# Canada Community-UBCM



CANADA COMMUNITY-BUILDING FUND

> 2023 Outcomes Report

Community pier – Town of Sidney

### Acknowledgements

The outcomes report for the period of January 1, 2017 and December 31, 2021 is made pursuant to the Canada Community-Building Fund Agreement between Canada, British Columbia and UBCM.



Glover Road Utilities & Cycling Improvements - City of Langley

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### **Executive Summary**

This 2023 Canada Community-Building Fund Outcomes Report provides detailed analysis of outputs and measurable outcomes of all completed CCBF projects for a five-year period between January 1, 2017 and December 31, 2021.

During this time period, the 188 local governments in British Columbia invested more CCBF funds and completed more projects than any prior reporting period since the program's inception in 2005. The results of these investments – which will be outlined in the following report – demonstrate the impact the CCBF program has had on the landscape of BC's diverse communities, while improving the local economy, the quality of the environment, and strengthening cities and communities.

From 2017-2021, the Canada Community-Building Fund contributed over \$1.7 billion towards 4,085 distinct local infrastructure projects, of which 2,635 were completed. Some of the results of these investments include:

- 320 kilometers of new and improved roadways;
- 129 kilometers of drinking water, wastewater and stormwater pipe installed;
- 30 new or upgrades tourism and cultural facilities;
- 47 new or upgrades sport and recreation facilities;
- Over 15,000 new spaces for public transit users;
- 62,800 m3 of treated water improved per day;
- 117.8 million liters / day of improved wastewater treatment;
- 246 kilometres of active transportation networks (sidewalks, bike lanes and multi-use paths);
- 23 boil water advisories eliminated;
- 39,550 water meters installed.

In the Metro Vancouver region, CCBF investments have primarily been utilized for public transit investments that have achieved lower GHG emissions and improved air quality in the region. TransLink have submitted an overview of the program benefits as part of this report, which include:

- 835 vehicle purchases;
- Reduction in CAC emissions of 64 tonnes/year;
- Reduction of GHG emissions by 9,844 tonnes C02e/year.

The 10-year Canada Community-Building Fund Agreement also enabled local governments to access critical funding to advance their asset management practices and build capacity to deliver core local services. The program included a commitment by local governments to measure their progress in strengthening asset management over the course of the Agreement. UBCM has released a CCBF Asset Management report in conjunction with this Outcomes Report confirming this achievement.

The content of this 2023 Outcomes Report builds on the analysis and reporting of program objectives for completed CCBF projects since the inception of the program in 2005 – through the 2009, 2012, and 2018 Outcomes Reports.

# **Program Background**

The Canada Community-Building Fund in BC will deliver over \$3.3 billion in federal funds between 2014-2024 for community infrastructure projects that directly benefit local governments across the province. The CCBF provides transparent, flexible, dedicated and predictable funding to local governments and other eligible recipients in BC through the delivery of three distinct funding programs – the Community Works Fund, the Strategic Priorities Fund, and the Greater Vancouver Regional Fund.

The CCBF in BC is administered by the Union of BC Municipalities through a tri-partied administrative agreement between UBCM, the Province of BC, and the Government of Canada.

#### **Eliaible Investments**

In BC, the CCBF funds can be applied to capital investments in the following categories:



# Program Background (continued)

Eligible expenditures include costs associated with acquiring, planning, designing, constructing or renovating a tangible capital asset in BC, primarily for public use or public benefit.

Within each of these categories, local governments and other eligible recipients may invest in a variety of projects that best meet community needs for now and into the future. The program also supports local planning initiatives – including long term infrastructure planning and asset management practices.

Foundational to the program is that each project funded with federal CCBF results in measurable benefits that meet the objectives of creating jobs and economic growth, a green environment, and building strong cities and communities across the province.



Pump Track – City of Chilliwack



### Program Streams

In British Columbia, the federal CCBF transfer is delivered through three distinct program streams: the Community Works Fund; the Strategic Priorities Fund, and the Greater Vancouver Regional Fund.



Program streams by percentage of allocation

#### **Community Works Fund**

The Community Works Fund (CWF) provides up-front annual funding to each local government in BC based on a per-capita allocation with a funding floor. Local governments make localized decisions on how to best prioritize their infrastructure investments and funds are not required to be utilized annually. Local governments report on all CCBF investment outputs annually and make up a majority of all CCBF projects in BC.

Between 2017 and 2021 UBCM transferred \$769.5 million in CWF to all local governments in BC, which has resulted in 2,220 completed projects.

#### **Strategic Priorities Fund**

The Strategic Priorities Fund (SPF) is an application-based grant available to local governments outside of the Metro Vancouver region that support projects that are large in scale, regional in impact, or innovative. SPF intakes in 2015 and 2017 resulted in the approval of 175 projects totaling over \$295 million in CCBF funding. A third SPF intake in 2022 further committed another \$100 million of CCBF funding which resulted 45 approved projects which will not be captured in this report.

#### **Greater Vancouver Regional Fund**

Over 50 percent of the annual federal CCBF transfer is pooled and delivered through the Greater Vancouver Regional Fund program. This program provides funding for projects proposed by TransLink and approved by Metro Board of Directors, that are identified as public transportation projects. Between 2017 and 2021, the GVRF program expended \$518.1 million on 23 complete projects, valued at over \$561 million in total project costs.

# Report Methodology

The CCBF Agreement outlines UBCM's requirement to provide Canada and British Columbia with an outcomes report by March 31, 2023, and make it publicly available. The report is intended to show in aggregate the degree to which investments through the Canada Community-Building Fund are supporting progress towards the achievement of beneficial impacts in communities, as well as the impact of the funding provided, including incremental spending and progress towards improving local government asset management. UBCM has produced three previous outcomes reports in 2009, 2012 and 2018.

#### 2009, 2012 and 2018 Outcomes Report

For previous Outcomes Reports, the CCBF Partnership Committee approved the mandatory and nonmandatory indicator measures for eligible project categories under the Agreement. These indicators offered flexibility in reporting by providing recipients the option to report on all possible outcomes. Three outcome reports were published using this method, the first in 2009 and again in 2012 and 2018. These outcomes reports resulted in the analysis of more than 1,100 sustainably focused CCBF projects, accounting for over \$1.4 billion in expenditures.

#### **Reporting Threshold**

For this report, UBCM analyzed data on any project reported as complete between January 1, 2017 and December 31, 2021 with over \$100,000 of CCBF funds invested. This threshold was first implemented in the 2012 Outcomes Report and has proven to be an effective strategy for several reasons. First, adhering to the threshold allows the report to collect data from large infrastructure investments which account for 95% of total CCBF investment in this period. Second, it lessens the administrative burden of reporting on local government staff.

For this report outputs and outcomes were determined using the *2023 CCBF Outcomes Reporting Guide* developed by Infrastructure Canada and agreed upon by the CCBF national working group.

The reporting guide provided direction to analyze five 'core' CCBF investment categories, Local Roads, Bridges, and Active Transportation, Wastewater, Drinking Water, Tourism Infrastructure, and Public Transit. UBCM also analyzed the recreation and sport investment categories as these have become popular in British Columbia in recent years.

In addition, UBCM analyzed projects meeting the reporting thresholds in the remaining categories using the documents created by various CCBF working groups.



Masich Place Stadium – City of Prince George



# Report Methodology (continued)



Frontier Street – Village of Pemberton

#### Data

This report provides outcomes and output data for 2,635 CCBF funded capital infrastructure and capacity building projects completed between January 1, 2017 and December 31, 2021. This outcomes report is the second to analyze the expanded eligible investment category list and the first report to include outcome indicators that were developed in collaboration with Infrastructure Canada and other provinces and territories. Outcomes data was collected from 96% of CCBF recipients in BC. UBCM analyzed projects completed in a calendar year, to align with the BC annual expenditure reporting cycle.

The most recent project data was collected from local governments through UBCM's online reporting system between 2016 and 2022. In this period, UBCM improved reporting standards to include outputs and outcomes in all project descriptions. Outcome and output data was primarily collected and analyzed from these descriptions. Using this method, UBCM was able to analyze 100% of projects that met the reporting threshold. Analysts determined a single primary outcome per project; however, recipients often identify several outcomes for a project. For example, project benefits in roads projects often include improved physical condition, increased capacity and enhanced safety.

The outputs and outcomes detailed in this report are based on data that was self-reported or collected by local governments and other recipients. In many cases, local governments provided data regarding project outputs but many did not provide tangible outcome metrics relating to the national program objectives. This was due, in part, to a lack of standard practice within local governments to measure increases and decreases, particularly in the category of roads and active transportation, as well as the tourism/recreation and sport infrastructure categories. As a result, the outcomes achieved by these projects may be greater than listed in the report.

Due to the high number of low-cost projects in the category, the analysis threshold for Community Energy Systems was lowered to \$20,000 in to cover 90% of project spending in the category.

# Summary of Reporting Period

The following information includes all projects completed during the reporting period, while the outputs and outcomes statistics located later in the report are generated from projects meeting UBCM's reporting threshold of investing greater than \$100,000 in CCBF funding on a project reported complete between 2017 and 2021.

Recipients reported expending over \$1.7 billion of CCBF funding on 4,085 individual projects at various stages of completion. Of those projects, 2,635 were reported as complete within the Outcomes Reporting period. Complete projects accounted for approximately \$1.1 billion of CCBF funds over this period.

# \$257.4M \$518.1M \$363.4M \$SPF

#### **CCBF Project Overview During Reporting Period**

#### CCBF Complete Projects by Category: 2017-2021

| Project Category                             | Reported<br>Complete | Complete<br>Project Cost<br>(millions) | Total CCBF<br>Contribution<br>(millions) |
|--|----------------------|--|--|
| Public Transit                               | 53                   | \$595.1                                | \$551.5                                  |
| Local Roads, Bridges & Active Transportation | 617                  | \$434.3                                | \$217.2                                  |
| Drinking Water                               | 247                  | \$100.4                                | \$66.9                                   |
| Wastewater                                   | 188                  | \$161.4                                | \$63.8                                   |
| Tourism Infrastructure                       | 51                   | \$15.5                                 | \$10.5                                   |
| Recreation and Sport                         | 725                  | \$262.3                                | \$136.6                                  |
| Capacity Building                            | 332                  | \$35.7                                 | \$28.4                                   |
| Other  | 63                   | \$66.5                                 | \$20.9                                   |
| Solid Waste                                  | 51                   | \$20.2                                 | \$18.1                                   |
| Community Energy Systems                     | 230                  | \$21.9                                 | \$14                                     |
| Cultural Infrastructure                      | 80                   | \$29.9                                 | \$10.6                                   |
| Total  | 2,635                | \$ 1,743.2                             | \$1,138.70                               |

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| Total projects reported complete       | 617             |
|--|-----------------|
| Total CCBF contribution                | \$217.2 million |
| Total project cost                     | \$434.3 million |
| Projects meeting analysis threshold    | 349             |
| CCBF Contribution of projects analyzed | \$206.1 million |



Drinking Water Excavation – City of Vancouver



Between 2017 and 2021, local roads, bridges and active transportation was the highest reported investment for project count and second only to public transit for spending.

