



Climate Action Revenue Incentive Program Report

City of Vernon, 2017

The City of Vernon became a signatory of the British Columbia **Climate Action Charter** in 2008. As a participating local government, Vernon is committed to lowering greenhouse gas (GHG) emissions, taking actions that demonstrate leadership on sustainable development, reporting annually on the City's progress towards these goals and achieving carbon neutrality in corporate emissions.

As part of the BC Climate Action Charter, local governments are eligible to receive conditional grant funding through the **Climate Action Revenue Incentive Program** (CARIP). CARIP reimburses the carbon tax paid by local governments and requires that municipalities measure corporate carbon emissions and annually report on their corporate and community wide sustainability actions. Vernon has undertaken CARIP reporting annually since 2010.

Provincial requirements for the 2017 CARIP Climate Action/Carbon Neutral Progress Survey include:

- Local governments are required to submit the *2017 CARIP Climate Action/Carbon Neutral Progress Survey* on or before June 1, 2018.
- Local governments are also required to publicly report the information submitted in the *2017 CARIP Climate Action/Carbon Neutral Progress Survey*.

Further information on CARIP can be found on the [Ministry of Municipal Affairs and Housing website](#).

The following report is based on the 'Survey Template for the 2017 Climate Action/Carbon Neutral Progress Survey' as directed by the Province of BC.

The City of Vernon has completed the 2017 Climate Action Revenue Incentive Program (CARIP) Public Report as required by the Province of BC. The CARIP report summarizes actions taken in 2017 and proposed for 2018 to reduce corporate and community-wide energy consumption and greenhouse gas emissions (GHG) and reports on progress towards achieving carbon neutrality.

Local Government	City of Vernon
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2017 BROAD PLANNING ACTIONS

Broad Planning Actions

Broad Planning refers to high level planning that sets the stage for GHG emissions reductions, including plans such as Official Community Plans, Integrated Community Sustainability Plans, Climate Action Plans or Community Energy Emissions Plans. Land use planning that focuses on Smart Growth principles (compact, complete, connected, centred) plays an especially important role in energy and GHG reduction.

Community-Wide Actions Taken in 2017	
	<i>Lake Access Planning:</i> Detailed design for new access sites to connect Vernon residents to Okanagan Lake.
	<i>Continued Parks Master Plan Implementation:</i> Continued implementation of the Parks Master Plan, providing new park spaces and improvements to existing park spaces. Details are provided in other sections of this document.
	<i>Continued Transportation Master Plan Implementation:</i> Continued implementation of the Master Transportation Plan, including establishing connections to the regional Okanagan Rai Trail. Details are provided in other sections of this document.

Community-Wide Actions Proposed for 2018	
	<i>Waterfront Neighbourhood Centre Plan Implementation Strategy:</i> The development of more refined transportation and infrastructure plans, including a funding strategy, as well as refined approaches to land use and zoning to facilitate development in this neighbourhood. The development of the Waterfront Neighbourhood Centre is a key component of the growth strategy of the OCP.
	<i>McMechan Reservoir Planning:</i> The City is working with a land developer to create a vision for the redevelopment of a former water reservoir site. The vision includes a compact residential neighbourhood that is designed for pedestrians first, includes a new neighbourhood park, and employs alternative development standards. The intent is to create an affordable residential neighbourhood that promotes alternative transportation and reduces greenhouse gas emissions.
	Recreation Services has undertaken a Recreation Programming and Facilities Master Plan. The process includes a review of recreation facilities, program services and developing the Greater Vernon Recreation Services with long term direction with regards to provision of recreation facilities, active lifestyle opportunities and services to meet current and future needs (2018 – 2033) of Greater Vernon residents and visitors.

Broad Planning		
What is (are) your current GHG reduction target(s)?	The Official Community Plan (OCP) has established goals of 2% annual reductions in GHG emissions until 2018, and a net decrease of 35% by 2050 relative to 2007 baseline emissions levels.	
Are you familiar with your community's community energy and emissions inventory (e.g. CEEI or another inventory)?		Yes

<p>What plans, policies or guidelines govern the implementation of climate mitigation in your community?</p> <ul style="list-style-type: none"> • Community Energy and Emissions (CEE) Plan • Community- Wide Climate Action Plan • Integrated Community Sustainability Plan • Official Community Plan (OCP) • Regional Growth Strategy (RGS) 	<p>Yes</p> <p>No</p> <p>No</p> <p>Yes</p> <p>Yes</p>
Does your local government have a corporate GHG reduction plan?	No

2017 BUILDING AND LIGHTING ACTIONS

Building and Lighting Actions

Low-carbon buildings use the minimum amount of energy needed to provide comfort and safety for their inhabitants and tap into renewable energy sources for heating, cooling and power. These buildings can save money, especially when calculated over the long term. This category also includes reductions realized from energy efficient street lights and lights in parks or other public spaces.

