



City of Richmond

Report to Committee

To: General Purposes Committee **Date:** August 31, 2021
From: Peter Russell **File:** 10-6125-07-01/2021-
 Director, Sustainability and District Energy Vol 01
Re: **Sustainability Progress Report 2015-2020**

Staff Recommendation

That Attachment 1 and 2 in the staff report titled “Sustainability Progress Report 2015-2020,” dated August 31, 2021, from the Director, Sustainability and District Energy, be posted on the City’s website and highlights be shared to inform the public as described in the report.

Peter Russell
 Director, Sustainability and District Energy
 (604-276-4130)

Att. 2

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Economic Development	<input checked="" type="checkbox"/>	
Arts, Culture & Heritage	<input checked="" type="checkbox"/>	
Affordable Housing	<input checked="" type="checkbox"/>	
Community Social Development	<input checked="" type="checkbox"/>	
Parks Services	<input checked="" type="checkbox"/>	
Recreation & Sport	<input checked="" type="checkbox"/>	
Engineering	<input checked="" type="checkbox"/>	
Facility Services & Project Development	<input checked="" type="checkbox"/>	
Public Works	<input checked="" type="checkbox"/>	
Emergency Programs	<input checked="" type="checkbox"/>	
Fire Rescue	<input checked="" type="checkbox"/>	
RCMP	<input checked="" type="checkbox"/>	
Policy Planning	<input checked="" type="checkbox"/>	
Transportation	<input checked="" type="checkbox"/>	
Corporate Communication	<input checked="" type="checkbox"/>	
SENIOR STAFF REPORT REVIEW		

Staff Report

Origin

This report responds to a referral from the January 29, 2019 Parks, Recreation & Cultural Services Committee Meeting, which requested:

"That staff report back by fall of 2019 with a State of the Environment report, encompassing all the City's environmental sustainability initiatives including a review on the City's objectives, targets, timelines, and actions."

In 2014, Council endorsed the City's Sustainability Progress Report, which provided a framework for measuring progress being made towards achieving the City's environmental and sustainable goals.

This report supports Council's Strategic Plan 2018-2022 Strategy #2 A Sustainable and Environmentally Conscious City:

Environmentally conscious decision-making that demonstrates leadership in implementing innovative, sustainable practices and supports the City's unique biodiversity and island ecology.

2.1 Continued leadership in addressing climate change and promoting circular economic principles.

2.2 Policies and practices support Richmond's sustainability goals.

2.3 Increase emphasis on local food systems, urban agriculture and organic farming.

2.4 Increase opportunities that encourage daily access to nature and open spaces and that allow the community to make more sustainable choices.

This report supports Council's Strategic Plan 2018-2022 Strategy #5 Sound Financial Management:

5.3 Decision-making focuses on sustainability and considers circular economic principles.

This report supports Council's Strategic Plan 2018-2022 Strategy #6 Strategic and Well-Planned Growth:

6.2 "Green" and circular economic growth and practices are emphasized.

This report supports Council's Strategic Plan 2018-2022 Strategy #8 An Engaged and Informed Community:

8.1 Increased opportunities for public engagement.

Analysis

Aligned with global commitments to Sustainability Development as defined by the United Nations, Council endorsed a Corporate Sustainability Policy in 2010, which states:

The City of Richmond recognizes that a sustainable community is essential for achieving the City's Corporate Vision of 'being the most appealing, liveable and well-managed community in Canada'. The City of Richmond is committed to becoming a recognized leader in sustainability, advancing local community sustainability through excellence in local governmental sustainability practice and serving as an inspiration for greater collective change.

In addition to this policy, Council adopted a Corporate Sustainability Framework in 2010, which specifies key focus areas and goals to guide the City's efforts to foster a sustainable community in Richmond. The focus areas include:

- Climate & Energy Action
- Sustainable Resource Use & Waste Management
- Compact, Complete Community
- Mobility & Access
- Green Built Environment
- Thriving Natural Environment
- Local Agriculture & Food Security
- Resilient Economy
- Inclusive, Accessible & Safe Community
- Vibrant Community

In turn, the Sustainability Framework guided the preparation of Richmond's 2041 Official Community Plan (OCP) – Moving Towards Sustainability, which was adopted on November 19, 2012. The 2041 OCP's vision of a Sustainable Richmond are:

A healthy island city that meets the needs of the present without compromising the ability of future generations to meet their own needs. It is a place where people live, work, and prosper in a welcoming, connected, accessible and vibrant community.

Ultimately, the pursuit of a sustainable community is an ongoing process of optimizing social, environmental, and economic outcomes, and integrating them in all the City's actions – ensuring a better quality of life for everyone, now and in the future.

Environmental and Sustainability Reporting

Since 1998, the City has reported on environmental conditions and outcomes in Richmond, first with "State of the Environment" reports (1998, 2001, and 2005), followed by the first "Sustainability Progress Report" in 2014. The City's thinking has evolved, as have the expectations of Richmond residents and businesses, as sustainable development has become a fundamental strategy to guide environmental protection, social well-being, and economic resilience. Taking a more comprehensive and inclusive perspective, the State of Environment Report content has been incorporated into the latest Sustainability Progress Report. In this report, the City addresses a more comprehensive range of topics covered in its Sustainability Framework. These topics include climate change, energy management, greenhouse gas emissions, solid waste management, and water quality, economic resilience, social issues and

ecological enhancement. This 2015-2020 report update provides an overview of City actions, outcomes and initiatives in all of these areas (see Attachment 1).

The Sustainability Progress Report 2015-2020

The Sustainability Progress Report 2015-2020 (Attachment 1) summarizes the City's achievements between 2015 and 2020, highlighting the City's progress to build an inclusive, sustainable and resilient future for Richmond. The Sustainability Progress Report 2015-2020 - Additional Information (Attachment 2) provides links to other reports and detailed information that discuss specific sustainability key areas for reader who wish to have more background information. .

Throughout the Sustainability Progress Report 2015-2020, each chapter describes how the City is advancing sustainability in each of the key focus areas outlined in the Sustainability Framework. The Report provides 2015-2020 update information as follows:

1. Provides context and details how the topic contributes to a more sustainable community.
2. Identifies City initiatives and their associated outcomes that has contributed to Richmond's sustainable development. Richmond's holistic approach to sustainability is demonstrated by these initiatives.
3. Identifies key targets and important documents relating to the topic.
4. Outlines a timeline of major achievements and milestones between 2015 and 2020; readers are directed to the 2014 Sustainability Progress Report for more history on each topic.

Key 2015-2020 initiatives and achievements summarized in the Sustainability Progress Report include:

- **Climate and Energy Action:** Climate mitigation results through collaboration, advocacy, programs, and infrastructure projects, such as: the Energy Step Code; Zero-Emission Vehicles; Building Energy Step Code; low carbon energy systems from the Lulu Island Energy Company's operations; the Building Energy Benchmarking; the Green Fleet Action Plan and obtaining the Energy, Environment, Excellence (E3) Platinum Fleet Certification. The report also highlights the City's climate adaptation progress defined by initiatives guided by the Flood Protection Management Strategy and Dike Master Plan;
- **Sustainable Resource Use & Waste Management:** This section highlights a more sustainable use of resources that improves the City's environmental performance. This was achieved through initiatives such as: the expansion of the City's recycling programs and services; inclusion of more circular and zero waste principles in the City's waste management bylaws; the Universal Single-Family Water Meter program; the Water Quality Monitoring program; the Water Loss Management program; improved Sewerage and Drainage services; ongoing implementation of the Integrated Rainwater Resource Management Strategy; and, the new Hazardous Materials Management Training program. Other highlights relate to the City's leadership in the implementation of circular economy projects and programs such as the Richmond Food Recovery Network Program,

the reuse of existing materials in dike upgrades, and the application of 40% Reclaimed Asphalt Pavement (RAP) on No. 5 Road;

- **Compact, Complete Communities:** Initiatives that focus on sustainable community development with a balanced approach to providing market and affordable housing options in close proximity to amenities, transportation alternatives and employment opportunities. A key focus area of the City has been ensuring there is a range of housing types along arterial roads, encouraging the retention and increase of market rental houses, encouraging and supporting access to licensed child care and addressing housing affordability;
- **Mobility & Access:** Actions to improve mobility and access in Richmond, resulting in safer streets, stronger community ties, reduced greenhouse gas emissions, and less environmental impact overall;
- **Green Built Environment:** Initiatives include energy management at civic facilities, developing greener new facilities and expanding parks and open spaces;
- **Thriving Natural Environment:** Innovative initiatives to enhance Richmond's natural environment that protect habitat and watercourse, including: several pollinator initiatives; Sun Hor Lum Conservation Area preservation; the Barn Owls Nest Box Program; Invasive Species Action Plan; certification as a Bat Friendly Community; and, the Mitchell Island Stewardship Initiative;
- **Local Agriculture and Food Security:** Key partnerships and initiatives are highlighted that encourage and enhance Richmond's local agriculture and food security, including: the Richmond Food Charter; the Community Garden Program; the Urban Bounty Fruitful Partnership; the Sharing Farm Society; and, the Kwantlen Polytechnic University Agreement for Sustainable Farming Research;
- **Resilient Economy:** Support for local businesses and fostering the conditions that enable the growth and resilience of key sectors to ensure a stable base of employment and economic opportunities are highlighted. Key initiatives included the Industrial Land Intensification Initiative and the COVID-19 Business Support Centre;
- **Inclusive, Accessible & Safe Community:** A broad range of initiatives and actions implemented to ensure that Richmond is a more inclusive community, including: the annual Pride Week; expanding child care facilities; youth engagement; addressing the opioid crisis; supporting seniors; and, strengthening relationships between cultures. This section also highlights the key achievements and programs that ensure a safe community such as crime prevention measures, mental health support, and emergency preparedness education;
- **Vibrant & Healthy Community:** Initiatives that have created a more vibrant community are highlighted through: investments in recreation assets; expanding art projects; adoption of the Wellness Strategy; and, implementing the PerfectMind Registration Services.

Tracking and Communicating Progress

The City will continue to report out on progress towards its sustainability goals. The Sustainability Progress Report 2015-2020 is anticipated to be updated every five years to inform the community on the City's sustainability progress.

Community Outreach

A key purpose of the Sustainability Progress Report 2015-2020 is to demonstrate accountability and the City's commitment to making progress on its sustainability goals. As a next step, staff will communicate highlights of the City's achievements to inform the public, local businesses, institutions, and governmental stakeholders (e.g., Metro Vancouver, TransLink). Staff will also explore other opportunities to share information in the Sustainability Progress Report 2015-2020, such as video and mapping tools, to showcase specific outcomes and achievements.

Financial Impact

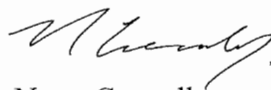
None.

Conclusion

This Sustainability Progress Report 2015-2020 provides a broad overview of an integrated approach towards sustainability that the City is undertaking to advance greater economic prosperity, social wellbeing, and environmental performance in Richmond. The Sustainability Progress Report 2015-2020 tells a comprehensive story about how the City has grown and how its sustainability has evolved. In meaningful ways, the City is moving towards its 2041 OCP's vision, and Sustainable Framework goals and progress can be seen every day. Richmond's communities are more diverse and its neighbourhoods more complete and inclusive with healthier environmental services as a result of the City's work. Investments are improving community infrastructure like parks, new or expanded community facilities, streetscapes, as well as services including transit. As highlighted in the Sustainability Progress Report 2015-2020, the City has set aggressive targets to fully realize the outcomes envisioned by Council. The City will continue to pursue excellence and innovation to achieve its sustainability related goals, which are recognized as critical to achieve Richmond's Vision of "being the most appealing, liveable and well-managed community in Canada."



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- Att. 1: Sustainability Progress Report 2015-2020
2: Sustainability Progress Report 2015-2020 – SPR Additional information



CITY OF RICHMOND

Sustainability Progress Report

2015-2020 | STATE OF THE
ENVIRONMENT SERIES



History of reporting on sustainability outcomes



Progressing towards a sustainable, equitable community

Richmond has a long history of reporting on sustainability outcomes, originally through “State of the Environment” reports (1998, 2001, and 2005) followed by expanding sustainability reporting related to a broader range of topics such as energy, greenhouse gas emissions, water quality, and solid waste management. Over this period, the City has taken meaningful steps towards delivering on its vision of a sustainable community. The City’s long-standing commitment to creating a sustainable community which promotes environmental, social, cultural and economic growth and well-being, has placed the City in a national leadership position.

The City’s thinking has evolved, as have the expectations of Richmond residents and businesses. By adopting a comprehensive and holistic perspective, combined with a ‘continuous improvement’ ethic, the City has been able to effectively address public expectations for creating a sustainable community. This report details the City’s progress between 2015 and 2020, supported by over two decades of action that preceded this period. The Sustainability Progress Report 2015–2020 takes an expanded approach to reporting given the City’s progress in developing a broad range of new initiatives, particularly related to social and cultural dimensions of a sustainable community. The expanded topics, as seen in the Contents section, allows for broader reporting of the City’s sustainability accomplishments in a much broader way than previous reports.

See more information (Section I) for links to past reports that summarized the City’s sustainability progress over the years.

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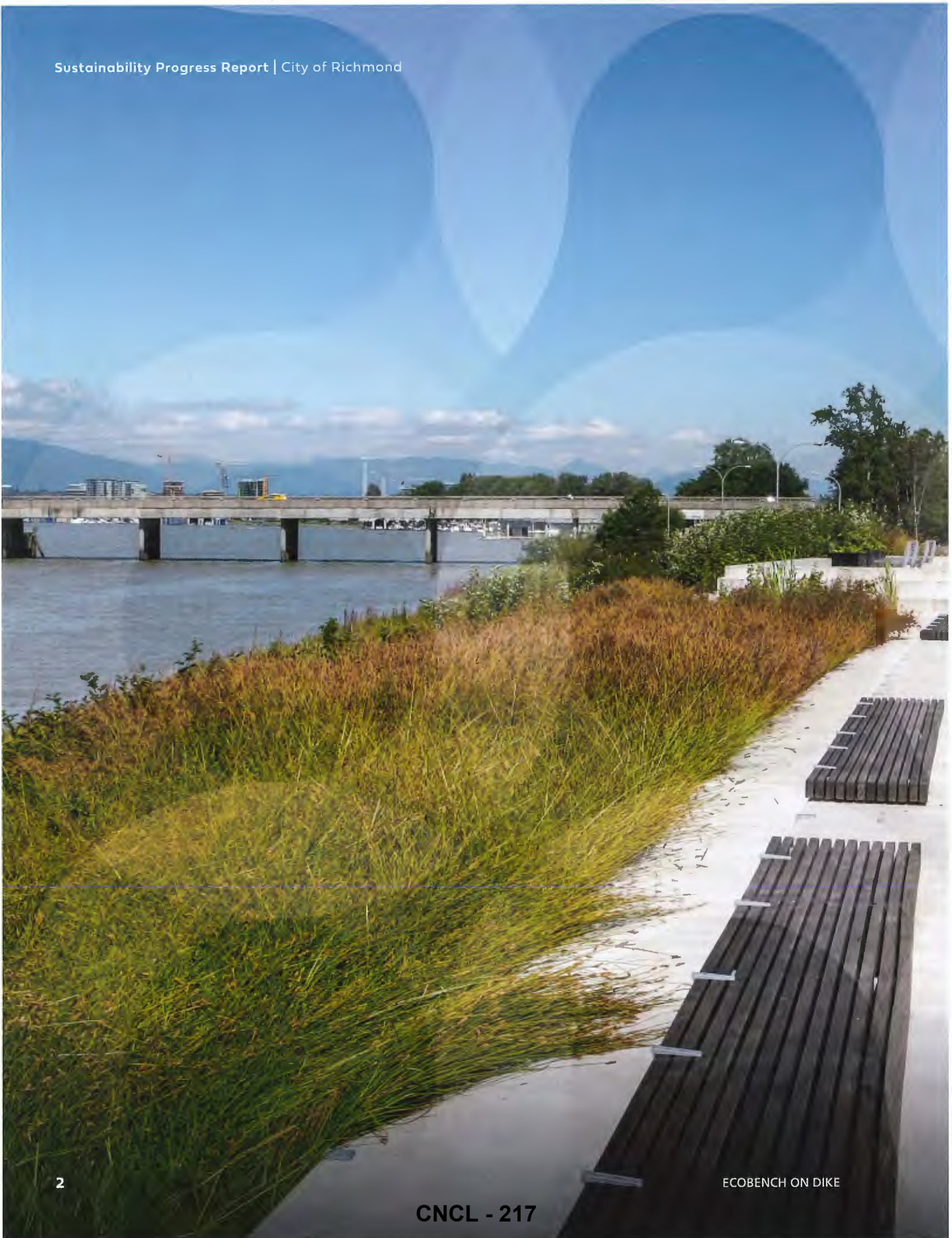
Introduction

This pursuit of sustainability is enshrined in Richmond's 2041 Official Community Plan (2012), which articulates a vision for a Sustainable Richmond: *A healthy island city that meets the needs of the present without compromising the ability of future generations to meet their own needs. It is a place where people live, work, and prosper in a welcoming, connected, accessible and vibrant community.* "More Information (Section I)" details the work that preceded the introduction of this vision in the Official Community Plan.

The City is committed to making this long term vision a reality

Since the original State of Environment Report (1998) over 20 years ago, the City has implemented some of Canada's leading sustainability initiatives, ranging from district energy, electric vehicle policies, investment in active transportation infrastructure and exemplary solid waste management programs. The City has made progress in other aspects of sustainability including supporting a vibrant community that celebrates its history, present and future, and initiatives that support local economic resilience, environmental protection and inclusiveness. It is clear that addressing equity, diversity, social cohesion, and quality of life, are also important aspects of a sustainable community. Actions, outcomes and initiatives outlined in this update demonstrate the City's achievements in these areas.

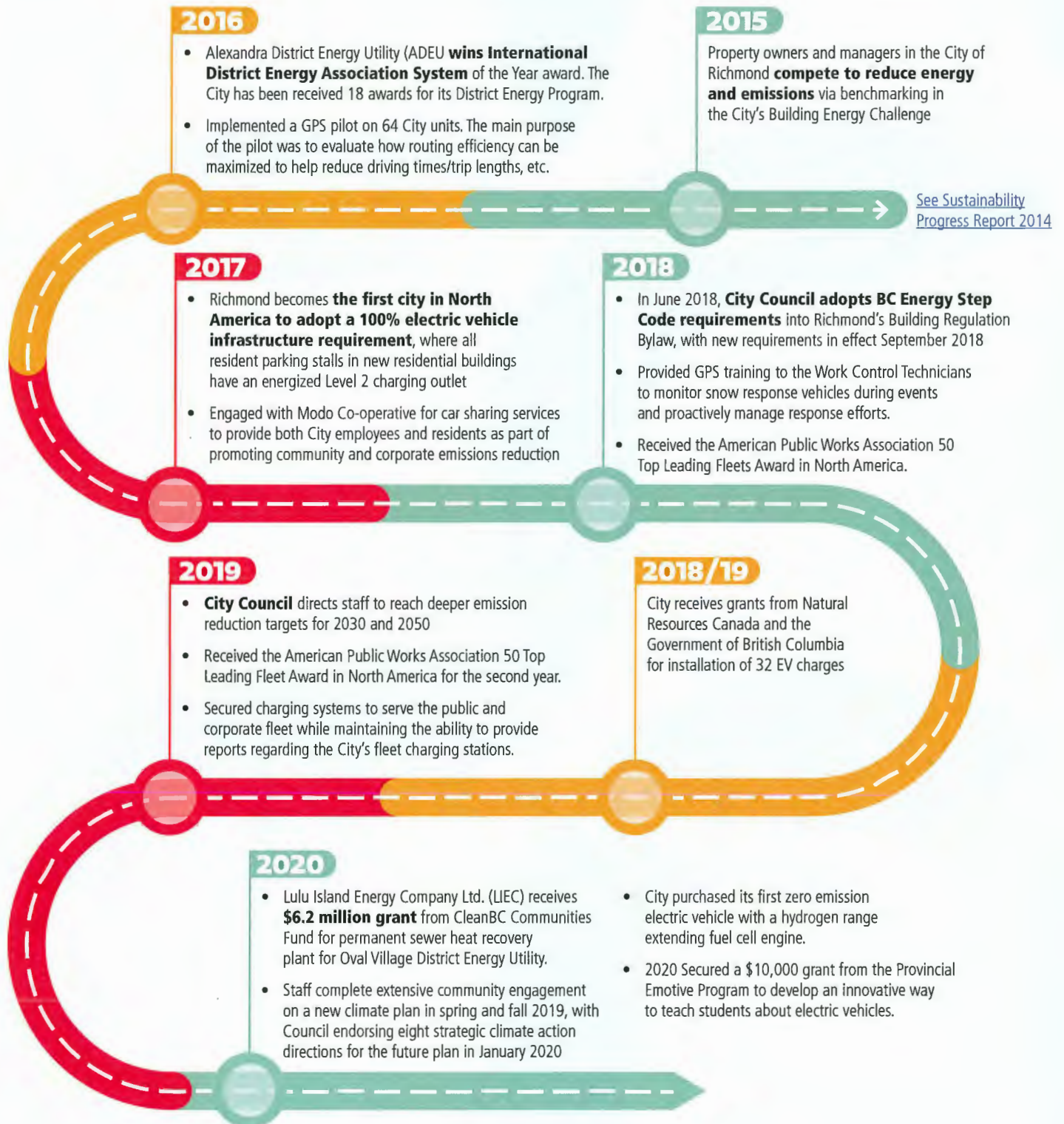
This Progress Report highlights important actions and accomplishments undertaken between 2015 and 2020. All together, this report tells Richmond's story of progress towards achieving its vision of a sustainable community.