The local roads category in British Columbia primarily achieves the national program objective of productivity and economic growth. Projects in this category were narrowed down to a single outcome; however, outputs may exceed project counts as projects often contain multiple outputs. A number of these projects resulted in additional safety outcomes such as improved lighting, crosswalks, signals and sidewalks.

Important Definitions:

- *Improved road infrastructure* defined as extended lifespan of road and is focused primarily on repaving existing road infrastructure.
- Increased road capacity defined by the widening of roads to accommodate more vehicles or the expansion of roads to include sidewalks and active transportation options, thus increasing the overall number of road users. For example, a project that installed a bike lane or multi-use path was considered an expansion of roadway and an increase in vehicles.

| Output Indicator and Metric                                      | Output | Outcome Indicator                 | # of projects<br>reporting<br>outcome |
|--|--------|-----------------------------------|---------------------------------------|
| Length of existing roads resurfaced/                             | 210    | Improved physical condition       | 145                                   |
| improved (km)  | 512    | Increase in # of vehicles per day | 45                                    |
| Length of new roads (km)   | 5.7    | Increase in # of vehicles per day | 2                                     |
| Longth of nous sidewalks (km)                                    | 40 E   | Improved physical condition       | 53                                    |
| Length of new sidewalks (km)                                     | 40.5   | Increase in # of users per day    | 19                                    |
| Length of existing sidewalks (km)                                | 27.1   | Improved physical condition       | 43                                    |
|  |        | Increase in # of users per day    | 35                                    |
| Length of new bridges or culverts                                | .7     | Improved physical condition       | 15                                    |
| (km)   |        | Increase in # of vehicles per day | 3                                     |
| Length of existing bridges or culverts refurbished/improved (km) | .619   | Increase in # of vehicles per day | 12                                    |
| Intersection improvements (#)                                    | 100    | Increase in # of vehicles per day | 41                                    |
| Multi-use path (km)  | 106    | Increase in # of users per day    | 40                                    |

Local Roads, Bridges and Active Transportation infrastructure projects also produced the following secondary outcomes:

| Output Indicator and Metric       | Output | Outcome Indicator  | # of projects<br>reporting<br>outcome |
|-----------------------------------|--------|--|---------------------------------------|
| Drinking water pipe installed (m) | 13,124 | Increased access to potable water  | 20                                    |
| Wastewater pipe installed (m)     | 7,558  | Increase in number of users<br>connected to a wastewater<br>treatment system | 19                                    |
| Stormwater pipe installed (m)     | 22,389 | Increase in volume of wastewater<br>treated (liters/day)                     | 40                                    |





### PROJECT PROFILE Fifth Street – Complete Street – City of Courtenay

The 5th Street Complete Street Pilot Project included a substantial overhaul of above-ground and below-ground infrastructure over half a kilometer of roadway. "Complete Streets" are an approach to designing, building, and retrofitting roads to ensure they are accessible to all modes of transportation and people of all ages and abilities. The project addressed multiple needs by replacing aging underground infrastructure, introducing innovative stormwater management through the installation of rain gardens, constructing a gateway to the downtown and providing a link between existing bike lands and a trail along a rail corridor.

# PROJECT PROFILE Gerry Sorensen Way Reconstruction – City of Kimberley



In 2017, the City of Kimberley used CCBF funding to reconstruct Gerry Sorensen Way, the major connector between the resort municipality's downtown core and the local ski areas. The project involved the excavation and construction of 4.5 kilometers of road, along with the removal and replacement of 500 meters of water main and 1,000 meters of sanitary sewer main. The project also made use of recycled asphalt as sub-base material where possible underneath the installation of new asphalt. This project will improve road conditions for an estimated 800,000 vehicle trips each year. The Canada Community-**Building Fund provided** 100% of the funding for

this project.

### PROJECT PROFILE Multi-Use Path Extension to Pacific Rim National Park – District of Tofino



Tofino's completed Multi-Use Path Extension to Pacific Rim National Park's ?apsciik †ašii (pronounced ups-cheek tashee) trail provides a safe, accessible and continuously paved route from Tofino to Pacific Rim National Park Reserve. The path provides a 2.8-kilometer extension to Tofino's popular existing 6 kilometer Multi-Use Path, linking the Tofino Visitor Centre to the northern boundary of Pacific Rim National Park Reserve where it connects to the soon to be completed ?apsciik †ašii destination trail, extending an additional 25 kilometers to the southern boundary of the Long Beach Unit of the Park Reserve.

The new trail provides increased access for residents and visitors to active mobility opportunities and contributes to municipal, provincial and federal low-carbon goals.



| Total projects reported complete       | 247             |
|--|-----------------|
| Total CCBF contribution                | \$66.9 million  |
| Total project cost                     | \$100.4 million |
| Projects meeting analysis threshold    | 96              |
| CCBF Contribution of projects analyzed | \$61.8 million  |



Drinking water continues to be a significant investment category for Canada Community-Building Fund recipients in BC. CCBF investments in drinking water infrastructure directly benefited over 231,000 British Columbians and improved over 110,000 drinking water connections.

UBCM added three (3) additional outputs metrics to help capture outputs for 100% of projects meeting the reporting threshold under the drinking water category. These are:

- Improved drinking water facilities, equipment, and pumping stations (#), including new, expanded or rehabilitated drinking water management facilities (#)
- Water Source Projects Reservoirs, Aquifers and Wells (#)

Drinking water infrastructure projects contribute to the national program objective of a cleaner environment and stronger communities while producing the following outcomes:

#### Distribution projects resulted in:

- 49.7 kilometers of new or improved drinking water transmission pipe
- 28,634 connections (new or improved)
- 130,028 residents served by distribution projects
- 39,550 water meters installed

#### Storage projects resulted in:

- 192,000 m3 of treated or raw stored water improved, expanded or upgraded
- 46,000 people served by storage projects

#### Treatment projects resulted in:

- 62,816 m3 of treated water improved per day
- 86,340 population benefiting
- 23 boil water reductions eliminated in 18 communities

| Output Indicator and Metric  | Output | Outcome Indicator                             | # of projects<br>reporting<br>outcome |
|--|--------|---|---------------------------------------|
|  |        | Increased access to potable water             | 10                                    |
| Drinking water pipe installed (m)  | 49,700 | Increased drinking water<br>treatment systems | 16                                    |
| Water meters installed (#)   | 39,550 | Improved drinking water<br>treatment systems  | 1                                     |
| New, upgraded or expanded drinking<br>water facilities, equipment, and<br>pumping stations (#) | 29     | Increased access to potable water             | 26                                    |
|  |        | Improved drinking water<br>treatment systems  | 13                                    |
| Water source projects reservoirs   |        | Increased access to potable water             | 14                                    |
| aquifers and wells (#)   | 30     | Improved drinking water<br>treatment systems  | 16                                    |

Drinking water infrastructure projects also produced the following secondary outcomes:

| Output Indicator and Metric  | Output | Outcome Indicator  | # of projects<br>reporting<br>outcome |
|--|--------|--|---------------------------------------|
| New, expanded or rehabilitated<br>wastewater management facilities (#) | 1      | Increase in volume of waste water<br>treated (liters/day)                    | 1                                     |
| Wastewater pipe installed (m)  | 269    | Increase in number of users<br>connected to a wastewater<br>treatment system | 1                                     |
| Local road constructed (km)  | .255   | Improved physical condition  | 1                                     |



Sooke Lake Reservoir – Capital Regional District

# PROJECT PROFILE Sustainable Drinking Water: Revitalization Works – Village of Lumby

The Village of Lumby is replacing aging and undersized infrastructure to support the recruitment of new industries to the community.

The Village of Lumby is replacing aging and undersized infrastructure to support the recruitment of new industries to the community.

The current phase of this project will replace nearly two kilometers of water main; wellhead protection improvements; sensor and communication upgrades; and a backup generator for the lower reservoir. The completed project provides increased fire flows, right sized water lines and has strengthened the overall integrity of the water system. mobility opportunities and contributes to municipal, provincial and federal lowcarbon goals.





# PROJECT PROFILE Trepanier Creek Interconnect – District of Peachland

The District of Peachland is using Canada Community-Building funding to connect two separate water systems in the region, a key step in the community's Water Master Plan.

The project saw the construction of approximately 2.2km of watermain, the installation of three pressure reducing stations, and a Creek crossing to connect the Peachland Creek and Trepanier water systems. The completed project allowed for the decommissioning of the Trepanier Creek intake and chlorination facility.



### PROJECT PROFILE Water Supply Upgrade – District of 100 Mile House

100 Mile House has developed a reliable and environmentally sustainable potable water system that will support economic growth in the community. The project complies with the B.C. Ministry of Health regulations and includes new wells, a treatment plant, a reservoir, and a bulk water system. The project ensures that the District is able to provide adequate fire flows to the community's industrial sector. The bulk water dispenser system also provides safe potable water for households and the surrounding residents of the Cariboo Regional District.



| Total projects reported complete       | 188             |
|--|-----------------|
| Total CCBF contribution                | \$63.8 million  |
| Total project cost                     | \$161.4 million |
| Projects meeting analysis threshold    | 70              |
| CCBF contribution of projects analyzed | \$59.1 million  |



Disinfection facility – City of Fort St. John

Throughout the reporting period, recipients used federal Canada Community-Building Funds to improve wastewater transmission mains, collection pipes, treatment and pumping facilities, and storage infrastructure.

