of the major projects in the program (Nanaimo Street) expected to be completed in 2019 will extend into 2020 reflecting project complexities;
- lower than anticipated expenditures in 2019 for the Green Infrastructure Planning program reflecting a deferral of Combined Sewer Overflow studies to future years due to current resourcing constraints.

Renewable Energy

\$2.9 million below budget

Renewable Energy projects are managed by the Engineering Services department.

Capital expenditures in 2019 for Renewable Energy projects were \$2.9 million below budget primarily due to the deferral of various Neighborhood Energy Utility System extension projects to 2020 as a result of construction delays in building developments in the area.

Solid Waste

\$13.6 million below budget

Solid Waste projects are managed by the Engineering Services department.

Capital expenditures for Solid Waste projects in 2019 were \$13.6 million below budget, primarily due to:

- lower than anticipated expenditures in 2019 for the Vancouver Landfill Western 40 Hectare Closure project as a result of prioritizing related additional gas works in 2019 and deferring a small portion of the closure project to 2020;
- lower than anticipated expenditures in the year for the Vancouver Landfill Phase 4 Closure project, reflecting later than anticipated construction tendering completion, originally planned for 2019 but now extending into 2020;
- lower than anticipated expenditures in the year for the Landfill Gas Work program reflecting the deferral of some of the planned project work to 2020 based on the Landfill filling plan;
- lower than anticipated expenditures in the year for the project to reconstruct the entrance to the Vancouver Landfill, as some minor remaining construction work and scale installation will extend into 2020.

Technology

\$4.7 million below budget

Technology projects are primarily managed by the Technology Services department, with some fleet system related projects managed by the Engineering Services department.

Capital expenditures for Technology projects for 2019 were \$4.7 million below budget, primarily due to longer than originally estimated timelines for the planning phase for some of the Technology Services business projects that had been anticipated for 2019.

Overhead

\$12.2 million below budget

This service category includes the cost of City staff supporting the capital program, as well as 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 provisions of the 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. If an increase to the Citywide Annual Capital Expenditure Budget is required, the increase request is presented to Council for approval.

Capital expenditures for 2019 were \$12.2 million below budget, primarily reflecting the net effect of individual project expenditure budget adjustments during 2019 totaling \$12.1 million (changes to project expenditure budgets during the year to align with revised spend timing forecasts).

B. TOP 10 CAPITAL PROGRAMS/PROJECTS: 2019 Anticipated vs. Actual Outcomes

Table 3 below summarizes outcomes related to the top ten projects by expenditure budget in the overall 2019 Annual Capital Expenditure Budget. As indicated in the table, outcomes for six of the ten projects were less than what had been anticipated during development of the 2019 Budget, 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 that had been planned but not incurred for these projects in 2019 were carried forward into corresponding 2020 capital project expenditure budgets.

Outcomes for expenditures in 2019 for the following projects were less than originally anticipated for the year when the 2019 Annual Capital Expenditure Budget was developed:

- the actual outcome for the vehicles and equipment replacement program was less than anticipated due to equipment procurement resourcing constraints earlier in the year;
- only seven of the ten hectares planned to be closed as part of the Western 40 Hectares Closure project were closed in 2019, as a result of a revised contractor delivery schedule to accommodate some added scope, with the remaining three hectares to be closed in 2020;
- some land acquisitions that had been expected in 2019 for affordable housing development are now anticipated for 2020;
- two of the major projects in the Active Transportation program originally planned for 2019 have been deferred to 2020 to accommodate crew scheduling and to refine final details in project scope;
- some work that had been planned for 2019 for the Viaducts Removal/Northeast False Creek Redevelopment project has been deferred to 2020 as a result of longer than anticipated timelines required for rezoning enactments in the area;

 0.4 kilometres of water transmission main were replaced in 2019 for Trafalgar Street, however, water main replacements planned for Haro Street experienced delays in commissioning the pipe laid in 2019 reducing the kilometres delivered in the year. As well, implementation troubleshooting resulted in some planned 2019 work being postponed to 2020.