Community-Wide Actions Proposed for 2018	
	<p><i>BC Energy Step Code:</i> Provide Council with an introduction to the BC Energy Step Code (BCESC) and collaborate on a regional approach currently underway in the Okanagan to implement the BCESC. Improving energy efficiency in buildings, which accounts for approximately 30% of Vernon’s community GHG emissions (2010 CEEI), is instrumental for the City to achieve its GHG emissions reduction targets. Recent changes to provincial building regulations have enabled the BCESC as the only mechanism for local governments to require energy efficiency improvements for new construction. As such, building and sustainability officials in the Okanagan have initiated discussions for a regional Step Code approach. Vernon submitted its intention to consult on the BCESC to the province, along with a growing list of communities in BC, and will continue to collaborate with regional partners on the implementation of the BCESC.</p>

Corporate Actions Taken in 2017	
	<p>Recreation Services have continued to take the opportunity to increase energy efficiencies in facilities including: installed LED lighting in outdoor rink; installed exterior LED lighting retrofit for Priest Valley Arena; decreased energy use via Priest Valley and Kal Tire Civic Arena ice surface evening temperature setbacks; isolated and shutoff City Arena boiler for summer months; installed new electric meter for curling rink and new smart metres for a more efficient way for measure energy consumption; implementing an automation system for weekly head schedule programming at the Recreation Centre; upgraded from T-12 to T-8 lighting in the fitness centre; upgraded the Aquatic Leisure Centre’s pool heat exchange.</p>
	<p>City Facilities have also completed a variety of updates to increase facility efficiencies. These actions include: replacement of all exterior CFL lighting at Firehall 1 with LED; replace all interior CFL exit signs with LED at Operations; partial replacement of fluorescent to LED in Operations; replaced Windows at Firehall 2; and partial replacement of street lights to LED.</p>

Corporate Actions Proposed for 2018	
	Recreation Services will continue to take the appropriate measures to increase energy efficiency including: upgrade to a safer and more efficient plate and frame chiller exchanger system from shell and tube chiller exchanger system; install light motion sensors at the Priest Valley Arena dressing room; upgrade the Aquatic Leisure Centre's hot tub pool heat exchange; provide staff training for the heat automation system; install variable speed ozone pool pump.
	Continue to replace old lighting fixtures with LED technology where appropriate at the Vernon Water Reclamation Centre.
	City Facilities plans to install a variety of updates to increase facility efficiencies, including: comprehensive street light replacement project – Phase 1; upgrade HVAC at Firehall 2; replacement of all interior CFL exit signs with LED at City Hall; increased R value at Firehall 2 – FH 2 Garage (new ESS Building) through windows and insulation; replacement of windows at Operations; replacement of skylights at Community Services Building (CSB); and upgrade of R value at CSB by installation of new roofing system (R-20 to R-40).

Building and Lighting	
The Province has committed to taking incremental steps to increase energy-efficiency requirements in the BC Building Code to make buildings net-zero energy ready by 2032. The BC Energy Step Code--a part of the BC Building Code--supports that effort	
Is your local government aware of the BC Energy Step Cost?	Yes
Is your local government implementing the BC Energy Step Code?	In Consultation

2017 ENERGY GENERATION ACTIONS

Energy Generation Actions

A transition to renewable or low-emission energy sources for heating, cooling and power supports large, long-term GHG emissions reductions. Renewable energy including waste heat recovery (e.g. from biogas and biomass), geo-exchange, micro hydroelectric, solar thermal and solar photovoltaic, heat pumps, tidal, wave, and wind energy can be implemented at different scales, e.g. in individual homes, or integrated across neighbourhoods through district energy or co-generation systems.

Corporate Actions Taken in 2017	
	Installed solar photovoltaic powered LED lighting for new City Gateway signs.

Energy Generation	
Is your local government developing, or constructing:	
<ul style="list-style-type: none"> • A district energy system • A renewable energy system 	No No
Is your local government operating:	
<ul style="list-style-type: none"> • A district energy system 	Yes

• A renewable energy system	No
Is your local government connected to a district energy system that is operated by another energy provider?	No
Are you aware of the Integrated Resource Recovery guidance page on the BC Climate Action Toolkit ?	Yes
Are you familiar with the 2017 " List of Funding Opportunities for Clean Energy Projects Led by First Nations and Local Governments? "	Yes

2017 GREENSPACE/NATURAL RESOURCE PROTECTION ACTIONS

Greenspace Actions

Greenspace/Natural Resource Protection refers to the creation of parks and greenways, boulevards, community forests, urban agriculture, riparian areas, gardens, recreation/school sites, and other green spaces, such as remediated brownfield/contaminated sites as well as the protection of wetlands, waterways and other naturally occurring features.

Community-Wide Actions Taken in 2017	
	<i>Bike Skills Park:</i> Designed and initiated construction of a new bike skills park at Becker Park in the City Centre. This park offers residents of a variety of ages and abilities a series of trails and facilities for biking, and encourage youth to get familiar with cycling and bicycle maintenance.
	<i>Lakeshore Park Plan:</i> Planning and design of a new park on Vernon’s waterfront to facilitate redevelopment of the surrounding neighbourhood into a compact village centre. Plans for the park account for potential flood risks, and is designed in such way to allow flooding and inundation to take place without significant impact to infrastructure.
	<i>Foothills Neighbourhood Trail Development:</i> Construction of a new trail system in the Foothills neighbourhood, giving residents access to natural ravines and providing better direct pedestrian connections throughout the neighbourhood.
	<i>Playground Replacement:</i> Replacement of a playground at Alexis Park.
	<i>Ecosystem and Ecological Conservation:</i> engaged the community on practices and benefits that promote ecosystem and ecological resilience such as encouraging pollinators and ways to protect sensitive habitat in collaboration with local stewardship partners such as the Okanagan Collaborative Conservation Program (OCCP) and the Allan Brooks Nature Centre (ABNC); consulted and collaborated with FLNRORD to enhance riparian protection; applied for and contribute to the BC WildSafe Program to provide educational opportunities for the public to learn about urban wildlife and to reduce human wildlife conflicts.