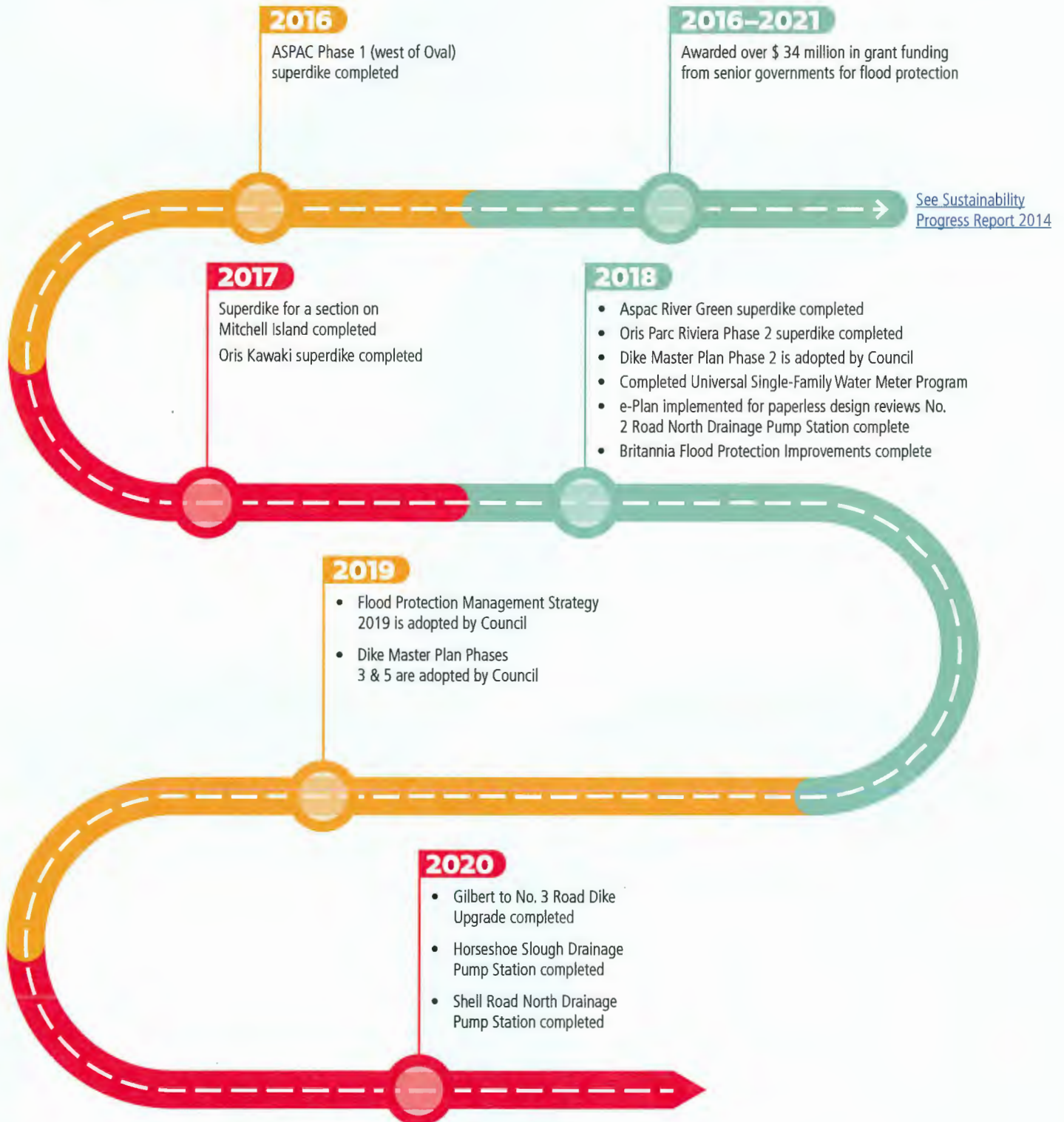
1. Climate and Energy Action

Milestones and Key Achievements 2015–2020

Climate Mitigation: Reducing Greenhouse Gas Emissions



Milestones and Key Achievements 2015–2020 Climate Adaptation



KEY DOCUMENTS

- City of Richmond 2041 Official Community Plan
- Community Energy and Emissions Plan 2014
- Community Energy and Emissions Plan 2020–2050 Directions (Report to Committee)
- Zoning Bylaw 8500, Amendment Bylaw No. 9756 (residential EV charging infrastructure)
- Zoning Bylaw 8500, Amendment Bylaw No. 9845 (Energy Step Code requirements)
- Building Regulation Bylaw 7230, Amendment Bylaw No. 9769 (Energy Step Code requirements)
- Sustainability Framework 2010
- Service Area Bylaws
- LIEC Company Goals

1.1 Climate Mitigation: Reducing Greenhouse Gas Emissions

Richmond’s Official Community Plan (OCP) established a target to reduce greenhouse gas (GHG) emissions 33 per cent below 2007 levels by 2020 and 80 per cent by 2050. In March 2019, Council directed staff to revise the Community Energy & Emissions Plan (more below) with a revised target to reduce GHG emissions by 50% by 2030 and 100% by 2050, as advised by the Intergovernmental Panel on Climate Change. See More Information Section 1 of the SPR Additional Information Document.*

Community Energy and Emissions Plan

Richmond’s 2014 Community Energy and Emissions Plan (CEEP 2014) included a broad range of actions needed to deliver on the City’s GHG emission reduction targets. The plan noted three ‘big breakthroughs’ that would be needed to achieve these targets: transition to zero emission passenger vehicles, ‘carbon zero’ new buildings, and accelerating energy retrofits for existing buildings. Rapid progress on these actions was achieved between 2015 and 2020 through collaboration, advocacy, policy, programs and infrastructure projects. The sections below provide more information regarding specific outcomes. In March 2019, Council gave direction to update the CEEP with new actions and targets with a goal of achieving 50% community-wide emission reductions from baseline year 2007 by 2030, and reaching net zero GHG emissions by 2050. To gain feedback from the community, over **1,000 people of all ages were engaged in 2019**. In January 2020, City Council endorsed proposed strategies and emission reduction targets contained within eight strategic directions that will shape the new CEEP 2050. See More Information in the Section 1.1 of the SPR Additional Information Document.

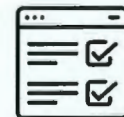
Community Energy and Emission Public Engagement Outcomes



1,000 people of all ages attended workshops



35 community volunteers assisting at these events



550 respondents completed surveys

* The revised Community Energy & Emissions Plan will be brought forward for Council approval in 2021 following a final public consultation.



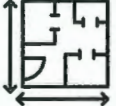
Low Carbon District Energy: Lulu Island Energy Company

The City identified district energy utilities (DEUs) as a leading strategy to achieve the City’s energy and GHG reduction goals, and incorporated Lulu Island Energy Company Ltd. (LIEC) in 2013 for the purposes of carrying out the City’s district energy initiatives. LIEC currently owns and operates three district energy systems: the Alexandra District Energy Utility (ADEU), the Oval Village District Energy Utility (OVDEU) and the City Centre District Energy Utility (CCDEU).

- Demonstrated Leadership:** By the end of 2020, more than 4,500 residential units or 4.9M ft² of floor area are being serviced by the Lulu Island Energy Company. The City’s District Energy Program has become a recognized leader locally, nationally and internationally for its development of low carbon district energy systems, including 18 awards. See More Information in Section 1.1 of the SPR Additional Information.
- Low Carbon Energy:** The ADEU Energy Centre has used renewable geothermal energy and air-source pumps for heating and cooling buildings since 2012. LIEC received a \$6.2 million grant in 2020 from the CleanBC Communities Fund for the design and construction of the sewer heat recovery technology at the OVDEU permanent energy centre. The project has been already initiated; once completed (estimated 2024), the system will harvest up to 80% of the low-carbon energy needs for connected buildings from the Gilbert Trunk sanitary force main sewer.

See More Information in the Section 1.1 of the SPR Additional Information Document.

Table 1 — District Energy Utility Service Areas

	 Buildings To-Date	 Residential Units To-Date	 Floor Area	
			To-Date	Build-out
Alexandra District Energy Utility	12	2,200	2.3M ft ²	4.4M ft ²
Oval Village District Energy Utility	10	2,277	2.6M ft ²	6.4M ft ²
City Centre District Energy Utility	10*	3,388*	4.7Mft ^{2*}	48M ft ²
DEU-Ready Developments**	17	4,524	5.3M ft ²	N/A
	Total Connected Floor Area		4.9M ft ² ***	58.8M ft ²

* Commitments secured from upcoming developments in the City Centre; first connection expected in 2021.

** DEU-Ready developments are designed to connect to the City Centre district energy system at a future point.

*** The “To-Date Connected Floor Area” figure corresponds to constructed developments currently served by a DEU.

Zero Emission Vehicles: At Home and On the Go

Achieving Richmond's greenhouse gas emission reduction targets requires a steady transition toward zero emission vehicles. Richmond is tackling this challenge through policy implementation, advocacy and partnerships. In addition, the City has spearheaded technical analysis, and developed guidance documents and model bylaws that other local governments can utilize including:

- **EV Charging Requirements for Residential Developments:** In September 2018, the City became the first municipality in North America to enact an electric vehicle (EV) charging infrastructure requirement for all residential parking stalls in new residential buildings, requiring that an electrical outlet at each parking space is energized and capable of Level 2 charging. The City received awards from both Union of BC Municipalities, and Community Energy Association's Climate Action program in 2019 for its leadership.
- **On-the Go Charging:** The City sought community feedback in 2018 to establish desired public EV charging locations. The City successfully secured \$440,000 in grant funding from Natural Resources Canada in 2018/19 to facilitate the largest expansion of public EV charging to date in Richmond. When completed 28 new Level 2 charging points will be in place at various civic facilities, along with four new fast chargers, in 2021.

See More Information in the Section 1.1 of the SPR Additional Information Document.

Energy Step Code and Low Carbon Energy Systems

In 2016, Richmond joined a motivated group of municipal leaders, the provincial government and representatives from the development industry to create Canada's first performance-based energy code for new buildings. The BC Energy Step Code was adopted into the BC Building Code in December 2017, allowing local governments to reference Step Code requirements for new buildings directly in their bylaws. Richmond was an early adopter of the Step Code (September 2018) and made a commitment that all new buildings in Richmond would reach top levels of the Step Code by 2025. Since 2018, the City has been focused on building the capacity of builders to implement the new requirements, which focus on making the building more airtight with a better insulated envelope, and using highly energy efficient heating, ventilation and cooling systems.

- **Builder Breakfast Events:** The City has engaged our local residential builder community ten times since 2018, with five in-person and five virtual (post-pandemic) training events, for a total of **878 attendees**. These sessions are information-oriented, typically with a guest speaker presenting on a particular aspect of building energy performance.

- **Building Air Tightness Training, Incentives and Number of Projects:** To support transition to the BC Energy Step Code, staff leveraged BC Hydro funding that provided incentives to motivate homebuilders to improve the air tightness of new single-detached, duplex and townhouse homes. Incentives included free air tightness ('blower door') testing from an experienced Energy Advisor. 25 homes participated in this pilot program. City staff also organized a full-day airtightness techniques training workshop with **70 local homebuilders and trades** and 16 City staff attending.
- **Incentivizing Low Carbon Energy Systems:** To help incentivize low carbon mechanical systems in new buildings, the City of Richmond allows a 'one-Step' relaxation in BC Energy Step Code requirements for new buildings installing (or connecting to) a low carbon energy system. This 'two-option' Step Code approach was pioneered on concrete-frame multi-unit residential buildings in 2018, and extended to new hotels, detached homes, duplexes / triplexes and townhouses in 2020.

See More Information in the Section 1.1 of the SPR Additional Information Document.

Building Energy Benchmarking

Energy benchmarking is the process of tracking energy use in buildings and comparing energy consumption against historic patterns. Benchmarking helps owners understand their buildings' performance against a similar class of buildings. To date, benchmarking is not required in BC, although efforts for making it a requirement are gaining momentum. The City was an early leader in energy benchmarking, as follows:

- **Voluntary Benchmarking:** The Richmond Energy Challenge in 2014 targeted benchmarking larger commercial and multi-unit residential buildings. By 2015, 75 buildings across 12 organizations participated, representing over 5.5-million ft² of property in Richmond. Overall, these buildings achieved a 12% reduction in overall energy use compared with the baseline year, along with a 16% reduction in GHG emissions.
- **Advocacy for a Provincial Mandate:** In 2017, the City submitted a joint Union of BC Municipalities Resolution asking the Province of BC to develop a provincial requirement for buildings above a specific size benchmark their energy performance and report this information annually to the Province as means to reduce GHGs.
- **Building Benchmark BC:** In 2019, the City worked with other municipalities to support the Building Benchmark BC as initiative to expand volunteering reporting. By 2020, 765 individual properties had registered in the program and submitted building commercial, residential and institutional space. By the end of 2020, this included 36 private sector buildings, and 22 civic buildings in Richmond have participated in this program.

See More Information in the Section 1.1 of the SPR Additional Information Document.

Green Fleet Action Plan

The City has established a Green Fleet Action Plan to guide initiatives designed to reduce GHG emissions as part of the City's broader corporate emissions reduction program. This plan outlines a target to reduce GHG emissions by 2% per year over the next 10 years, or a total of 20%, by 2020. In 2015, the City completed a Progress Report to monitor our progress and identify improvement areas. Initial actions have resulted in positive emissions reduction from 2013–2015, of overall 7%, while meeting the service level needs of a growing population. While this is slightly below target levels at this time (should be at 8% emissions reduction), future actions are planned to continue progress in reducing GHG emissions from the City's fleet to meet targeted reduction levels.

Energy, Environment, Excellence (E3) Fleet Certification

The City of Richmond is the first and only city in Canada to obtain the highest level of certification available through this program—Platinum E3 rating—for a City Fleet from the Fraser Basin Council. Received in 2016, this certification program evaluates a number of factors for fleets including policies, training, idling, purchasing practices, fuel data management, operations, maintenance, utilization, fuel efficiency and other related factors. Through its sustainability initiatives in excellence in fleet management, the City helps to create trends which guide the community toward more sustainable fleet choices.



SOLAR EV ARC TRACKS THE SUN AND GENERATES AND STORES ALL OF ITS OWN ELECTRICITY PROVIDING DIRECT POWER TO THE EV CHARGING STATION.

Propane Pilot Project

Studies have shown that propane can reduce emissions by 26% when compared to conventional fuel vehicles. In 2018, the City implemented a Propane Fuel Pilot Project which included three high use vehicles: Patroller unit, Courier unit and a Parks unit. In 2019, the pilot was expanded to include propane conversion kits in 11 additional units, as well as a new propane fueling station which has been integrated with the City's fuel management system. As of 2020, emissions in the pilot vehicles have reduced by 13% and are expected to see higher emissions reductions as more staff are certified on fuelling propane. Expansion of the pilot program will continue to add more vehicles where applicable.

Currently 13% of the City Fleet is a hybrid, plug-in hybrid, or battery electric vehicle; staff estimate by 2021 this will be increased to 21%.

	Fuel Consumption Quantity (L)	Idling (Hours)	Fleet EV charging (Sessions)	Fleet EV charging (Energy (kWh))
2015	1,190,497.85	61,468.64	201	1,813
2016	1,197,858.54	60,506.01	312	2,125
2017	1,245,409.81	63,704.30	442	2,413
2018	1,276,518.35	61,840.45	1,656	10,236
2019	1,225,187.51	54,062.83	3,123	25,794
2020	1,086,596.29	55,282.54	2,352	20,792

1.2 Climate Adaptation

The City of Richmond is situated 1.0 metres above sea level. Climate change-related risks managed by the City include sea-level rise and extreme weather events, which yield higher intensity storms. The City's flood protection system provides protection from rainfall, ocean-storm surges, freshet and sea level rise. Richmond is recognized as one of British Columbia's leading cities for how the City manages flood protection and diking.



Flood Protection Management Strategy

A key component of the City's successful Flood Protection Program is the Flood Protection Management Strategy (FPMS), originally adopted in 2008.

FLOOD PROTECTION SYSTEM IS COMPRISED OF



49 km
of dikes



39
drainage
pump
stations



585 km of
drainage
pipes



61 km of
box culverts



165 km
of water-
courses



\$34
million
in senior
government
grants

Updated in 2019, the strategy articulates the City's vision to establish a true world-class flood protection standard and includes guidelines and for continual upgrades and improvements to address floods. The FPMS identifies a robust drainage and diking system to mitigate flood risk, ensure protection of life, and safeguards critical infrastructure. Findings from the FPMS project were shared regionally with other local governments, non-profit groups, First Nations and senior government agencies. The City has been successful in securing over \$40 million in senior government grants that helped fund over \$70 million of dike upgrades, pump station improvements and master planning updates from 2013 to 2020. *See More Information in the Section 1.2 of the SPR Additional Information Document.*

Dike Master Plan

Current climate change science estimates that sea levels will rise approximately 1 m by the year 2100; the City will subside by 0.2 metres over the same period. To maintain Richmond's high level of flood protection, Dike Master Plan Phases 1, 2, 3 and 5 were developed and adopted by Council in 2013, 2018 and 2019. The Dike Master Plans are intended to be a comprehensive guide to upgrade the City's perimeter dikes, protect the City from storm surges and Fraser River freshet events, adapt to sea level rise and land subsidence, be seismically resilient, and prioritize dike improvement phasing to efficiently utilize resources. As part of the Dike Master Plans, Gilbert to Number 3 Road South Dike Upgrade project was completed in 2020, involving raising approximately 690 linear metres of the dike by approximately 1.4 metres. *See more information in Section 1.2 of the SPR Additional Information Document.*



Quick facts

- The City's Drainage and Diking Utility is funded by the Annual Flood Protection Utility fee, established by Council in 2000.
- Richmond's robust diking network is built to withstand a one in 500-year return period flooding event, including King Tide, Storm Surge and Fraser River Freshet.
- The City has several electronic drainage level sensors in drainage pipes, watercourses and box culverts that provide drainage level information.
- The City also has several electronic river level monitors that provide real-time river level and freeboard information. This information is remotely monitored by City staff on a 24 hours, 7 days per week basis.
- Total capacity of the City's drainage pump stations has increased by 29% since 2005.

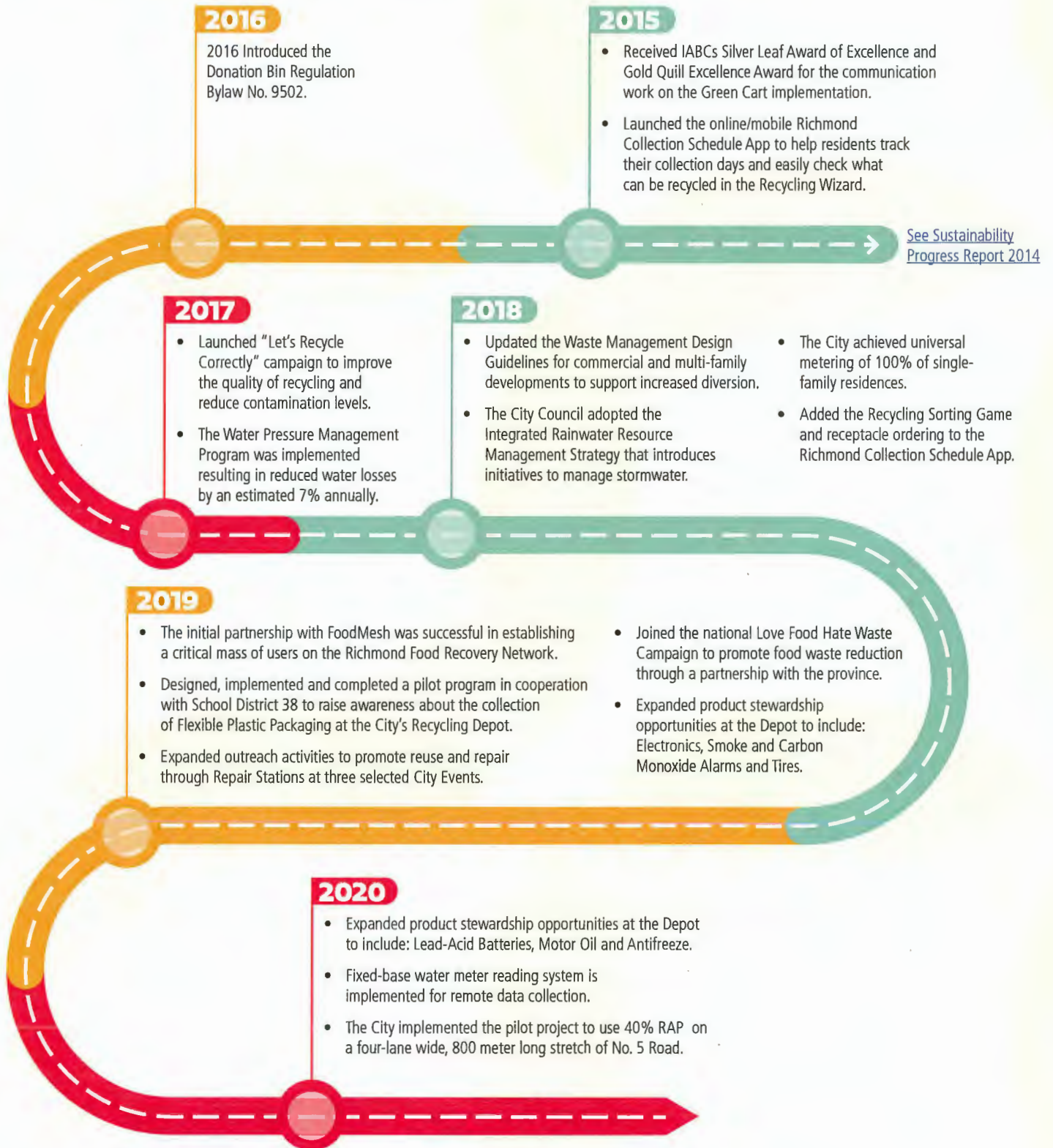


RENOVATED IN 2020, THE RECYCLING DEPOT UPGRADE IMPROVED CONVENIENCE AND BROADENED THE SCOPE OF SERVICES FOR RICHMOND RESIDENTS.

CNCL - 229

2. Sustainable Resource Use & Waste Management

Milestones and Key Achievements 2015–2020



Economic prosperity and a healthy environment can be attributed to a community's ability to extract and utilize natural resources to be transported and processed to create products and services. These resources include:

- wood;
- minerals;
- fuels;
- chemicals;
- soil;
- water;
- rock;
- agricultural vegetation; and
- animals.

Equally important, is a community's capacity to utilize processes such as recycling effectively to minimize the impacts of resource use and consumption on infrastructure and the environment.

To protect the environment and conserve natural resources, the City has successfully implemented a variety of waste prevention and recycling programs since 1990. The City has also established principles of designing out waste and pollution, keeping products and materials in use, and regenerating natural systems through community-specific circular economy initiatives. These initiatives are working to guide management decisions towards reducing the City's environmental footprint by reusing materials and reducing emissions throughout the lifecycle of products and services.

2.1 Waste Management

Recycling Services

- **Multi-Family Green Cart Program:** In 2015, the City expanded the Green Cart program to include apartments and multi-family complexes with central collection areas to ensure residents have access to convenient organics recycling collection services. As a part of providing green cart service for centralized collection, **the City hosted 400 information sessions** at multi-family housing sites to provide residents with instruction on how to use the green cart and other recycling programs. **Since 2015, a total of 13,178.06 tonnes has been collected from multi-family residents with a trending increase of 17% per year of tonnage disposed.** The City's Green Cart communication won the **IABC's international Gold Quill Award**, acknowledging City's achievements in delivering an outreach campaign able to demonstrate achievable results. *See more information in the Section 2 of the SPR Additional Information Document.*

KEY DOCUMENTS

- Solid Waste and Recycling Regulation — Bylaw 6803
- Demolition Waste and Recyclable Materials — Bylaw 9516
- Donation Bin Regulation — Bylaw 9502
- Single-Use Plastic and Other Items — Bylaw 10000 (proposed)
- Metro Vancouver's Integrated Solid Waste and Resource Management Plan
- Sustainability Framework: Proposed Solid Waste Strategic Program
- Report 2019: Continuous Improvement for Sustainable Waste Management

- **Single-Family Bi-Weekly Garbage Cart Program:** The City implemented the residential Garbage Cart program in 2016, which involved a shift to biweekly collection. Under the new biweekly Garbage Cart program, the City provided residents with garbage carts with lids and wheels at no cost; residents' annual utility fee for curbside garbage collection is now based on the size of cart they choose. Residents who opt for smaller carts, thereby generating less garbage, now pay less. This fee structure encourages recycling, the first year of roll out resulted in **single-family garbage being reduced by 17%** and **organics recycling increasing by 16%**. Based on Metro Vancouver statistics, **0.494 tonnes of CO2 equivalent emissions are saved per tonne of organic material** diverted from the landfill.
- **Recycling Depot:** In 2019, the Recycling Depot service was enhanced by extending operating hours to remain open six days per week and to accept new recyclable items including propane tanks, butane cylinders, electronics, upholstered furniture and tires. In 2020, this list was expanded further to include motor oil and antifreeze, fire extinguishers, lead acid batteries and smoke and carbon monoxide alarms. **Visits to the Recycling Depot increased by 25% and tonnage increased by 23% as a result of an additional day and new accepted items.**

Waste Management Bylaws

- **Demolition Waste and Recyclable Materials Bylaw No. 9516:** Demolition, land clearing and construction (DLC) waste accounts for 30% of total waste disposed in the region. The bylaw requires that 70% of the demolition waste be recycled or reused. **With over 1,000 permits issued since the introduction of the bylaw, it is estimated that over 75,000 tonnes of DLC waste has been diverted from disposal.**
- **Single-Use Plastic and Other Items Bylaw No. 10000:** To address unnecessary waste from single-use items, the first three readings of the proposed Bylaw have been passed by City Council. Through a series of 10 workshops, including sessions in English Cantonese and Mandarin, the City provided information about the items which would be banned and provided alternatives. In 2020, the City received provincial approval for the bylaw. *See more information in the Section 2.1 of the SPR Additional Information Document.*

2.2 Resource use

Water Quality Monitoring

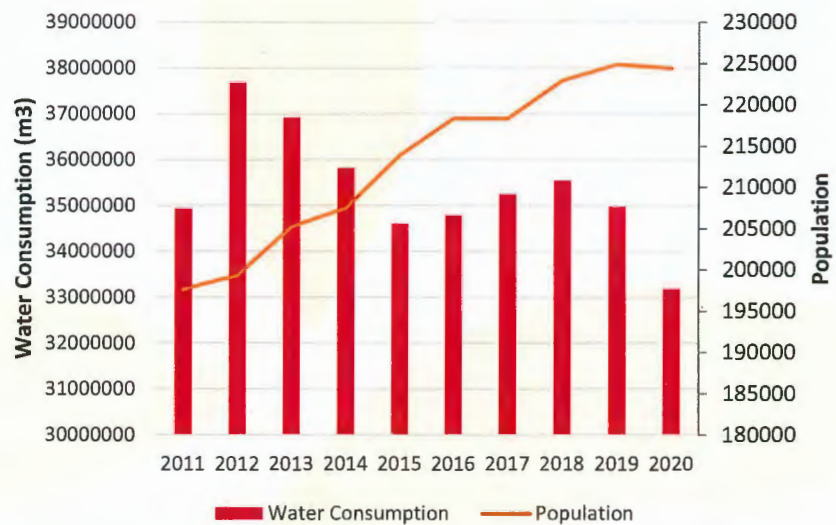
In 2020, the City of Richmond collected water samples on a weekly basis at 40 dedicated sampling sites. These sites are strategically located throughout the City to provide a suitable representation of the City's water quality across the distribution network. In 2020, 2,082 water samples were collected by Water Services staff and sent for analysis at Metro Vancouver laboratories. These sample results were reviewed by the Vancouver and Richmond Coastal Health Authority to ensure the drinking water met the standards outlined in the British Columbia Drinking Water Protection Regulations (BCDWPR).