Wastewater and stormwater infrastructure projects contribute to the program objective of a cleaner environment while producing the following outcomes:

| Col<br>• | ection projects resulted in:<br>582,531 residents served by wastewater and storm<br>collection projects | <ul> <li>Treatment projects resulted in:</li> <li>27 new, upgraded or expanded wastewater treatment facilities</li> </ul>                       |
|----------|---|---|
| •        | 776 new connections<br>22 kilometers of new or improved wastewater<br>collection pipe                   | <ul> <li>7,200 hundred tons of biosolids produced each year</li> <li>117.8 million liters / day of improved wastewater<br/>treatment</li> </ul> |

| Output Indicator and Metric                                     | Output | Outcome Indicator  | # of projects<br>reporting<br>outcome |
|---|--------|--|---------------------------------------|
| Wastewater pipe installed (m)                                   | 22,227 | Increase in number of users<br>connected to a wastewater<br>treatment system | 5                                     |
|   |        | Increase in volume of wastewater<br>treated (liters/day                      | 9                                     |
| New, upgraded or expanded wastewater facilities, equipment, and | 27     | Increase in number of users<br>connected to a wastewater<br>treatment system | 10                                    |
| pumping stations (#)  |        | Increase in volume of wastewater<br>treated (liters/day)                     | 16                                    |
| Stormwater pipe installed (m)                                   | 13,422 | Increase in number of users<br>connected to a wastewater<br>treatment system | 1                                     |
|   |        | Increase in volume of wastewater<br>treated (liters/day)                     | 11                                    |
| Culvert installed (m)   | 96     | Increase in volume of stormwater<br>treated (liters/day)                     | 5                                     |
| Stormwater Management Resource<br>Projects (#)                  | 8      | Increase in volume of stormwater<br>treated (liters/day)                     | 8                                     |

Wastewater and stormwater infrastructure projects also produced the following secondary outcomes:

| Output Indicator and Metric | Output | Outcome Indicator           | # of projects<br>reporting<br>outcome |
|-----------------------------|--------|-----------------------------|---------------------------------------|
| Local roads (km)            | 2      | Improved physical condition | 5                                     |



# PROJECT PROFILE Ultraviolet (UV) Disinfection of Sewage Effluent – District of Squamish

The District of Squamish upgraded its sewage treatment facility to use new UV light technology to disinfect effluent prior to discharge to the aquatic environment. The project included the construction of a treatment facility, installation of a UV disinfection system and equipment; piping; instrumentation, a SCADA system and controls; and an HVAC system.

The UV sewage disinfection project significantly improves the water quality of the effluent entering the Squamish River to levels that exceed provincial standards.





# PROJECT PROFILE Wastewater Treatment Plant Aeration System Renewal – Northern Rockies Regional Municipality

Northern Rockies Regional Municipality has used CCBF funding to upgrade the aeration system at its wastewater treatment plant. The project brings the plant into compliance with Environment Canada effluent regulations and will include a number of features that will increase its efficiency. The upgrades to facility included new blower units and construction of a blower pad, new air header and lateral piping, lagoon diffuser replacements, electrical modifications, and desludging of aeration cells.





# PROJECT PROFILE Wastewater Treatment Plant Aeration System Renewal – Village of Kaslo

Extension of sanitary sewer service is a priority in the Village of Kaslo where nearly 70% of local residences depend upon onsite sewerage systems that pose a risk to public health and the environment. The recently approved Liquid Waste Management Plan made expansion to residents closest to Kootenay Lake a priority since many of these homes have been built within a floodplain. The project, funded by the Canada Community-Building Fund, will extend service to 60 additional properties, including the community's only licensed daycare facility and a municipal campground. The project will allow the community to densify since larger lots will no longer be required.

# Public Transit

| Total projects reported complete       | 53              |
|--|-----------------|
| Total CCBF contribution                | \$551.5 million |
| Total project cost                     | \$595.1 million |
| Projects meeting analysis threshold    | 32              |
| CCBF contribution of projects analyzed | \$550.7 million |



TransLink Bus



# Public Transit

This section combines data from TransLink and the Greater Vancouver Regional Fund program as well as projects from the Community Works Fund and Strategic Priorities Fund programs. The GVRF program accounts for 99% of this section's outputs and outcomes. A thorough report on the outcomes achieved by TransLink as a result of CCBF funded projects is found later in this report.

Public infrastructure projects contribute to the program objective of a cleaner environment and productivity & economic growth while producing the following outcomes:

| Output Indicator and Metric  | Output | Outcome Indicator   | # of projects<br>reporting<br>outcome |
|--|--------|---|---------------------------------------|
| Number of public transit vehicles<br>acquired (#)                  | 025    | Improved public transit system<br>capacity (increase in number of<br>seats)           | 3                                     |
|  | 622    | Improved public transit reliability<br>(decrease in average age of fleet in<br>years) | 15                                    |
| Number of new public transit infrastructure assets (#)             | 22     | Improved public transit reliability<br>(decrease in average age of fleet in<br>years) | 2                                     |
| Number of existing transit facilities that received investment (#) | 20     | Improved public transit reliability<br>(decrease in average age of fleet in<br>years) | б                                     |

Additional outcomes achieved by the public transit category include:

- Addition of over 15,000 new spaces for public transit users;
- Reduction in CAC emissions of 64 tonnes/year;
- Reduction of GHG emissions by 9,844 tonnes C02e/year.



40' hybrid bus- TransLink

# Tourism

| Total projects reported complete       | 51             |
|--|----------------|
| Total CCBF contribution                | \$10.5 million |
| Total project cost                     | \$15.4 million |
| Projects meeting analysis threshold    | 11             |
| CCBF contribution of projects analyzed | \$9.3 million  |



Village of Pemberton



# Tourism

Tourism infrastructure projects contribute to the program objective of a productivity & economic growth and stronger communities while producing the following outcomes:

| Output Indicator and Metric   | Output | Outcome Indicator                            | # of projects<br>reporting<br>outcome |
|---|--------|--|---------------------------------------|
| New tourism infrastructure assets constructed and/or acquired (#)   | 7      | Improved access to tourism<br>infrastructure | 5                                     |
| Existing tourism infrastructure assets that received investment (#) | 11     | Improved access to tourism<br>infrastructure | 11                                    |



**District of West Vancouver** 



### Tourism

### PROJECT PROFILE Sun Peaks Centre – Sun Peaks Mountain Resort Municipality

Sun Peaks Mountain Resort Municipality used CCBF funding to construct the Sun Peaks Centre. The new facility opened in August 2020, complimenting existing event and meeting space within the village hotels. The Centre's flexible meeting rooms can accommodate groups of up to 240 guests, while the covered outdoor arena can host events for over 1,700 guests from May to October. The Centre is conveniently located within a 5-minute walk to all village hotels, restaurants and shops. The project also saw the construction of a fitness facility, change rooms and spectator seating.



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| Total projects reported complete       | 725             |
|--|-----------------|
| Total CCBF contribution                | \$136.6 million |
| Total project cost                     | \$262.3 million |
| Projects meeting analysis threshold    | 188             |
| CCBF contribution of projects analyzed | \$119.9 million |



Masich Place Stadium - City of Prince George



Recreation and sport infrastructure have been combined into a single category for analysis as recipients in BC tend to view the categories as interchangeable. Recreation facilities can often be used for sport or recreation depending on intent of activity.

Recreation and sport infrastructure projects contribute to the program objective of stronger communities while producing the following outcomes:

| Output Indicator and Metric  | Output | Outcome Indicator   | # of projects<br>reporting<br>outcome |
|--|--------|---|---------------------------------------|
| New recreation and sport<br>infrastructure assets constructed,<br>upgraded and/or acquired (#) | 47     | Increase in facility availability<br>(hours/year)                                   | 5                                     |
|  |        | Increased number of residents<br>benefiting from recreation/sport<br>infrastructure | 39                                    |
|  |        | Energy enhancement project  | 8                                     |
| Fields and courts, tracks, outdoor<br>rinks, skateboard and bike parks                         | 30     | Increase in facility availability<br>(hours/year)                                   | 2                                     |
|  |        | Increased number of residents<br>benefiting from recreation/sport<br>infrastructure | 28                                    |
| Number of new or improved equipment at facilities (#)  | 33     | Increased number of residents<br>benefiting from recreation/sport<br>infrastructure | 8                                     |
|  |        | Energy enhancement project  | 25                                    |
| New fitness trails/bike paths (m)  | 64,879 | Increased number of residents<br>benefiting from recreation/sport<br>infrastructure | 22                                    |
| Existing public parks receiving investments (#)  | 55     | Increased number of residents<br>benefiting from recreation/sport<br>infrastructure | 50                                    |
| New parks (m2)   | 29,202 | Increased number of residents<br>benefiting from recreation/sport<br>infrastructure | 4                                     |



# PROJECT PROFILE Vanderhoof Aquatic Centre – District of Vanderhoof

During the reporting period, the District of Vanderhoof and Bulkley Nechako Regional District worked together to construct the 16,000 square foot Vanderhoof Aquatic Centre. The building, which is constructed to a LEED Gold standard equivalent, features a six-lane lap pool; leisure pool; a family hot pool; and sauna. The new aquatic center provides services to residents throughout the region and hosts over 30,000 visitors annually based on pre-pandemic figures. The Canada Community-Building Fund contributed over \$8 million toward the \$12.3 million total cost of this project













### PROJECT PROFILE Sam Ketcham Pool Replacement – Cariboo Regional District

Cariboo Regional District utilized Federal Canada Community-Building Funding to renew its aquatic center. The project resulted in the expansion its shallow water leisure pools from 50 to 345 square meters; the replacement of the main lap pool tank; construction of a multi-purpose fitness center; new change rooms; installation of upgraded mechanical and electrical systems; and the redesign and resurfacing of the parking lot.

The upgrades to equipment and mechanical systems from provide \$200,000 of operational systems annually and increase the energy efficiency of the facility.
#### **Recreation and Sport**

#### PROJECT PROFILE Masich Place Stadium Upgrades – City of Prince George

The Masich Place Stadium in Prince George was built to host the BC Summer Games in 1990. With many elements within the original design reaching the end of their life expectancy, the City used Canada Community-Building Funds to install a new synthetic turf field and resurfaced an 8-lane track surrounding the field. The new field will host university soccer, high school football and rugby games, and now meets playoff standards for western and national championship events. The turf field is anticipated to have a life expectancy equal to four natural grass field.



Masich Place Stadium - City of Prince George

| Total projects reported complete       | 230            |
|--|----------------|
| Total CCBF contribution                | \$14 million   |
| Total project cost                     | \$21.9 million |
| Projects meeting analysis threshold    | 100            |
| CCBF contribution of projects analyzed | \$12.6 million |



Saanich Peninsula heat recovery – Capital Regional District

Due to the high number of low-cost projects in the category, the analysis threshold for Community Energy Systems was lowered to \$20,000 in to cover 90% of project spending in the category.