Community-Wide Actions Proposed for 2018	
	<i>Bike Skills Park:</i> Complete construction of a new bike skills park at Becker Park in the City Centre.
	<i>Lakeshore Park:</i> Construction of a new park on Vernon’s waterfront.
	<i>Hurlburt Park:</i> Access and safety improvements to a new lakefront park.

	Continue to provide support for non-profit organizations and stewardship based projects relevant to greenspace/natural resources protection.
	<i>New Landscape Standards Bylaw:</i> The City plans to review and update the Landscape Standards Bylaw, which outlines the requirements for landscaping in multi-family, commercial, industrial and institutional development. The goal is to ensure the new development provides quality landscaping, not just for the aesthetic purposes, but also to provide shading for pedestrians and cyclists, reduce the urban heat island effect and provide cleaner air for the community.
	Develop a Riparian Areas Management Plan for the Recreation Centre.

Greenspace	
Does your local government have urban forest policies, plans or programs?	Yes
Does your local government have policies, plans or programs to support local food production?	Yes

2017 SOLID WASTE ACTIONS

Solid Waste Actions

Reducing, reusing, recycling, recovering and managing the disposal of the residual solid waste minimizes environmental impacts and supports sustainable environmental management, greenhouse gas reductions, and improved air and water quality.

Community-Wide Actions Taken in 2017	
	Promotional outreach for waste diversion through educational engagement and event attendance, especially pertaining to composting organics, in partnership with the Regional District of North Okanagan to encourage a reduction of GHG emissions via lowering the amount of materials being transported to the landfill. Supported and attended multiple community outreach events including the Seedy Saturday community seed exchange (in partnership with Vernon in Transition, and the Sustainable Environment Network Society) and the Community Garage Sale (in partnership with Kal Tire Corporate Social Responsibility).

Community-Wide Actions Proposed for 2018	
	Install Elkay water cooler in Priest Valley and Kal Tire Arena to reduce waste and promote re-usable water containers.
	Continue to encourage waste reduction through educational outreach and collaboration with strategic partners, including exploring the feasibility of a targeted pilot organics diversion program.

Corporate Actions Taken in 2017	
	Recreation Centre purchased internal recycle bins to encourage recycling, and upgraded to secured and enclosed exterior garbage and recycling bins.
	Organized, in partnership with a local elementary school, a Lunch-and-Learn to demonstrate to staff the benefits of composting and how to start their own worm composting bin. City Hall and Community Services Building have followed up by providing staff with a pilot worm composting bin,

which have vermicomposted approximately 190 kg of organic waste in 2017.
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Corporate Actions Proposed for 2018	
	Continue to encourage corporate waste diversion opportunities, including exploring the feasibility of a pilot corporate organics diversion program.

Solid Waste	
Does your local government have construction and demolition waste reduction policies, plans or programs?	No
Does your local government have organics reduction/diversion policies, plans or programs?	Yes

2017 TRANSPORTATION ACTIONS

Transportation Actions

Transportation actions that increase transportation system efficiency, emphasize the movement of people and goods, and give priority to more efficient modes, e.g. walking, cycling, ridesharing, and public transit, can contribute to reductions in greenhouse gas emissions and more livable communities.

Community -Wide Actions Taken in 2017	
	Replaced the previous transit bus fleet with ten Vicinity buses (30-foot medium duty buses). These new buses have better performance, are more environmentally friendly, and reduce fuel consumption compared to the previous fleet. The Vicinity buses are sized for smaller communities like Vernon, and burn less fuel and reduce greenhouse gas emissions by approximately 30% compared to a standard heavy-duty (40 foot) bus.
	Worked cooperatively with BC Transit and regional partners to complete a service review of the custom transit service, which includes handyDART, taxi-saver and taxi supplement.
	Provided community and corporate opportunities, events, incentives, and outreach programs to encourage modal shift, including: organised local participation in the Bike to Work and School Week and Clean Air Day with free regional transit; promoted International Walk and Wheel to School Month and Okanagan Regional Carpool Week; held transportation outreach and information booths at community events including the Okanagan College Orientation Day, Okanagan Landing Elementary Parents BBQ, International Day of the Child Celebration, and the Waste Reduction Week Community Garage Sale.
	Constructed various infrastructure projects in line with City’s Transportation Master Plan that encourage sustainable transportation opportunities, including: <ul style="list-style-type: none"> • Constructed 225m of a 3m wide multi-use path for active transportation users on 35th Avenue (24th Street to 27th Street) with improved street lighting and a new crosswalk with pedestrian activated flashing lights at the intersection with 25th Street. • Constructed 345m of the 29th/30th Street Transportation and Utility Corridor project (30th Avenue to 24th Avenue) of the north-south pedestrian/cycling/transit corridor (ultimately the corridor will be 2.6km long connecting Polson Park to Village Green Centre). This section included 250m of a two way cycle track separated by a buffer from the sidewalk. • Constructed the first phase of a 4m wide multi-use path on Kalamalka Lake Road, about 775