Water Loss Management Program

The City of Richmond's 636 km water distribution system begins at 12 separate connection points along Metro Vancouver's transmission mains. At each connection point there is a City-owned pressure reducing valve (PRV) chamber. The City's responsibility for water quality begins at this chamber and ends at the residential or commercial property line. The Water Services section maintains 12 pressure reducing valve (PRV) stations throughout Richmond. PRV stations decrease the pressure of Metro Vancouver's water feed to one that is manageable for Richmond's water distribution system. The stations are connected to a supervisory control and data acquisition (SCADA) system that provides information to the Works Yard such as water pressure, quality and volume. This allows for certified Water Services staff to react to problems quickly and effectively 24 hours a day, seven days a week.

It is estimated that most municipalities in North America lose 12% to 15% of their potable water to undiscovered, underground leakage. The Water Loss Management Program allows City Engineering and Water Services staff to determine the total amount of water consumed through normal operational programs and practices such as single-family residential, multi-family residential and commercial metering programs. Combining this information with known City-wide water usage and estimated water use from watermain flushing, parks and median irrigation, and Richmond Fire Rescue usage, staff can better understand, track and manage water loss throughout the distribution system.

	2003	2015	2016	2017	2018	2019	2020
Avg Daily Flow (ML/d)	109	94.8	95.3	96.6	97.4	95.8	90.9
Drinking water purchased from the MVWD Annual Total (Million m3)	39.8	34.6	34.8	35.3	35.6	35.0	33.2
Richmond Population	178,248	213,891	216,582	219,273	221,897	224,889	224,425
% change (Million m3) year over 2003		-14%	-13	-13%	-11%	-14%	-17%
Consumption per person (L/year)	223	162	161	161	160	156	148



See more information in the Section 2.2 of the SPR Additional Information Document.

Universal Single-Family Water Meter Program and Fixed-Base Water Meter Reading

The City achieved universal metering of 100% of single-family residences in 2018, establishing the City as a leader in this area. Water metering plays a significant role in the City’s water demand management program, improving equity to ratepayers and promote water conservation and reducing private-side leakage. Since 2003, **the City’s total water use has decreased by 12% despite an increase in population of 26%**. In 2019, this reduction in per capita water usage resulted in annual **savings of \$11.9 million in avoided water costs. Approximately 83% of the City’s water use is currently metered in 2020.** The City established a fixed base network that allows for remote collection of approximately 94% of the water metering data, minimizing the need for vehicle-based mobile readings by 75%, thus reducing operational costs and emissions.

Water Pressure Management Program

The City’s Water Pressure Management Program was implemented in 2017 after a successful trial period. The program lowers the pressure in the water distribution system overnight and in the winter based on daily and seasonal demands, resulting in **reduced water losses by an estimated 7% annually, saving approximately \$1.8 million in avoided water purchases in 2019.** Emergency repair costs are also reduced, as the program decreases the likelihood of watermain breaks.

Air Quality

Metro Vancouver is responsible for enforcing and protecting the Air Quality standards in Greater Vancouver. Metro Vancouver has resources and jurisdiction to deal with air quality issues, including greenhouse gases, fireplaces, excessive dust, particulates, and odour complaints.

Metro Vancouver's air quality has steadily improved as a result of new policies and programs to decrease pollution and address climate change. Metro Vancouver has increased the number of monitoring stations to 31 since 2012 and built a new mobile air monitoring unit (MAMU) to monitor outdoor air pollution concentrations in nine sites to help improve air quality.

The air quality in Richmond is generally good, and air pollutant concentrations remained well below air quality objectives for most of the summer:

	Fine Particular Matter—PM _{2.5} (µg/m ³)		Sulphur Dioxide (ppb)		Nitrogen Dioxide (ppb)		Ground-level Ozone (ppb)	
	Richmond	CAAQS	Richmond	AAO	Richmond	AAO	Richmond	CAAQS
2015	17	28	0.4	11	14	21	45	63
2016	16	28	0.3	11	12	21	46	63
2017	17	28	0.3	5	13	21	47	63
2018	22	28	0.3	5	11	21	47	63
2019	22	28	0.3	5	12	21	48	63
2020	25	28	0.2	5	10	17	68	82

AAO: Annual Average Objective—Air quality objectives describe the generally accepted limits on air pollutants that protect our health. More information about objectives can be found in the Air Quality Objectives factsheet at metorvancouver.org.

CAAQS: Canadian Ambient Air Quality Standard—Canadian Ambient Air Quality Standards (CAAQS) are air quality objectives for fine particulate matter and ground-level ozone that replaced the Canada-Wide Standards in 2013. These objectives form one part of a national Air Quality

The smoke from wildfires has been a significant factor affecting air quality for the last six years, particularly in 2015, 2017, 2018, 2020. The climate projections for the region note that more intense and frequent wildfires and deeper and drier summers are expected. In September 2020, Metro Vancouver was blanketed with smoke following a rare weather pattern characterized by high winds, dry conditions, and wildfire smoke from the west coast of the United States, resulting in an air quality advisory for eleven consecutive days.

Although in July and August of 2020, the weather patterns and urban emissions contributed to an increase in ground-level ozone formation and resulted in two ozone air quality advisories, most of the gases in the atmosphere continued to decline. This is partly due to an increase in the ozone formed outside Canada coming into the Metro Vancouver region. Peak ground-level ozone levels, which occur during hot and sunny summer afternoons, are better now than they were in the 1980s and early 1990s. The improvement in sulphur dioxide levels has been mainly due to stricter sulphur requirements for marine fuels.

Odour complaints: The Harvest Power facility in east Richmond that operated from 2009 to 2020, became a source of unacceptable odours in Richmond. From June 2019, the facility ceased to receive solid organic waste. Complaints about Harvest Power's operation began to increase in 2016 with a total of 2,694 complaints that year. The City worked extensively to improve the City's air quality by advocating for increased enforcement and improved requirements in Metro Vancouver for odour management regulations.

Integrated Rainwater Resource Management Strategy

The City's Integrated Rainwater Resource Management Strategy introduced initiatives to manage stormwater. The Strategy aimed to minimize the effects on drainage infrastructure and identify opportunities to use rainwater as a resource. The Strategy also identified a toolkit for reducing the impacts new development have on stormwater flows and water quality. The strategy identifies four primary goals to address:

1. Minimize the impacts of future develop and redevelopment
2. Reduce potable water use
3. Address existing and future sedimentation issues
4. Support the City's Ecological Network

See more information in the Section 2.2 of the SPR Additional Information Document.

Improving the sanitary sewer systems

The City owns and operates a sanitary system consisting of 569 km of gravity sewers and forcemains, and 153 sanitary pump stations. Sewage is conveyed through the City's system to Metro Vancouver's regional wastewater system for treatment at one of several Wastewater Treatment Plants. The City is among the few municipalities within Metro Vancouver to have fully separated sanitary sewer and stormwater systems, thus eliminating any chance of sanitary waste being directly discharged to the environment. The City is also performing an inflow and infiltration (I&I) analysis and has ongoing sewer inspection programs to identify sources of I&I. I&I occurs when stormwater and groundwater enter the sewer system, occupying the available capacity of the sanitary sewer systems and applying increased loads to sanitary pump stations and wastewater treatment plants. The infrastructure replacement program has increased by 36% between 2015 and 2020 to its current level of \$5.8 million annually. The sanitary pumping capacity has increased by 138% in three catchment areas within the City Center area over the same period. Since 2015, a grease inspection program has been successfully implemented to promote best management practices and reduce grease entering the system. By reducing I&I and grease, the City is able to reduce costly and energy-intensive infrastructure upgrades, minimize pumping and treatment requirements, and prevent sewage overflows.

A Drainage System for a Richmond’s Unique Landscape

For flat urban areas such as Richmond, a robust drainage system is essential. In addition to being accurate, storm sewer designs must also minimize conflicts with present and future drainage patterns and utilities. Open ditches are a critical feature of the storm drainage system in Richmond. Stormwater drains from closed storm sewers into open watercourses and vice versa. Open waterways offer many advantages compared to closed drainage pipes, including being less costly to maintain, storing more water, and providing habitat for plants and animals that make for a healthy environment. Stormwater is pumped off of the Island and conveyed to the Fraser River through 39 drainage pump stations. The City’s drainage pump stations have grown by 29% in capacity since 2005. Richmond’s drainage system includes sensors that provide drainage level information in drainage pipes, watercourses and box culverts, and electronic river level monitors that display river levels and freeboard elevations in real-time (freeboard elevations is measured as the difference between the top of the dike elevation and the river level).

Hazardous Materials Management Training

The Workplace Hazardous Management Information System (WHMIS), Transportation of Dangerous Goods Regulations (TDG) and BC Hazardous Waste Regulation (BCHWR) establishes minimum training requirements for workers. City staff previously participated in individual training programs, however, the City was concerned this approach may not be fully compliant nor ensure appropriate staff safety relative to the work performed. The City identified gaps in training services by conducting an analysis that identified specialized training needs, relevant competencies for staff and the level of expertise required for their corresponding work functions. The City decided to transition from basic training approaches to qualified and competency-based training by developing a future-proofed program within a new environmental and safety-focused culture. From 2019 to 2020 over **250 staff members participated** of the training sessions.

Dangerous Goods Spill Response Plan

The City provided **9 Transportation of Dangerous Goods Spill Response Plan Awareness Training sessions** to City staff from 2018 to 2020. Spill Response Training focuses on facilitating a safe, efficient, and organized response to spills in Richmond and the Fraser River. Approximately **60 staff** have received the training that orients staff to the City’s Spill Response Plan and includes a detailed discussion of common Richmond spill scenarios.

From 2017 to 2020, Staff have led or participated in 14 Regional Spill Response training and planning sessions to test and benchmark city response procedures against regional best practices.

2.3 Circular Economy Initiatives

Richmond Food Recovery Network Program

The City partnered with FoodMesh to mobilize local food manufacturing, processing and retail businesses to adopt circular economy practices. An online exchange platform enabled the diversion of surplus or off-spec food products away from waste streams to secondary markets or local charities. The initial partnership with FoodMesh and investment of \$25,000 was successful in establishing a critical mass of users on the Richmond Food Recovery Network. Now that a robust user base has been secured, the network is self-sustaining; existing and new companies and social groups can continue to use the platform in perpetuity. The following outcomes were achieved in 2020:

	Projected	Results	% of Target
 Participating organizations	30	59	197%
 Total weight of food diverted	225,000 KG	414,555 KG	184%
 Number of meals created	300,000	644,800	215%
 Savings to food brands and charities	\$1,250,000	\$2,207,971	177%
 Weight of food turned into animal feed	50,000 KG	17,532 KG	35%

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See more information in the Section 2.3 of the SPR Additional Information Document.

Dike Upgrades—Reuse of existing materials

To displace the use of virgin materials, the City's dikes reuses existing materials such as:

- road base and road sub-base;
- type 2 dike bulk fill; and
- topsoil.

Materials were stripped from the current dike structure and stockpiled or reused. The amount of disposal and virgin material required for the project in the South Dike between Gilbert Road and No 3 Road was also minimized. Approximately 700cu.m of pulverized asphalt, 3,450cu.m of road base and sub-base, 3,500cu.m of dike bulk fill and 2,040cu.m of topsoil was reused in 2019. **Approximately 60,000cu.m of dike bulk fill was put to use for this project from the two excavation sites in Richmond.**

Paperless Design Reviews for Private Utility Submissions

In 2018, the City implemented the e-Plan digital design review system and process for private utility and single-family service connection design submissions. Historically, design plans were reviewed in hard copy format, utilizing a greater amount of natural resources. **From 2018–2020, 100% of the design plans were reviewed through the new e-Plan system, totalling 1,219 applications.** The e-Plan system provides a quicker turnaround time for the applicants' review process, decreased costs through staff time reduction, and eliminated the need for deliveries.

Application of 40% Reclaimed Asphalt Pavement (RAP) on No. 5 Road

The City partnered with Lafarge Canada in 2020 to introduce a pilot project which uses high Reclaimed Asphalt Pavement (RAP) to demonstrate its potential as a result of a related National Zero Waste Council initiative the City was leading. Together with Lafarge Canada, the City assessed all aspects of the 40% RAP based pavement design and implementation processes and vetted them through consultant and peer reviews prior to execution. In 2020, the City of Richmond implemented the pilot project to use **40% RAP** instead of the City's typical 10% RAP on a **four-lane wide, 800 meter long stretch of No. 5 Road**. This road is classified as a major arterial road and is frequented by commercial truck traffic. **The City's work on this project was the first pilot application of high RAP on a municipal public road in Canada.** Since 2020, **twenty pathways have been paved citywide using high RAP.** Totalling over **1.5 kilometers in length, these pathways range from 20 meters to over 600 meters in length.**

See more information about Circular Economy Initiatives in Section 2.3 of the SPR Additional Information Document.

Circular Economy Leadership

A stakeholder engagement with vendors and local businesses was undertaken to identify innovative solutions using circular economy principles and anticipated cost considerations. City staff realized early on that engaging existing suppliers would be a critical component in developing a successful implementation plan for circular procurement. The approach included engagement with a broad range of local and regional stakeholders, as well as interviews with leading public and private sector organizations.

Activity	Number of participants
City of Richmond Website information regarding the Circular Economy	Public
Government Staff Interviews: 12 interviews with leading, early adopter cities and organizations around the world, at different stages of maturity with respect to circular procurement	4 Cities and 10 organizations
Stakeholder Workshop: Canada’s first vendor-focused Circular Economy Engagement Workshop hosted and facilitated by the City of Richmond. More below.	45 companies + 30 City’s staff
City’s Economic Advisory Committee	Committee Members
Industry Interviews: 15 one-per-one interview with vendors and other external stakeholders	15 one-per-one interviews with vendors and other external stakeholders

Canada’s first vendor-focused Circular Economy Engagement Workshop

In February 2020, the City hosted and facilitated Canada’s first vendor-focused *Circular Economy Engagement Workshop*. Participants included representatives from 45 companies, other public sector organizations, and City staff. Workshop objectives were to:

1. Create awareness of the City’s planned circular economy initiatives and expectations for future participation;
2. Identify and explore opportunities on how products and services could incorporate tangible circular economy outcomes; and,
3. Promote closer relationships with City suppliers to encourage the sharing of ideas, market knowledge and solutions.

See more information in the Section 2.3 of the SPR Additional Information Document.

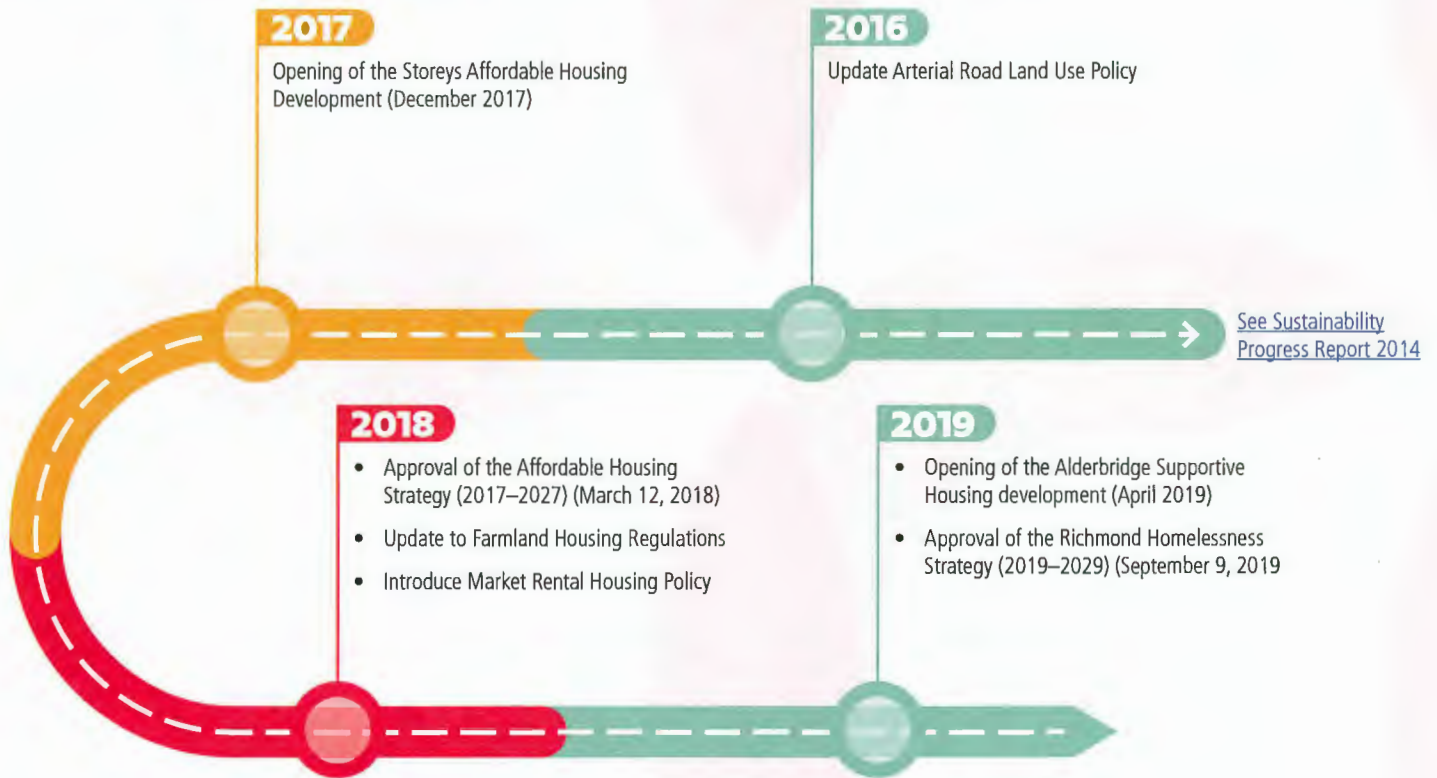
Quick facts

- The City's Drainage and Diking Utility is funded by the annual flood protection utility fee and was established by Council in 2000. It currently generates over \$13 million annually to maintain and upgrade Richmond's flood protection infrastructure.
- Current climate change science estimates that sea levels will rise approximately 1.0 metre by the year 2100 and 0.2 metres of land subsidence is forecasted over the same time period.
- Richmond's robust diking network is built to withstand a one in 500-year return period high water event, including king tide, storm surge and Fraser River freshet.
- The City has several electronic drainage level sensors in drainage pipes, watercourses and box culverts that provide drainage level information.
- The City also has several electronic river level monitors that provide real-time river level and freeboard information. This information is remotely monitored by City staff on a 24/7 basis.
- Total capacity of the City's drainage pump stations has increased by 23% since 2005.
- For more interesting facts and presentations for the report, please refer to the video on the City of Richmond's public website: <https://www.richmond.ca/services/rdws/dikes.htm>



3. Compact, Complete Communities

Milestones and Key Achievements 2015–2020



Quick facts

- Housing affordability remains a critical concern for low-income households in Richmond. For example, there are currently 1,009 Richmond households on the BC Housing waitlist. This number represents a 12% increase compared to 2019.
- The City uses many tools (regulations, policies, guidelines) to guide how land is used and where certain types of development are located to create more complete communities
- Environmentally Sensitive Areas have been established to protect key areas and corridors in the City from impacts from development.



The City is home to an estimated population of 224,425 and 155,000 jobs, serving a diverse and culturally rich population. The growth and development of the City are guided by the vision and goals outlined in the City's long range plan, the Official Community Plan 2041 (OCP). In the past five years the OCP has guided additional growth in the City Centre in proximity to the Canada Line. This has included the construction of new parks, Community Centres and Early Childhood Development Hubs, new office space, affordable housing units and contributions to public art. Growth has also occurred along arterial roads in keeping with the OCP Arterial Road Land Use Policy (updated 2016). Policies have been adopted to encourage the retention and development of market rental housing units and measures to encourage more intensive use of industrial lands within the community.

3.1 Focussed Growth

As outlined in the OCP, new development is focused on the City Centre, arterial roads and neighbourhood centres in an effort to support diverse housing and affordability, as well as walkability and transit-supportive density. In 2020 the City's population estimate was 224,425* with 82,000 dwellings. The City is anticipated to grow to a population of 280,000 by 2041 with the City Centre accommodating 40% of the growth. By adding a mixture of housing types and sizes as well as tenure (rental and ownership) the needs of the community can be better met over time. By planning for a community with a balance of jobs to residents that is well served by transit and amenities, while protecting our natural assets, the City becomes more sustainable.

Increasing housing types along arterial roads

In 2016, the City updated the Arterial Road Land Use Policy and introduced additional housing types (e.g., duplexes and triplexes), refined the Development Permit Guidelines and clarified locational guidelines for different types of housing. **Since 2016, 198 new townhouse units, 8 new single-family units with coach houses, and 16 new compact single-family lots have been approved. This update involved several public and stakeholder consultation events.**

Encouraging the retention and increase of Market Rental Housing


Richmond City Council adopted a **Market Rental Housing Policy** in 2018. The policy seeks to protect the supply of existing market rental housing, support tenants at the time of redevelopment, and encourages the development of new market rental units. Currently, **568 market rental units have been secured** through rezoning applications. Several other projects with market rental units are currently being reviewed through the development applications process.

KEY DOCUMENTS

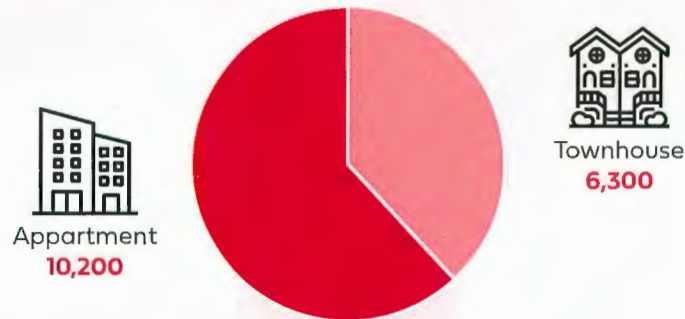
- 2041 Official Community Plan, Area Plans & Guidelines
- 2040 Regional Growth Strategy
- Zoning Bylaw No 8500
- Arterial Road Land Use Policy
- Market Rental Housing Policy
- Industrial Lands Intensification Initiative
- City of Richmond Affordable Housing Strategy (2017–2027)
- City of Richmond Homelessness Strategy (2019–2029)

* This estimate is based on a combination of the 2016 Census population estimate (including undercount) and Richmond's Building Permit data

2014–2041 Richmond Demographics (Est)

	2014	2041
 Population	207,500	280,000
 Employment	148,000	180,000

City Centre — New Housing to 2041



Rest of Richmond — New Housing to 2041



Encouraging and supporting access to licenced child care.

The City of Richmond is a municipal leader in its commitment to child care to address the needs of its resident and employee populations. The 2017–2022 Richmond Child Care Needs Assessment and Strategy provides insight into the status of child care provision in Richmond and provides a 5 year plan for the City and other stakeholders to support this essential service to Richmond families. The number of licenses increased by 21% between 2015 and 2020, resulting in **1,220 licensed childcare spaces**. See more information in the Section 3.1 of the *SPR Additional Information Document*.

3.2 Addressing Housing Affordability

Affordable housing is fundamental to the physical, economic and social well-being of individuals and families in Richmond. Since 2007, the Low End Market Rental Program has achieved considerable success by securing more than 900 new affordable housing units for low and moderate income residents. Between 2015 and 2020, this program secured 519 units and received \$8.5 million in cash-in-lieu contributions, which are directed to the City's Affordable Housing Reserve and used to support standalone affordable housing developments.

Affordable Housing Strategy (2017–2027)

Approved in 2018, the Affordable Housing Strategy (2017–2027) provides strategic direction and specific actions to guide City involvement in the affordable housing sector. Key accomplishments achieved under this initiative include:

- Enhancements to the Low End Market Rental program;
- Advancement of several new affordable housing buildings, which will create more than 300 new units for low-income residents; and
- Ongoing support and collaboration with other regional municipalities involved in affordable housing initiatives. *See more information in the Section 3.2 of the SPR Additional Information Document.*

Homelessness Strategy (2019–2029)

Adopted by City Council in 2019, the City of Richmond Homelessness Strategy (2019–2029) is an action-oriented framework that guides the City's involvement in homelessness initiatives over the next 10 years. Recent accomplishments under this Strategy include working in partnership with BC Housing to plan for the Bridgeport Supportive Housing development, which will include **40 units** of housing for Richmond residents experiencing homelessness, and is scheduled to open in 2022.