Community Energy System infrastructure projects contribute to the program objective of a cleaner environment while producing the following outcomes:

| Output Indicator and Metric        | Output | Outcome Indicator                                    | # of projects<br>reporting<br>outcome |
|------------------------------------|--------|--|---------------------------------------|
| Number of existing buildings       | 105    | Decrease in energy usage (kWh/<br>year or Gj/year)   | 82                                    |
| retrofitted #                      | 105    | Increase in production of clean<br>energy (kWh/year) | 4                                     |
| Number of new green energy systems | 4      | Increase in production of clean<br>energy (kWh/year) | 4                                     |
| Streetlamp replacement             | 480    | Decrease in energy usage (kWh/<br>year or Gj/year)   | 12                                    |



Hydroelectric generating station – District of Lake Country



#### PROJECT PROFILE Solar Panel Farm Array – District of Hudson's Hope



The District of Hudson's Hope has used Canada Community-Building Funds to install 1,550 solar panels to power its facilities. The array generates 510 kilowatts of clean energy annually to service 22 local government buildings and facilities. Hudson's Hope won a 2018 Community Excellence Award in the service delivery category for creating BC's largest local government solar project and making Hudson's Hope the most-solarized community per capita in the province. The project has reduced electrical consumption for its solar supplied facilities by 60%.



#### PROJECT PROFILE Oak Bay Recreation Centre Energy Recovery Project – District of Oak Bay

The District of Oak Bay has utilized a "made in B.C." technology to install an energy recovery loop and heat exchanger in its arena. The new system captures heat from the cooling of the ice slab that was previously was vented outdoors and redistributes the heat the pool and tennis bubble at the facility. The energy captured in winter is sufficient to heat 30-40 homes. The new system is expected to reduce GHG emissions form the facility by over 180 tonnes per year, providing a 60% reduction in its GHG output.



### Solid Waste

| Total projects reported complete       | 51             |
|--|----------------|
| Total CCBF contribution                | \$18.1 million |
| Total project cost                     | \$20.2 million |
| Projects meeting analysis threshold    | 22             |
| CCBF contribution of projects analyzed | \$17.1 million |



Landfill expansion - City of Prince Rupert



### Solid Waste

Solid waste infrastructure projects contribute to the program objective of a cleaner environment while producing the following outcomes:

| Output Indicator and Metric   | Output | Outcome Indicator  | # of projects<br>reporting<br>outcome |
|---|--------|--|---------------------------------------|
| Number of upgrade/remediation/<br>reclamation/decommissioning<br>projects completed (#) | 3      | Improved solid waste systems<br>(decrease in non-compliance<br>incidents)                      | 3                                     |
| Number of new, expanded   | 14     | Improved solid waste systems<br>(decrease in non-compliance<br>incidents)                      | 1                                     |
| or rehabilitated solid waste<br>management facilities (#)                               |        | Increased access to solid waste<br>management increase in landfill<br>capacity (metric tonnes) | 13                                    |
| Rolling stock and bins  | б      | Increased access to solid waste<br>management increase in landfill<br>capacity (metric tonnes) | 6                                     |



Solid waste disposal vehicle - Village of Ashcroft



#### Solid Waste

#### PROJECT PROFILE Thorsen Creek Recycle Depot and Transfer Station – Central Coast Regional District



The new Thorsen Creek Recycle Depot and Transfer Station offers a convenient 'one-stop' waste and recycling option for residents in the Bella Coola Valley.

The new facility prioritizes recycling options by providing a series of drop-off areas for recyclable materials before customers are able to access garbage drop-off bins. The facility features a staffed 3200 square foot heated building that houses the Recycle BC packaging program and numerous Product Care programs that are able to recycle everything from small appliances to household hazardous waste.

The new facility is anticipated to extend the life of the CCRD's existing landfill and has resulted in a new service arrangement with the Nuxalk Nation.



### Cultural Infrastructure

T



| Total projects reported complete       | 80             |
|--|----------------|
| Total CCBF contribution                | \$10.6 million |
| Total project cost                     | \$29.9 million |
| Projects meeting analysis threshold    | 24             |
| CCBF contribution of projects analyzed | \$9.2 million  |

| Output Indicator and Metric                       | Output | Outcome Indicator   | # of projects<br>reporting<br>outcome |
|---|--------|---|---------------------------------------|
| Number of new or upgraded cultural facilities (#) | 24     | Percent increase in cultural<br>events held per year as a result of<br>investment | 5                                     |
|   |        | Increase in number of users   | 19                                    |



Public library – City of Rossland



#### **Cultural Infrastructure**

### PROJECT PROFILE Columbia Valley Community Facility – District of Invermere

The District of Invermere replaced its previous 4,000 square foot community center with a 17,000 square foot multiuse facility. The new facility incorporates a 7,000 square foot main room capable of banquet seating for 500 people. The center also includes a commercial kitchen, a large lobby/meeting space, a new library, and a spectacular roof top patio with panoramic views of the surrounding mountain ranges.



| N. V. V.                         | Disaster Mitigation            | 24             |
|----------------------------------|--------------------------------|----------------|
| (ດີດອີງອີງ                       | Regional and Local<br>Airports | 18             |
| Total projects reported complete | Broadband<br>Connectivity      | 15             |
| Total projects reported complete | Short-Line Rail                | 1              |
|                                  | Fire Halls and Stations        | 3              |
|                                  | Brownfield<br>Redevelopment    | 2              |
|                                  | Disaster Mitigation            | \$13.9 million |
|                                  | Regional and Local<br>Airports | \$5.2 million  |
| Total CCBF contribution          | Broadband<br>Connectivity      | \$1.3 million  |
|                                  | Short-Line Rail                | \$0.1 million  |
|                                  | Fire Halls and Stations        | \$0.2 million  |
|                                  | Brownfield<br>Redevelopment    | \$0.1 million  |
|                                  | Disaster Mitigation            | \$43.8 million |
| Total project cost               | Regional and Local<br>Airports | \$16.5 million |
|                                  | Broadband<br>Connectivity      | \$5.7 million  |
|                                  | Short-Line Rail                | \$0.2 million  |
|                                  | Fire Halls and Stations        | \$0.2 million  |
|                                  | Brownfield<br>Redevelopment    | \$0.1 million  |

#### PROJECT PROFILE Kicking Horse Dam – Town of Golden

Golden has built an innovative concrete floodwall designed to withstand both dike breaches and ice jamming. This critical climate change adaptation initiative will protect the community's core downtown infrastructure for years to come. In addition to protecting Golden from the risks of river flooding, the project has transformed the riverfront space, making it a place where residents, visitors and businesses will be able to enjoy a multi-use lane, gathering spaces, and dining and retail opportunities.







#### PROJECT PROFILE Regional Airport Terminal Building Modernization – Town of Smithers







PROJECT PROFILE Shuswap Airport Runway Upgrades – City of Salmon Arm



#### PROJECT PROFILE Slocan Valley Broadband Connectivity Project – East Kootenay Regional District

The Regional District of Central Kootenay is using CCBF funding to partner with Columbia Basin Trust and leverage provincial funding to extend a fibre optic backbone network into the Slocan Valley. The new network will serve as a high-speed launching platform for Internet Service Providers wishing to offer their services to residents or businesses in the area. The proposed network will connect to an existing regional network and will have points of presence in five communities. The project will use a variety of installation methods including underground, marine and aerial facilities.



### Capacity Building and Asset Management

Over the five-year period between 2017-2021, local governments in BC invested over \$28.4 million of CCBF funds towards long-term infrastructure planning, asset management planning, and integrated community sustainability planning activities. Expenditures under this non-capital stream relate to strengthening the ability of local governments to improve local and regional planning including capital investment plans, integrated community sustainability plans, life-cycle cost assessments and asset management plans.

| Capacity Building Stream                        | <b>Completed Projects</b> | Total CCBF Invested |
|---|---------------------------|---------------------|
| Asset Management                                | 124                       | \$10.4 million      |
| Long-term Infrastructure Plans                  | 113                       | \$7.8 million       |
| Integrated Community Sustainability<br>Planning | 95                        | \$10.2 million      |
| Total   | 332                       | \$28.4 million      |

#### Asset management:

As part of the terms of the CCBF Agreement, local governments in BC committed to improving asset management practices over the 10-year period between 2014-2024 and report on progress through the 2018 and 2023 Outcomes Reports. The CCBF Partnership Committee developed and approved the approach for measuring local government's progress in asset management practices.

The approach included a three-phase commitment by local governments:

**Phase 1:** CCBF Asset Management Baseline Survey. The survey was completed by all local governments in 2016 and established a baseline information on local government asset management practices and information management. UBCM released the report Status of Asset Management in British Columbia in 2017.

**Phase 2:** CCBF Asset Management Commitment. Following the survey in 2016 all local governments completed a second survey in 2018 in which recipients committed to making progress and improvements to their 2016 baseline results.

**Phase 3:** CCBF Asset Management – Measuring Progress. In 2021, a third and final survey was completed by each local government re-assessing their Asset Management practices and confirming progress. The report is released in conjunction with this 2023 Outcomes Report.

#### Incremental Spending

Under the CCBF Agreement, recipients of CCBF funding must demonstrate that overall capital spending has increased since the establishment of the fund. In BC, this is achieved by determining gross net capital spending of recipients over a five-year period and measuring this against a baseline of the five years preceding the CCBF program. UBCM measures net capital spending of local governments by using Changes in Net Financial Assets document released annually by the provincial Ministry of Municipal Affairs.

UBCM's methodology for reporting on Incremental Spending cumulates all local governments to compare to a baseline of \$2,482,961,340; and TransLink capital spending to a baseline of \$591,162,000.

CCBF recipients in BC have met their requirement to demonstrate incremental spending over the five-year period of 2017-2021.

|                                  | TransLink     | Local Governments |
|----------------------------------|---------------|-------------------|
| Own source capital spending 2017 | \$81,516,000  | \$854,294,695     |
| Own source capital spending 2018 | \$112,942,000 | \$1,043,441,388   |
| Own source capital spending 2019 | \$157,371,000 | \$586,955,280     |
| Own source capital spending 2020 | \$315,158,000 | \$839,880,290     |
| Own source capital spending 2021 | \$247,371,000 | \$1,049,500,180   |
| Total                            | \$914,358,000 | \$4,374,071,833   |
| Baseline                         | \$591,162,000 | \$2,482,961,340   |

#### Conclusion: Looking Ahead

This 2023 CCBF Outcomes Report illustrates the growing impact this program has had on BC local governments over the past five years. From increasing resident's access to clean drinking water – to reducing the carbon footprint of the provinces largest transportation network – the CCBF has resulted in an increased quality of life for British Columbians through sustainable infrastructure investments.

The current Canada Community-Building Fund – which has delivered over \$3.3 billion to BC – is set to conclude in March 2024, yet the outcomes of this major investment will continue to be realized for years to come. UBCM looks forward to the renewal of this program that will continue to deliver long-term, dedicated and predictable funding that directly benefit all local governments in BC.