	<p>m long from 14th Avenue to Browne Road. Note: the 48.5km Okanagan Rail Trail between Coldstream and Kelowna is due to open over the next few years, and Coldstream is planning to construct a pedestrian/cycle connection from the Okanagan Rail Trail to the Kalamalka Lake Road multi-use path in Vernon.</p> <ul style="list-style-type: none"> • Constructed a 2m wide shoulder in Pottery Road from 13th Street to Francis Street to provide additional active transportation infrastructure for students travelling to/from the Hillview Elementary School. The first 414m of this project is within the City of Vernon and 410m is in Electoral Area C of the Regional District of North Okanagan (RDNO). With approval and funding from the Ministry of Transportation and Infrastructure and RDNO, the City designed and constructed 410m of 2m wide shoulder from the City Boundary to the intersection next to the school. • Constructed a roundabout at the intersection of 20th Street and 58th Avenue to improve the efficient movement of vehicles while providing pedestrian crossing facilities.
	<p>Granted parking variances for various developments with requirements from developers to implement Transportation Demand Management (TDM) initiatives to offset parking demand. TDM initiatives agreed to be implemented by developers include: transit passes for residents, car sharing vehicles, and providing additional bike parking.</p>

Community-Wide Actions Proposed for 2018	
	<p>Work with BC Transit to implement a transit service expansion, which include 8,000 additional annual service hours starting April 1, 2018. The transit service expansion includes changes to existing Routes 2 and 3, and minor changes to Routes 7 and 8. A brand new higher frequency Route 9 will also be introduced (15 minute frequency during peak periods and 30 minute frequency off-peak).</p>
	<p>Adopt traffic bylaw provisions that will allow small-wheeled transport users (e.g. skateboarders, long boarders, non-motorized scooters, children on bicycles, etc.) to legally use pedestrian and bicycle facilities throughout Vernon. This will coincide with a public education campaign to promote proper etiquette and safety between all users. The intent of this initiative is to encourage active transportation modes.</p>
	<p>Continue to provide community and corporate opportunities, events, incentives, and outreach programs to encourage modal shift, including: Bike to Work and School Week; The Commuter Challenge; International Walk and Wheel to School Month; Okanagan Regional Carpool Week; The City of Vernon Staff Health and Wellness Fair; Vernon Bike Fest; Capital Projects Open House; And other events as opportunities arise.</p>
	<p>Continue to design and constructed various infrastructure projects in line with City's Transportation Master Plan that encourage sustainable transportation opportunities, including:</p> <ul style="list-style-type: none"> • Final design and construction of ten sidewalk ramps in the Primary Business Improvement Area within Vernon's downtown. These ramps would follow accessible design best practices with due consideration of on-site constraints (i.e. available land). • Complete the final phase of the Kalamalka Lake Road project, from Browne Road to the City boundary. The project includes a 4m wide multi-use path on the west side of Kalamalka Lake Road. Note: the 48.5km Okanagan Rail Trail between Coldstream and Kelowna is due to open over the next few years, and Coldstream is planning to construct a pedestrian/cycle connection from the Okanagan Rail Trail to the Kalamalka Lake Road multi-use path in Vernon. • Construct a 630m sidewalk in 24th Avenue (39th Street to 43rd Street). • Construct 230 m of the 29th/30th Street Transportation and Utility Corridor project (34th

	<p>Avenue to 37th Avenue) of the north-south pedestrian/cycling/transit corridor (ultimately the corridor will be 2.6km long connecting Polson Park to Village Green Centre). This section will include a two-way cycle track, separated by a buffer from the sidewalk. One segment will be a multi-use path, where the project intersects with 35th Avenue.</p> <ul style="list-style-type: none"> • Construct 300 m of the 35th Avenue multi-use path (27th Street to 30th Street) of the east-west active transportation corridor. This segment will be constructed in coordination with the 29th/30th Street Transportation and Utility Corridor project as the two projects will intersect. The project will include signalization of the 30th Street and 35th Avenue intersection in anticipation of the future traffic growth and pedestrian/cyclist safety (once the 29th/30th Street north-south corridor is connected, there is expected to be additional traffic). • Construct about 110 metres of 29th Avenue, between 31st Street and 32nd Street. This project will include improved pedestrian infrastructure through widening sidewalks. • Construct about 150 metres of 28th Avenue and Coldstream Avenue, between 31st Street and 32nd Street. This project will include improved pedestrian infrastructure through widening sidewalks and will improve transportation safety at the east Coldstream and Highway 97 intersection. • Design and construct a variety of sidewalks identified by the community as high priority projects through the Pedestrian and Bike Master Plan public participation. These connections will provide greater pedestrian connectivity in the city where there are currently gaps.
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Corporate Actions Taken in 2017	
	Fleet Replacement Strategy continued to replace older technology vehicles and equipment with higher efficiency and lower emission units.
	Right-sizing and efficiency vehicle replacements include: replaced one 2006 sterling vacuum combination truck with a new 2018 freightliner, OBD EPA CARB GHG 17 compliant; replaced one 1997 diesel powered van with a 2017 Transit Van; replaced two 2001 pickups with a 2017 pickups; Replaced one 2005 pickup with a 2017 pickup; replaced one 2007 van with a 2017 compact van.
	Purchased the City's first all-electric, zero emissions vehicle - 2017 All Electric Ford Focus - for building inspectors.

