

Climate Actions – December 2019

The B.C. Climate Action Charter is a voluntary agreement between the Provincial of B.C. and signatory municipalities to take action on climate change. Maple Ridge signed on to the Charter in 2009. In becoming a signatory, the City committed to: reporting on its community and corporate emission reduction actions; creating complete, compact, more energy efficient communities; become carbon neutral in their corporate operations.

The following list contains reported actions from 2011-2019, grouped by category (Energy, Food Security, Infrastructure, Land Use, Natural Assets, Transportation, Waste, Water, and Additional Actions) then further divided into community and corporate actions.

While much of this work falls under the municipal scope, many of the action items result from partnerships with other agencies. Partners of note include the Ridge Meadows Recycling Society, Metro-Vancouver Regional District, advisory committees of Council, BC Hydro, and the Province of BC.

Energy

| Community Actions | Partner |
|---|----------------|
| Engaged in a leadership role with the development of the BC Energy Step Code by consulting with the Province on greening the Building Code. The Step Code is an opt-in building code that allows local governments to anticipate the Province's goal of making all new construction net-zero energy ready by 2032. | Province of BC |
| Prepared for the pending implementation of the BC Step Code by constructing a Step 3 show home in partnership with a local builder. The building process was used as a training tool for other builders and City staff as to the process for building to an upper tier of the Step Code. Also provided a real-world opportunity to affirm the Province's incremental building cost study. | BC Hydro |
| Conducted BC Energy Step Code implementation GHG impact study with the support of a UBC Sustainability Scholar to determine the optimal adoption pathway for the reduction of building stock GHG emissions. Sustainability Scholars are UBC graduate-interns who conduct an applied research project on behalf of and partnership with program applicants. | UBC |
| Promoted Climate Smart's 'Smart Business Program' where small and mid-sized businesses are provided with training and software to measure their carbon emissions and plan emission reductions. | |
| Host semi-annual Builders Forums, which include the dissemination of information on energy efficiency and green building technology. | |
| Engaged in LED street lighting pilot project to test implementation of low consumption LED technology in neighbourhood applications. | |
| Adopted provincial solar hot water ready regulation requiring most new single-family homes to be built to accommodate future installation of solar hot water systems for water heating. | |
| Developed a 2-year Community Energy Manager work plan to integrate community GHG reduction practices in the work of departments across the City, co-funded by BC Hydro. | BC Hydro |

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| Completed Zoning Bylaw update including waste and energy requirements to improve efficiency and encourage innovation for the use of alternate energy sources. | |
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| Corporate Actions | Partner |
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| Created multi-disciplinary LED Street Light Adoption Strategy/Working Group to plan and execute the conversion project. To date 800 of 5,800 lights have been converted. | |
| Audited all municipal facilities and installed occupancy sensors to reduce energy consumption from unnecessary lighting. | BC Hydro |
| Reduced the overall number of lights in civic facilities through LED pot-light conversion project. | BC Hydro |
| Operations Centre LED upgrade, 80% of lighting converted to date. | |
| Conducted Net-Zero pathways feasibility study for Albion Community Centre to determine the most cost-effective building standard for greatest energy efficiency. The project received funding from FCM. | FCM |
| Completed five-year Corporate Energy Manager work plan in partnership with BC Hydro. The standard program is only 4 years; however, with the success the City achieved, BC Hydro extended the agreement for an additional 1-year term. | BC Hydro |
| Converted sports field lighting to higher efficiency LED. | |
| Installed energy efficient copiers City-wide. | |
| Upgraded exterior lighting and lit signage at multiple facilities to LED including Leisure Centre, Library, Greg Moore Youth Centre, Operations Centre, and City Hall. | |
| Conducted major mechanical and boiler systems upgrades to Leisure Centre, including solar hot water heating and dehumidification reclaim system for heating the lap, leisure, and teach pools. | |

Food Security

| Community Actions | Partner |
|---|---------------------------------|
| Worked to explore external funding sources to achieve a sustainable funding formula for the Haney Farmers Market. | Haney Farmers Market |
| Hosted a Let's Get Farming community education session. | Agricultural Advisory Committee |
| Hosted the ninth annual Food Garden Contest to highlight the importance of food security. | Agricultural Advisory Committee |
| Researched methods for improving resident access to local food products that will help decrease the GHG's related to transportation of goods. | |
| Developed Agricultural Plan to preserve, protect, and enhance agriculture in Maple Ridge. | |

Infrastructure

| Community Actions | Partner |
|---|-----------------------------------|
| Provided feedback for the Regional Growth Strategy Review to represent citizen and infrastructure demands for the long-term development of Maple Ridge. | Metro-Vancouver Regional District |

| Corporate Actions | Partner |
|---|----------------|
| Hosted corporate staff education initiatives: climate impacts on public works interview series, "New Normal" lunch and learn. | |
| Conducted infrastructure condition assessments for Road, Storm, Sanitary, and Water assets to evaluate remaining service life and avoid risk of failure, which could cause significant environmental impacts. | |
| Initiated asset management planning to preserve and maintain grey and green municipal infrastructure. | |

