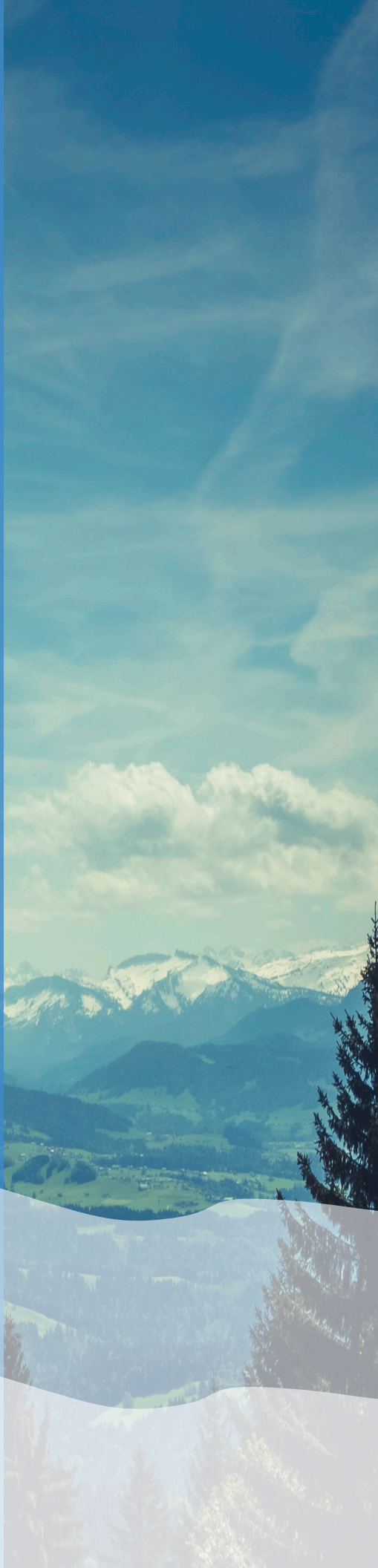
ABBOTSFORD

2021-2022 SUSTAINABILITY REPORT

August 2023



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QUICK FACT

Abbotsford is the fifth largest municipality in British Columbia, and the largest municipality by land mass.

INTRODUCTION

With a population of more than 150,000 diverse and vibrant residents, which is an increase of 8.6% between 2016 and 2021, the City of Abbotsford is realizing its vision as the Hub of the Fraser Valley with centralized services and agencies to support residents from across the valley. Council's 2022-2026 Strategic Plan identifies and will deliver on several initiatives that contribute to the City's sustainability. With a mission to continually improve the quality of life within the community by delivering key services for current and future generations, these four cornerstones support the City of Abbotsford's vision: Inclusive and Connected Community, Sustainable and Safe City, Vibrant and Growing Economy, and Organizational Excellence and Integrity.

The City signed the Climate Action Charter in 2007, a provincial commitment to act on climate change by fostering a compact, complete and energy efficient community. Since then, the City continues to demonstrate leadership through initiatives that make progress toward these objectives, which have taken on increasing importance after the flooding experienced during 2021. This fifth Sustainability Report, covering 2021 and 2022, highlights the City's climate action and environmental stewardship by presenting sustainability initiatives that the City has taken in six categories: Planning, Buildings & Lighting, Parks & Open Spaces, Solid Waste, Transportation, and Water & Wastewater.

QUICK FACT

The Mill Lake Park Master Plan is underway; the Park is at the heart of the City, covers close to 45 hectares and has been a key point of access to the natural environment for residents and visitors for almost 70 years.

PLANNING

Planning has significant community impact as it relates to meeting climate action targets. It lays the groundwork for greenhouse gas (GHG) emissions reductions through cyclical plans such as the Official Community Plan, various Master Plans, Neighbourhood Plans and Special Studies. Land use planning that focuses on Smart Growth principles (communities that are compact, complete, connected, and centred) plays an especially important role in energy and GHG emissions reductions. Through plan development and implementation, the City is able to meet Strategic Plan goals related to sustainability and community resilience.