Corporate Actions Proposed for 2018	
	Source electric or fuel efficient UTV for Parks operations.
	Replacement of 5 older technology pickups, replacement of older technology equipment, skid steer, mower, tractor and carry all with 2018 emission compliant equipment.
	Upgrade GPS system to live tracking to enable better fleet utilization and vehicle reporting.
	Continue to look at alternate fuel opportunities for replacement or additional vehicles.
	Explore the opportunity to establish a corporate bicycle and e-bike fleet.
	Investigate replacing the City's existing electric bicycle with a newer and more efficient model, and expanding the City's bicycle fleet.

Transportation	
Does your local government have policies, plans or programs to support:	
<ul style="list-style-type: none"> • Walking • Cycling 	Yes Yes

<ul style="list-style-type: none"> • Transit Use • Electric Vehicle Use • Other: The City has policy and programs that encourage active modes of transportation including mobility devices, skateboards, scooters, carpooling, etc. 	<p>Yes</p> <p>Yes</p> <p>Yes</p>
Does your local government have a transportation demand management (TDM) strategy (e.g. to reduce single-vehicle occupancy trips, increase travel options, provide incentives to encourage individuals to modify travel behavior)?	Yes
Does your local government integrate its transportation and land use planning?	Yes

2017 WATER AND WASTEWATER ACTIONS

Managing and reducing water consumption and wastewater is an important aspect of developing a sustainable built environment that supports healthy communities, protects ecological integrity, and reduces greenhouse gas emissions.

Community-Wide Actions Taken in 2017	
	The City of Vernon received a grant from the Clean Water and Wastewater Fund (CWWF) to proceed with 3,800 m of sanitary sewer main extension to directly service 100 residents and ultimately enables 900 homes to connect to the utility. About 1000m of pipe was constructed in 2017 and the remaining 2800m will be completed in 2018.
	<p>The City is committed to water quality protection and conservation and engaged the community through:</p> <ul style="list-style-type: none"> • Outreach and educational opportunities in regards to understanding stormwater functions and actions for mitigating and protecting water quality such as best practices for land owners on private property, including supporting the Okanagan Collaborative Conservation Program in the Foreshore Inventory Update Report of Okanagan Lake; • Support the stewardship opportunities for water quality protection and conservation such as the Yellow Fish Road storm drain painting program; and • Provide outreach opportunities to riparian land owners, especially via the development community to learn about the impact and responsibilities of living and working within riparian and lakeshore areas in partnership with the OCCP.

Community-Wide Actions Proposed for 2018	
	The City of Vernon received a grant from the Clean Water and Wastewater Fund (CWWF) to proceed with 3,800 m of sanitary sewer main extension to directly service 100 residents and ultimately enables 900 homes to connect to the utility. About 1000m of pipe was constructed in 2017 and the remaining 2800m will be completed in 2018.
	Continue to collaborate with government partners and various community stewardship groups to support water quality protection and conservation.

Corporate Actions Taken in 2017	
	Priest Valley Arena installed fill solenoid valve in condenser tank, and upgraded several sinks to automated shutoff valves to increase efficiency and conserve water.

Water Conservation	
Does your local government have water conservation policies, plans or programs?	Yes

2017 CLIMATE CHANGE ADAPTATION ACTIONS

This section of the CARIP survey is designed to collect information related to the types of climate impacts local governments are experiencing and how they are being addressed.

Please identify the THREE climate impacts that are most relevant to your Local Government.	
<input type="checkbox"/> Warmer winter temperatures reducing snowpack	
<input checked="" type="checkbox"/> Changes to temperature and precipitation causing seasonal drought	
<input type="checkbox"/> Heatwaves impacting population health	
<input checked="" type="checkbox"/> Increased temperatures increasing wildfire activity	
<input type="checkbox"/> Increased temperatures affecting air quality	
<input type="checkbox"/> Changing temperatures influencing species migration and ecosystem shifts	
<input checked="" type="checkbox"/> Extreme weather events contributing to urban and overland flooding	
<input type="checkbox"/> Sea level rise and storms causing coastal flooding and/or erosion	

In 2017 has your local government addressed the impacts of a changing climate using any of the following?	
Risk and Vulnerability Assessments	Yes
Risk Reduction Strategies	Yes
Emergency response planning	Yes
Asset management	Yes
Natural/Eco asset management strategies	No
Infrastructure upgrades (e.g. storm water system upgrades)	Yes
Beach Nourishment projects	No
Economic diversification initiatives	Yes
Strategic and financial planning	Yes
Cross-department working groups	Yes
OCP policy changes	Yes
Changes to zoning and other bylaws and regulations	Yes
Incentives for property owner (e.g. reducing storm water run-off)	Yes
Public education and awareness	Yes
Research	Yes
Mapping	Yes
Partnerships	Yes

Climate Change Adaptation Actions Proposed for 2018	
	In 2017 the City of Vernon received a Gas Tax Strategic Priorities Fund grant for a Drainage Infrastructure Prioritization study that will prioritize drainage infrastructure replacement and improvements through asset management analysis. This study will also integrate new climate data into the analysis to define overland flow routes through the City. The work will be completed in 2018.
	The City is partnering with Okanagan Basin Water Board and the other municipalities in the Okanagan on the acquisition of Lidar mapping to support future drainage and flood mapping work.