Table 3 - Outcomes for Top 10 Projects and Programs in 2019 based on budgeted expenditures (\$ millions) 2019						
Annual Expenditure Budget 2019 To		2019 Total Expenditures	Variance	Anticipated Outcomes for 2019 (based on original 2019 Expenditure Budget)	Actual Outcomes for 2019	
Vehicles and Equipment Replacement (Annual program)	\$18.3	\$16.0	\$2.3	Replacement of 150 to 180 end-of-life equipment and vehicles. Major replacement categories include snow-response ready tandem dump trucks, police motorcycles and patrol vehicles, sanitation container trucks, sewer cleaner trucks, landfill bulldozer, driving simulator and electric open body dump trucks.	2019 planned outcome was less than anticipated: Scope of program was reduced during the year reflecting equipment procurement resourcing constraints earlier in the year.	
Sewer Main Replacement (Annual program)	\$28.7	\$26.7	\$2.1	In 2019, a minimum of 3.7 kms of combined sewer separation (stormwater/sewage) is planned to be delivered, chosen through asset management tools and multi-branch coordinated projects: Nanaimo, St Catherines, Cartier, 10th Ave, Tatlow St. and Kitsilano Beach Park.	2019 planned outcome achieved: 4.1 kms was delivered by year-end. Main projects include St Catherines, Cartier (complete) and Nanaimo (in progress, to be completed Q1 2020).	
Landfill Closure	\$23.4	\$17.7	\$5.7	In 2019, complete the closure construction of Phase 3 North East, installation of 6 horizontal collectors in Phase 4 North and the leachate collector in Phase 4, as well as the completion of the final 10 (out of 35) hectares of Western 40 Hectares closure complete with gas collection system.	2019 planned outcome was less than anticipated: Phase 3 North East: Work is 95% complete. Phase 4: installation of horizontal collectors and leachate collectors complete (necessary to be in place before construction can start). Design work is materially complete with only construction supervision budget left. Construction tender expected by Q1 2020 with fieldwork finishing by 2021. Western 40: As of year end 2019, 7 of the planned 10 hectares were closed, reflecting a revised contractor delivery schedule to accommodate some added scope. The remaining 3 hectares will be closed in 2020. Since 2017, 29.4 hectares have been closed.	
Land Acquisition for Affordable Housing	\$12.6	\$0.0	\$12.6	Purchase of land to enable strategic partners (e.g., senior government, non-profit agencies) to deliver affordable housing units on city-owned land.	2019 planned outcome was less than anticipated: Some land acquisitions that had been expected in 2019 are now anticipated for 2020.	
Active Transportation Corridors & Spot Improvements	16.0	11.2	\$4.8	The Active Transportation Corridors and Spot Improvements Program includes funding to expand the walking, cycling and greenways networks and to improve existing facilities to further enhance safety and comfort. Upgrades to the network include improvements to achieve cycling routes for all ages and abilities (AAA). The 2019 program will be focused on building out the 5-year bike map, as well as construction of new and improved walking and cycling infrastructure including major improvements to the Quebec & 1st area, Nanaimo Street and areas along 10th Avenue.	2019 planned outcome was less than anticipated: Two major projects in the Active Transportation program originally planned for 2019 were deferred to 2020 to accommodate crew scheduling and to refine final details in project scope.	