Bridge over the Fraser River - City of Williams Lake



| Local Government        | Reported Complete | Total Spending |
|-------------------------|-------------------|----------------|
| 100 Mile House          | 1                 | \$5.8 million  |
| Abbotsford              | 29                | \$15. million  |
| Alberni-Clayoquot       | 6                 | \$1.4 million  |
| Alert Bay               | 3                 | \$.8 million   |
| Anmore                  | 1                 | \$.4 million   |
| Armstrong               | 4                 | \$1.3 million  |
| Ashcroft                | 2                 | \$.2 million   |
| Barriere                | 8                 | \$4.9 million  |
| BC Transit              | 2                 | \$4.4 million  |
| Belcarra                | 1                 | \$. million    |
| Bowen Island            | 4                 | \$.4 million   |
| Bulkley-Nechako         | 62                | \$3.9 million  |
| Burnaby                 | 8                 | \$3.1 million  |
| Burns Lake              | 5                 | \$.9 million   |
| Cache Creek             | 4                 | \$1.6 million  |
| Campbell River          | 20                | \$6.7 million  |
| Canal Flats             | 10                | \$.6 million   |
| Capital                 | 113               | \$19.2 million |
| Cariboo                 | 96                | \$10.9 million |
| Castlegar               | 9                 | \$1.7 million  |
| Central Coast           | 7                 | \$1.1 million  |
| Central Kootenay        | 78                | \$7.4 million  |
| Central Okanagan        | 32                | \$1.9 million  |
| Central Saanich         | 15                | \$3.4 million  |
| Chase                   | 2                 | \$.1 million   |
| Chetwynd                | 1                 | \$.2 million   |
| Chilliwack              | 15                | \$20.5 million |
| City of Langley         | 3                 | \$.4 million   |
| City of Nanaimo         | 8                 | \$2.2 million  |
| City of North Vancouver | 5                 | \$1.3 million  |
| City of Powell River    | 33                | \$5.3 million  |

| Local Government               | Reported Complete | Total Spending |
|--------------------------------|-------------------|----------------|
| Clearwater                     | 16                | \$1.3 million  |
| Clinton                        | 2                 | \$.3 million   |
| Coldstream                     | 10                | \$1.9 million  |
| Columbia Shuswap               | 80                | \$8.8 million  |
| Colwood                        | 17                | \$3.2 million  |
| Comox Valley Regional District | 17                | \$2.6 million  |
| Coquitlam                      | 26                | \$1.7 million  |
| Courtenay                      | 28                | \$10.4 million |
| Cowichan Valley                | 54                | \$10.9 million |
| Cranbrook                      | 25                | \$9.3 million  |
| Creston                        | 5                 | \$3.8 million  |
| Cumberland                     | 7                 | \$.8 million   |
| Daajing Giids                  | 12                | \$.5 million   |
| Dawson Creek                   | 3                 | \$1.5 million  |
| Delta                          | 3                 | \$1.1 million  |
| District of North Vancouver    | 11                | \$1.9 million  |
| Duncan                         | 19                | \$1.2 million  |
| East Kootenay                  | 21                | \$16.1 million |
| Elkford                        | 1                 | \$. million    |
| Enderby                        | 3                 | \$1.2 million  |
| Esquimalt                      | 27                | \$2.7 million  |
| Fernie                         | 7                 | \$1.1 million  |
| Fort St. James                 | 5                 | \$.4 million   |
| Fort St. John                  | 18                | \$11.2 million |
| Fraser Lake                    | 27                | \$.8 million   |
| Fraser Valley                  | 32                | \$3.6 million  |
| Fraser-Fort George             | 17                | \$1.7 million  |
| Fruitvale                      | 3                 | \$.2 million   |
| Gibsons                        | 12                | \$1.1 million  |
| Gold River                     | 10                | \$.4 million   |
| Golden                         | 8                 | \$7. million   |

| Local Government     | Reported Complete | Total Spending |
|----------------------|-------------------|----------------|
| Grand Forks          | 11                | \$1. million   |
| Granisle             | 19                | \$1.5 million  |
| Greenwood            | 6                 | \$2.1 million  |
| Harrison Hot Springs | 13                | \$.9 million   |
| Hazelton             | 2                 | \$.3 million   |
| Highlands            | 2                 | \$.1 million   |
| Норе                 | 5                 | \$1.6 million  |
| Houston              | 12                | \$1.2 million  |
| Hudson's Hope        | 4                 | \$1.7 million  |
| Invermere            | 3                 | \$2.2 million  |
| Kamloops             | 19                | \$13.8 million |
| Kaslo                | 10                | \$1.5 million  |
| Kelowna              | 24                | \$21.6 million |
| Keremeos             | 6                 | \$.5 million   |
| Kimberley            | 12                | \$6.2 million  |
| Kitimat              | 3                 | \$1.2 million  |
| Kitimat-Stikine      | 16                | \$14.6 million |
| Kootenay Boundary    | 46                | \$1.6 million  |
| Ladysmith            | 24                | \$4.3 million  |
| Lake Country         | 4                 | \$7.4 million  |
| Lake Cowichan        | 1                 | \$5. million   |
| Langford             | 10                | \$3.4 million  |
| Lantzville           | 4                 | \$1.2 million  |
| Lillooet             | 4                 | \$.2 million   |
| Logan Lake           | 5                 | \$.3 million   |
| Lumby                | 9                 | \$5.1 million  |
| Mackenzie            | 6                 | \$6.2 million  |
| Maple Ridge          | 2                 | \$.6 million   |
| Masset               | 6                 | \$.4 million   |
| McBride              | 11                | \$1.4 million  |
| Merritt              | 13                | \$3.9 million  |

| Local Government           | Reported Complete | Total Spending |
|----------------------------|-------------------|----------------|
| Metchosin                  | 6                 | \$1.2 million  |
| Metro Vancouver            | 3                 | \$.6 million   |
| Midway                     | 7                 | \$.2 million   |
| Mission                    | 5                 | \$3.6 million  |
| Montrose                   | 1                 | \$.2 million   |
| Mount Waddington           | 34                | \$1.2 million  |
| Nakusp                     | 6                 | \$.9 million   |
| Nelson                     | 8                 | \$1.9 million  |
| New Denver                 | 8                 | \$1. million   |
| New Hazelton               | 2                 | \$.8 million   |
| New Westminster            | 2                 | \$1.3 million  |
| North Coast                | 2                 | \$. million    |
| North Cowichan             | 20                | \$8.8 million  |
| North Okanagan             | 128               | \$5.9 million  |
| North Saanich              | 4                 | \$2.6 million  |
| Northern Rockies           | 3                 | \$3.8 million  |
| Oak Bay                    | 5                 | \$1. million   |
| Okanagan Basin Water Board | 3                 | \$1.2 million  |
| Okanagan-Similkameen       | 53                | \$4.9 million  |
| Oliver                     | 6                 | \$1.3 million  |
| Osoyoos                    | 5                 | \$3.5 million  |
| Parksville                 | 5                 | \$1.3 million  |
| Peace River                | 37                | \$3.6 million  |
| Peachland                  | 32                | \$7.7 million  |
| Pemberton                  | 6                 | \$6.1 million  |
| Penticton                  | 44                | \$9.8 million  |
| Pitt Meadows               | 4                 | \$.1 million   |
| Port Alberni               | 38                | \$3.5 million  |
| Port Alice                 | 2                 | \$. million    |
| Port Clements              | 4                 | \$.5 million   |
| Port Edward                | 4                 | \$.4 million   |

| Local Government             | <b>Reported Complete</b> | Total Spending |
|------------------------------|--------------------------|----------------|
| Port Hardy                   | 13                       | \$1.2 million  |
| Port Moody                   | 2                        | \$.6 million   |
| Prince George                | 62                       | \$14.5 million |
| Prince Rupert                | 13                       | \$3. million   |
| Princeton                    | 21                       | \$1. million   |
| qathet Regional District     | 30                       | \$2.6 million  |
| Qualicum Beach               | 2                        | \$.8 million   |
| Quesnel                      | 23                       | \$3.2 million  |
| Radium Hot Springs           | 2                        | \$.7 million   |
| Regional District of Nanaimo | 58                       | \$12.2 million |
| Revelstoke                   | 10                       | \$7.2 million  |
| Richmond                     | 6                        | \$2.3 million  |
| Rossland                     | 11                       | \$1.7 million  |
| Saanich                      | 12                       | \$11.5 million |
| Salmo                        | 18                       | \$.6 million   |
| Salmon Arm                   | 12                       | \$1.6 million  |
| Sayward                      | 5                        | \$3.5 million  |
| Sechelt                      | 17                       | \$1.3 million  |
| Sicamous                     | 4                        | \$1. million   |
| Sidney                       | 16                       | \$3.5 million  |
| Silverton                    | 6                        | \$.3 million   |
| Slocan                       | 6                        | \$.6 million   |
| Smithers                     | 19                       | \$5.7 million  |
| Sooke                        | 12                       | \$1.3 million  |
| Spallumcheen                 | 4                        | \$.1 million   |
| Sparwood                     | 5                        | \$1. million   |
| Squamish                     | 15                       | \$9.4 million  |
| Squamish-Lillooet            | 16                       | \$3.7 million  |
| Strathcona                   | 13                       | \$1.2 million  |
| Summerland                   | 6                        | \$1.9 million  |
| Sun Peaks                    | 6                        | \$6.2 million  |

| Local Government    | <b>Reported Complete</b> | Total Spending  |
|---------------------|--------------------------|-----------------|
| Sunshine Coast      | 3                        | \$.5 million    |
| Surrey              | 21                       | \$8. million    |
| Tahsis              | 3                        | \$4.2 million   |
| Taylor              | 15                       | \$.9 million    |
| Telkwa              | 9                        | \$4.1 million   |
| Terrace             | 7                        | \$6.6 million   |
| Thompson-Nicola     | 73                       | \$4.2 million   |
| Tofino              | 6                        | \$2.5 million   |
| Town of Comox       | 10                       | \$1.3 million   |
| Township of Langley | 2                        | \$.2 million    |
| Trail               | 1                        | \$1.2 million   |
| TransLink           | 19                       | \$518.1 million |
| Tumbler Ridge       | 9                        | \$.4 million    |
| Ucluelet            | 5                        | \$.6 million    |
| Valemount           | 4                        | \$.6 million    |
| Vanderhoof          | 2                        | \$6.4 million   |
| Vernon              | 25                       | \$9.2 million   |
| Victoria            | 1                        | \$16.5 million  |
| View Royal          | 21                       | \$1.5 million   |
| Warfield            | 8                        | \$.4 million    |
| Wells               | 2                        | \$.1 million    |
| West Kelowna        | 22                       | \$12.3 million  |
| West Vancouver      | 1                        | \$.1 million    |
| Whistler            | 2                        | \$.1 million    |
| White Rock          | 1                        | \$.4 million    |
| Williams Lake       | 6                        | \$2.8 million   |
| Zeballos            | 2                        | \$2.8 million   |

#### Appendix B:

### Greater Vancouver Regional Fund Outcomes Report

The following 2023 Greater Vancouver Regional Fund Outcomes Report has been submitted by TransLink in accordance to the reporting requirements under the Canada Community-Building Fund Agreement.