The following are key resources that may be helpful to your local government in identifying climate impacts, as well as, strategies, actions and funding to deal with them. For those resources that you have used, please indicate whether they were useful in advancing your work in climate change adaptation?	
Indicators of Climate Change for British Columbia, 2016 Plan2Adapt Climate Projections for Metro Vancouver Climate Projections for the Capital Region Climate Projections for the Cowichan Valley Regional District Province of BC's BC Adapts Video Series Preparing for Climate Change: An Implementation Guide for Local Governments The Public Infrastructure and Engineering Vulnerability Committee's (PIEVC) protocol Sea Level Rise Primer BC Regional Adaptation Collaborative Webinars www.ReTooling.ca Water Balance Model The Water Conservation Calculator Funding: National Disaster Mitigation Program (NDMP) Community Emergency Preparedness Fund (CEPF) Municipalities for Climate Innovation Program (MCIP) Climate Adaptation Partner Grants (FCM) Infrastructure Planning Grants (MAH) Federal Gas Tax Fund	Haven't Used Haven't Used Useful - Reference Useful - Reference Useful - Reference Haven't Used Useful Useful Not Useful – Not Applicable Haven't Used Useful Haven't Used Haven't Used Useful Useful Haven't Used Useful Useful Useful
Other: BC Agriculture & Climate Change Regional Adaptation Strategies (https://www.bcagclimateaction.ca/wp/wp-content/media/RegionalStrategies-Okanagan.pdf)	Useful

2017 OTHER CLIMATE ACTIONS

Other Climate Actions

This section provides local governments the opportunity to report other climate actions that are not captured in the categories above.

Community-Wide Actions Taken in 2017	
	In 2017 the City of Vernon received a Gas Tax Strategic Priorities fund grant for a Drainage Infrastructure Prioritization study that will prioritize drainage infrastructure replacement and improvements through asset management analysis. This study will also integrate new change climate data into the analysis to define overland flow routes through the City.
	<p>Energy Conservation and GHGe Reduction:</p> <ul style="list-style-type: none"> • Continue the Tree Education and Outreach Program to encourage urban canopy growth which provides shade, decreases cooling costs, and lowers GHG emissions.; • Engage businesses on energy conservation practices and incentives with partners; • Provide opportunities for the local development community to learn about ways to enhance energy efficiency in collaboration with partners; and • Support educational opportunities for youth and students through the Planet Protectors program. This engagement program is a digitally-delivered, BC curriculum-linked educational resource that focuses on climate change, energy and transportation and is proven to drive measureable behaviour change at home and help communities meet their climate action goals.
	The City initiated the Sustainability Grants program for 2017-2018. The program aims to revitalize the Sustainability Awards program by providing small grants of between \$500 to \$1,000 as an incentive to leverage and accelerate sustainability projects led by Vernon residents, not for profits and community groups. Examples of such projects could include establishing a neighbourhood community garden, building educational or demonstration displays for conservation by students or youth groups, or undertaking energy and GHGe reduction projects. Multiple applications were received and the proposed projects will take place during 2018.

Community-Wide Actions Proposed for 2018	
	Establish a Climate Action Task Force composed of industry specialists and the community at large to explore ways to further reduce emissions and to adapt to the impacts of climate change.
	<p><i>Carbon Tax Revolving Fund:</i></p> <p>Development of a Council Policy to provide a sustainable source of funding for climate action projects that can demonstrate corporate or community greenhouse gas emissions reduction. The policy would guide the use of the City's carbon tax reserve funds to provide direct benefits to Vernon through GHG emissions reduction, taxpayer cost savings and reinvestment in the reserve fund for further emissions reduction through a revolving fund structure.</p> <p>Management of the carbon tax reserve fund as a revolving fund would support projects that</p>

	provide measurable savings, generate additional emissions reduction opportunities, and engage corporate and community members with tangible financial incentives. The resulting fund would provide benefits beyond one time investments, enhancing the City’s leadership in sustainability and directly providing taxpayer savings through climate action initiatives.
	Continue to collaborate with government partners and various community stewardship groups to support water quality protection and conservation.
	Continue with the implementation of the Vernon Sustainability Grants program.

Other	
Are you familiar with the Community Lifecycle Infrastructure Costing Tool (CLIC) ?	Yes
Have you used CLIC?	No

INNOVATION AND PEER-TO-PEER LEARNING

Innovation

This section provides the opportunity to showcase an innovative Corporate and/or Community-Wide GHG reduction and/or climate change adaptation activity that your local government has undertaken and that has had, or has the potential to have, a significant impact. You are welcome to repeat an action that has already been listed.

Projects included here may be featured as success stories on the B.C. Climate Action Toolkit and/or shared with other local governments to inspire further climate action. Please add links to additional information where possible.

Communities that have conducted innovative initiatives may want to consider raising their profile through applications to [CEA’s Climate and Energy Action Awards](#), [UBCM Climate and Energy Action Award](#), [FCM Sustainable Communities Awards](#) or through submissions to [FCM’s National Measures Report](#).