Storeys Affordable Housing

In 2018, the Storeys development, a partnership project between the Government of Canada, the Province of British Columbia, and a consortium of non-profit organizations, opened its doors. The project provides both affordable housing and on-site programming space for non-profit organizations. The project has achieved significant success and has won multiple awards, including the **Award for Planning Excellence issued by the Canadian Institute of Planners**. *See more information in the Section 3.2 of the SPR Additional Information Document.*

Alderbridge Supportive Housing Development

In 2019, the City partnered with BC Housing and Rain City Housing to open the Alderbridge Supportive Housing development. This building **provides 40 units of housing and on-site supports** for Richmond residents who have experienced homelessness. During the first two years of operation, the project has achieved significant success and has enabled tenants to achieve housing stability and improved mental and physical health.

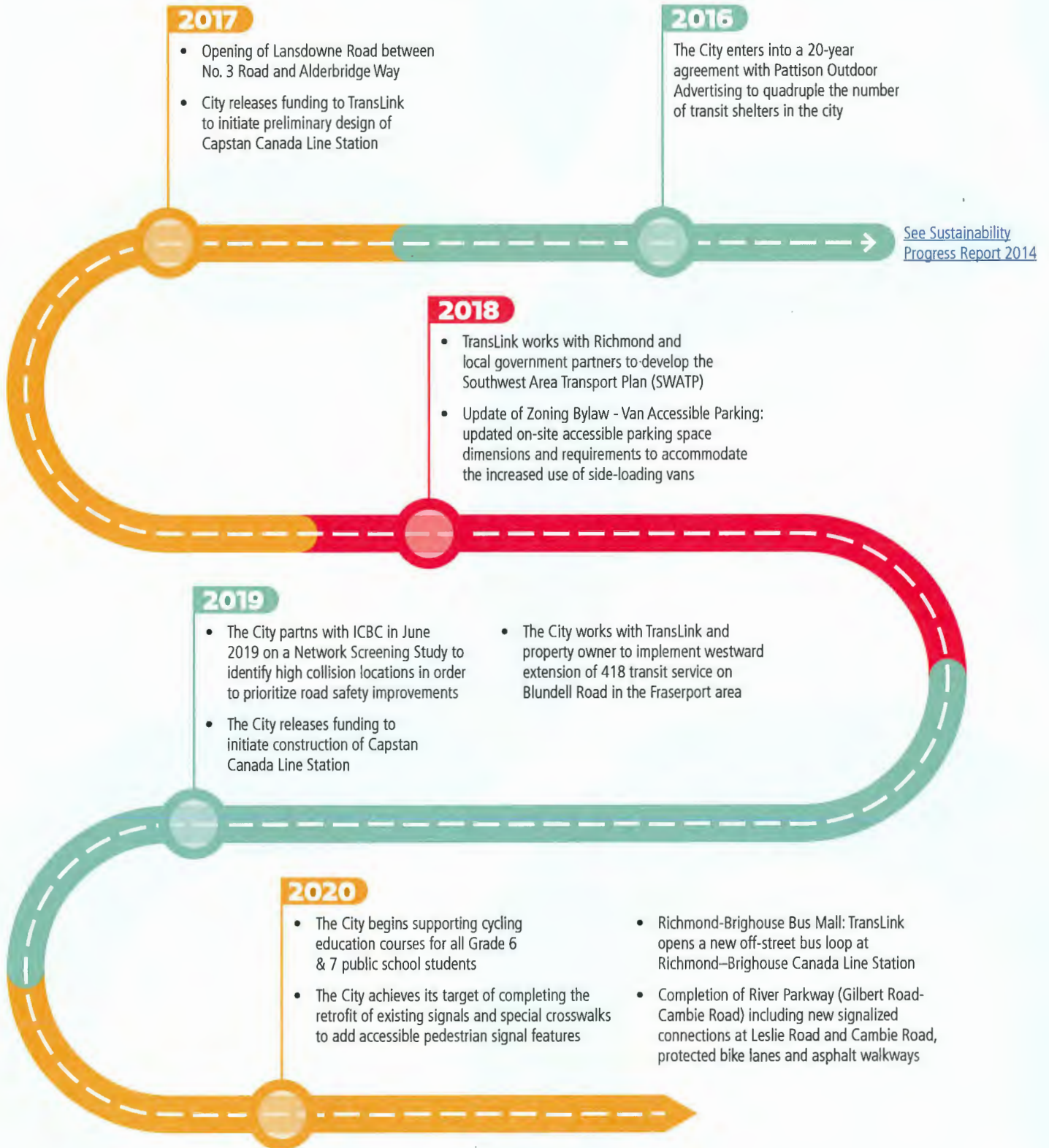
Richmond House Emergency Shelter

In 2019, the City partnered with BC Housing and The Salvation Army to develop a new emergency shelter with **30 beds** for both men and women. The shelter replaces the Salvation Army's former 10-bed facility, and provides a much-needed source of accommodation for people experiencing homelessness in Richmond.



4. Mobility & Access

Milestones and Key Achievements 2015–2020



Mobility and access are fundamental to the life of a city—a city where the most vital assets are a vibrant downtown, connected neighbourhoods, an island shoreline, open spaces, as well as protected agricultural lands. Managing population growth and diversity provides opportunities for municipalities to develop new livable, vibrant and sustainable community spaces. Richmond’s population has grown by 26% since 2003. Richmond Council has long-invested in sustainable transportation initiatives to improve mobility and access in Richmond, resulting in more vibrant streets, stronger community ties, reduced greenhouse gas emissions, and less environmental impact. Additionally, the City has been working to develop more compact, walkable and bikeable neighbourhoods with mixed land uses and convenient public transportation, which foster low-impact travel.

4.1 Street Furniture Expansion Across Richmond

In 2016, the City entered into a 20-year agreement with Pattison Outdoor Advertising to quadruple the number of transit shelters in the city, adding a minimum of 200 within the first 10 years, while also adding 600 benches, **200 recycling bins, and 200 litterbins** at bus stops over the term of the contract. As of December 2020, there are **105 transit shelters** (97 Pattison-owned and 8 City-owned).

4.2 Long Range Transit Planning: Area Transport Plan

In April 2018, TransLink worked with Richmond and local government partners (Delta and Tsawwassen First Nation), stakeholders and the public to develop the Southwest Area Transport Plan (SWATP) that identifies transit service and infrastructure priorities, while also addressing aspects of cycling, walking, driving, and goods movement. The SWATP was TransLink’s **first broader multi-modal plan** that reviewed the entire transportation network within the identified sub-area of the region rather than just the transit network. *See more information in the Section 4.2 of the SPR Additional Information Document.*

4.3 Safer Streets: Reducing High Collision Locations

The City partnered ICBC in June 2019 on a Network Screening Study to prioritize high collision locations in order to determine where road safety improvement investments should be directed to achieve the greatest safety benefits. A prioritized list of the top 20 collision prone intersections and the identification of potential short-term and medium/long term improvements that will reduce crash rates for motorists, pedestrians and cyclists was developed. This information helps to determine where road safety resources can be most optimally allocated. Outcomes include:

- A concrete action plan, with new and dedicated City funding towards the implementation of the safety improvement program (\$4.66M committed to date, approximately \$16M proposed in the 2021-2025 five-year capital cycle);

KEY DOCUMENTS

- Official Community Plan and City Centre Area Plan
- Zoning Bylaw
- Community Wellness Strategy, Social Development Strategy
- Age-Friendly Plan, Age-Friendly Assessment and Action Plan
- Dementia-Friendly Community Action Plan
- 2010 Trail Strategy
- Southwest Area Transport Plan (TransLink)

- Update of the City's road design principles (e.g., elimination of right-turn channelization, revised curb return radii requirements, road dieting, etc.) that influence all new road projects to enhance safety for all users including pedestrians and cyclists; and
- Establishment of an on-going monitoring program to monitor safety improvements.

See more information in the Section 4.3 of the SPR Additional Information Document.

4.4 Expanding Rapid Transit Access: Capstan Canada Line Station

The City, TransLink, and developers worked together to raise funding for the future **Capstan Canada Line Station**. A first of its kind in Canada in terms of the degree of co-operation, collaboration, and funding of the station, which was achieved with no financial burden to taxpayers. Concept design options commenced in 2017 with the transfer of \$1.1 million from the City to TransLink. In December 2019, the City transferred a further \$28 million in developer-supported funds to initiate detailed design and construction. The City subsequently in 2021 transferred \$3.0 million in developer-supported funds towards the inclusion of dual escalators and extended platforms to accommodate three-car trains. With over 6,000 residential units being built in and around the Capstan Village area, the community will benefit enormously from the new station, providing a sustainable mode of transportation that supports urban lifestyles. The project is expected to be complete around mid-2023. *See more information in the Section 4.4 of the SPR Additional Information Document.*

4.5 Cycling Education for Students

Starting in 2013, the City began funding cycling education courses for Grades 5 to 7 students, typically at four public elementary schools per year. Starting in 2020, the City expanded the funding to include all Grade 6 and 7 public school students over a two-year period, which includes 19 elementary schools or approximately 3,000 students per year. The goal is to increase students' safe cycling skills and confidence so they can experience the benefits of biking for transportation now and throughout their lives. The program fosters active and healthy living for children and youth in Richmond, and contributes to the City's goals to reduce GHG emissions by increasing the use of sustainable travel modes.

4.6 Accessible Pedestrian Signal (APS) Features

Since 2010, the City has been implementing APS features at all City-owned signalized intersections and special crosswalks throughout the city and achieved its target of completing the retrofit of existing signals and special crosswalks by 2020. **This goal was achieved with the retrofit addition of APS features to 66 special crosswalks, 41 pedestrian signals and 133 full traffic signals. APS features now are part of the standard installed equipment.**

APS features are audible sounds and tactile features at crossings. These features include:

- a pole locator sound that identifies the location of the pushbutton
- a special tone that is emitted when the button has been pushed
- a tactile arrow that identifies the direction of the crossing
- audible confirmation tone on button push
- verbal wayfinding message following audible acknowledgment
- at signalized intersections, a cuckoo sound when the north-south walk light is active and a peep-peep sound when the east-west walk light is active plus the tactile arrow vibrates when the walk light is on
- at special crosswalks, a verbal “caution” message following the verbal wayfinding message
- automatic volume increase based on ambient noise

See more information in the Section 4.6 of the SPR Additional Information Document.

4.7 Enhanced Transit Connections: Richmond–Brighouse Bus Mall

In 2020, TransLink opened a new off-street bus loop at Richmond–Brighouse Station to ease traffic on No. 3 Road, provide customers more space, and allow for future bus service expansion in Richmond. The on-street bus exchange served nearly 12,000 customers on an average weekday in 2019 and is an important transfer point for bus customers connecting with Canada Line. The new bus loop moves the loading areas for five routes and the N10 Night Bus off No. 3 Road, which improves traffic flow by reducing circulation on local roads previously required to turn the bus around for the reverse journey.

4.8 Van Accessible Parking Spaces

In 2018, the City updated the Zoning Bylaw with respect to on-site accessible parking space dimensions and requirements to accommodate the increased use of side-loading vans. The update responds to community feedback and advances the social development and transportation goals, objectives and actions outlined in the *Official Community Plan* and related strategies (e.g., *Building our Social Future: A Social Development Strategy for Richmond*).

If only one accessible stall is required, the space is van accessible. If two accessible stalls are required, one is van accessible and one is a standard accessible stall. Additional measures include:

- To specifically identify a van accessible parking space;
- Location of the pavement markings to ensure that the wheelchair symbol is not fully covered when the space is occupied; and
- Provision of a wheel stop in each accessible parking space to prevent motorists from hitting the sign.

These requirements and layouts reflect best practices in BC and across North America and, at the time of enactment, were understood to be the highest in the Metro Vancouver area.

Quick facts



- **Accessible Bus Stops:** In Jan 2015: 65.5% (469 of 716 stops) are accessible with a regional average of 70.8%. In Dec 2020: 82.8% (597 of 721 stops) are accessible with a regional average of 80.3%
- **Active Transportation Network:** As of 2020, nearly 80 km (78.2 km) of cycling and rolling routes comprising on-street bike routes and off-street greenways and multi-use paths (excluding unpaved dyke trails). Up from 65 km at end of 2014.
- **Intersection Traffic Cameras:** as of 2020, installed at 95 signalized intersections out of a total of 180.
- **LED Overhead Street Name Signs:** as of 2020, installed at 102 signalized intersections.
- **UPS (uninterrupted power supply):** as of 2020, 74 signalized intersections with UPS that provides continuous power in the event of an outage.
- **Memorial Street Name Signs:** design and installation in 2016 of 272 street name signs with poppy emblem on 54 streets that are named after residents who died in military service.

Year	% Accessible Bus Stops	# Special Crosswalks	# Intersections with Pedestrian Signals	# Intersections with Full Traffic Signals	Active Transportation Network (KM)
2015	68.6%	71	40	165	68.0
2016	73.1%	76	41	167	70.6
2017	75.4%	83	42	173	72.6
2018	78.3%	88	42	175	74.5
2019	81.9%	92	43	175	77.8
2020	82.8%	93	44	180	78.2

Note: special crosswalks, pedestrian signals and full traffic signals on provincial and Vancouver Airport Authority jurisdiction are excluded.





5. Green Built Environment

Milestones and Key Achievements 2015–2020



The City is a highly diverse and values-based organization that performs with excellence. The City's corporate values define the City's corporate culture and represents the fundamental principles by which it operates. Every department and business unit in the City is engaged in the community and the global effort in some aspect to become more sustainable and reduce environmental impact.

5.1 Energy Management at Civic Facilities

Richmond's community recreation centres, libraries, fire halls and cultural facilities are vital for the health, safety and well-being of our residents. Maintaining and enhancing these City facilities by improving energy efficiency and reducing greenhouse gas emissions is a priority. From 2015 to 2020, our energy management program has saved 4.713 GWh of energy, and avoided 50.3 tonnes CO₂e in emissions through improvements to these facilities.

The City has also been successful in obtaining co-funding support from BC Hydro to advance a comprehensive energy efficiency and electrification program for our civic facilities, including street lighting. LED street lighting replacement alone has saved approximately 1.61 GWh and \$188,120 in utility expenditures since 2015. In 2020, 136 solar photovoltaic (PV) panels were installed on the rooftop of Brighthouse Fire Hall #1, generating 49,000 kWh of electricity per year. The solar array will provide enough power annually to completely offset the electricity used at the firehall, effectively making the building 'net zero energy' on an annual basis. By utilizing a rooftop solar array on this new firehall, City staff gained experience in photovoltaic technology and sizing the array to achieve net zero energy on an annual basis.

5.2 Minoru Centre for Active Living

In replacing three existing facilities, the Minoru Centre for Active Living is a significant step forward in the provision of recreation and sport facilities for the Community and will become a legacy for Richmond residents. The building was designed to meet Leadership in Energy and Environmental Design (LEED) Gold standards. The aquatic centre, co-located with a new seniors' centre, event centre and fitness centre, has two 25 meter lap pools, a 7,000-square-foot leisure pool featuring a mega drop bucket, and five other water features, a rapid-flowing river channel, a slide and an errant rain cloud shower. The facility also includes two hot tubs, sauna, steam room and a cold-plunge pool. The Seniors Centre features a lounge, full-service cafeteria, billiards room, arts studio, woodworking shop, and multipurpose rooms. The facility features an innovative exterior landscape that celebrates a diverse, active, and vibrant Richmond community while highlighting its sustainable environmental practices:

- In partnership with Mazdis, the City has built a secure automated bike storage system called Mazdis, which is a unique and original idea. Under the agreement, the City will receive royalties from the sale of Mazdis bike lockers in the future;
- A 200,000-litre cistern has been installed that collects discharged pool water for landscape irrigation; and

- The exterior building design includes a sloped, covered entrance for seniors, rest zone benches between the public crosswalks, and accessible parking facilities.

See more information in the Section 5.2 of the SPR Additional Information Document.

5.3 Fire Hall No. 1

The new \$24.4 million Brighthouse Fire Hall No. 1 replaces the 50 year-old 17,000 square foot Brighthouse Fire Hall. Designed to meet the operational needs of Richmond's growing community, the new fire hall has a strong civic image and meets strict operational requirements. The building was designed to meet Leadership in Energy and Environmental Design (LEED) Gold standards. This 25,240 square foot facility is post-disaster rated to ensure that it will remain operational in the event of a significant earthquake. In addition to being an operational fire hall, it is home to Richmond Fire-Rescue's Administration, Fire Prevention and Community Relations. The facility incorporates a variety of sustainable features that optimize energy efficiency and operating requirements. It has also designed to be a net zero carbon emission building. Solar panels installed on the building are capable of generating up to **60,000 kWh of electricity per year**, which is the equivalent of the energy consumption of five residential homes, **reducing energy consumption by an estimated 12 percent annually**.

5.4 Expanded Parks and Open Space System

The importance of parks remains the same: the human need to connect with green spaces and nature is crucial to a healthy lifestyle and a viable and thriving city. City's parks are an integral part of what is defined as a well-planned community that provides green space for residents to relax, engage in passive and active recreation, and connect with nature. Parks can take many forms, whether they be civic plazas or outdoor sports-oriented facilities in the heart of a dense urban space or natural areas preserved for green infrastructure or ecological reserves. In December 2019, City's Council adopted the **Public Tree Management Strategy 2045**, which has a 25-year outlook and aligns with the City's projected population growth rate and development patterns as envisioned in the City's Official Community Plan. The City has provided more opportunities for people to experience nature by promoting innovative, high quality designs for the parks and open space system which include:

New trails and greenways

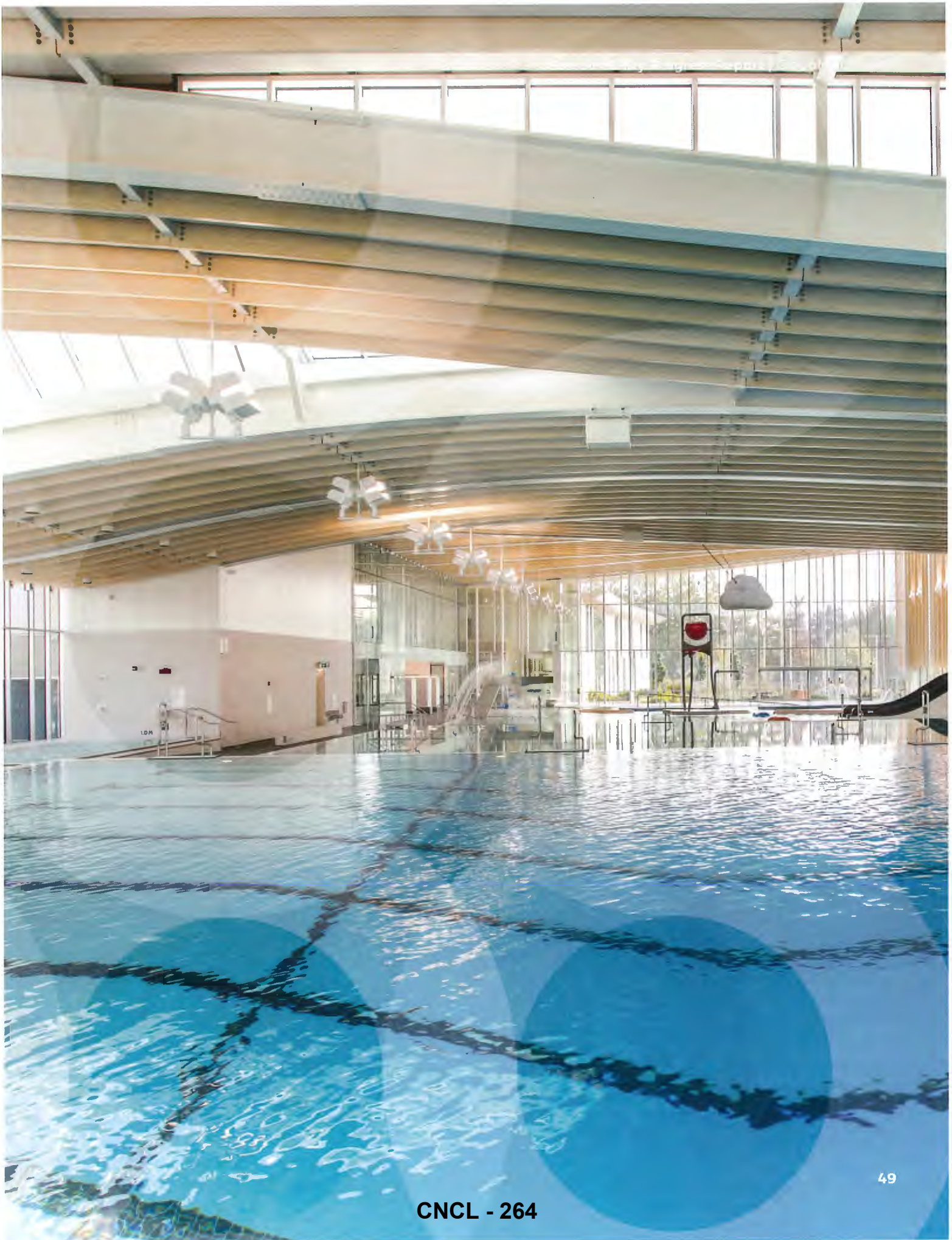
- **Completion of the Railway Greenway**—2015: A 5km continuous linear greenway for pedestrians and cyclists that connects between the Middle Arm Dyke Trail and the Steveston neighbourhood. (Parks Planning Design and Construction, Parks Operations, Parks Program, Transportation)

- **Middle Arm Waterfront Greenway—2018:** Completion of upgrades to a 100 metre section of the Middle Arm Waterfront Greenway which includes native, riparian planting along the dike face and dike crest, and separated cycling and pedestrian paths (Parks Planning Design and Construction, Parks Operations, Engineering).
- **Gilbert Road Greenway—2018:** Completion of a 250 metre section of the Gilbert Road Greenway which includes a mixed use trail, public art, pollinator friendly turf plantings and tree planting (Parks Planning Design and Construction, Parks Operations, Transportation).

New or expanded parks

- **Garden City Lands—2015—On Going:** Following Council’s approval of the Garden City Legacy Landscape Plan in 2014, construction of a public park on the Lands began in 2015. The unique 136.5 acre site features bog conservation and agriculture within the City Centre. Construction to-date has focused on the major infrastructure required to protect the bog ecosystem while allowing 40% of the site to be used for farming.
- The perimeter trail, farm access roads, extensive native planting along the perimeter of the site and several landscape features have been developed. The City has hosted several summer events on the Lands to invite the public to learn more about Richmond’s farming heritage, current agricultural practices and sustainable agriculture activities occurring throughout the City. The Garden City Lands officially opened to the public for use of the perimeter trail only, in 2017 (Parks Planning Design and Construction, Parks Operations, Parks Program).
- **Retrofit of Lang Park—2017:** Features an interactive water spray feature, a small children’s play area, new seating, and public art (Parks Planning Design and Construction, Parks Operations).
- **Minoru Park Vision Plan—2017:** The Minoru Park Vision Plan Guiding Principles were approved by Council in 2017, followed by community consultation and engagement to guide the design of Minoru Park into the future (Parks Planning Design and Construction, Parks Program).
- **Creation of Aberdeen Neighbourhood Park—2018:** A new 4 acre downtown neighbourhood park featuring walkways with lighting, a plaza, a dog park, a lawn area, and a rain garden (Parks Planning Design and Construction, Parks Operations). In 2021, the City began a Phase 2 upgrade to the park with the construction of a public washroom, children’s playground, all-weather pavilion, and Chinese Exchange Garden.
- **Alexandra Neighbourhood Park—2018:** Construction of Phase 1 of the 6 acre Alexandra Neighbourhood Park which includes a wetland, a 2 acre meadow and 82 trees (Parks Planning Design and Construction, Parks Operations). Phase 2 is proceeding in 2021 with the installation of public art, sports and active recreation features and meadows to support native pollinators and resident Barn Owls.

- **Capstan Neighbourhood Park—2019:** Phase 1 of Capstan Neighbourhood Park includes a children’s playground, water features, seating, an urban plaza, extensive tree and shrub plantings, and open lawn areas. This park is adjacent to the City-owned Sprouts Early Childhood Development Hub. The 2.1 acre park will be fully realized when the future Capstan Canada Line station along No. 3 Road is completed, and will become the central open space of this new neighbourhood in the Capstan Village area of the city centre (Parks Planning Design and Construction).
- **The Gardens Agricultural Park—2019:** The Gardens Agricultural Park opened in early 2019. The ponds, walkways, and garden-like landscape are reminiscent of the original “Fantasy Gardens,” with the addition of native plant species to provide more pollinator and bird habitat. The new ponds serve as storm water detention ponds that collect storm water runoffs from the adjacent residential development (Parks Planning Design and Construction, Parks Operations). *See more information in the Section 5.4 of the SPR Additional Information Document.*





6. Thriving Natural Environment

Milestones and Key Achievements 2015–2020



Richmond is located directly within the Fraser River estuary, where salmon-bearing waters meet the abundant Salish Sea, resulting in one of the most productive ecosystems in the world. Richmond's islands and foreshore habitats support the Pacific Flyway, an area of international significance that hosts millions of migrating birds every year. The City's interconnected network of shoreline, sloughs, canals, bogs, marshes, agricultural lands, and forests support a variety of plants and wildlife.