The report covers outputs and outcomes data for all GVRF projects completed within the five-year period of January 1, 2017 – December 31, 2021.





### Greater Vancouver Regional Fund Outcomes Report

### **Summary of Projects**

Between 2017 and 2021, TransLink has invested over \$518 million in CCBF funds for a range of transit projects designed to increase system capacity and/or replace older vehicles that were at end of life. Vehicles operating past their life expectancy result in higher emissions, greater fuel consumption and higher operating costs negatively impacting customer service and reliability. Newer vehicles generally reduce noise pollution, and reduce greenhouse gas (GHG) emissions and criteria air contaminants (CACs). These benefits contribute to improvements in the quality of life in the Lower Mainland of British Columbia. A summary of the project outcomes is provided below.

#### Summary of Projects 2017-2021

| Public Transit  |  |
|---|--|
| Completed Projects  | 23   |
| Total CCBF Funds (\$)*                                    | 518,128,475  |
| Total Project Costs (\$)**                                | 561,604,012  |
| Outcomes/Output   |  |
| Vehicle Purchase  | 835  |
| 40' Conventional Diesel Buses                             | 68   |
| 40' Conventional Diesel-Electric Hybrid Buses             | 104  |
| 40' Conventional Compressed Natural Gas Buses             | 153  |
| 40' Conventional Battery-Electric Bus                     | 4  |
| 42' Diesel Double-Decker Buses                            | 32   |
| 60' Conventional Diesel-Electric Hybrid Articulated Buses | 136  |
| Community Shuttles  | 145  |
| HandyDART Vehicles  | 193  |
| System Capacity Increase (number of spaces)               | 14,968   |
| GHG Emissions Reductions (tonnes of CO2e/year)            | -9,844   |
| Reduction in CAC Emissions (tonnes/year)                  | 62.87  |
| HC (tonnes/year)  | 2.58   |
| CO (tonnes/year)  | 1.99   |
| NOx (tonnes/year)   | 57.68  |
| PM (tonnes/year)  | 0.62   |
| Estimated Fuel Consumption (Litres/year) / (GJ/year)      | Diesel: 10,141,822 L<br>Gasoline: 4,138,014 L<br>Natural Gas: 306,266 GJ<br>Electricity: 277,700 kWh |
| Other Transit Projects                                    | 3  |
| Trolley Overhead Rectifier Replacement - Metrotown        | 1  |
| Surrey Transit Centre - CNG Facility Retrofit             | 1  |
| Equipment for Deferred Retirement Program                 | 1  |

\*Includes interest earned on fund received

\*\*Project Forecast Costs as at 31 December 2022



# FLEET PROJECT OUTCOMES 2015 Community Shuttle Vehicle Replacement

The project consisted of replacing 24 diesel community shuttles that reached the end of their economic life. The vehicles were replaced with 24 gasoline community shuttle vehicles.

The 24 community shuttles had reached the end of their economic life in 2015 based on a 7 year / 450,000 km life expectancy.

| Total CCBF Funds (\$)                          | \$3,695,163  |
|--|--|
| Total Project Costs (\$)                       | \$3,799,250  |
| System Capacity Increase                       | -  |
| GHG Emissions Reductions (tonnes of CO2e/year) | 0.11   |
| Reduction in CAC Emissions (tonnes/year)       | 0.04   |
| HC (tonnes/year)                               | 0.00   |
| CO (tonnes/year)                               | 0.00   |
| NOx (tonnes/year)                              | 0.04   |
| PM (tonnes/year)                               | 0.00   |
| Estimated Fuel Consumption (Litres/year)       | Gasoline: 419,060 L  |
| Additional Benefits                            | Avoidance of incremental maintenance and<br>operating costs, reduced vehicle breakdowns, reduce<br>vehicle downtime, improve accessibility and service<br>reliability, and lower emissions due to changing<br>vehicle standards. |



# FLEET PROJECT OUTCOMES 2015 HandyDART Vehicle Replacement

The project consisted of replacing 27 gasoline Microbuses (6 passenger), 22 gasoline Midibuses (12 passenger) and 6 Minibuses (20 passenger) that had reached the end of their economic life. The vehicles were replaced with 30 gasoline Microbuses and 25 gasoline Midibuses.

The 55 HandyDART vehicles had reached the end of their economic life in 2015 based on a 7 year / 250,000 km life expectancy.

| Total CCBF Funds (\$)                           | \$5,370,000  |
|---|--|
| Total Project Costs (\$)                        | \$6,846,215  |
| System Capacity Increase                        | -66  |
| GHG Emissions Reductions* (tonnes of CO2e/year) | 77.00  |
| Reduction in CAC Emissions* (tonnes/year)       | 0.13   |
| HC (tonnes/year)                                | 0.01   |
| CO (tonnes/year)                                | 0.10   |
| NOx (tonnes/year)                               | 0.02   |
| PM (tonnes/year)                                | 0.00   |
| Estimated Fuel Consumption (Litres/year)        | Gasoline: 340,792  |
| Additional Benefits                             | Avoiding increased maintenance and fuel costs,<br>and improving service reliability by replacing aging<br>vehicles. Reduced emissions due to improved<br>vehicle emission standards. |



# FLEET PROJECT OUTCOMES 2016 Community Shuttle Vehicles Replacement

The project consisted of replacing 20 diesel community shuttles that had reached the end of their economic life. The vehicles were replaced with 20 gasoline community shuttle vehicles.

The 20 community shuttles had reached the end of their economic life in 2019 based on a 7 year / 450,000 km life expectancy.

| Total CCBF Funds (\$)                           | \$3,075,257   |
|---|---|
| Total Project Costs (\$)                        | \$3,112,133   |
| System Capacity Increase                        | -   |
| GHG Emissions Reductions* (tonnes of CO2e/year) | 0.09  |
| Reduction in CAC Emissions* (tonnes/year)       | 0.03  |
| HC (tonnes/year)                                | 0.00  |
| CO (tonnes/year)                                | 0.00  |
| NOx (tonnes/year)                               | 0.03  |
| PM (tonnes/year)                                | 0.00  |
| Estimated Fuel Consumption (Litres/year)        | Gasoline: 349,216 L   |
| Additional Benefits                             | Service reliability improved and fewer maintenance related service cancelations |

# FLEET PROJECT OUTCOMES 2016 Conventional Bus Replacement

The project consisted of replacing 85 40' and 26 60' conventional diesel buses that reached the end of their economic life. The vehicles were replaced with 30 40' CNG buses, 45 40' diesel buses, 10 40' diesel-electric hybrid buses and 26 60' diesel-electric hybrid buses.

The 111 conventional buses had reached the end of their economic life in 2016 based on a 17 year / 1,000,000 km life expectancy.

| Total CCBF Funds (\$)                           | \$82,018,166   |
|---|--|
| Total Project Costs (\$)                        | \$90,193,269   |
| System Capacity Increase                        | -  |
| GHG Emissions Reductions* (tonnes of CO2e/year) | 372.11   |
| Reduction in CAC Emissions* (tonnes/year)       | 0.45   |
| HC (tonnes/year)                                | 0.01   |
| CO (tonnes/year)                                | 0.10   |
| NOx (tonnes/year)                               | 0.34   |
| PM (tonnes/year)                                | 0.00   |
| Estimated Fuel Consumption (Litres/year)        | Diesel: 2,402,439L<br>CNG: 60,052 GJ   |
| Additional Benefits                             | Avoidance of incremental maintenance and<br>operating costs, reduced vehicle breakdowns,<br>reduce vehicle downtime, improve accessibility<br>and service reliability, and lower emissions due to<br>evolving fuel and propulsion options. |

### Greater Vancouver Regional Fund Outcomes Report

# FLEET PROJECT OUTCOMES 2017 Community Shuttle Vehicle Replacement

The project consisted of replacing 20 gasoline community shuttles that reached the end of their economic life. The vehicles were replaced with 20 gasoline community shuttle vehicles, 5 of which are low-floor vehicles.

The 20 community shuttles had reached the end of their economic life in 2017 based on a 5 year / 330,000 km life expectancy.



Photo courtesy of TransLink

| Total CCBF Funds (\$)                           | \$3,383,609  |
|---|--|
| Total Project Costs (\$)                        | \$3,426,595  |
| System Capacity Increase                        | -  |
| GHG Emissions Reductions* (tonnes of CO2e/year) | 15.80  |
| Reduction in CAC Emissions* (tonnes/year)       | 0.003  |
| HC (tonnes/year)                                | 0.00   |
| CO (tonnes/year)                                | 0.00   |
| NOx (tonnes/year)                               | 0.003  |
| PM (tonnes/year)                                | 0.00   |
| Estimated Fuel Consumption (Litres/year)        | Gasoline: 349,216 L  |
| Additional Benefits                             | Avoidance of incremental maintenance and<br>operating costs, reduced vehicle breakdowns,<br>reduce vehicle downtime, improve accessibility<br>and service reliability, and lower emissions due to<br>changing vehicle standards. |



# FLEET PROJECT OUTCOMES 2017 Community Shuttle Vehicle Replacement

The project consisted of replacing 20 gasoline community shuttles that reached the end of their economic life. The vehicles were replaced with 20 gasoline community shuttle vehicles, 5 of which are low-floor vehicles.

The 20 community shuttles had reached the end of their economic life in 2017 based on a 5 year / 330,000 km life expectancy.

| Total CCBF Funds (\$)                           | \$3,383,609  |
|---|--|
| Total Project Costs (\$)                        | \$3,426,595  |
| System Capacity Increase                        | -  |
| GHG Emissions Reductions* (tonnes of CO2e/year) | 15.80  |
| Reduction in CAC Emissions* (tonnes/year)       | 0.003  |
| HC (tonnes/year)                                | 0.00   |
| CO (tonnes/year)                                | 0.00   |
| NOx (tonnes/year)                               | 0.003  |
| PM (tonnes/year)                                | 0.00   |
| Estimated Fuel Consumption (Litres/year)        | Gasoline: 349,216 L  |
| Additional Benefits                             | Avoidance of incremental maintenance and<br>operating costs, reduced vehicle breakdowns,<br>reduce vehicle downtime, improve accessibility<br>and service reliability, and lower emissions due to<br>changing vehicle standards. |



# FLEET PROJECT OUTCOMES 2017 Conventional Bus Replacement

The project consisted of replacing 54 40' diesel buses and 52 60' diesel buses that reached the end of their economic life. The vehicles were replaced with 54 40' CNG buses and 52 60' diesel-electric hybrid buses.