2021-2022 Highlights

- Continued to support Smart Growth principles within the Urban Development Boundary — this includes support for rezoning for smaller lots and infill development, secondary suites, garden suites and coach houses, where permitted.
- Completed the AgRefresh plan which supports, promotes and protects agriculture within the City.
- Completed Strategic Zoning Bylaw update, which now includes beekeeping in urban areas, EV charging infrastructure requirements and reduced parking minimums.
- Updated the Development Bylaw to address key items such as walkability and active transportation, trails, landscaping and street trees.
- Advanced the Mill Lake Master Plan, based on guiding principles of Environment & Landscape, Amenities, Safety & Accessibility and Culture, is solidifying the vision around enhancements to the usability of this key greenspace in the City.
- Progressed the strategy for Long-term Flood Mitigation on Sumas Prairie with key infrastructure improvements to minimize impacts of flooding for properties in the area while maximizing agricultural use.
- Initiated updates to the Community Amenity and Density Bonus policy, supporting the City in its focus on Smart Growth principles, creating complete and compact communities.
- Continued progress on McKee Neighbourhood Plan (MNP) which will develop a vision for a new complete community residential mountainside neighbourhood connected with trails, parks and open spaces.
- Developed Housing Needs Report to be used in conjunction with the Affordable Housing Strategy to ensure appropriate housing types for all stages of life.
- Finalized Montrose Avenue Transit Exchange Design to improve service efficiency and ridership.

QUICK FACT

Capital investment for replacement and renewals project put $6.1M into extending the life of city-owned buildings.

BUILDINGS & LIGHTING

The City of Abbotsford manages 188 municipal buildings which include three ice surfaces, six pools with 1,740,000 liters of water and 120,000 square metres of occupied area. The City's goal is to minimize the energy required to provide comfort and safety while tapping into renewable energy sources for heating, cooling, and power. This category also includes initiatives that support Provincial sectoral targets to reduce building emissions to 59-64% below 2007 levels by 2030. These initiatives cover energy efficiency in streetlights and lights in parks or other public spaces, City building systems upgrades and supporting regulation for increased building efficiency across the community.

2021-2022 Highlights

- Updated City's Building Condition Assessment tool to include data on whether an asset or system is carbon emitting, allowing for future targeted project work for decarbonization and GHG reduction.
- Replaced two end-of-life atmospheric boiler at Centennial Pool with three high-efficiency condensing boilers that convert 95% of fuel into heat for maximum efficiency.
- Completed the Matsqui Centennial Auditorium roof replacement and increased roof insulation to improve air tightness, reduce heat loss from the building, and save energy.
- Adopted the City's first Green Buildings Policy requiring all new buildings, additions, and major renovations of City-owned buildings to be net zero emissions in operations by reducing load demand, incorporating low emissions systems, and balancing remaining emissions by renewable energy or carbon offsets.
- Continued to enforce Step 1 of the BC Energy Step Code for Part 3 buildings and Part 9 buildings. Five building permits were issued for Part 3 buildings, and 423 for Part 9 buildings during 2021-2022.
- Awarded grants from BC Hydro and FortisBC totaling approximately $331,000 that build capacity to design and implement sustainability projects across the City.
- Enhanced current and future energy performance of City Buildings by completing:
  - Four studies assessing lighting efficiency improvements across several large City buildings, resulting in road maps for future project work.
  - Eight buildings had traditional lighting replaced with LED, resulting in approximately 500,000 kWh saved annually.
  - Continued use of rainwater harvesting tanks at civic locations including Abbotsford Centre for ice making, Tradex for flushing toilets, and the Operations Yard Native Plant Nursery for watering trees and boulevards.

QUICK FACT

City staff planted approximately 500 specimen trees across the City and 4000 trees and shrubs in natural areas.

PARKS & OPEN SPACES

Parks and open spaces refer to parks, greenways, boulevards, community forests, urban agriculture, and naturally occurring areas. In Abbotsford these spaces support the environmental, physical, social, and aesthetic aspects of the City and add value to the lifestyle enjoyed by residents. In particular, they provide value through mitigation of climate change effects and can provide a component of adaptive response to climate pressure through expansion, preservation and conservation.

2021-2022 Highlights

- Completed the Urban Forestry Strategy, which envisions a vibrant urban forest for the City of Abbotsford. An overall increase in the City's urban tree canopy will aid in mitigating the impacts of climate change and provide opportunities for climate adaption measures.
- Maintained over 13,500 standalone trees in the City's inventory, contributing almost $855,000 in ecosystem services and benefits throughout the community.
- Developed two outdoor learning areas in City parks to provide inspiring spaces for students to learn about the natural environment.
- Added approximately 1.1km to its existing network of more than 200km of trails for increased access to parks and natural spaces.
- Continued energy-efficient transition for Parks equipment, including replacement of more than 50% of small gas-powered equipment with electric options and use of a solar charging system for most of the department's power tools.
- Continued development of five parks across the City, which will increase forest canopy for climate resilience and reduce GHG emissions generated by vehicle travel to parks.
- Completed a sports field irrigation condition assessment to increase water efficiency.
- Completed a sports field light condition assessment to identify lighting systems that need upgrading or replacement to increase lighting quality while reducing energy consumption.
- Installed a fountain at Mill Lake Park to provide water aeration and benefits to the lake ecosystem.
- Completed upgrades to Albert Dyck Park which included a clean-up of the shoreline and major upgrades to the slopes surrounding the beach area to prevent run-off, beach rutting and loss of sand.