6.1 Ecological Network Management Strategy

Adopted in 2015, Richmond's Ecological Network Management Strategy (ENMS) provides an innovative and opportunistic framework for managing and guiding decisions regarding the city-wide system of natural areas in Richmond and the ecosystem services they provide. In 2016, Richmond was recognized for the Ecological Network Management Strategies' demonstrated leadership within the criteria of sustainability, innovation, transferability, public process, and contribution to the profession of policy planning, receiving the **Silver Award for Excellence in Policy Planning**; awarded by the Planning Institute of British Columbia. The award recognizes initiatives and solutions that enhance social, economic and environmental well-being of communities. *See more information in the Section 6.1 of the SPR Additional Information Document.*

6.2 Protection of Habitat in Designated Stream

Richmond's Riparian Response Strategy was originally developed in 2006 in consultation with the Province of BC and the Fisheries and Oceans Canada to protect riparian areas from adjacent residential, commercial and industrial development. In 2018, Richmond formalized 5 and 15-metre Riparian Management Area setbacks within *Richmond Zoning Bylaw No. 8500 and the Watercourse Protection and Crossing Bylaw No. 8441* enabling more effective communication of protection requirements to the development community. The updates increased oversight and provided additional tools to the City to ensure the protection and enhancement of Riparian Management Areas through a collaborative stewardship based approach. Since 2015, Richmond's Riparian Response Strategy in collaboration with local developers has generated over **2.5 hectares of native plant enhancements** within Riparian Management Areas. *See more information in the Section 6.2 of the SPR Additional Information Document.*

6.3 Pollinator Initiatives

Residents and businesses in Richmond are encouraged to celebrate and protect City's pollinators by participating in the following projects and initiatives:

- **Bridgeport Industrial Park Pollinator Pasture:** Richmond established a partnership with BC Hydro, Border Free Bees, and Emily Carr University of Art and Design in 2015 to convert **10,500 m²** area of industrial land, into an artistic display of wildflowers and bee hotels to support local pollinator species. The project received the British Columbia Recreation and Parks Association Award for Excellence in 2018.
- **Terra Nova Public Art Pollinator Meadow:** Richmond initiated a second partnership with Border Free Bees in 2018 to transform an additional **2,200 m²** of underutilized land space at the Terra Nova Rural Park into habitat for pollinators. The area also serves as an outdoor classroom for preschool aged children attending the nearby Terra Nova Nature School.
- **The Butterflyway Project:** Richmond was the **first city in the region to install a "butterflyway"**. This is an area dedicated to the planting of native wildflower, plant and shrub patches that provide food and shelter for butterflies. Richmond now has a total of **23 butterflyways** that were created and monitored by hundreds of butterflyway rangers, providing habitat for urban pollinators. Launched by the David Suzuki Foundation, the project picked up the Nature Inspiration Award for a non-profit organization in 2020.
- **Nectar Trail:** Richmond extended its initiatives to the community in 2020 with the establishment of the Nectar Trail pilot project. Residents sign up and pledge to dedicate a minimum of 1m² pollinator habitat on their property to provide a stepping stone for pollinators and boost habitat connectivity between the larger pollinator pasture and meadow anchor points. The pilot received 17 private and 10 city property sign ups in its first year.

See more information in the Section 6.3 of the SPR Additional Information Document.

6.4 North East Bog Forest Preservation and Enhancement

As part of a pilot program implemented in 2016, the City shaded out stumps regrowth to control invasive blueberry growth in the bog. The small scale pilot program was successful, resulting in the employment of a contractor to expand and monitor the program. In 2019, a **320-meter boardwalk featuring a widened 8-foot wide deck** and a programmable staging platform was constructed for enhanced wildlife viewing opportunities and bog preservation.

6.5 Barn Owls Nest Box Program

The City's Barn Owl Nest Box Program provides suitable and safe nesting boxes for this provincially red-listed and federally threatened species. Together with the Fraser Valley Conservancy, City staff and volunteers, **8 Barn Owl boxes** have been installed in suitable locations throughout the City of Richmond between 2015 and 2020. These boxes can be found on City owned properties and parks.

6.6 Bat Friendly Community

The City embraced the challenge of supporting bats and implemented multiple programs to accomplish this task. The Richmond Nature Park Society offers bat education programs on conservation and white nose syndrome to elementary schools at the Richmond Nature Park. The society welcomed in over **1,000 students in 2019**. Richmond's work has been celebrated and shared with other municipalities and in 2020 the **City received certification as a "Bat Friendly City"** through the BC Community Bat Program. Richmond was the third municipality in BC to achieve this honour, and the first in the lower mainland. In 2019, Richmond began gathering information on bat roosts and feeding sites at Terra Nova Rural Park, and in 2020 the City installed a Bat Condo capable of housing up to **3,000 individual bats**. See more information in the Section 6.6 of the SPR Additional Information Document.

6.7 Invasive Species Action Plan

In 2015, Richmond adopted the Invasive Species Action Plan that enables a strategic risk-based approach to the management of priority invasive species that threaten human health, civil infrastructure, and the displacement of native species. Richmond's work under the Invasive Species Action Plan has been referenced in regional best management practice documents and has been recognized as a leader in the management of invasive species due to its proactive, trial-based approach to treatment. Richmond participates annually in Invasive Species Action Month engaging hundreds of residents through traditional and social media, and has been featured in local televised news segments.

- **Brazilian elodea:** In 2017, Richmond secured \$225,000 in provincial funding to address a Brazilian elodea infestation along the West Dyke trail in Steveston. Through timed draw downs in winter months and the novel use of Diver Assisted Suction Harvesting equipment, Richmond has succeeded **in reducing the 5,500m² infestation by over 85%**, leading to a healthy resurgence of native vegetation.
- **Knotweed species:** In 2017, Richmond **actively treated 30,000 m²** of knotweed over **319 individual sites**. Through ongoing management, this number was reduced to **13,000 m²** of actively managed knotweed over **104 individual sites** in 2020.

- **Parrots feather:** Since 2016, Richmond has conducted several trials to determine effective management strategies including mechanical removal, geotextile installation and shading techniques. Positive results have guided the installation of geotextile in open drainage networks within several neighborhoods to suppress regrowth while maintaining drainage function. The City actively managed **12,600 m²** of Parrots feather.
- **Wild chervil:** In 2016, Richmond initiated experimental mowing trials along **3,200m²** of the West Dike trails in an effort to control the growth and spread of wild chervil along the banks.
- **Chafer beetle:** In 2018, Richmond collaborated with West Coast Seeds to develop a seed mix which includes hearty grass species that can stand up to chafer damage and provide foraging for pollinators called “Bee Turf”. Richmond has trialed several pesticide-free methods to manage chafer beetle which include novel nematode applications, alternative grass species, and optimization of lawn care procedures to reduce the potential for chafer beetles to cause wide spread damage. The City has treated **29,264 m²** of chafer-infested turf between 2015 and 2020.

In 2020, the City installed four ‘demonstration plots’ in Terra Nova Rural Park for the Alternative Lawn Demonstration Garden, showcasing alternative ground covers residents can use to seed lawns. The alternative mixes are:

- Resistant to the invasive European Chafer Beetle, reducing the need to repair lawns year to year;
- Less moisture dependent, reducing the need to water lawns as frequently during the dry season; and
- Many of the lawn alternatives support native pollinator species as the mixes contain diverse pollinator food species.

See more information in the Section 6.7 of the SPR Additional Information Document.

6.8 Pesticides Management

Since 2015, the City of Richmond has delivered **121 pesticide-free gardening workshops** and other educational programs to over a **1,800 residents** under the Enhanced Pesticide Management Program. Approximately **100 calls** are received annually from residents through the City’s Pesticide and Invasive Species Hotlines.

6.9 Youth Engagement

Richmond Green Ambassadors

Richmond Green Ambassadors are dedicated high school students who participate in monthly symposiums to learn about environmental sustainability and apply what they have learned as volunteers at City events and activities. These energetic and environmentally conscious individuals also manage green initiatives in their schools.

Richmond Earth Day Youth (REaDY) Summit

As a part of the Green Ambassador Program, the City, in partnership with the School District and the David Suzuki Foundation, formed the Richmond Earth Day Youth (REaDY) Summit as another opportunity for Richmond's youth to participate in knowledge sharing and sustainable initiatives. The REaDY Summit is a youth-led conference initiative currently catered for elementary school participants. Since 2015, the event has reached over **3,000 students** across the Richmond School District.

Green Ambassadors have a chance to perform various leadership roles in the conference by initiating the planning and hosting process of the event. Green Ambassadors participate in every aspect of the Summit from the inception of the purpose, to the selection of keynote speakers and fulfilling leadership roles during the event such as co-chairs, masters of ceremonies, workshop, presenters, facilitators and greeters. The Summit is successful in increasing awareness of environmental sustainability while fostering continual interest in recycling and responsible waste management.

Year	Number of Green Ambassador volunteers	Volunteer Hours
2015	150	3,650
2016	153	2,660
2017	135	3,520
2018	145	2,752
2019	250	4,167
2020	154	1,137

6.10 Urban Wildlife Webpage and Phone Inquiries

From 2015–2020, **785 calls** were taken by staff at Richmond Nature Park in response to urban wildlife inquiries. Eight common urban wildlife species have been added to the City's webpage, with more planned to be added in the upcoming years. *See more information in the Section 6.10 of the SPR Additional Information Document.*

6.11 Partners for Beautification

The Partners for Beautification Program (PFB) is a unique opportunity for Richmond residents of **all ages**, community groups, service clubs and businesses to get involved with one or more of the adoption programs to help make a difference in the parks, streetscapes and dike legacy. From 2015–2020, **4,016 cleanups** were conducted by **9,013 volunteers** contributing a total of **48,780 volunteer hours**. See more information in the Section 6.11 of the *SPR Additional Information Document*.

6.12 Partnership with Richmond Nature Park Society

Richmond Nature Park put on programs and events that encourage and promote public awareness and interest in the study of nature, environmental sustainability and outdoor education. From 2015–2020, **127,276 people** visited the Richmond Nature House at Richmond Nature Park. 71 shows attracting over 33,000 drop-in participants occurred. **1,334 school programs** were offered to **27,863 students** and **673 public programs** were offered to **5,444 registrants**. See more information in the Section 6.12 of the *SPR Additional Information Document*.

6.13 Contaminated Sites and Pollution Prevention

Contaminated Sites Management System

The City is actively engaged in ensuring City lands are managed and remediated to a standard that is protective of the zoned uses, current uses, and planned uses. The City's work resulted in:

- Two Certificates of Compliance for City-owned lands in 2019 after an 8-year remediation program;
- A GIS database that digitized and stored over 1000 paper files related to formal notifications, environmental reports, site histories, and legal instruments which was useful in the department's transition to a remote workplace by 2020;
- An award of a \$175,000 grant in 2017 from the Federation of Canadian Municipalities for a contamination investigation of the future Middle Arm Waterfront Park. The Federation of Canadian Municipalities presented this project at a recent industry-training event in 2020.

Pollution Prevention: Responding to Spills

The City completed a comprehensive update of its Transportation of Dangerous Goods Spill Response Plan from 2017 to 2019. Since the adoption of the new spill tracking system in December 2017, the new plan saw the City effectively respond to 161 reports of spills to the environment in a safe, coordinated, methodical manner. In 2020, the City was added to the Greater Vancouver Integrated Response Plan to provide coordinated response to spill emergencies that may affect Richmond residents.

Mitchell Island Stewardship Initiative

Launched in 2018, the initiative objective is to protect and maintain the environment on the island, located in the ecologically sensitive Fraser River Estuary, which is one of Metro Vancouver's major industrial centers. Richmond is playing a leadership role in improving the environmental health of the island through its work with businesses, monitoring the island health, and collaborating with partner Federal, Provincial, and regional regulators. Achievements of the City's work include:

- A Mitchell Island Environmental Stewardship event held in May 2019 that distributed information on best management practices to the more than 90 stakeholders in attendance;
- A multi-jurisdictional, water-based inspection of Mitchell Island foreshore in October 2019, coordinated by the City.
- The initiative was recognized as a finalist in the UBCM Excellence in Sustainability Awards in September 2020; and
- Receiving \$75,000 in funding from the Federation of Canadian Municipalities' Green Municipal Fund in November 2020 to further efforts to support the Mitchell Island Environmental Stewardship Initiative.

Construction dewatering Non-Stormwater Discharge Process Improvements

The City regulates construction dewatering discharge and other non-stormwater discharges to its stormwater system through the Pollution Prevention and Clean-up Bylaw No. 8475. In 2018, the City reimagined its process for managing non-stormwater. The new system uses a tiered approach to safeguard the environment from the dangers of harmful discharge. The Non-Stormwater Discharge permit allows for quick turnarounds to support the development community. As a result of the City's efforts, the following outcomes have been achieved:

- Richmond received the BC Environmental Managers Association's 2019 Technological Innovation Award for the simplified non-storm water discharge management program; and
- 30 non-stormwater permits have been processed by the City since December 2018, safely regulating discharge water generated during site redevelopment.

See More Information in the Section 6.13 of the SPR Additional Information Document.



Choy
\$2.50/lb

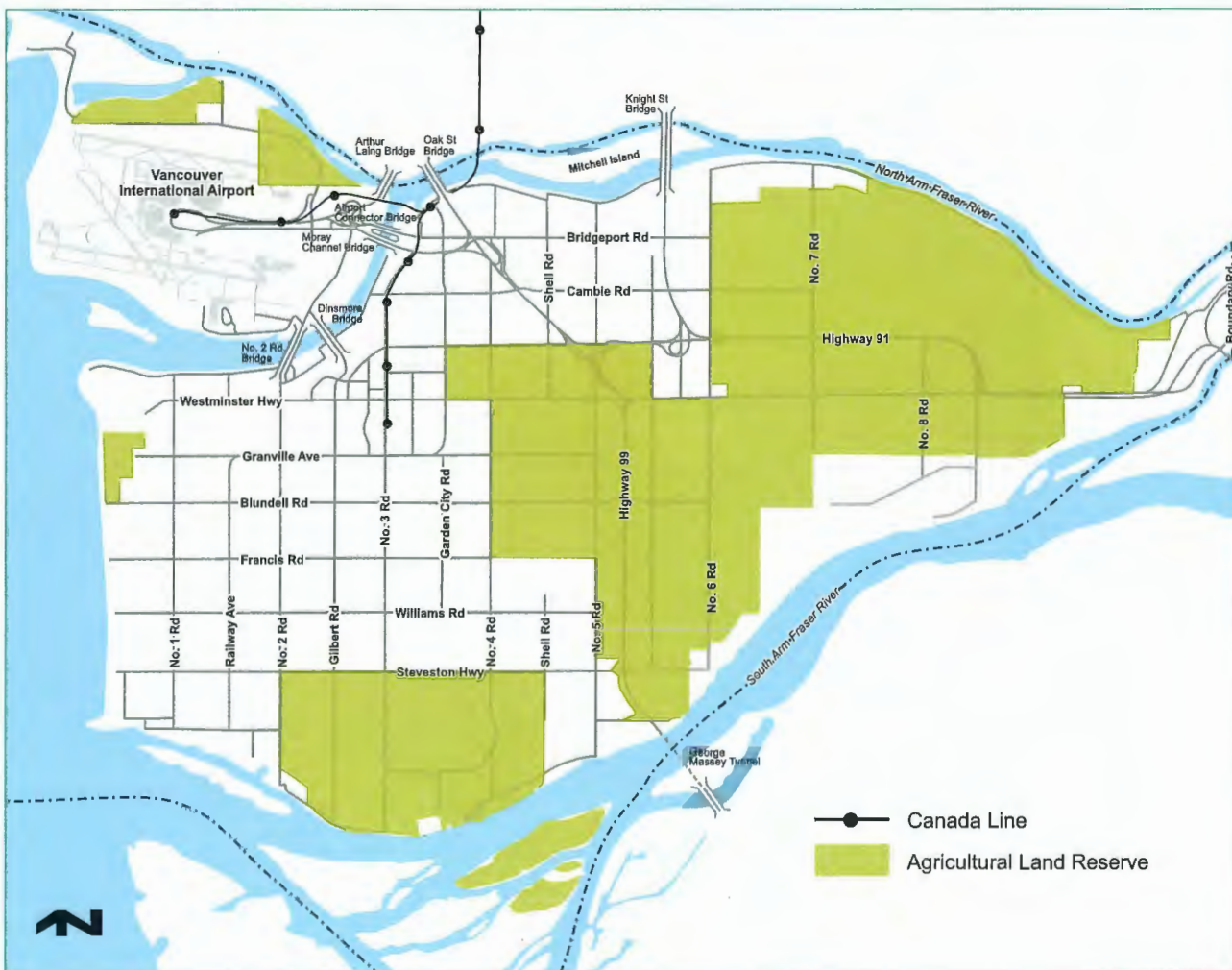
Broccoli
\$2.50/lb

7. Local Agriculture and Food Security

Agriculture has played an important role in Richmond’s history and present economy. Fertile soil and the promise of agricultural productivity attracted early settlers to Richmond. Despite growing into a vibrant, cosmopolitan urban centre, Richmond has retained a significant portion of its land as an agricultural area over time. Agriculture is an integral part of Richmond’s history today, a substantial contributor to both the local and regional economies and important land use in the City. Local produce and seafood are available directly from producers, merchants, and Farmer’s Markets. A total of 4,993 ha (12,338 acres) or 39% of Richmond’s land area is located in the Agricultural Land Reserve (ALR).

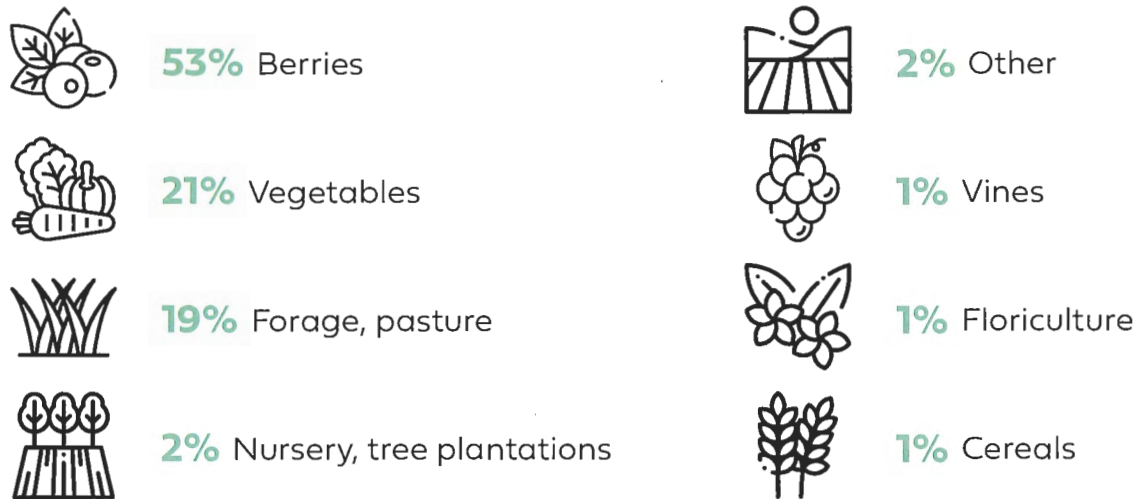
7.1 Agricultural Land Base

Approximately 4,993 ha (12,338 ac) of Richmond’s land base, or 39% of the City, is within the Agricultural Land Reserve (ALR). While the total amount of area within the ALR and area zoned Agriculture outside of the ALR is approximately 5,563 ha (13,746 ac); this does not include ALR boundaries on Sea Island. The amount of land in the ALR has remained relatively stable in the last 30 years.



Approximately 3,122 ha (7,714 ac) of Richmond is farmed by 189 farms (2016 Census). The average size of a Richmond farm is 16.5 ha (41 ac). The remaining lands in the ALR are either vacant or occupied by non-farm uses (including roads, institutional uses, golf courses, etc.).

Main field crops by %



Cranberries are the most dominant crop in Richmond, with 807 ha (1,995 ac) in production, accounting for 35.8% of the crop total. In 2016, Richmond accounted for approximately 31% of BC’s cranberry acreage. Blueberries are also a significant crop in Richmond, with 577 ha (1,426 ac) in production, accounting for 25.6% of the crop total.

The 189 farms that reported in the 2016 Census of Agricultural recorded gross farm receipts of \$57.8 million, with an average of \$305,820 per farm. This is an increase from \$48.6 million of gross farm receipts reported by 211 farms in 2011, \$40.5 million of gross farm receipts reported by 172 farms in 2006, and \$37.6 million of gross farm receipts reported by 182 farms in 2001. See *more information in the Section 7.1 of the SPR Additional Information Document.*

7.2 Protecting Farmland

The City has established a number of regulations for residential use of farmland, including establishing:

- a maximum farm home plate;
- maximum residential setbacks;
- maximum house size limits; and
- restrictions on the number of single family dwellings on each agricultural lot to preserve usable farmland.

For further protection of farmland, the City introduced more restrictive regulations on the maximum size of houses within the ALR in 2018. *See more information in the Section 7.2 of the SPR Additional Information Document.*

7.3 Richmond Food Charter

In 2016, the City developed the Richmond Food Charter to:

- guide food system policies and planning in Richmond;
- support urban agriculture;
- strengthen the local food system;
- increase access to affordable and healthy food; and
- promote environmentally sustainable food production, distribution and disposal practices.

This Richmond Food Charter captures and expresses the community's shared values and commitments towards creating a healthy food system and a food secure Richmond. Food Charters address the food system holistically from production to processing, consumption and waste, and guides policy planning and program development. *See more information in the Section 7.3 of the SPR Additional Information Document.*

7.4 Community Garden Program and Partnership with Urban Bounty

The City entered into a partnership with the School District and the Urban Bounty (formerly known as the Richmond Food Security Society) in 2019 to administer the City's community gardens program. Over 450 garden plots are available to Richmond residents to grow their own produce and other plants on 11 sites. In 2020, 40 new plots at Cook Community Gardens and 17 new plots at Riverport Community Gardens were added in addition to community gardens expanded in two new locations.

7.5 Fruitful Partnership with the Sharing Farm Society

The City supports the Sharing Farm with land to grow produce for charitable food distribution organizations and to develop agriculture, environmental sustainability, food security and wellness programs. From 2015-2020, 116,994 lbs of food was donated to the Richmond Food Bank as the result of the partnership.

7.6 Kwantlen Polytechnic University Agreement for Sustainable Farming Research

The City of Richmond has provided Kwantlen Polytechnic University (KPU) access to two park locations in the City. KPU's Department of Sustainable Agriculture operates an 8ha farm on the Garden City Lands located in Richmond's City Centre, of which approximately 2.6ha is currently actively farmed by students enrolled in the four year degree program. A geodesic dome greenhouse, several rolling hoop houses, intensive market gardens, cover crop research areas and other research and teaching activities occur on this site. KPU's Richmond Farm School also operates intensive agriculture activities on incubator farms for new farmers at the South Dike Agricultural Lands. This site is located along the South Arm of the Fraser River and hosts a number of diverse agricultural activities including small-scale greenhouses, an apiary, a mature pear orchard and other research components of the Sustainable Agriculture program. At both sites a significant portion of the fields are planted with cover crops to nourish the soil and to promote the population of beneficial insects.