The 106 conventional buses had reached the end of their economic life in 2017 based on a 17 year / 1,000,000 km life expectancy.

| Total CCBF Funds (\$)                           | \$105,985,000  |
|---|--|
| Total Project Costs (\$)                        | \$110,565,242  |
| System Capacity Increase                        | -  |
| GHG Emissions Reductions* (tonnes of CO2e/year) | 1788.22  |
| Reduction in CAC Emissions* (tonnes/year)       | 68.02  |
| HC (tonnes/year)                                | 2.86   |
| CO (tonnes/year)                                | 7.17   |
| NOx (tonnes/year)                               | 57.27  |
| PM (tonnes/year)                                | 0.72   |
| Estimated Fuel Consumption (Litres/year)        | Diesel: 1,630,370<br>CNG: 108,094 GJ   |
| Additional Benefits                             | 5-10 decibels reduction in noise emissions.<br>Maintain existing service, reduce downtime, avoid<br>incremental operating and maintenance costs. |



# FLEET PROJECT OUTCOMES 2017 HandyDART Vehicle Replacement

The project consisted of replacing 18 gasoline Microbuses (6 passenger), 10 gasoline Midibuses (12 passenger) and 7 Minibuses (20 passenger) 35 vehicles that reached the end of their economic life. The vehicles were replaced with 27 gasoline Microbuses and 8 gasoline Midibuses.

The 35 HandyDART vehicles had reached the end of their economic life in 2017 based on a 7 year / 250,000 km life expectancy.

| Total CCBF Funds (\$)                           | \$4,207,656  |
|---|--|
| Total Project Costs (\$)                        | \$4,309,932  |
| System Capacity Increase                        | -110   |
| GHG Emissions Reductions* (tonnes of CO2e/year) | 24.53  |
| Reduction in CAC Emissions* (tonnes/year)       | 0.01   |
| HC (tonnes/year)                                | 0.00   |
| CO (tonnes/year)                                | 0.00   |
| NOx (tonnes/year)                               | 0.01   |
| PM (tonnes/year)                                | 0.00   |
| Estimated Fuel Consumption (Litres/year)        | Gasoline: 216,868 L  |
| Additional Benefits                             | Maintain existing service, reduce downtime, avoid incremental operating and maintenance costs. |

# FLEET PROJECT OUTCOMES 2018 Conventional 40' Bus Expansion

This project consisted of adding 94 40' diesel-electric hybrid buses to TransLink's conventional bus fleet.

| Total CCBF Funds (\$)                           | \$85,584,000   |
|---|--|
| Total Project Costs (\$)                        | \$91,549,982   |
| System Capacity Increase                        | 6,768  |
| GHG Emissions Reductions* (tonnes of CO2e/year) | -5,749.70  |
| Reduction in CAC Emissions* (tonnes/year)       | -1.38  |
| HC (tonnes/year)                                | -0.11  |
| CO (tonnes/year)                                | -1.05  |
| NOx (tonnes/year)                               | -0.22  |
| PM (tonnes/year)                                | 0.00   |
| Estimated Fuel Consumption (Litres/year)        | Diesel: 2,186,200  |
| Additional Benefits                             | Increase ridership on routes that have been<br>identified for service improvements in the<br>Investment Plan |



# FLEET PROJECT OUTCOMES 2018 HandyDART Vehicle Replacement

The project consisted of replacing 22 gasoline Microbuses (6 passenger) and 18 gasoline Midibuses (12 passenger) that reached the end of their economic life. The vehicles were replaced with 30 gasoline Microbuses and 10 gasoline Midibuses.

The 40 HandyDART vehicles had reached the end of their economic life in 2018 based on a 7 year / 250,000 km life expectancy.

| Total CCBF Funds (\$)                           | \$5,047,978  |
|---|--|
| Total Project Costs (\$)                        | \$5,124,449  |
| System Capacity Increase                        | -48  |
| GHG Emissions Reductions* (tonnes of CO2e/year) | 11.21  |
| Reduction in CAC Emissions* (tonnes/year)       | 0.02   |
| HC (tonnes/year)                                | 0.00   |
| CO (tonnes/year)                                | 0.00   |
| NOx (tonnes/year)                               | 0.02   |
| PM (tonnes/year)                                | 0.00   |
| Estimated Fuel Consumption (Litres/year)        | Gasoline: 247,849  |
| Additional Benefits                             | Maintain existing service, reduce downtime, avoid incremental operating and maintenance costs. |
### FLEET PROJECT OUTCOMES 2018 Community Shuttle Vehicle Replacement

The project consisted of replacing 20 gasoline community shuttles that reached the end of their economic life. The vehicles were replaced with 20 gasoline community shuttles, 9 of which are low-floor vehicles.

The 20 community shuttles had reached the end of their economic life in 2018 based on a 5 year / 330,000 km life expectancy.



Photo courtesy of TransLink

| Total CCBF Funds (\$)                           | \$3,658,678  |
|---|--|
| Total Project Costs (\$)                        | \$3,721,705  |
| System Capacity Increase                        | -  |
| GHG Emissions Reductions* (tonnes of CO2e/year) | 30.60  |
| Reduction in CAC Emissions* (tonnes/year)       | 0.0032   |
| HC (tonnes/year)                                | 0.00   |
| CO (tonnes/year)                                | 0.00   |
| NOx (tonnes/year)                               | 0.0032   |
| PM (tonnes/year)                                | 0.00   |
| Estimated Fuel Consumption (Litres/year)        | Gasoline: 450,531  |
| Additional Benefits                             | Avoidance of incremental maintenance and<br>operating costs, reduced vehicle breakdowns,<br>reduce vehicle downtime, improve accessibility<br>and service reliability, and lower emissions due to<br>changing vehicle standards. |



## FLEET PROJECT OUTCOMES 2018 Conventional Bus Replacement

The project consisted of replacing 92 40' diesel buses that reached the end of their economic life. The vehicles were replaced with 23 40' diesel buses and 69 40' CNG buses.

The 92 conventional buses had reached the end of their economic life in 2018 based on a 17 year / 1,000,000 km life expectancy.

| Total CCBF Funds (\$)                           | \$61,925,000  |
|---|---|
| Total Project Costs (\$)                        | \$65,045,613  |
| System Capacity Increase                        | -   |
| GHG Emissions Reductions* (tonnes of CO2e/year) | 146.00  |
| Reduction in CAC Emissions* (tonnes/year)       | 0.27  |
| HC (tonnes/year)                                | 0.00  |
| CO (tonnes/year)                                | 0.00  |
| NOx (tonnes/year)                               | 0.27  |
| PM (tonnes/year)                                | 0.00  |
| Estimated Fuel Consumption (Litres/year)        | Diesel: 692,392<br>CNG: 138,120 GJ  |
| Additional Benefits                             | Reduced emissions with newest engine technology.<br>Fewer service cancellations, reduced vehicle interior<br>and exterior noise and smoother vehicle operation. |



# FLEET PROJECT OUTCOMES 2018 HandyDART Vehicle Expansion

The project consisted of adding 13 gasoline Midibuses to TransLink's HandyDART vehicle fleet.

| Total CCBF Funds (\$)                           | \$1,777,792  |
|---|--|
| Total Project Costs (\$)                        | \$1,801,661  |
| System Capacity Increase                        | 156  |
| GHG Emissions Reductions* (tonnes of CO2e/year) | -182.23  |
| Reduction in CAC Emissions* (tonnes/year)       | -0.67  |
| HC (tonnes/year)                                | -0.02  |
| CO (tonnes/year)                                | -0.64  |
| NOx (tonnes/year)                               | -0.01  |
| PM (tonnes/year)                                | 0.00   |
| Estimated Fuel Consumption (Litres/year)        | Gasoline: 80,550   |
| Additional Benefits                             | Service reliability is maintained, service cancellation minimized. |



Photo courtesy of TransLink

## FLEET PROJECT OUTCOMES 2018 Community Shuttle Vehicle Expansion

The project consisted of adding 12 gasoline community shuttles to TransLink's community shuttle fleet.

| Total CCBF Funds (\$)                           | \$2,056,730  |
|---|--|
| Total Project Costs (\$)                        | \$2,100,838  |
| System Capacity Increase                        | 240  |
| GHG Emissions Reductions* (tonnes of CO2e/year) | -611.5   |
| Reduction in CAC Emissions* (tonnes/year)       | -2.32  |
| HC (tonnes/year)                                | -0.05  |
| CO (tonnes/year)                                | -2.15  |
| NOx (tonnes/year)                               | -0.02  |
| PM (tonnes/year)                                | -0.10  |
| Estimated Fuel Consumption (Litres/year)        | Gasoline: 270,319  |
| Additional Benefits                             | Increased service levels, reduce overcrowding,<br>increase capacity. Service reliability is maintained,<br>and service cancellation minimized. |

## FLEET PROJECT OUTCOMES 2018 Conventional 60' Bus Expansion

The project consisted of adding 11 60' diesel-electric hybrid buses to TransLink's conventional bus fleet.

| Total CCBF Funds (\$)                           | \$15,403,679   |
|---|--|
| Total Project Costs (\$)                        | \$15,590,000   |
| System Capacity Increase                        | 1,210  |
| GHG Emissions Reductions* (tonnes of CO2e/year) | -907.05  |
| Reduction in CAC Emissions* (tonnes/year)       | -0.22  |
| HC (tonnes/year)                                | -0.02  |
| CO (tonnes/year)                                | -0.17  |
| NOx (tonnes/year)                               | -0.03  |
| PM (tonnes/year)                                | -0.00  |
| Estimated Fuel Consumption (Litres/year)        | Diesel: 344,886  |
| Additional Benefits                             | Reduce overcrowding, increase service levels,<br>increased ridership, and lower interior/exterior noise<br>levels. |



Photo courtesy of TransLink



#### FLEET PROJECT OUTCOMES 2019 Conventional & Double-Decker Bus Expansion

The project consisted of adding 47 60' diesel-electric hybrid buses and 5 42' diesel double-decker low-floor buses to TransLink's conventional bus fleet.