Community-Wide Action
<p>The City of Vernon initiated the Sustainability Grants Program on June 12, 2017. The program’s key objectives are to:</p> <ul style="list-style-type: none"> • Engage action and provide recognition for sustainability projects in Vernon; • Support projects that help achieve/improve Vernon’s sustainability goals; • Improve quality of life in Vernon through community actions in sustainability; and • Provide an opportunity to cultivate sustainable action by the community, for the community. <p>The program provides small grants of between \$500 to \$1,000 as an incentive to leverage and accelerate sustainability projects led by Vernon residents, youth, non-profits and community groups.</p>



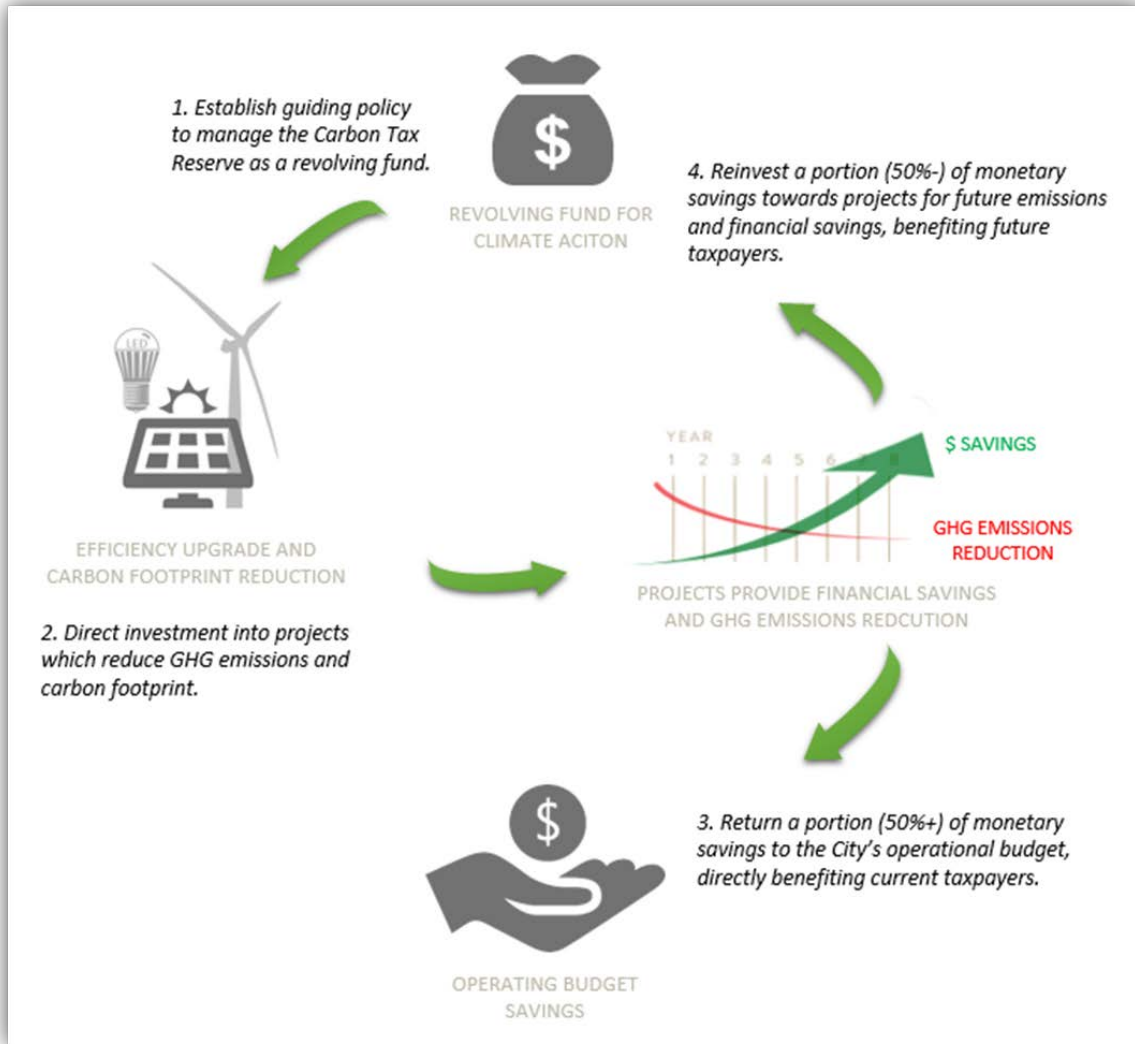
Multiple applications were received for the program and the proposed projects will take place during 2018.

For more information contact: Jing Niu, Environmental Planning Assistant, jniu@vernon.ca, 250-550-3243.

Corporate Action

Carbon Tax Revolving Fund:

Development of a Council Policy to provide a sustainable source of funding for climate action projects that can demonstrate corporate or community greenhouse gas emissions reduction. The policy would guide the use of the City's carbon tax reserve funds to provide direct benefits to Vernon through GHG emissions reduction, taxpayer cost savings and reinvestment in the reserve fund for further emissions reduction through a revolving fund structure.



Management of the carbon tax reserve fund as a revolving fund would support projects that provide measurable savings, generate additional emissions reduction opportunities, and engage corporate and community members with tangible financial incentives. The resulting fund would provide benefits beyond one time investments, enhancing the City's leadership in sustainability and directly providing taxpayer savings through climate action initiatives.

Council has supported this initiative in principle, and is expected to potential projects later this year.

For more information contact: Jing Niu, Environmental Planning Assistant, jniu@vernon.ca, 250-550-3243.

Programs, Partnerships and Funding Opportunities

Local governments often rely on programs, partnerships and funding opportunities to achieve their climate action goals. Please share the names of programs and organizations that have supported your local government’s climate actions by listing each entry in the box below.

Mitigation & Adaptation

Programs and Funding

Partnerships have become both effective and necessary in being able to deliver the level of outreach and educational opportunities the City has provided in its sustainability program. From working with the local business community, to local stewardship groups, to regional non-profit collaboratives and boards related to sustainability – the continuation of collaborative partnerships is imperative to the future success of sustainability program. Some exemplary partners include: Allan Brooks Nature Centre, Sustainability Environment Network Society, Vernon in Transition, Downtown Vernon Association, Okanagan Collaborative Conservation Program, Okanagan Basin Water Board, Vernon Farmers’ Market, and Food Action Society of Okanagan.