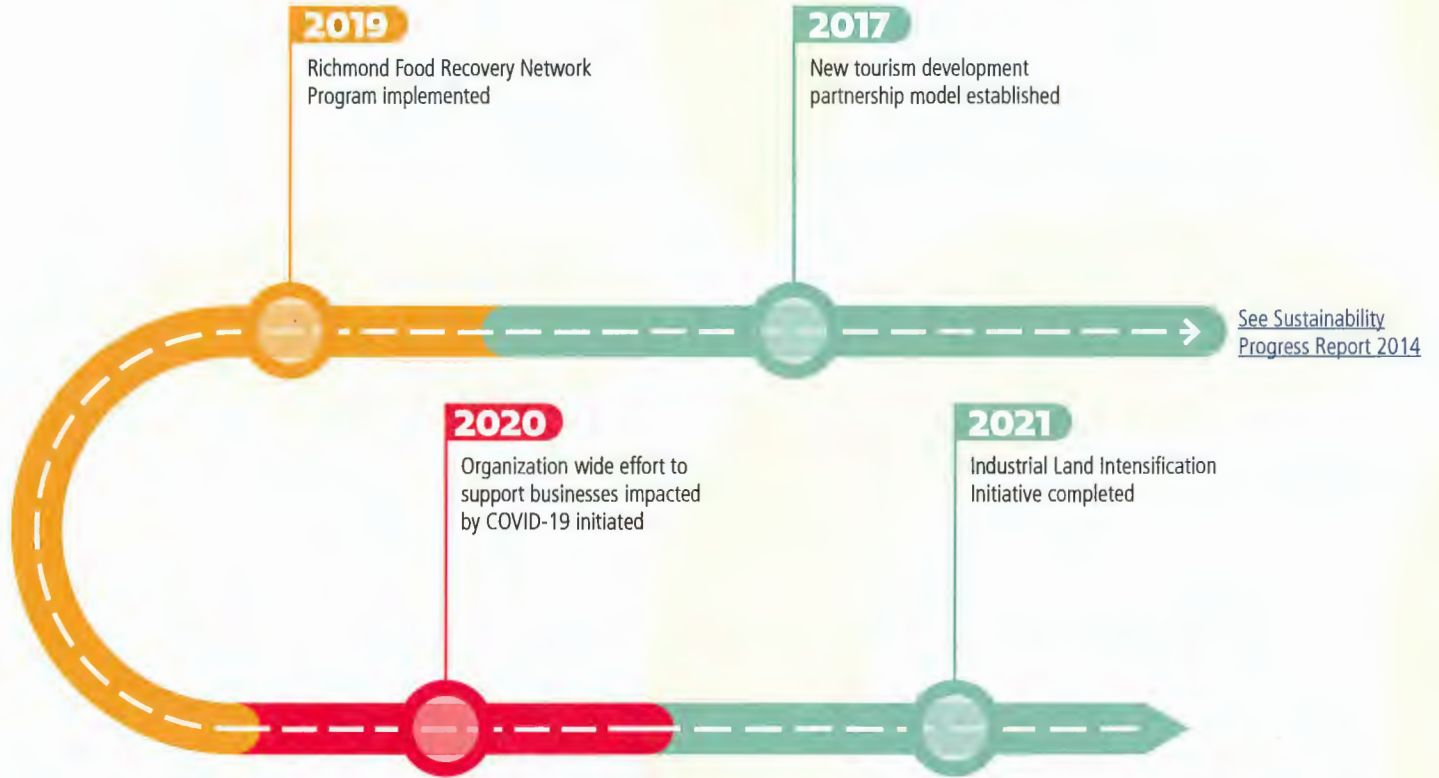




EMPLOYEES AT THE RICHMOND FOOD BANK LOAD PRODUCTS DONATED THROUGH THE RICHMOND FOOD RECOVERY NETWORK

8. Resilient Economy

Milestones and Key Achievements 2015–2020



Quick facts

- Richmond is a major employment center for the region and has 1.35 jobs for every resident worker.
- More than 13,000 businesses employ nearly 130,000 people in a range of sectors.
- Richmond’s top businesses and industries including Agrifoods, Aviation, Logistics, Manufacturing, Technology and Tourism.
- Employment land in Richmond includes 4.5 million square feet of office space and over 39 million square feet of industrial space.



Richmond has a diverse economy, with key clusters including transportation, warehousing and logistics, manufacturing, food production, technology and tourism. The City supports local businesses and fosters the conditions that enable the growth and resilience of key sectors to ensure a stable base of employment and economic opportunities. The Resilient Economy Strategy was adopted in 2014 to guide the City and stakeholder organizations to take effective action that will:

- Retain the economic sectors that are fundamental to Richmond’s economic well-being and character;
- Grow the sectors for which Richmond is well-suited to tap opportunities, taking into account local and regional natural, social and economic assets; and
- Make the local economy more resilient in terms of weathering future economic and environmental change.

8.1 Optimizing Richmond Industrial Space: Industrial Land Intensification Initiative

The City undertook the Industrial Lands Intensification Initiative (ILII) to identify and assess opportunities for amendments to land use bylaws and policies that could help encourage higher density and productivity on the existing industrial land supply. Approximately 37% of all jobs in Richmond (44,000 jobs) are located on industrial land, the lack of new space poses an inherent threat to the city’s ability to retain and expand industries that are critical to the city’s economic development and resilience.

The benefits of industrial land intensification include:

- Accommodate increased economic and employment activity on a limited land base.
- Respond to new technologies, business models and advances in the industrial sector.
- Ensure more efficient use of lands and resources, as well as transportation and site service infrastructure.
- Reduce the pressure to convert agricultural lands to industrial use.
- The City also participated in the development of the Regional Industrial Lands Strategy, which is intended to establish a vision for the future of industrial lands across Metro Vancouver to the year 2050 and to provide a set of recommendations to guide a broad range of stakeholder actions to achieve that vision. The strategy was approved by the Metro Vancouver Board in July 2020.

See more information in the Section 8.1 of the SPR Additional Information Document.

8.2 COVID-19 Business Support Centre

In response to the COVID-19 pandemic, the City of Richmond implemented a Business Support Centre in April 2020 to provide a centralized, virtual source of accurate and timely information and resources for local businesses from all levels of government. Key initiatives as part of the COVID-19 Business Support Centre include:

- Expedited temporary patio permit program;
- Richmond Business Resilience Program;
- Directory of Richmond-made PPE and COVID-19 safety supplies; and
- Opportunities for suppliers and manufacturers.
- Job listings for displaced workers


Ensuring effective two-way communication with the local business community was imperative, especially in the early days of the crisis. During the first three months from March 15 to June 15, 2020 there were:

- 11 COVID-19 Business Bulletins issued;
- 139k Twitter impressions and 1,438 engagements;
- 205 Facebook posts with 9.9k engagements and a 149k reach; and
- 4.7k unique visitors to www.businessinrichmond.ca.

See more information in the Section 8.2 of the SPR Additional Information Document.


8.3 Business Development Program

Richmond has a stable, strong and diversified local economy, resilient to economic cycle volatility. More than 13,000 businesses employ 130,000 people in a range of sectors including aviation, manufacturing, agrifoods, clean technology, and logistics. The City is committed to supporting the retention and growth of existing businesses through the Business Development Program, which provides one-on-one assistance related to permit facilitation, site selection, start-up support, workforce development and other areas. Since establishing the program, the City has supported **442 individual businesses** resulting in over **3,400 jobs created** and **9,000 jobs** maintained. *See more information in the Section 8.3 of the SPR Additional Information Document.*



City of Richmond
**COVID-19 Business
Support Centre**

businesshelp@richmond.ca
604-276-4114
www.businessinrichmond.ca/covid-19





9. Inclusive, Accessible & Safe Community

Milestones and Key Achievements 2015–2020 Inclusive Community

2017

- Willow Early Care and Learning Centre (37 spaces) operated by Atira Women's Resource Society opening in 2017.
- Revised Recreation Fee Subsidy Program adopted by City Council on September 15, 2017 expanding program eligibility to include adults and seniors

2015

The City of Richmond received Age-Friendly designation from the BC Ministry of Health for completion of an Age-Friendly Action and Assessment Plan and for the City's commitment to become more age-friendly.

[See Sustainability Progress Report 2014](#)

2018

- The Seedlings Early Childhood Development (ECD) Hub was secured through a rezoning application at 6340 No.3 Rd, a mixed use development with one office tower and three residential towers. This ECD Hub will comprise up to 19,000 sq. ft. of indoor area and 11,300 sq. ft. of outdoor area. This facility will be licensed for up to 87 child care spaces and will also offer child development and family strengthening services. The Richmond Society for Community Living is the selected operator.
- Two new, purpose-built, City-owned child care facilities opened in 2018: Gardens Children's Centre (37 spaces) operated by the Society of Richmond Children's Centres and Seasoning Child Care (37 spaces) operated by the YMCA of Greater Vancouver.
- U-ROC Youth Awards 20th Anniversary

2019

- On September 25, 2019, the City of Richmond was awarded a Union of BC Municipalities Community Excellence Award—Excellence in governance, in recognition of the 2017–2022 Richmond Child Care Needs Assessment and Strategy.
- Upgrades were completed at Cranberry Children's Centre, Riverside Child Development Centre, Terra Nova Children's Centre, Treehouse Early Learning Centre, West Cambie Children's Centre and Willow Early Care and Learning Centre. Facility upgrades at these sites enhance the quality, safety and accessibility of child care programs in City-owned facilities.
- 2019 Seniors Centre at the Minoru Centre for Active Living opens.

2020

- Youth Media Lab 10th Anniversary
- Opening of Foundry Richmond
- Community Action Initiative Grant
- The City accepted ownership of the City's tenth purpose-built child care facility, River Run Early Care and Learning Centre, operated by Atira Women's Resource Society.

Milestones and Key Achievements 2015–2020

Safe Community



KEY DOCUMENTS

- Building Our Social Future: A Social Development Strategy for Richmond (2013–2022)
- Seniors Service Plan 2015–2020
- Age-Friendly Assessment and Action Plan 2015–2020
- Youth Service Plan 2015–2020
- Dementia-Friendly Community Action Plan 2019
- Cultural Harmony Plan 2019–2029
- 2017–2022 Richmond Child Care Needs Assessment and Strategy
- City of Richmond Child Care Design Guidelines (December 2019)
- Policy 4012 Access and Inclusion, Social Development Strategy, Dementia Friendly Community Action Plan, Community Wellness Strategy

Richmond is one of the most ethnically diverse cities in Canada, with over 60 percent of its population being born outside of the country. Richmond is also represented by 150 ethnicities and more than 100 individual languages. This diversity contributes significantly to community vibrancy and enrichment, making it a great place to live, learn, work and play. The City is actively involved in building cultural harmony in the community. Through dialogue, arts and cultural programming, and inclusive consultations, the City strives to eliminate barriers to participation and to promote a sense of community. In partnership with key stakeholders, the City develops programs and services tailored to the needs of vulnerable populations, facilitating intercultural understanding and supporting the capacity of communities.

9.1 Expanding Child Care Facilities

The City currently owns **ten purpose-built childcare facilities**, with an additional childcare facility and **two Early Childhood Development Hubs** under construction. Richmond is also a strong advocate for quality childcare and continues to work collaboratively with community partners to address the needs of children, families, and employers. As of December 2020, Richmond had **7,022 licensed childcare spaces**. See more information in the Section 9.1 of the *SPR Additional Information Document*.

9.2 Youth U-ROC Awards

The City hosted the U-ROC (Richmond Outstanding Community) Awards to celebrate youth who are recognized for their mentorship, leadership and teamwork and adult Asset Champions, who mentor, support and make a difference in the lives of youth. Youth are nominated for displaying exceptional qualities, making Richmond a better place and overcoming barriers towards their personal success.

- 2016—Outstanding Youth Category: **36** recipients;
- 2016—Asset Champions: **24** recipients;
- 2017—Outstanding Youth Category: **70** recipients;
- 2017—Asset Champions: **20** recipients;
- 2018—Youth Groups: **7** recipients;
- 2018—Outstanding Youth Category: **63** recipients;
- 2018—Asset Champions: **42** recipients;
- 2019—Youth Groups: **9** recipients;
- 2019—Outstanding Youth Category: **59** recipients;
- 2019—Asset Champions: **36** recipients;
- 2020—Outstanding Youth Category: **63** recipients; and
- 2020—Asset Champions: **32** recipients.

See more information in the Section 9.2 of the *SPR Additional Information Document*.

9.3 Community Action Initiative Grant

The Richmond Community Action Team (CAT) was established in 2018 to identify community-based solutions to the opioid overdose crises with funding from the Ministry of Mental Health and Addictions and the Overdose Emergency Response Centre. The Richmond CAT included representation from Vancouver Coastal Health (VCH), City of Richmond, RCMP, Richmond Fire, BC Ambulance, Ministry of Children and Family Development, Divisions of Family Practice, Richmond School District, BC Housing, Musqueam First Nation, and local Richmond service providers. To further this work, the City, in partnership with VCH, received a Community Action Initiative Community Wellness and Harm Reduction grant in 2020 to undertake the Health Champions Conversation Project. In this project, people with lived experience of substance use were trained to become Health Champions by engaging in conversations with health professionals in order to reduce experiences of stigma, improve care for people seeking support for substance use and to increase peer empowerment through the sharing of peers' personal experiences with the health care system.

9.4 Supporting Seniors in Richmond

Age-Friendly Assessment and Action Plan 2015–2020

The Age-Friendly Assessment and Action Plan was approved by Richmond City Council on March 23, 2015 and identified priority actions for the five year term (2015–2019) and presented an implementation plan to realize the Plan's vision "for Richmond to be the best place to age, at all stages, for all residents, Richmond received "Age-Friendly BC Recognition" for ongoing commitment to this area in 2015.

Seniors Services Plan: Active and Healthy Living 2015–2020

With a vision to be a nurturing, connected community that promotes healthy and active aging, the City of Richmond, with public input created an updated Seniors Service Plan. The 2015–2020 Seniors Service Plan was adopted by Council on December 14, 2015. The Seniors Service Plan updates summarize progress toward achieving the goals of the Seniors Service Plan and reinforce the Plan's vision for Richmond as an age-friendly, nurturing, connected community.

Engaging Seniors in Age-Friendly Planning

The City was awarded a \$25,000 Union of BC Municipalities (UBCM) Age-Friendly Communities Grant in 2019 to create a plan to engage seniors in age-friendly planning. The Engaging Seniors in Age-Friendly Planning report outlines a framework that will support the City of Richmond to continue age-friendly work in other locations in Richmond and to share with other organizations interested in engaging seniors in age-friendly planning.

Dementia-Friendly Community Action Plan 2019

On September 23, 2019 City Council adopted the Dementia-Friendly Community Action Plan for Richmond which outlines 25 actions categorized into four strategic directions to be implemented over the next five years. The actions outlined in the Plan will ensure Richmond residents living with dementia and their families and caregivers are supported and engaged with their community.

9.5 Supporting Intercultural Connections: Cultural Harmony Plan 2019–2029

On November 25, 2019, Richmond City Council adopted the first City's Cultural Harmony Plan 2019–2029 to guide the City's approach to enhancing intercultural connections among Richmond's diverse population. The purpose of this Plan is to identify collaborative approaches to strengthen intercultural connections among Richmond residents, reduce barriers faced by different segments of the city's population, and provide programs and services that are inclusive and relevant so that all Richmond residents can participate in various aspects of community life. It sets out five strategic directions and a comprehensive list of actions that build on the City's social inclusion practices. *See more information in the Section 9.6 of the SPR Additional Information Document.*



THE CITY INSTALLED A RAINBOW CROSSWALK ON MINORU BOULEVARD IN JULY 2019 TO DEMONSTRATE ITS COMMITMENT TO BE AN INCLUSIVE AND WELCOMING COMMUNITY.

9.6 Creating Inclusive Community

Since 2017, the City of Richmond marked the annual Pride Week in Richmond to celebrate the LGBTQ2S+ community in Richmond and to demonstrate the City's commitment to valuing and respecting diversity, and fostering a safe and inclusive community for everyone. The City, Community Associations and Societies, and other community partners offer inclusive and engaging activities welcoming all members of the community during Pride Week. In 2019, City Council approved the installation of Richmond's **first rainbow crosswalk** on Minoru Boulevard between the Richmond City Hall Annex and the Richmond Cultural Centre. It serves as a reminder of the City's ongoing commitment to recognizing diversity and inclusiveness across the community.

City of Richmond Diversity Symposium

Since 2015, the City of Richmond Diversity Symposium has been providing a free one-day conference for City staff, volunteers, and community partners that focuses on sharing best and emerging practices in creating diverse and inclusive communities. In 2020, due to COVID-19, the Diversity Symposium was offered virtually and attracted close to 1,200 registrations from across Canada and other parts of the world.

9.7 Revised Recreation Fee Subsidy Program Implemented

The revised Recreation Fee Subsidy Program (RFSP) was implemented in the Fall of 2018 for residents who are experiencing financial hardship to provide access to programs at Richmond's community centres, cultural and heritage facilities, parks, aquatic centres and arenas. The revised RFSP expanded program eligibility to include adults and seniors to provide support for residents of all ages who are experiencing financial barriers to participation in City and Community Association and Society programs. During the first year of implementation (September 4, 2018 to August 31, 2019) the **RFSP had 1,367 participants, 883 of whom were adults and seniors** who would not have been eligible for support under the previous program criteria. Participation in the revised RFSP continued to grow in year two of the program (September 1, 2019 to August 31, 2020) with 1,880 individuals participating, a 37% increase over participation in year one of the revised program. *See more information in the Section 9.7 of the SPR Additional Information Document.*

9.8 Accessible Community: Enhanced Accessibility Design Guidelines

To promote enhanced accessibility and barrier-free access to City facilities that goes beyond the requirements of the BC Building Code for all members of the community, the Enhanced Accessibility Design Guidelines and Technical Specifications were adopted by City Council in 2018 and guide the development and retro-fits of City facilities. The Guidelines have been utilized in the development of all major capital projects and retrofits of current facilities and have been used in the development of the new Minoru Centre for Active Living, Fire Hall No. 1 and Fire Hall No. 3 to ensure people of all ages and abilities feel welcome and are able to access City facilities. Furthering accessibility in City facilities supports the aging population and the increasing number of individuals with disabilities living in the community and contributes to the livability of Richmond. *See more information in the Section 9.8 of the SPR Additional Information Document.*

9.9 Safe Community

As part of its commitment to clean growth, ensuring healthy ecosystems, and creating safe, secure, and sustainable communities, the City recognizes that safety is a top priority for its citizens. Prevention, preparedness and response are the critical components of service delivery. These components are based on the premise that everyone has a responsibility to ensure safety. Police, Fire-Rescue, Emergency Preparedness, and Community Bylaws are the City's primary public safety agencies. They collaborate with other City departments and local and provincial agencies to identify and address Richmond's needs.

Commitment to a Safe Community

Between 2015 and 2020, Council approved additional 58 police officers and 24 RCMP Municipal Employees. The added resources help the RCMP continue to effectively manage case loads, further crime reduction initiatives, continue community outreach and support current and future policing priorities identified by Council. In addition, Richmond-Fire Rescue hired 24 firefighters through the 2019/2020 recruitment cycle as a part of the Council-adopted strategy to hire 36 additional firefighters over three years.

Completion of infrastructure upgrades

In 2020, renovations were completed and the City Centre Community Police office was relocated to the corner of Granville Avenue and Gilbert Road to ensure increased police presence and reduced response times in the downtown core. The re-purposed facility was designed with dual security zones, the first of its kind in British Columbia, allowing for 24-hour police operations and civilian crime prevention programs.

Richmond RCMP Online Crime Reporting

The Richmond RCMP introduced a new online crime reporting tool in July 2019 to allow the public to report certain non-emergency crimes. The tool provides a convenient method for the public to report certain crimes, while also enabling front-line officers to focus on other calls of greater priority. The Richmond RCMP launched the Community Safety App in May 2020 which allows users to stay connected, informed, and engaged with the Richmond RCMP from the convenience of their mobile device. In addition to providing crime prevention resources, criminal activity maps, news releases, and emergency alerts, the app also allows residents and businesses to report a crime, commend an officer, or file a complaint. *See more information in the Section 9.9 of the SPR Additional Information Document.*



CONSTABLE BAL KANDOLA,
RICHMOND RCMP DETACHMENT,
COMMUNITY ENGAGEMENT TEAM,
D.A.R.E TEAM COORDINATOR

Richmond RCMP Community Outreach

The D.A.R.E Program

The Drug Abuse Resistance Education (D.A.R.E) program was delivered to all grade 5 students in Richmond as part of the RCMP's comprehensive youth education and outreach initiatives. From 2015 to 2020, over 7,500 Richmond students have participated in the program, which provides fundamental decision-making and impulse control skills to respond to real life situations while promoting positive interactions with police officers. *See more information in the Section 9.9 of the SPR Additional Information Document.*

Positive Ticket Campaign

The Positive Ticket Program is a community partnership between the Richmond RCMP, the City and Community Associations and Societies. This program provides more opportunities for youth to get involved in recreational activities. Youth are given a ticket when observed "doing something right". Each ticket can be redeemed for one free drop-in activity at a participating community facility such as Pitch and Putt or swimming, thereby fostering active lifestyles and enhancing positive community connections for Richmond youth.

“Break and Enter” Outreach and Prevention

The Richmond RCMP placed a strong emphasis on reducing commercial and residential break and enters after an increase in residential break and enters were observed in 2018. The Richmond Detachment deployed responsive measures to target this crime type and also began conducting Break and Enter outreach to businesses and residences, offering crime prevention resources and program information. Residential Break and Enter has been decreasing for two consecutive years, reduced by 28% in 2019 and 21% in 2020. Overall property crime numbers have been trending downwards for the last five years. *See more information in the Section 9.9 of the SPR Additional Information Document.*

Mental Health Car

In partnership with Vancouver Coastal Health, the Richmond RCMP Detachment implemented a Mental Health Car in 2019, named Fox 80. This team is comprised of a Mental Health Nurse and a specially trained RCMP officer who respond to mental health-related calls for service and provide assistance to frontline police units.

Training and Education in Emergency Preparedness

From 2015-2020, more than 50 in-person and virtual training and educational sessions were held. These sessions cover a diverse range of topics such as disaster preparedness, emergency notification system registration, household planning, fire safety, and first-aid. In 2017, the City launched the Richmond Resilient Communities Program (RRCPP), merging the community outreach efforts between Emergency Programs, Richmond Fire-Rescue and the RCMP. This merger under the RRCPP enabled Emergency Programs to enhance its service delivery and, in particular, expand its multi-modal and multi-language outreach efforts to diverse communities. *See more information in the Section 9.9 of the SPR Additional Information Document.*

Transition of Emergency Support Services

Emergency Support Services partnered with the Canadian Red Cross (CRC) in 2020. As a result of this partnership, the City now has access to the CRC's large supply of emergency volunteers in the event that an event requires such assistance.

Quick facts



THE CITY OF RICHMOND DIVERSITY SYMPOSIUM IS AN ANNUAL CONFERENCE DEDICATED TO SHARING BEST PRACTICES IN BUILDING INCLUSIVE AND EQUITABLE COMMUNITIES.

- The number of individuals living with a disability has been increasing city-wide, resulting in greater demand for services for persons with disabilities. According to the 2017 Canadian Survey on Disability, 22 percent of Canadians ages 15 years and over identify as having a disability, with the prevalence of disability increasing with age. As Richmond's population continues to age, it is anticipated that the number of individuals living with a disability will increase, resulting in continued demand for specialized services.
- Non-profit organizations support Richmond residents of all ages and backgrounds in many ways, including through social services, arts, culture and heritage programs, recreation, sport and community events, and operating affordable supportive housing, shelters and group homes.
- Richmond is highly regarded in the Community Based Seniors Service sector as a municipality that prioritizes supporting seniors.
- Richmond is one of the most culturally and ethnically diverse cities in Canada. Over 150 ethnic origins and over 100 languages are spoken in Richmond, with six out of ten residents born outside Canada. Visible minorities account for more than three-quarters of the total population. Immigration has been a key driver of population growth in the city. As a result, only one-third of Richmond residents claim English as their mother tongue.



THE 2019 MUSQUEAM ARTIST WORKSHOP SERIES CONCLUDED WITH A PUBLIC CELEBRATION, INCLUDING A PERFORMANCE BY TSATSU STALQAYU OR THE COASTAL WOLF PACK, AND THE SHARING OF TRADITIONAL INDIGENOUS FOOD AND BEVERAGES.

10. Vibrant Community

Milestones and Key Achievements 2015–2020

2018

- City Council adopted this 5-year Recreation and Sport Strategy
- City Council adopted the five-year Wellness Strategy to take a collaborative and holistic approach to improve wellness for Richmond residents
- City updated its Volunteer Management Strategy focusing on supporting volunteers in their development and achievement of their personal goals

2017

- City was recognized and designated a World Leisure Community of Excellence by the World Leisure Organization (WLO).
- The Library opened the new Launchpad space at the Brighthouse branch.

[See Sustainability Progress Report 2014](#)

2019

- PerfectMind, a new registration and booking software, was launched replacing CLASS which had reached end of life
- The Library partnered with the City of Richmond to offer a six-month long celebration of Musqueam culture and heritage
- Inspire Curiosity library card campaign launched
- City Council endorsed ArtWorks: Richmond Arts Strategy 2019–2024

Quick facts



As a dynamic, multi-ethnic community with a current (2021) estimated population of 224,425*, Richmond is a thriving urban centre. According to the National Household Survey from Statistics Canada (2016), 75% of Richmond's population is of Asian origin**. Newcomers have contributed significantly to the diversity and vibrancy of the City of Richmond.