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Table 3 - Outcomes for Top 10 Projects and Programs in 2019 based on budgeted expenditures (\$ millions)						
Program/Project	2019 Annual Expenditure Budget 2019 Total n/Project (FINAL) Expenditures Variance (based on original 2019 Expenditure Budge		Anticipated Outcomes for 2019 (based on original 2019 Expenditure Budget)	Actual Outcomes for 2019		
Viaducts Removal/Northeast False Creek Redevelopment	\$10.9	\$5.9	\$5.0	This project enables the development of the future Northeast False Creek neighbourhood, which has a 20-year implementation plan. In 2019, the budget will provide support for progressing infrastructure and park designs, coordinating the rezoning process, continuing negotiations with landowners and project partners, continuing important First Nations and community engagement, and preparing construction-phase related agreements for the viaducts replacement.	2019 planned outcome was less than anticipated: Some work that had been planned for 2019 was deferred to 2020 as a result of longer than anticipated timelines required for rezoning enactments. The delays in enactment timelines have as well delayed construction procurement which includes baseline monitoring for construction and project advisory services.	
Roddan Lodge Redevelopment and Evelyne Saller Centre	\$10.0	-\$0.3	\$10.3	Continue the construction phase with anticipated completion in 2021.	2019 planned outcome achieved: Excavation and bulk soil removal work is now finished and foundation work is also complete. 1st level slab has been cast and formwork for the 2nd level slab is underway. Anticipate building to be enclosed by July 2020.	
2019 Water Distribution Main Replacement	\$9.1	\$9.6	-\$0.6	For 2019, the goal is to replace approximately 6.7 km of the total distribution main system. Projects planned include Boundary Rd, 12th Ave, Prince Albert, 40th Ave, 55th Ave and 19th Ave.	2019 planned outcome achieved: 6.9 kms of water distribution mains delivered. Major projects included Slocan and Boundary. East 12th (Guelph to Fraser) also included as an emerging priority due to multiple main breaks.	
2019 Water Transmission Main Replacement	\$8.2	\$5.1	\$3.1	Transmission mains pipes are designed to move large quantities of water from the source of supply. The budget will support the replacement of 1.25 km of transmission main at the end of service life, on Haro Street and Trafalgar Street.	2019 planned outcome was less than anticipated: 0.4kms were delivered by year-end (Trafalgar St). Haro St project experienced delays in commissioning the 0.5km pipe laid in 2019. This along with implementation troubleshooting resulted in some planned 2019 work postponed to 2020.	
Granville Bridge Upgrade	\$8.1	\$6.8	\$1.4	The Granville Bridge Rehabilitation and Greenway Project is comprised of the following two separate Phases: 1) Structural Rehabilitation and Seismic Upgrades: Structural and seismic upgrades along the north main approach, the Seymour and Howe ramps, the steel span, and the south main approach, as well as bearing and expansion joint replacement. Work started on October 29, 2018 and will be substantially complete by March 2021. 2) Granville Activeway: The Greenway sub-project includes the planning and conceptual design of a bike lane and sidewalk down the middle/west side of the bridge. Planning and conceptual design will span until June 2019, at which point the project will be presented to Council for approval.	Granville Bridge structural rehabilitation and seismic upgrades are progressing on schedule and on budget. Rehab/repairs for the steel span, south approach and north ramps started in Q3 2019 and will continue until Q2 2021. North approach work is complete with exception of one expansion joint (at junction of steel span and north); rehab to be completed with work in progress. The Granville Connector is the second phase of the Granville Bridge project. Six design options were presented at the Public Consultation Open	
Total	138.8	93.3	45.5			

C. MULTI-YEAR CAPITAL PROJECT BUDGET

As of December 31, 2019, the active Multi-Year Capital Project Budgets for current open capital programs/projects totaled \$1.278 billion (not including new multi-year capital projects in the 2020 Capital Budget approved by Council on December 17, 2019).

D. 2019-2022 CAPITAL PLAN

The 2019-2022 Capital Plan approved by Council on July 25, 2018 included \$2.771 billion of capital investments over the four years of the plan, consisting of \$2.203 billion of City-led capital programs and \$0.569 billion of in-kind development contributions. Subsequently, Council approved changes to the 2019-2022 Capital Plan bringing the total to \$2.798 billion (not including additions to the 2019-2022 Capital Plan in the 2020 Capital Budget approved by Council on December 17, 2019).

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 progress,
- unforeseen site conditions encountered in construction phase of projects,
- resolution of factors external to the City, such as partnership funding commitments.

Opportunities to initiate or accelerate capital investments in the City's capital infrastructure may arise as the City actively pursues funding partnership and contributions from external partners, including senior levels of government (e.g., Build Canada Fund, Community Works Fund), private and community partners (e.g., BC Housing, developers).

CONCLUSION

The City incurred \$366.4 million in capital expenditures in 2019, representing 64% of the total 2019 Annual Capital Expenditure Budget of \$574.9 million. Outcomes for six of the top ten projects based on the 2019 Annual Capital Expenditure budget were less than planned compared with what had been anticipated during development of the 2019 Budget, 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. Expenditures that had been planned but not incurred for these projects for 2019 were carried forward into 2020 capital project expenditure budgets.