The Sustainability Grants program provides small grants of between \$500 to \$1,000 as an incentive to leverage and accelerate community sustainability projects, including those that would benefit climate change mitigation and adaptation, led by Vernon residents, not for profits and community groups.

The development of a Carbon Tax Revolving Fund policy provides a sustainable source of funding for climate action projects that can demonstrate corporate or community greenhouse gas emissions reduction. The policy guides the use of the City’s carbon tax reserve funds to provide direct benefits to Vernon through GHG emissions reduction, taxpayer cost savings and reinvestment in the reserve fund for further emissions reduction through a revolving fund structure. Management of the carbon tax reserve fund as a revolving fund supports projects that provide measurable savings, generate additional emissions reduction opportunities, and engage corporate and community members with tangible financial incentives. The resulting fund would provide benefits beyond one time investments, enhancing the City’s leadership in sustainability and directly providing taxpayer savings through climate action initiatives.

2017 CARBON NEUTRAL REPORTING

Local governments are required to report on their progress in achieving their carbon neutral goal under the Climate Action Charter. Working with B.C. local governments, the joint Provincial-UBCM Green Communities Committee (GCC) has established a common approach to determining carbon neutrality for the purposes of the Climate Action Charter, including a Carbon Neutral Framework and supporting guidance for local governments on how to become carbon neutral.

Prior to completing this portion of the survey, please ensure that you are familiar with guidance available on the B.C. Climate Action Toolkit website, especially the [Becoming Carbon Neutral: A Guide for Local Governments in British Columbia](#).

Please note: As a result of the BC Recycling Regulation, local governments are no longer required to account for greenhouse gas (GHG) emissions from vehicles, equipment and machinery required for the collection, transportation and diversion of packaging and printed paper, in their annual Climate Action Revenue Incentive Program (CARIP) reports.

Reporting Emissions

Did you measure your local government's corporate GHG emissions in 2017?	Yes
If your local government measured 2017 corporate GHG emissions, please report the number of corporate GHG emissions (in tonnes of carbon dioxide equivalent) from services delivered <u>directly</u> by your local government:	2977 tCO₂e
If your local government measured 2017 corporate GHG emissions, please report the number of corporate GHG emissions (in tonnes of carbon dioxide equivalent) from <u>contracted</u> services:	398 tCO₂e
TOTAL A: CORPORATE GHG EMISSIONS FOR 2017	3375 tCO₂e

Reporting Reductions and Offsets

To be carbon neutral, a local government must balance their TOTAL corporate GHG emissions generated in 2017 via reductions and offsets.

Corporate GHG Emissions Balance for 2017

A local government's Corporate GHG Emissions Balance is the difference between total corporate GHG emissions (direct + contracted emissions) and the GHG emissions reduced through GCC Option 1 and Option 2 projects and/or the purchase of offsets.

CORPORATE GHG EMISSIONS BALANCE FOR 2017 = 3375 tCO₂e

Carbon Neutral Reporting	
Does your local government have a climate reserve fund or something similar?	Yes

GCC CLIMATE ACTION RECOGNITION PROGRAM

Green Communities Committee (GCC) Climate Action Recognition Program

The joint Provincial-UBCM Green Communities Committee (GCC) is pleased to be continuing the Climate Action Recognition Program again this year. This multi-level program provides the GCC with an opportunity to review and publicly recognize the progress and achievements of each Climate Action Charter (Charter) signatory.

Recognition is provided on an annual basis to local governments who demonstrate progress on their Charter commitments, according to the following:

Level 1 – Demonstrating Progress on Charter Commitments: for local governments who demonstrate progress on fulfilling one or more of their Charter commitments

Level 2 – Measuring GHG Emissions: for local governments that achieve level 1, and who have measured their Corporate GHG Emissions for the reporting year and demonstrate that they are familiar with their community’s energy and emissions inventory (i.e. CEEI)

Level 3 – Accelerating Progress on Charter Commitments: for those local governments who have achieved level 1 and 2 and have demonstrated undertaking significant action (corporately or community wide) to reduce GHG emissions in the reporting year (i.e.: through undertaking a GHG reduction project, purchasing offsets, establishing a reserve fund).

Level 4 - Achievement of Carbon Neutrality: for local governments who achieve carbon neutrality in the reporting year.

For purposes of Level 3 recognition, if applicable, please identify any new or ongoing corporate or community wide GHG reduction projects (other than an Option 1 or Option 2 project) undertaken by your local government that reflects a significant investment of time or financial resources and is intended to result in significant GHG reductions:

PROJECT NAME:
The City is working on engaging Option 1 or Option 2 projects at this time.

Based on your local government's 2017 CARIP Climate Action/Carbon Neutral Progress Survey, please check the GCC Climate Action Recognition Program level that best applies:

<input type="checkbox"/>	Level 1 – Demonstrating Progress on Charter Commitments	
<input type="checkbox"/>	Level 2 – Measuring GHG Emissions	
<input checked="" type="checkbox"/>	Level 3 – Accelerating Progress on Charter Commitments	✓
<input type="checkbox"/>	Level 4 - Achievement of Carbon Neutrality	
<input type="checkbox"/>	Not Sure	