| Total CCBF Funds (\$)                           | \$71,998,976  |
|---|---|
| Total Project Costs (\$)                        | \$73,963,360  |
| System Capacity Increase                        | 5,670   |
| GHG Emissions Reductions* (tonnes of CO2e/year) | -4,843.20   |
| Reduction in CAC Emissions* (tonnes/year)       | -1.15   |
| HC (tonnes/year)                                | -0.09   |
| CO (tonnes/year)                                | -0.88   |
| NOx (tonnes/year)                               | -0.18   |
| PM (tonnes/year)                                | 0.00  |
| Estimated Fuel Consumption (Litres/year)        | Diesel: 1,640,958   |
| Additional Benefits                             | Better passenger environment, reduced noise when<br>compared to diesel buses. Increase service levels<br>(e.g. added frequency, increase span of service) |



Photo courtesy of TransLink

# FLEET PROJECT OUTCOMES 2019 HandyDART Vehicle Expansion

The project consisted of adding 10 gasoline Midibuses to TransLink's HandyDART vehicle fleet.

| Total CCBF Funds (\$)                           | \$1,350,000  |
|---|--|
| Total Project Costs (\$)                        | \$1,419,092  |
| System Capacity Increase                        | 120  |
| GHG Emissions Reductions* (tonnes of CO2e/year) | -140.00  |
| Reduction in CAC Emissions* (tonnes/year)       | -0.50  |
| HC (tonnes/year)                                | -0.01  |
| CO (tonnes/year)                                | -0.49  |
| NOx (tonnes/year)                               | 0.00   |
| PM (tonnes/year)                                | 0.00   |
| Estimated Fuel Consumption (Litres/year)        | Gasoline: 61,962   |
| Additional Benefits                             | Service reliability is maintained, service cancellation minimized. |

# FLEET PROJECT OUTCOMES 2019 HandyDART Vehicle Replacement

The project consisted of replacing 40 gasoline Microbuses that reached the end of their economic life. The vehicles were replaced with 28 gasoline Microbuses (6 passenger) and 12 gasoline Midibuses (12 passenger).

The HandyDART vehicles had reached the end of their economic life in 2019 based on a 7 years / 250,000 km life expectancy.

| Total CCBF Funds (\$)                           | \$5,200,000   |
|---|---|
| Total Project Costs (\$)                        | \$5,372,119   |
| System Capacity Increase                        | 72  |
| GHG Emissions Reductions* (tonnes of CO2e/year) | 11.21   |
| Reduction in CAC Emissions* (tonnes/year)       | 0.01  |
| HC (tonnes/year)                                | 0.00  |
| CO (tonnes/year)                                | 0.00  |
| NOx (tonnes/year)                               | 0.01  |
| PM (tonnes/year)                                | 0.00  |
| Estimated Fuel Consumption (Litres/year)        | Gasoline: 247,849   |
| Additional Benefits                             | Reduced vehicle interior and exterior noise,<br>smoother vehicle operation. Reduced fuel<br>consumption with the new engine technology. |

# FLEET PROJECT OUTCOMES 2019 Community Shuttle Replacement

The project consisted of replacing 49 gasoline community shuttles that reached the end of their economic life. The vehicles were replaced with 49 gasoline low floor community shuttle vehicles.

The 49 community shuttles had reached the end of their economic life in 2019 based on a five year / 330,000 km life expectancy.

| Total CCBF Funds (\$)                           | \$10,028,249  |
|---|---|
| Total Project Costs (\$)                        | \$10,274,840  |
| System Capacity Increase                        | -   |
| GHG Emissions Reductions* (tonnes of CO2e/year) | 49.94   |
| Reduction in CAC Emissions* (tonnes/year)       | 0.00  |
| HC (tonnes/year)                                | 0.00  |
| CO (tonnes/year)                                | 0.00  |
| NOx (tonnes/year)                               | 0.00  |
| PM (tonnes/year)                                | 0.00  |
| Estimated Fuel Consumption (Litres/year)        | Gasoline: 1,103,802   |
| Additional Benefits                             | Maintain State of good repair, improved vehicle<br>access for ambulatory and mobility assisted<br>customers and fewer maintenance related service<br>cancellations. |

## FLEET PROJECT OUTCOMES 2019 Conventional Bus Replacement

The project consisted of replacing 27 40' diesel buses that reached the end of their economic life. The vehicles were replaced with 27 42' diesel low-floor double-decker buses.

The 27 conventional buses had reached the end of their economic life in 2019 based on a 17 year / 1,000,000 km life expectancy.

| Total CCBF Funds (\$)                           | \$30,000,000  |
|---|---|
| Total Project Costs (\$)                        | \$32,333,717  |
| System Capacity Increase                        | 756   |
| GHG Emissions Reductions* (tonnes of CO2e/year) | 65.46   |
| Reduction in CAC Emissions* (tonnes/year)       | 0.12  |
| HC (tonnes/year)                                | 0.00  |
| CO (tonnes/year)                                | 0.00  |
| NOx (tonnes/year)                               | 0.12  |
| PM (tonnes/year)                                | 0.00  |
| Estimated Fuel Consumption (Litres/year)        | Diesel: 1,244,577   |
| Additional Benefits                             | The new replacement bus offers 86% greater passenger capacity. Reduced vehicle interior and exterior noise, smoother vehicle operation. |

#### FLEET PROJECT OUTCOMES Electric Battery Bus Purchase – Pilot

TransLink has opted to participate in the Canadian Urban Transit Research and Innovation Consortium's (CUTRIC) electric bus trial. As part of the trial TransLink purchased 4 40' battery-electric buses and two (2) high speed on-route electric charging stations.



Photo courtesy of TransLink

| Total CCBF Funds (\$)                           | \$6,892,000  |
|---|--|
| Total Project Costs (\$)                        | \$9,529,923  |
| System Capacity Increase                        | 200  |
| GHG Emissions Reductions* (tonnes of CO2e/year) | -3.00  |
| Reduction in CAC Emissions* (tonnes/year)       | 0.00   |
| HC (tonnes/year)                                | 0.00   |
| CO (tonnes/year)                                | 0.00   |
| NOx (tonnes/year)                               | 0.00   |
| PM (tonnes/year)                                | 0.00   |
| Estimated Fuel Consumption (Litres/year)        | Electricity: 227,700 kWh   |
| Additional Benefits                             | Electric buses are quieter than comparable diesel or CNG buses and remove GHG emissions. |



### NON-FLEET PROJECT OUTCOMES Trolley Overhead Rectifier Replacement - Metrotown

Three modular rectifier stations make up the Trolley Overhead (TOH) Metrotown Group and were over 30 years old and approaching the end of their service lives. While regular maintenance was undertaken, their age meant some components were obsolete and failure could result in lengthy outages and delays to bus service. The primary objective of this project was to provide reliable 600VDC power to the TOH network around the Metrotown area by replacing these three modular rectifiers. The scope included:

- Procurement of design consultancy services, equipment supply and construction services;
- Design of rectifiers, civils bases and initial installation sequencing;
- Equipment supply and installation commissioning; and
- Construction of civil works, installation of rectifiers, and disposal of old assets.



Photo courtesy of TransLink



### NON-FLEET PROJECT OUTCOMES Surrey Transit Centre - CNG Facility Retrofit

In 2013, TransLink and Coast Mountain Bus Company adopted a "Compressed Natural Gas (CNG) Fleet and Facility Strategy", which recommended next orders of replacement forty-foot (40 ft) conventional buses will be equipped with CNG propulsion systems. The recommendation was based on a review of current CNG engine technology, fuel price trends, life cycle costing and infrastructure and service planning. Recent changes in transit bus propulsion technology and commodity fuel pricing have dramatically changed the competitiveness of CNG powered buses compared to diesel counterparts.

Surrey Transit Centre (STC) was originally built in 1993 and was not equipped to maintain and/or fuel CNG vehicles. A number of the buses operating out of STC were nearing the end of their useful lives and planned to be replaced by more eco-sustainable CNG buses. This project was to retrofit the existing STC facility for fueling, operating and maintaining CNG buses. The scope consisted of two main components:

- Renovations to Repair Garage and Fuel Building to maintain and operate CNG buses; and
- New CNG infrastructure in and adjacent to existing fueling building to fuel CNG buses



Photo courtesy of TransLink



## NON-FLEET PROJECT OUTCOMES Equipment for Deferred Retirement Program

In 2017-18 TransLink projected a requirement of 94 - 40' buses, 11 - 60' buses, 12 Community Shuttles and 13 HandyDART vehicles in order to meet its objectives for expansion of bus service as per Phase One of TransLink's 10-Year Vision. The delivery of these expansion vehicles was expected later in 2018 and therefore TransLink extended the service life of current vehicles that reached or were expected to reach the end of their useful lives to accommodate this service. In order to do that, it was necessary to acquire additional bus communication system (INIT), Compass smart media card (Cubic) and farebox equipment to be installed on these older buses in order for them to be compatible with the fare collection system as well as the required voice and data communications with TCom.

The scope of this project was to procure 99 complete Compass Smart Card fare collection systems and Init bus communication and CAD/AVL systems needed to support service expansion for Phase One of the 10-Year Vision. For those 2017 deferred retirement buses operating using INIT and Compass equipment from CMBC inventory, the arriving new bus communication and fare media equipment was used to restore inventories at CMBC to sustainable levels. Expansion service being implemented in 2018 had newly purchased INIT and Compass systems installed directly onto deferred retirement buses.

### **Overall TransLink Performance 2017-2021**

#### Ridership

From 2017 – 2019, transit system boardings grew from 408.2 million to 452.9 million, a 10.9% increase. Due to the COVID-19 global pandemic, system boardings were 218.8 million in 2020, and 223.5 million in 2021.

#### **Revenue Fleet Energy Consumption**

- From 2017 to 2019, revenue fleet energy consumption (GJ) increased 1%, and then dropped 12% in 2020 due to the COVID-19 pandemic. Consumption increased 3% from 2020 to 2021.
- From 2017 to 2021, 32% of the revenue fleet energy use was from renewable sources, with 80% from hydroelectricity and 20% from renewable natural gas.

#### **Revenue Fleet Greenhouse Gas (GHG) Emissions**

Revenue fleet GHG emissions reduced by 3,098 tonnes CO2e (9.6%) from 2017 to 2021.

#### Air Quality - Criteria Air Contaminants (CAC)

From 2017 to 2021, CAC emissions decreased by approximately 100 tonnes, resulting in a 25% reduction in CAC emissions during this period.



Photo courtesy of TransLink