* [City of Richmond, Population Hot Facts](#)

** [Statistics Canada, National Household Survey for Richmond, BC](#)

Richmond's parks and trails, community facilities, programs and services are designed and delivered to provide the greatest benefit to the community as a whole as well as to promote personal growth and enhance the quality of life of individual participants. The City provides and maintains over 145 parks, 73 kilometers of trails and recreation and arts, culture and heritage facilities including nine community centres, four swimming pools, two ice arenas, the Gateway Theatre, the Richmond Art Gallery, the Richmond Museum, the Richmond Arts Centre and several captivating historic sites that pay tribute to Richmond's heritage. Participation in the wide array of programs and services offered, create a healthier, more connected, and vibrant community.

10.1 Recreation and Sport Strategy

In December 2018, City Council adopted this 5-year Strategy that uses a relationship-based approach, with an emphasis on working with community partners in the delivery of programs and services. The overall goal is to enrich recreation and sport opportunities for residents as participation allows for physical, creative, social and intellectual opportunities, which contribute to building healthy, liveable and vibrant communities. *See more information in the Section 10.1 of the SPR Additional Information Document.*

10.2 Wellness Strategy

In July 2018, Council adopted the five-year strategy to take a collaborative and holistic approach to improve wellness for Richmond residents and to increase opportunities for individuals, neighbourhoods and communities to be active and healthy. The strategy was developed in partnership between the City, Vancouver Coastal Health and School District No. 38. The collaboration prioritizes wellness as a contributor to a vibrant, appealing, and livable community and identifies innovated approaches to effectively impact wellness outcomes which are sustainable in the community and in the lives of our residents. *See more information in the Section 10.2 of the SPR Additional Information Document.*

10.3 The Volunteer Management Strategy

The City updated its Volunteer Management Strategy in 2018. The strategy focuses on supporting volunteers in their development and achievement of their personal goals, as well as supporting the City of Richmond. On average, over 2,000 volunteers use the City's online software annually to connect to 750 annual volunteer opportunities. In 2019, volunteers contributed close to 85,000 volunteer hours to the City, partnered community organizations, the RCMP and the Library. *See more information in the SPR Additional Information–Section 10.3*

10.4 Community Events, including REACT (Richmond Event Approval Coordination Team)

The City developed an online event approval software that is currently used to approve over 100 annual community events that take place on City property. The software helps connect event organizers with various City's departments (RCMP, Traffic, Parks, Bylaws, Business Licensing and Richmond Fire Rescue, along with Vancouver Coastal Health) required to review proposed events before they can occur. Community events help bring Richmond residents together to share, celebrate and connect with others in the community. *See more information in the Section 10.4 of the SPR Additional Information Document.*

10.5 Sustainable Event Tool Kit

Staff developed a Sustainability Event Tool Kit based on AISTS's (International Academy of Sport Science and Technology) 70-point Sustainable Event program. The Tool Kit is intended to help event organizers make sustainable decisions related to hosting small or large community events in Richmond. In support of the Toolkit and sustainable events, the City provided portable water stations to event organizers that were deployed at 51 events and dispensed over 22,000 litres of water saving approximately 45,000 water bottles from the land fill in 2019. In addition, the Wheel Watch program provides secure event bicycle storage at events, and in 2019 the program secured over 2,000 bikes at various City of Richmond Events. *See more information in the Section 10.5 of the SPR Additional Information Document.*

10.6 World Leisure Community of Excellence 2017

The City was recognized and designated a World Leisure Community of Excellence for the year 2017 by the World Leisure Organization (WLO). This title recognizes Richmond's innovative and successful use of leisure to improve its citizens' quality of life. In its announcement, the WLO stated, "the City of Richmond receives this award for its substantive contributions as a community to promoting leisure as a means to enhance the human condition. Richmond serves as an exemplar of how broad-based citizen involvement can effectively promote leisure as integral to the social, cultural, economic, and sustainable environmental development of the community."

10.7 Simplifying Registration for Services: PerfectMind Registration Services

PerfectMind, a new registration and booking software, was launched on November 4, 2019, replacing CLASS which had reached end of life. PerfectMind is a cloud-based co-tenanted registration and facility booking software platform that delivers new features a minimum of four times per year, in addition to numerous hotfixes. This allows the product to be agile and evolve quickly to meet the needs of its customers. In addition, PerfectMind is integrated with MyRichmond, a personalized web application that provides customers access to City programs and services all in one place.

10.8 Expanding Public Art Projects

The Richmond Public Art Program provides a means for including art in the creation of a vibrant, healthy and sustainable city. In addition to permanent and temporary artworks, the Public Art Program offers a stimulating program of educational and community engagement activities to increase public awareness of the arts and encourage public dialogue about art and issues of interest and concern to Richmond residents. The benefits of public art are numerous. It has the power to energize our public spaces, arouse our thinking and transform the places where we live, work, and play into more welcoming and beautiful environments that invite interaction. Public art can make strangers talk, children ask questions and calm a hurried life. Since 2015, the City had 30 Civic Public Art and 25 Private Developer Public Art projects completed, in addition to numerous temporary installations and programs.



CHILDREN DISCOVERING ROBOTICS CODING FOR THE FIRST TIME WITH HELP FROM LIBRARY STAFF AT THE DASH AND DOT PROGRAM IN THE LAUNCHPAD OF THE BRIGHOUSE BRANCH.

10.9 Richmond Public Library

- **Launchpad space:** In June 2017, the Library opened the new Launchpad space at the Brighthouse branch. The Launchpad is a bright new digital learning space equipped with a variety of digital tools and technology, including 3D printers, photo and slide scanners, recording equipment and computer stations loaded with modelling software. Since the Launchpad opened, library staff have developed and offered over **140 unique digital programs** aimed at increasing the digital literacy of community members. Since the Launchpad opened, customers and staff have run almost **15,000 print jobs** on the library's 3D printers.
- **Support of Truth and Reconciliation:** Since 2017, the library has built and continued to expand its Indigenous Perspectives Collection and adjusted headings to responsibly represent Indigenous cultures and heritage. In 2019, the Library partnered with the City of Richmond to offer a six-month long celebration of Musqueam culture and heritage. The library welcomed four Musqueam artists who led a series of public demonstrations and hand-on workshops from January to June 2019. Over 100 community members participated in the workshops and learned about traditional woodcarving, wool and cedar weaving.

- **Inspire Curiosity library card campaign:** Richmond Public Library's Inspire Curiosity library card campaign launched in 2019, putting library cards in the hands of every Grade 1, 4 and 8 student in Richmond. In 2019 and 2020, the library reached 6,133 students and issued 1,127 new library cards.
- **Pandemic response:** In March 2020, the library pivoted and refocused its 2020 goals and priorities to provide immediate support to the community. In just over 3.5 months, the library's curbside holds pick up service fulfilled over 35,000 customer holds and in July, the library's main branch reopened for quick drop in service with all locations open by September. From March until December 2020, the library offered almost 900 online programs to over 42,000 participants.
- **Investing in digital collections:** The Library increased its digital collections budget by 43% and invested in its ebook collection by purchasing new materials for all ages. Circulation of the library's ebook and audiobook collection rose by 31% over 2019.

10.10 Youth Service Plan

The 2015–2020 Youth Service Plan aims to create an environment that generates opportunities for Richmond's youth to have a safe and healthy journey into adulthood. Youth should reach adulthood equipped with the necessary knowledge, skills and social connections to make informed decisions about their lives and the contributions they wish to make to their community. The purpose of this document is to identify priority program and service areas for Richmond youth and to provide the City with a strategic approach to making decisions about youth related matters. The City of Richmond is currently in the process of developing a new Youth Strategy (2021–2031). *See more information in the Section 10.10 of the SPR Additional Information Document.*

10.11 ArtWorks: Richmond Arts Strategy 2019–2024

In 2019, City Council endorsed *ArtWorks: Richmond Arts Strategy 2019–2024*, providing a blueprint for the City with key directions, objectives and supporting actions to enable the broadest possible access to, and awareness of, the City's diverse arts opportunities to enrich quality of life through engagement with the arts. The Strategy was based on broad community input and positions the arts as a means to achieve community goals in economic development, health and well-being. It builds upon the many riches of Richmond, including its diversity, newcomer population and many natural assets.



Conclusion

The Sustainability Progress Report 2015–2020 describes and illustrates the many ways the City is working towards a sustainable Richmond. Richmond has become a leader in energy efficiency and energy conservation, and its residents are well prepared for disruptions that could be a result of climate change, while daily living brings them in contact with Richmond’s natural environment. Overall Richmond’s population has increased, but its air and water are cleaner, and the waste generated has decreased. With the achievements described in this document, Richmond will leave a legacy of a sustainable and resilient city, one that will support the needs of its diverse community for years to come. The future will hold challenges and opportunities associated with social and demographic changes, a rapidly evolving economy, and environmental and climate change. In collaboration and partnership with citizens, communities, businesses, and other levels of government, the City will continue to enhance Richmond’s sustainability and resilience and build a place where wellbeing, prosperity, and a thriving environment are maximized for everyone.



City of Richmond

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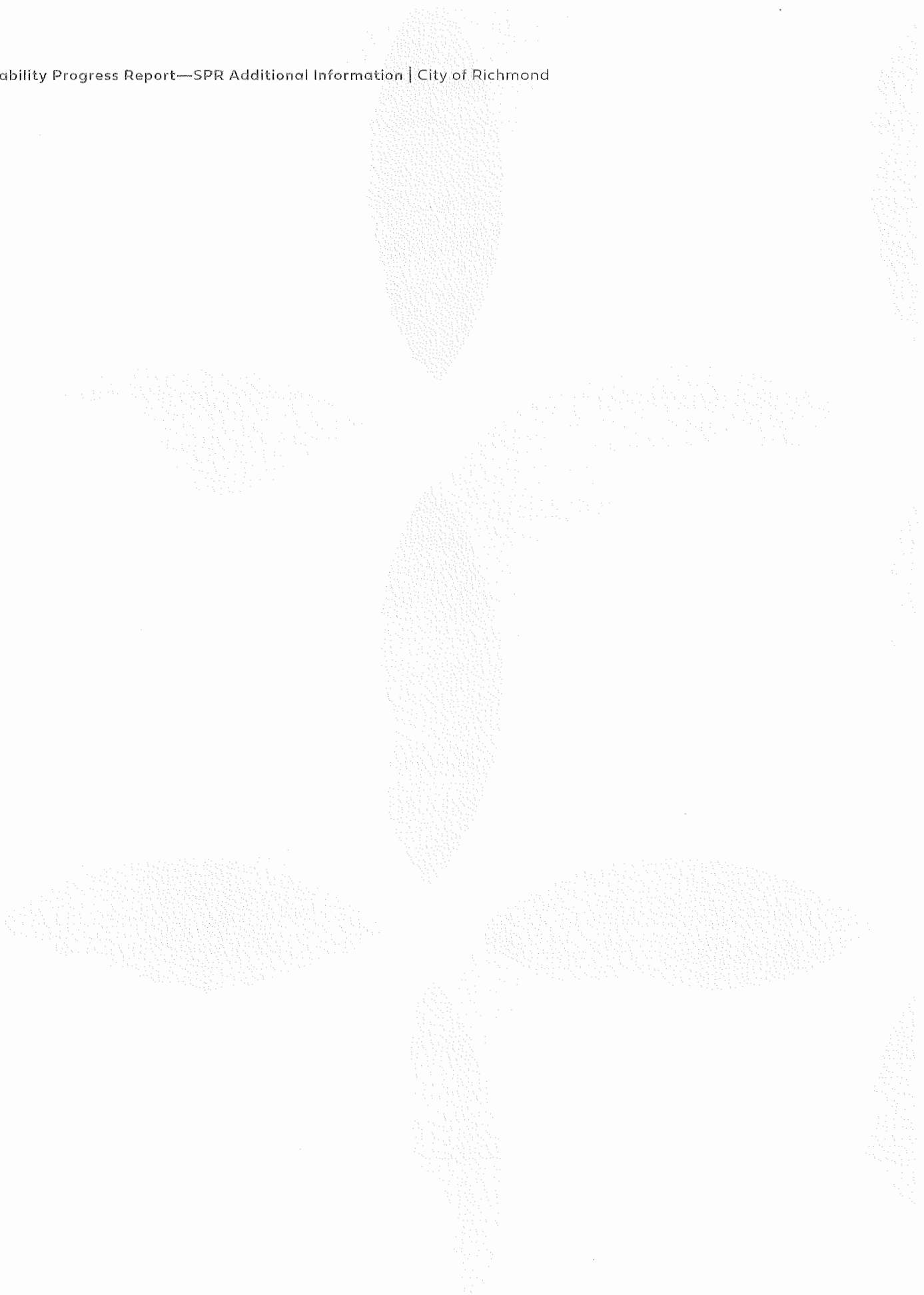


CITY OF RICHMOND

Sustainability Progress Report

ADDITIONAL INFORMATION





Section I—Progressing towards a sustainable, equitable community

See more information about the:

- State of the Environment Report 1998 at https://www.richmond.ca/_shared/assets/complete_report6703.pdf
- State of the Environment Report—2001 Update Report at https://www.richmond.ca/_shared/assets/part1full6722.pdf
- State of the Environment—2005 Update Report at https://www.richmond.ca/_shared/assets/complete_report6703.pdf
- Charting our Path Towards a Sustainability Community at https://www.richmond.ca/_shared/assets/Charting_our_Path21831.pdf
- Sustainability Framework at https://www.richmond.ca/_shared/assets/Sustainability_GP_01181024846.pdf
- Richmond's 2041 Official Community Plan at <https://www.richmond.ca/plandev/planning2/ocp.htm>
- Environmentally Sensitive Area Management Strategy at https://www.richmond.ca/_shared/assets/Ecological_Network_Management_Strategy42545.pdf
- Community Energy and Emissions Plan at https://www.richmond.ca/_shared/assets/ceep37697.PDF
- Sustainability Progress Report 2014 at https://www.richmond.ca/_shared/assets/Sustainability-Progress-Report40092.PDF
- Ecological Network Management Strategy 2015 at https://www.richmond.ca/_shared/assets/Ecological_Network_Management_Strategy42545.pdf
- Energy Action in Richmond Community Energy and Emissions Plan 2015 Update at https://www.richmond.ca/_shared/assets/2015_CEEP_Update43196.pdf
- Energy Action in Richmond Community Energy and Emissions Plan 2017 Update at https://www.richmond.ca/_shared/assets/2017updatereport46744.pdf
- Ecological Network Management Strategy 2018 Update at https://www.richmond.ca/_shared/assets/2018enmsupdatereport52187.pdf

Introduction

The City is continuously implementing its vision, dictated by its legislated authorities, operations (e.g. maintenance of civic facilities), and influence it has with community stakeholders and other governments. Collaborations with community groups, residents, local institutions and businesses have been crucial in advancing Richmond's sustainability goals in the following areas, originally articulated in the City's Sustainability Framework (2010):

- Climate & Energy Action
- Sustainable Resource Use & Waste Management
- Compact, Complete Community
- Mobility & Access
- Green Built Environment
- Thriving Natural Environment
- Local Agriculture & Food Security
- Resilient Economy
- Inclusive, Accessible & Safe Community
- Vibrant Community

These goals subsequently informed the development of the City's 2041 Official Community Plan. The City's first Sustainability Progress Report (2014) expanded reporting topics as has the Sustainability Progress Report 2015 – 2020 given the City's progress in developing a broad range new initiatives, particularly related to social and cultural dimensions of a sustainable community. The expanded topics, as seen in the Contents section, allows for broader reporting of the City's sustainability accomplishments.

As outlined in the Corporate Sustainability Policy (Policy 1400), the City adheres to the following Sustainability practices in all decision-making and activities:

Demonstrating Leadership — The City has sustainability-based goals of significance, adopts leading-edge practice and delivers substantive sustainability benefits.

Being Accountable — The City advances a robust sustainability-driven management program to lead by need, focuses action investment on areas of high sustainability importance, takes action based on its established sustainability principles and measures performance against well-defined targets.

Conducting Integrated Decision-Making — The City integrates Sustainability throughout the organization, working in partnership with internal and external parties, and undertakes triple bottom line decision-making by considering the socio-cultural, economic and environmental benefits and costs of current and future generations.

Learning and Being Innovative — The City grows long-term organizational capacity and foster a sustainability awareness and responsibility culture that promotes new ways of thinking. The City challenge established norms, share knowledge, adopt emerging technologies and practices and drive progress through continual improvement.

Engaging the Community — The City recognizes that Sustainability requires collective action by all. Over time, the City encourages greater community participation, business, academia and other sectors to create a more sustainable society through partnerships and supportive programs.

1. Climate and Energy Action

1.1 Climate Mitigation: Reducing Greenhouse Gas Emissions

Community Energy and Emissions Plan

Council also directed staff to consult with the community on accelerated actions and targets, with two phases of community and stakeholder engagement conducted in spring and fall 2019. Over 1,000 people of all ages attended workshops, or participated in a spring and fall events at City Hall, with 35 community volunteers assisting at these events. 550 respondents completed surveys, including ‘sustain-a-buck’ voting on proposed actions, which provided guidance to the City on how these actions would be prioritized in the new climate plan.

The action framework for the new CEEP is included within the following directions, with the objective for each direction summarized below:

1. **Retrofit Existing Buildings** — Accelerate deep energy retrofits to existing residential, institutional, commercial and industrial buildings, and shift to low-carbon heating and cooling using in-building systems or district energy.
2. **Transition to Zero Emission Vehicles** — Facilitate electrical mobility for all residents and businesses in Richmond, with expanded options for charging at home, at work, and on-the-go for personal electric vehicles, electric car-share, e-bicycles and e-scooters.
3. **Carbon Neutral New Buildings** — All new buildings will be serviced by low carbon energy systems and built to the top performance level of the BC Energy Step Code starting in 2027.
4. **Complete Communities** — Implement OCP and Local Area Plan objectives for compact, complete communities throughout Richmond, with a range of services, amenities and housing choices, and sustainable mobility options within a five-minute walk of homes.
5. **Active Mobility for All** — Prioritize active transportation with investments in walking, rolling and biking infrastructure that is safe, connected, easy to navigate, and accessible.
6. **Support Frequent Transit** — Foster wider use of frequent public transit throughout Richmond by implementing and upgrading transit stops that are well integrated with active transportation (walking / rolling, bicycling) and with car-sharing networks.
7. **Enhance Green Infrastructure** — Maximize the climate benefits of Richmond’s green infrastructure by improving or expanding existing carbon stores in trees, vegetation and soils.
8. **Transition to a Circular Economy** — Create a Circular Economy in Richmond that maximizes the value of resources through smart product design, responsible consumption, minimized waste and reimagining how resources flow in a sustainable, low-carbon economy.

Low Carbon District Energy: Lulu Island Energy Company

Learn more about it at:

- LIEC Website: <http://www.luluislandenergy.ca/>
- LIEC Awards: http://www.luluislandenergy.ca/contact_about/
- LIEC Annual Report: http://www.luluislandenergy.ca/wp-content/uploads/2021/07/LIEC_2020-Annual-Report.pdf
- LIEC Links to Videos http://www.luluislandenergy.ca/what_is_de/

Zero Emission Vehicles — At Home and On the Go

The Zoning Bylaw 8500 Bylaw (<https://www.richmond.ca/cityhall/bylaws/zoningbylaw8500.htm> and https://www.richmond.ca/_shared/assets/ParkingLoading24226.pdf) requirement influenced seven early-adopter local governments in Metro Vancouver in 2018-2020, as well as other municipalities in BC and Canada to adopt similar requirements.

See more information about electric vehicles at <https://www.richmond.ca/sustainability/energysrvs/electricvehiclecharge.htm> and https://www.richmond.ca/_shared/assets/engineering0549762.pdf

Energy Step Code and Low Carbon Energy Systems

The Step Code provides greater owner-assurance the new building will deliver at project completion with the energy performance level set at the design stage. Step Code requirements are included in the City's Building Regulation Bylaw 7230 (https://www.richmond.ca/_shared/assets/Bylaw7230_12072057342.pdf). See more information about City Council adopted BC Energy Step Code at <https://www.richmond.ca/sustainability/energysrvs/bcenergystepcode.htm>

Developers also received direction through a City Bulletin: https://www.richmond.ca/_shared/assets/building3751347.pdf

City staff continue to participate the Step Code Council and associated technical and local government subcommittees, with the purpose of improving and extending the Step Code to include other new building archetypes.

See the BC Energy Step Council for more information: <https://energystepcode.ca/about/> and

Building Energy Benchmarking

See the January 2021 Annual Report for calendar year 2020 <https://buildingbenchmarkbc.ca/wp-content/uploads/BBBC-Annual-Report-03.11.2021-live.pdf>

1.2 Climate Adaptation

Flood Protection Management Strategy

See more information about at https://www.richmond.ca/shared/assets/24_Flood_Protection_Management_Strategy_CNCL_06241953978.pdf



INFRASTRUCTURE

The City of Richmond is situated 1.0 m above sea level. Our flood protection system provides protection from ocean storm surges, freshet and sea level rise. The system is comprised of:

- 49 km of dikes
 - Dikes are inspected three times a year and the dike crest is surveyed annually on a 5-year cycle.
- 39 drainage pump stations
 - Total capacity of the City's drainage pump stations has increased by 23% since 2005.
- 585 km of drainage pipe
 - Drainage pipes are maintained on a 7-year cycle and inspected annually.
- 61 km of box culverts
 - Box culverts are inspected on a 7-year cycle.
- 165 km of watercourses
 - Watercourses are maintained on a 7-year cycle to remove vegetation and sediment and to maintain capacity in the drainage and irrigation network.
- 24 flood protection sensors
 - Flood protection sensors provide drainage, rainfall and river level information that is remotely monitored by staff.

PLANNING

- The City's drainage system is designed to accommodate a one in 10-year return period rainfall event.
- Richmond's robust dike network is built to withstand a one in 500-year return period flooding event.
- Current climate change science estimates that sea level will rise approximately 1.0 m by the year 2100 and 0.2 m of land loss/subsidence is forecasted over that same time period.
- The City's Flood Protection Management Strategy and Dike Master Plans are our guiding framework for continual upgrades and improvements to address climate change induced sea level rise.

FINANCIALS

The drainage and diking utility was established by Council in 2002 and currently generates over \$13 million annually to maintain and upgrade Richmond's flood protection infrastructure.

As a result of proactive flood protection planning efforts, the City has been successful in securing over \$40 million in senior government grants since 2010 that helped fund over \$70 million in dike upgrades, pump station improvements and master planning updates.

- 2010 - \$3.9 million grant for pump station upgrades
- 2014 - \$2.04 million grant for pump station upgrades
- 2016 - \$16.6 million grant for pump station and dike upgrades
- 2017 - \$500,000 grant for master planning
- 2017 - \$150,000 grant for master planning
- 2017 - \$1 215,000 grant for master planning
- 2019 - \$1 million grant for pump station upgrades
- 2019 - \$13.8 million grant for pump station and dike upgrades
- 2020 - \$750,000 grant for dike upgrades
- 2020 - \$150,000 grant for master planning

RESOURCES

Learn more about City of Richmond's flood protection system by accessing the following plans:

- Flood Protection Management Strategy
- Dike Master Plan Phase 1
- Dike Master Plan Phase 2
- Dike Master Plan Phase 3
- Dike Master Plan Phase 4 DRAFT (no link at this time)
- Dike Master Plan Phase 5

Dike Master Plan Phase 2, 3 and 5

See more information about:

- Dike Master Plan Phase 1 at https://www.richmond.ca/_shared/assets/Dike_Master_Plan_Phase_157597.pdf
- Dike Master Plan Phase 2 at https://www.richmond.ca/_shared/assets/Dike_Master_Plan_Phase_257723.pdf
- Dike Master Plan Phase 3 at https://www.richmond.ca/_shared/assets/DikeMaster_PWT_03201953089.pdf,
https://www.richmond.ca/_shared/assets/Dike_Master_Plan_Phase_357759.pdf
- Dike Master Plan Phase 5 at https://www.richmond.ca/_shared/assets/Dike_Master_Plan_Phase_557760.pdf

2. Sustainable Resource Use & Waste Management

2.1 Waste Management

Recycling services

Learn more about:










- The Multi-Family Green Cart Program at <https://www.richmond.ca/services/recycling/food-yard/greencart.htm>
- The IABC's international Gold Quill Award at https://www.richmond.ca/shared/assets/SilverLeaf_CNCL_02231540792.pdf—The IABC recognizes excellence in the field of business communication – it honours the dedication, innovation and passion of communicators on a global scale.
- The City's residential Garbage Cart program at <https://www.richmond.ca/services/recycling/garbage/GarbageCart.htm>
- The Recycling Depot at <https://www.richmond.ca/services/recycling/recyclingdepot.htm>—The Richmond Recycling Depot is a key contributor to the City's waste diversion efforts.