QUICK FACT

Approximately 70% of Abbotsford's solid waste customers receive collection day updates through the Curbside Collection app.

SOLID WASTE

Sustainable solid waste management and service delivery are key in creating a sustainable community. Reducing, reusing, recycling, and recovering and managing the disposal of the solid waste minimizes environmental impacts and supports GHG reductions, as well as improved air and water quality.

2021-2022 Highlights

- Moved to fully automated, cart-based curbside collection system, with half the City being serviced by renewable diesel-fueled trucks.
- Increased total volume for compost collections by 3%, with overall landfill diversion at 63%, supported by year-round education on waste diversion.
- Completed a waste composition study in summer 2022 to assist in understanding areas of future improvement for waste diversion, collecting incoming material in the garbage, recycling, and compostable streams from 200 homes.
- Developed a Contamination Reduction Plan aimed at reducing the City's recyclables contamination rate by 25% in nine months. This plan includes a comprehensive communications and marketing campaign, staff to provide curbside audits and consistent programming, and new technology for on board truck contamination observations.

QUICK FACT

Renewable diesel makes up more than 50% of fuel used by the City's heavy duty and garbage trucks, reducing fleet's carbon footprint by 500 tonnes — the same as taking 110 cars off the road.

TRANSPORTATION

Sustainable communities are not possible without careful transportation system design, implementation and maintenance. Abbotsford understands how important it is to take a long-term view on maintaining and upgrading our city assets. The City's transportation vision seeks to create and support a vibrant, livable, healthy and sustainable community for residents, businesses, and visitors. Transportation actions that increase system efficiency, emphasize the movement of people and goods, and give priority to walking, cycling, ride-sharing, and public transit can contribute to reductions in GHG emissions and more livable communities, which supports the provincial transportation sector target of 27-32% emissions reduction by 2030.

2021-2022 Highlights

- Completed the four-year LED Streetlight Replacement Program in three years. Replaced over 6,000 streetlights with LED fixtures in total, resulting in approximately 38% annual GHG emission reduction from streetlights.
- Implemented BC Transit's program providing free transit for ages 12 and under, making greener transportation more accessible and providing more options for families to travel sustainably.
- Implemented Electric Vehicle (EV)-ready parking requirements in all new residential construction, which ensures capacity for charging a minimum of one EV in every household.
- Installed 13 additional City fleet EV charging stations, for a total of 49 City-owned EV charging stations that provide infrastructure for the ongoing renewable energy transition.
- Installed green cyclist conflict road markings at 10 urban intersections to increase the safety and attractiveness of cycling by reducing potential for vehicle conflict.
- Installed six Rapid Reflector Flashing Beams (RRFBs) and one overhead flashing light to enhance urban area crosswalks, increasing safety and walkability of key areas.
- Installed covered bike shelter at Clearbrook Library to enable increased active transportation at a key community amenity.
- Completed planning for a local, signed bikeway of almost 2km to increase safety and connect the University of the Fraser Valley campus to the Downtown Transit Exchange.
- Continued to implement the Green Fleet Strategy and increase use of sustainable fuels, including 24 heavy duty trucks and seven garbage trucks now running completely on renewable diesel.

QUICK FACT

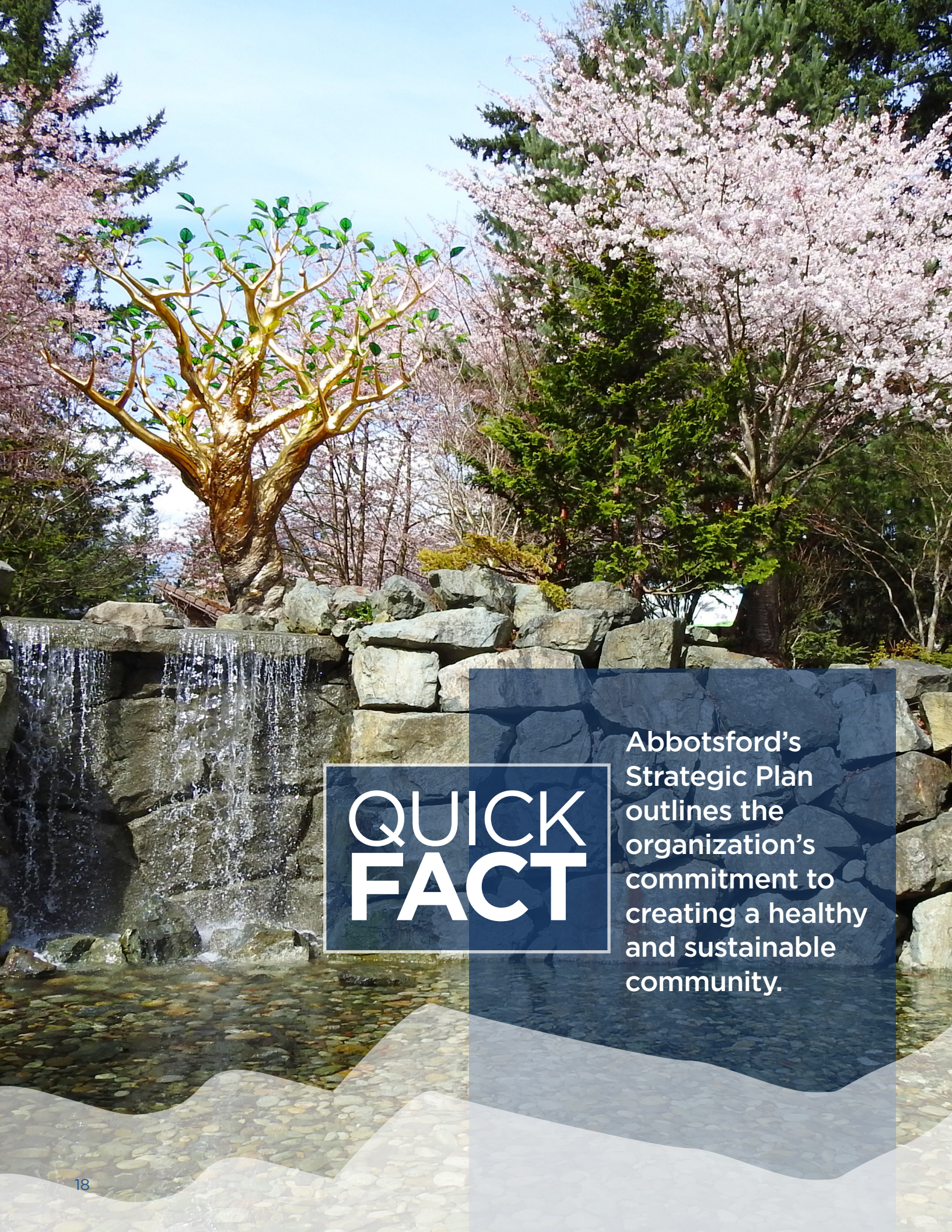
The City received a $62M Provincial grant for the Abbotsford Drinking Water Resilience Project. This reliable, climate resilient water source will include installation of 12 new wells, a water-treatment plant and a pump station.

WATER & WASTEWATER

Managing and reducing water consumption and wastewater is essential for developing a sustainable built environment. As the climate continues to change and alter precipitation levels throughout the year, responsible water use and processing becomes increasingly important to support healthy communities, protect ecological integrity, and reduce GHG emissions.

2021-2022 Highlights

- Continued update of the Bio-solids Master Plan while completing beneficial reuse of approximately 16,000 wet tonnes of bio-solids.
- Continued implementation of the City's Water Shortage Response Plan with changes in triggers for water restrictions that support resilience in water usage and resulted in water restrictions in place from May 1st to September 30th.
- Continued partnership with Green Bricks Education Society to deliver education to more than 4,000 students on sustainability in water, transportation and renewable energy and the importance of climate resilience.
- Continued Advanced Water Metering Infrastructure (AMI) program delivery with 307 drop-in meters installed and 96 new water meter connections.
- Community Interactions:
  - Handed out almost 600 door hanger reminders and 27 warning letters by water conservation sprinkler patrols.
  - Continued to work with residents and business owners to identify and resolve water leaks; over 3,100 water leak notifications were processed, and approximately 3,400 final meter reads were completed.
  - Issued 318 toilet rebates to homeowners that replaced high-volume toilets with a low-flow toilet to reduce residential water use.
  - Provided 69 irrigation and landscape assessments and eight rebates.
  - Provided subsidy for 18 rain barrels and 62 indoor and outdoor water savings kits.



QUICK FACT

Abbotsford's Strategic Plan outlines the organization's commitment to creating a healthy and sustainable community.

CONCLUSION

The City is committed to sustainability and climate action. Each year, this commitment is demonstrated by the multitude of actions undertaken across departments in all service areas. While the annual Sustainability Report highlights relevant activities focused in the environmental pillar of sustainability, efforts to support and balance social, environmental, and economic benefits occur every day. The City is proud to instill a culture of conservation, innovation and excellence while striving to preserve Abbotsford's natural assets for generations to come.

CITY OF ABBOTSFORD

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Engineering & Regional Utilities Department

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