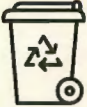


Waste Management Bylaws

Demolition Waste and Recyclables Materials Bylaw No. 9516: Demolition, land clearing and construction (DLC) waste accounts for 30% of total waste disposed in the region. To support responsible recycling and waste management in this area, the City has introduced a new Demolition Waste and Recyclable Materials Bylaw No. 9516 in 2016, which requires mandatory recycling of these demolition materials. Under this bylaw, the owner or agent involved in a demolition must submit an application for a demolition permit, along with a properly completed waste disposal and recycling services plan that outlines how the waste and recyclable materials will be handled. See the Bylaw No. 9516 at <https://www.richmond.ca/shared/assets/Bylaw951643787.pdf>

Single-Use Plastic and Other Items Bylaw No. 10000: This bylaw proposes to ban plastic straws, plastic checkout bags and foam food service ware, like plates, cups, bowls, and take-out containers. However, as Bylaw 10000 relates to environmental matters, the City had to send the proposed bylaw to the BC Ministry of Environment and Climate Change Strategy for approval. While awaiting approval, the City initiated a comprehensive engagement process that involved connecting with businesses affected by the bylaw and business organizations. In 2020, the City received provincial approval for the bylaw and is moving forward on September 27, 2021 to present the bylaw to Council for final adoption. If adopted, the bylaw will be implemented on March 27, 2022, with enforcement beginning September 27, 2022. Learn more at <https://www.richmond.ca/singleuse>

Waste Management in numbers

Achievement	2015	2016	2017	2018	2019	2020	Total
 Litter Collection— Containers Serviced or Inspected	265,200	280,000	282,000	303,492	329,442	348,773	1,808,907
 Special Event Recycling	40	50	69	76	82	4	321
 Green Ambassador Volunteer Hours	3,650	2,660	3,520	2,752	4,167	1,137	17,886
 Green Ambassador Symposiums	15	10	12	10	11	12	70
 Large Item Pick Up Requests	8,290	8,501	8,890	8,543	10,082	13,872	58,178
 Large Item Pick Up— Number of Items	13,669	13,986	14,511	13,905	17,258	20,535	93,864
 Recycling Inquiries	14,000	26,670	20,693	16,347	15,635	16,177	109,522
 Workshops/ Depot Tours	32	43	41	65	75	8	264
 Depot visits (cars)	-	-	160,227	168,503	209,838	209,464	748,032
 Number of Recycling Wizard Searches	-	43,063	65,571	61,404	77,300	78,588	325,926

Tonnages	2015	2016	2017	2018	2019	2020	Total
 Green Cart (SF & TH) (tonnes)	17,128.31	19,494.88	18,672.17	18,133.16	18,299.35	21,406.81	113,134.68
 Blue Box (tonnes)	5,998.16	6,420.12	6,422.72	6,235.80	6,235.79	6,230.85	37,543.44
 Recycling Depot (tonnes)	3,624.28	3,432.53	3,724.27	3,744.74	4,592.15	5,881.29	24,999.26
 Home Composting and Yard Trimmings Drop off (tonnes)	2,866.08	2,291.36	4,016.84	3,705.65	4,111.47	4,446.47	21,437.87
 Waste Diversion (tonnes)	3,013.75	2,047.70	2,047.70	2,047.70	2,047.70	2,047.70	13,252.25
 Waste Reduction (tonnes)	1,729.26	1,288.89	1,291.19	1,288.44	1,295.96	1,302.30	8,196.04
Total Recycling (tonnes)	34,359.84	34,975.48	36,174.89	35,155.49	36,582.42	41,315.41	218,563.53
Total Garbage (tonnes)	11,834.27	9,786.57	9,968.87	9,790.76	9,777.65	10,806.37	61,964.49
Waste Diversion % (tonnes)	74.38%	78.14%	78.40%	78.22%	78.91%	79.27%	-

Learn more about the City's waste management accomplishments at <https://www.richmond.ca/services/recycling/service.htm>

2.2 Resource use

Water Quality

Learn more about the City's water quality at <https://www.richmond.ca/services/rdws/water/quality.htm>

Universal Single-Family Water Meter Program and Fixed-Base Water Meter Reading

Learn more about this at <https://www.richmond.ca/services/rdws/water/savewater/sfwatermeter.htm>

Air Quality

Learn more about the air quality at

<http://www.metrovancouver.org/services/air-quality/about/caring-for-the-air>

Integrated Rainwater Resource Management Strategy

Learn more about it at https://www.richmond.ca/shared/assets/3-IntegratedRainwater_04181850060.pdf

2.3 Circular economy initiatives

Richmond Food Recovery Network Program

Learn more about it at <https://www.richmond.ca/newsevents/city/rmdfoodrecoveryprogram2021March02.htm> ; <https://foodmesh.ca/what-we-do/regional-food-recovery-networks/richmond/>

40% Reclaimed Asphalt Pavement

The City implemented a pilot project in collaboration with Lafarge Canada to use 40% Reclaimed Asphalt Pavement (RAP) on a major municipal road. The City's current specifications allow up to 10% recycled material. Higher percentages have presented quality control challenges to users in the past, resulting in a sub-standard final product. The work that led to this pilot originated from a National Zero Waste Council (NZWC) initiative to develop an accreditation system to use higher level of RAP in paving applications. The City took the lead in engaging local asphalt producers to develop draft accreditation criteria under NZWC's guidance. Industry provided feedback that a monitored pilot project would be critical for building industry capacity and buyer confidence in using asphalt applications with a minimum of 40% RAP content. This project places the City in a leadership role through robust local stakeholder engagement, reducing the use of virgin aggregates, displacing fossil fuels, reducing waste and applying a high RAP percentage in a public road. Based on feedback from the City's contractor, this is the first-of its-kind project in Canada on a municipal road. To extend the pilot project, the City has selected a lower traffic density local road for further investigation expected to be paved in 2021. The pilot project results will help direct staff regarding the standardized implementation of RAP in future road paving projects and other asphalt applications (multi-use pathways, driveways, etc.) around the City.

Learn more about it at <https://www.richmond.ca/newsevents/city2020/paving05nov2020.htm>

Bottle filling stations installation

Water bottle filling stations serve as an alternative to plastic water bottles through encouraging the use of tap water and making safe, healthy water free and accessible. Stations have built in water bottle counters that track the number of plastic water bottles the station has saved from use, acting as tangible proof of the station's impact.

Learn more about it at <https://www.richmond.ca/services/rdws/water/community/Tap.htm?PageMode=HTML>

Zero balloons events

The Children's Arts Festival ceased using hundreds of balloons as site decoration in favour of re-usable and recyclable paper lanterns. Balloons are hazards when they enter the air as they kill countless animals and cause dangerous power outages. They can travel thousands of miles and pollute the most remote and pristine places. Balloons return to the land and sea where they can be mistaken for food and eaten by animals.

Non-toxic glitter

The Richmond Arts Centre removed all glitter products from the visual arts inventory and replaced it with non-toxic glitter. Though hard to find and more expensive, these non-toxic glitter products are becoming more readily available with time and interest. Glitter contains microplastics, which can find their way into rivers and oceans, taking many years to degrade.

Digital Book

The Richmond Youth Media Program moved the annual Year Book from paper to digital format in an effort to reduce paper waste.

Shift to electronic paystubs and timesheets

In 2019, the library was among the first City departments to pilot electronic paystubs to maximize resources and decrease paper waste.

Clay recycling program

The Richmond Arts Centre continues to update supplies and practices as part of a responsible materials use initiative. Examples of accomplishments so far include the creation of a Clay recycling program in the Pottery Studio and a DIY Easter Egg workshop using natural dyeing methods and at home pantry ingredients.

3. Compact, Complete Communities

3.1 Focussed Growth

Market Rental Housing Policy

Specific incentives includes the provision of additional building area (density bonus), reduced parking requirements and waiving of some amenity related fees. Staff continue to explore how this policy can be enhanced to determine what areas of the city are most in need of market rental housing. Learn more about it at <https://www.richmond.ca/plandev/planning2/projects/marketrental.htm>

Encouraging and supporting access to licenced child care

Learn more about it at https://www.richmond.ca/shared/assets/2017-2022_Richmond_Child_Care_Needs_Assessment_and_Strategy48036.pdf and https://www.richmond.ca/shared/assets/child_care_action_plan58217.pdf

3.2 Housing Affordability

Affordable Housing Strategy: The City uses a range of tools, including policies, programs and initiatives, to meet the housing needs of low and moderate income residents in Richmond. Learn more about the City's affordable housing policies on https://www.richmond.ca/shared/assets/City_of_Richmond_Affordable_Housing_Strategy54955.pdf

Affordable Housing Strategy 2020 Update: Learn more about the City's recent affordable housing initiatives on https://www.richmond.ca/shared/assets/affordable_Housing_Strategy_Update58503.pdf

UBCM Community Excellence Award Winners: Learn more about it at <https://www.ubcm.ca/EN/meta/news/news-archive/2015-archive/ubcm-community-excellence-award-winners.html>

Storeys Affordable Housing: Learn more about it at <https://www.richmond.ca/services/communitysocialdev/affordablehousing/overview.htm>

Award for Planning Excellence issued by the Canadian Institute of Planners: <https://www.richmond.ca/newsevents/city2018/storeysaward2018.htm>

Richmond Homelessness Strategy: https://www.richmond.ca/shared/assets/richmond_homelessness_strategy54624.pdf

4. Mobility & Access

4.2 Long Range Transit Planning: Area Transport Plan

Completed in 2018, the SWATP serves as a blueprint for how TransLink can best allocate its resources over the next decade to improve transit and transportation in the southwest area in a way that is responsive to local needs and consistent with regional objectives. The plan also informs City transportation and land use planning and helps to ensure that current and future transportation investment decisions are coordinated, informed by customer needs, and integrated with other modes of transportation to provide more travel options.

Learn more about SWATP at <https://www.translink.ca/plans-and-projects/strategies-plans-and-guidelines/area-transport-planning/southwest>

Annual Bus Services Hours by Sub-Region

Sub-Region	Annual Bus Service Hours (000,s)					1 Year Change (2018–2019)
	2015	2016	2017	2018	2019	
Burnaby/New Westminster	646	656	662	684	694	1.5%
Maple Ridge/Pit Meados	112	113	120	130	132	1.3%
North Shore	515	523	538	550	563	2.4%
Northeast Sector	404	410	440	455	455	0.1%
Southeast	931	947	982	1,029	1,076	4.5%
Southwest	463	467	492	516	549	6.3%
Vancouver/UBC	1,891	1,914	1,938	1,999	2,039	2.0%
System-wide	4,962	5,030	5,171	5,363	5,508	2.7%

*Note: % change may differ from numbers published elsewhere, since some improvements were implemented part way in the year.

2019 Bus Annual Boardings: Top 5 Routes for Southwest Area (all in Richmond)



Route	Annual Boardings	System-Wide Rank
410	4,969,000	17
403	2,315,000	41
430	2,186,000	44
406	2,101,000	48
401	1,793,000	51

Learn more about it at https://www.richmond.ca/_shared/assets/2-SouthwestAreaTransportPlan49754.pdf

4.3 Safer Streets: Reducing High Collision Locations

By the end of 2020, 75% of the recommended short-term improvements have been implemented with the balance to be completed by summer 2021. Medium- and long-term infrastructure improvements include road geometry changes, such as the addition of left-turn lanes. The 2020 and 2021 Capital Plans include implementation of the medium- and long-term improvements for Cambie Road-No. 5 Road (ranked #6), Cambie Road-No. 4 Road (ranked #13) and Westminster Highway-No. 2 Road (ranked #3). Conceptual design work for the remaining intersections is underway and will be completed by summer 2021. Upon completion of this design work, the project scope and timing of implementation for the top 20 intersections not already addressed will be identified for Council consideration in future Capital Plans. The project received the 2020 Mavis Johnson Award for Road Safety Project of the Year bestowed by the Institute of Transportation Engineers – Greater Vancouver Section. This annual award celebrates technical excellence in the field of road safety.

Learn more about it at https://www.richmond.ca/_shared/assets/21_Review_Collision_Prone_Intersections_CNCL_06241953975.pdf

4.4 Expanding Rapid Transit Access: Capstan Canada Line Station

Learn more about it at <https://www.richmond.ca/newsevents/city2019/canadalinestation17dec2019.htm> and at <https://www.translink.ca/plans-and-projects/projects/rapid-transit-projects/capstan-station>

4.5 Cycling Education for Students

The courses include in-class lessons (outside or on-line during COVID-19), on-bike playground cycling safety training, and neighbourhood road ride education. Trained instructors lead lessons that demystify bike mechanics, practice bike handling skills, and solidify rules of the road. The contractor’s fleet of bikes includes a range of specialized adaptive bikes that are available to children with physical and cognitive differences to help achieve a goal of 100% participation.

Learn more about it at: <https://bikehub.ca/bike-education>

4.6 Accessible Pedestrian Signal (APS) Features

The program has established Richmond as a pioneering leader in the deployment of APS devices, including the use of verbal messages. There are no national standards for the installation and operation of APS features and relatively few Canadian jurisdictions use verbal messages at any type of pedestrian crossing. To the City's knowledge, Richmond is the first municipality in Canada to commit to the implementation of APS features at all City-owned signalized intersections and special crosswalks throughout the city.

APS features benefit not only people living with disabilities but also all pedestrians and is a proactive measure in light of changing demographics (i.e., an aging population).

Category	2016	2011	2006	2001
% Age 65+ of Total Population of Richmond	17%	13.7%	12.8%	11.8%
Median Age in Richmond	43.5 yrs	42.1 yrs	40.7 yrs	38.5 yrs

4.7 Enhanced Transit Connections: Richmond-Brighouse Bus Mall

The bus mall also provides large transit shelters for customer safety and comfort, increased lighting, new landscaping, and a more spacious and convenient transfer point for customers. The City contributed funding and facilitated the project as part of adjacent development.

Learn more about it at <https://www.translink.ca/plans-and-projects/projects/maintenance-and-upgrade-program/bus-projects>

Bus Circulation around Richmond-Brighouse Station

Road	Before Bus Mall	After Bus Mall
Ackroyd Road	12 buses/hr	0 buses/hr
Saba Road	8 buses/hr	4 buses/hr
Cook Road	26 buses/hr	26 buses/hr
Park Road	26 buses/hr	18 buses/hr
Anderson Road	15 buses/hr + NightBus	11 buses/hr

Expansion of Active Transportation Network (2015–2020)

Year	Cycling Facility	Length (KM)
2015	• Crosstown Neighbourhood Bike Route — Phase 1 (Blundell Park MUP)	0.35
	• Westminster Hwy MUP (Nelson Rd–McMillan Rd)	1.40
	• River Dr MUP (No. 4 Road–125 m west of Shell Rd)	0.70
2016	• Parkside Neighbourhood Bike Route (Ash St: Williams Rd–Granville Ave)	2.50
	• Railway Greenway (Westminster Hwy–River Rd)	0.40
	• Ackroyd Rd Shared Lanes (No. 3 Road–Minoru Blvd)	0.25
2017	• Gilbert Road Bike Lanes (Lansdowne Road–Dinsmore Bridge)	0.45
	• Crosstown Neighbourhood Bike Route — Phase 2 (Railway Ave–Gilbert Rd)	1.25
2018	• Great Canadian Way MUP (Charles St–Bridgeport Rd)	0.30
	• Parkside Northern Extension (Granville Ave–Westminster Hwy)	1.00
	• Westminster Highway MUP (No. 8 Road to Nelson Road)	0.60
2019	• River Dr MUP (No. 4 Road–Van Horne Way)	0.40
	• No. 2 Road MUP (Steveston Hwy–Dyke Road)	1.75
	• No. 6 Road MUP (Cambie Road–Bridgeport Road)	0.80
	• Alderbridge Way MUP — Phase 1 (No. 4 Road–Fisher Gate)	0.40
2020	• Odlin Road MUP (western terminus of Odlin Road–Brown Road)	0.15
	• Cambie Road MUP (River Road–No. 3 Road)	0.12
	• Sexsmith Road MUP (Beckwith Road–Charles St)	0.10
	• Charles St MUP (River Rd–Sexsmith Rd)	0.05

MUP = shared multi-use pathway

4.8 Van Accessible Parking Spaces

Learn more about it at https://www.richmond.ca/shared/assets/12_AccessibleParkingAmendmentsBylaw8500_CNCL07231851104.pdf and at <https://www.richmond.ca/shared/assets/info4351350.pdf>

5. Green Built Environment

5.2 Minoru Centre for Active Living

Learn more about it at <https://minorucentre.ca/>

5.4 Expanded Parks and open space system

Learn more about Parks at <https://www.richmond.ca/parks/about/ptc-overview.htm>

Learn more about the Public Tree Management Strategy at https://www.richmond.ca/parks/about/planning/Public_Tree_Management_Strategy.htm

6. Thriving Natural Environment

6.1 Ecological Network Management Strategy

The implementation of the Ecological Network Management Strategy is articulated through a series of recommended actions grouped into four (4) focus areas, which represent the EN's various areas of application within the City's planning, development, and operational context:

- Green Infrastructure & Development
- Vegetation, Habitat & Wildlife
- Parks & Public Lands
- Stewardship & Collaboration

Learn more about it at https://www.richmond.ca/_shared/assets/2018enmsupdatereport52187.pdf; <https://www.richmond.ca/sustainability/stewardship/ecology/about.htm?PageMode=HTML>

6.2 Protection of Habitat in Designated Streams

Learn more about it at <https://www.richmond.ca/sustainability/environment/rar.htm>

Riparian Management Area Requirements for Multifamily, Commercial and Industrial Development

https://www.richmond.ca/_shared/assets/info_2332212.pdf

Riparian Management Area Requirements for Single Family Residential Development

https://www.richmond.ca/_shared/assets/info4452017.pdf

6.3 Pollinator Initiatives

Learn more about it at <https://www.richmond.ca/sustainability/stewardship/communityaction/nectartrail.htm>

6.6 Bat Friendly Community

Learn more about it at <https://www.richmond.ca/parks/parks/naturepark/urbanwildlife/bats.htm>

6.7 Invasive Species Action Plan

Learn more about the Invasive Species Action Plan at <https://www.richmond.ca/sustainability/environment/pesticides/invasivespecies.htm>

6.9 Youth Engagement: Richmond Earth Day Youth (REaDY) Summit

Learn more about it at <https://www.richmond.ca/services/recycling/outreach/GreenAmbassadors.htm#:~:text=The%20Richmond%20Green%20Ambassadors%20is,at%20esoutreach%40richmond.ca>.

6.10 Urban Wildlife Webpage and Phone Inquiries

Learn more about it at <https://www.richmond.ca/parks/parks/naturepark/urbanwildlife.htm>

6.11 Partners for Beautification

Learn more about it at <https://www.richmond.ca/parks/about/beautification/about.htm>

6.12 Partnership with Richmond Nature Park Society

Learn more about it at <https://www.richmond.ca/parks/parks/naturepark/society.htm>

6.13 Contaminated Sites and Pollution Prevention

Contaminated Sites Management System: The City made presentations to the Contaminated Sites Approved Professionals Society in 2020 about the opportunities to support government operations in the contaminated sites world. We have implemented sound, practical, and common sense procedures to effectively steward the City's lands in a manner that protects residents from the dangers of contamination.

Learn more about it at <https://www.richmond.ca/sustainability/environment/pollution.htm?PageMode=HTML>

Mitchell Island Stewardship Initiative: Staff have been actively working with local businesses to improve water quality. The island stormwater has shown measurable improvement in key water quality parameters such as pH, and Total Suspended Solids since the program began. Next steps for the initiative include a green infrastructure feasibility study to improve island stormwater quality, continued island stormwater monitoring and compliance enforcement and the installation of a new Mitchell Island public mural celebrating environment sustainability and local ecology.

Learn more about it at https://www.richmond.ca/_shared/assets/3_Mitchell_Island_Environmental_Stewardship_PWT_03172055900.pdf

7. Local Agriculture and Food Security

7.1 Agricultural Land Base

Learn more about it at <https://www.richmond.ca/plandev/planning2/agriculture/about.htm>

7.2 Protecting Farmland

Learn more about it at <https://www.richmond.ca/plandev/planning2/completed-projects/farmhouseregs.htm>

7.3 Richmond Food Charter

Learn more about it at <https://www.richmondfoodsecurity.org/resources/resources-from-rfss/richmond-food-charter/>

7.4 Community Garden Program and Partnership with Richmond Food Security Society

Learn more about it at <https://www.richmond.ca/parks/parks/community.htm>

8. Resilient Economy

Resilient Economy Strategy: Learn more about it at <https://businessinrichmond.ca/wp-content/uploads/2016/08/Richmond-Resilient-Economy-Strategy.pdf>

8.1 Growing Richmond Industrial Space: Industrial Land Intensification Initiative

Learn more about it at https://www.richmond.ca/_shared/assets/ILII_GP_01052157450.pdf

8.2 COVID-19 Business Support Centre

Learn more about it at <https://businessinrichmond.ca/response-recovery-report/>

8.3 Business Development Program

Learn more about it at www.businessinrichmond.ca

9. Inclusive Community

9.1 Expanding Child Care Facilities

Learn more about it at <https://www.richmond.ca/services/communitysocialdev/childcare/overview.htm>

9.2 Youth–U–ROC Awards 20th Anniversary

Learn more about it at <https://www.richmond.ca/services/communitysocialdev/youth/uoc.htm>

9.4 Supporting Seniors in Richmond

City was awarded a \$25,000 Union of BC Municipalities (UBCM) Age-Friendly Communities Grant in 2019 to create a Plan to Engage Seniors in Age-Friendly Planning. The Engaging Seniors in Age-Friendly Planning report outlines a framework that will support the City of Richmond to continue age-friendly work in other locations in Richmond and to share with other organizations interested in engaging seniors in age-friendly planning. The project brought together a diverse group of 12 seniors living in the Seafair Neighbourhood of Richmond to identify barriers and well-designed elements in the built environment that impact their ability to age in place. Identifying and removing barriers to aging in place is crucial to supporting seniors to remain healthy, active and connected to their community.

Learn more about it at <https://www.richmond.ca/services/communitysocialdev/seniors.htm>

Learn more about the 55+/Seniors Planning and Strategy Development <https://www.richmond.ca/services/communitysocialdev/seniors/seniorsplanning.htm> and <https://www.richmond.ca/services/communitysocialdev/seniors/about.htm>

9.5 Supporting Intercultural Connections: Cultural Harmony Plan 2019–2029

Learn more about it at <https://www.richmond.ca/services/communitysocialdev/inclusion/culturalharmony.htm>

9.7 Revised Recreation Fee Subsidy Program Implemented

Learn more about it at <https://www.richmond.ca/services/communitysocialdev/accessibility/subsidy.htm>

9.8 Accessible Community: Enhanced Accessibility Design Guidelines

Learn more about it at https://www.richmond.ca/services/communitysocialdev/accessibility/accessibility_in_the_city.htm

9.9 Safe Community

Richmond RCMP Online Crime Reporting

Learn more about it at <https://www.richmond.ca/safety/police/crime-report.htm> and <https://www.richmond.ca/safety/police/prevention/comm-safety-app.htm>

Richmond RCMP Community Outreach

Learn more about it at <https://www.richmond.ca/safety/police/prevention/youthsection/youth.htm>

“Break and Enter” Outreach and Prevention

Learn more about it at https://www.richmond.ca/_shared/assets/ResidentialBreakandEnter38546.pdf

Training and Education in Emergency Preparedness

Learn more about it at <https://www.richmond.ca/safety/prepare.htm>

10 Vibrant Community

10.1 Recreation and Sport Strategy

Learn more about it at https://www.richmond.ca/_shared/assets/Recreation_and_Sport_Strategy_2019-202454626.pdf

10.2 Wellness Strategy

Learn more about it at https://www.richmond.ca/_shared/assets/cityofrichmondcommunitywellnesstrategy2018202352082.pdf

10.3 The Volunteer Management Strategy

Learn more about it at https://www.richmond.ca/_shared/assets/Volunteer_Management_Strategy_2018-202154120.pdf

10.4 Community Events, including REACT (Richmond Event Approval Coordination Team)

Learn more about it at <https://www.richmond.ca/parksrec/services/eventapp.htm>

10.5 Sustainability Event Tool Kit

Learn more about it at <https://www.richmondsustainableevent.ca/>

10.10 Youth Service Plan

Learn more about it at <https://www.richmond.ca/services/communitysocialdev/youth/strategy.htm?PageMode=HTML>

10.11 ArtWorks: Richmond Arts Strategy 2019-2024

Learn more about it at https://www.richmond.ca/_shared/assets/Richmond_Arts_Strategy_2019-202454661.pdf



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