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Land Use

| Community Actions | Partner |
|---|---------|
| Commenced a review of the Detached Garden Suite and Secondary Suites requirements to support greater infill in sensitive areas. | |
| Launched Employment Land Investment Incentive program supporting private investment in commercial and industrial construction and renovation projects on identified "employment lands", and encourage and support the use of environmentally sustainable building construction methods and materials, and to encourage energy efficiencies and alternative technologies. | |
| Adopted RT-2 Ground-Oriented Residential Infill Zone to increase density in sensitive infill areas. | |
| Expanded Home Based Business Regulations to encourage a reduction of transportation-related GHG emissions. | |
| Performed analysis to identify and allocate additional employment lands, 256th and Lougheed Highway, to provide local work opportunities for residents. | |
| Supported a developer-initiated area plan process to ensure a "complete community" in North East Albion that considers built-form Greenhouse Gas Emissions. | |
| Launched Town Centre Investment Incentives Program – an incentive program to attract residential and commercial construction, encourage energy efficiency and promote the adoption of alternative technologies. This additional investment in the City's Town Centre will help to increase and diversify density where public transit (bus hub and West Coast Express) is in close proximity. | |
| Purchased several single-family properties in the Town Centre to prepare the sites for higher density transit-oriented development. | |
| Issued Request for Expression of Interest for sale of site purchased in 2011, to encourage building of mixed use, multi-family residential/commercial, in the Town Centre. | |

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Natural Assets

| Community Actions | Partner |
|---|--------------------------------------|
| Conducted an inventory, research and analysis of the existing urban forest using innovative Lidar technology and iTree software. | BCIT |
| Research and collaboration with BCIT and UBC related to inventory of urban forests, and the evaluation of the services and cost savings associated with protection and management of natural assets. | BCIT UBC |
| Supported Priority Conservation Area Acquisition Strategy across the region including protection of highly sensitive ecosystem along Alouette R. and Kanaka Creek to preserve the area's natural assets. | Metro-Vancouver Regional District |
| Conducted Community Environmental Stewardship Education and Outreach Programs with schools and neighborhoods. | KEEPS ARMS |
| Completed Environmental Management Plan and Strategy, setting the stage for creating the Environmental Advisory Committee and its work plan. Council has endorsed the Short-Term, High-Priority Action items in the Strategy. | |
| Developed an invasive species management program for Council's consideration to prevent the suppression of native flora. | |
| Updated the Tree Bylaw to include a minimum target for tree canopy preservation. | |
| Commenced Soil Deposit Bylaw update to provide greater regulation of permitted and un-permitted soil deposit activity. | |
| Completed Noxious Weed Strategy intended to prevent, reduce, and mitigate the negative effects of noxious weeds on natural ecosystems. | |
| Introduced planting for resilience and function, landscaping guidelines for development. | |
| Began the process of embedding green infrastructure into the Asset Management Plan. | |
| Introduced Streamside Protection Regulations and use of Environmental Development Permits to ensure new developments work with the natural landscape where possible to help protect streams, wetlands, and ponds. In addition to dedication of ESA lands, City is also using these protected areas for trails, connections, storm water management, erosion and slope control, protection of endangered species, flora and fauna. | |
| Initiated Municipal Green Infrastructure and Natural Asset Management Strategy Study to inventory and determine the services provided by current green infrastructure. | |
| Implemented tree watering bag program to preserve street trees over periods of drought while ensuring adequate water supply without waste and reducing the effort required by citizens. | |
| Implementation of Street Tree Replacement Program, which ensures that the current street tree inventory is maintained in the event of tree failure or damage. | |
| Brush Chipping Program. Offered twice a year, curbside pickup for Maple Ridge residents to dispose of green waste and clean wood waste, including branches, and grass sod to decrease emissions created by backyard burning. | |

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Transportation

| Community Actions | Partner |
|---|----------|
| Completed Rapid Bus Study along Lougheed Highway corridor to provide faster transit connection to western cities and transit hubs. | |
| Hosted Emotive EV booth at Home Show to promote electric vehicle adoption. | BC Hydro |
| Completed an update of the Transportation Plan. | |
| Conducted Lougheed Corridor Transit Study to determine how to integrate business opportunities, future development, and existing neighbourhood infrastructure with the upcoming transit route. | |
| Adopted rough-in requirements for Level 2 EV charging in all new ground-oriented housing, including: - 1 space for each principal dwelling in ground-oriented residential -50% visitor parking to achieve a minimum of Level 2 for apartment residential -10% of spaces in applicable developments with 10 or more off-street parking spaces | |
| Construction of new bike lanes to promote multi-modal transportation through the community. | |
| Completed of the Downtown Enhancement Project, improving the Downtown's role as a key community node, increasing pedestrian circulation throughout the Downtown area, and promoting long-term economic development. | |
| Widened sidewalks and removed barriers to alternate modes of transportation (pedestrians, scooters, etc.) in the Town Centre. | |
| Installed eight Electric Vehicle Charging Stations with grant funding to provide for zero-emissions vehicle charging of municipal and resident vehicles. | |
| Installed two additional EV charging stations with grant funding. | BC Hydro |
| Promote Summer Cycling Photo Contest to encourage ridership in the community. | |

| Corporate Actions | Partner |
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| Promoted the use of pedal bikes in Youth Services as an alternative to using a fleet vehicle. | |
| Converted an out-of-service internal combustion fleet truck to fully electric, zero-emission vehicle. | |
| Completed analysis of fuel consumption which indicated the hybrid fleet of 30 units, three electric cars and one electric truck are significantly reducing the annual fuel consumption. On average each electric car saves \$1,400 per year in fuel consumption. | |
| Adopted a 100% hybrid or electric passenger vehicle purchasing policy and replaced the last internal combustion passenger vehicle with electric in 2014. | |
| Converted Fire Department responding apparatus to medical calls from the Rescue Truck to the Utility Truck (pick-up truck) resulting in a significant savings in fuel consumption and maintenance on the larger Rescue apparatus. | |

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Waste

| Community Actions | Partner |
|--|---------------------------------|
| Provided community education about regional organics ban. | |
| Door-to-door delivery of new red & grey box curbside program to over 10,000 homes and promotion at major community events, neighbourhood parties, and mall grocery store displays. | Ridge Meadows Recycling Society |
| Expanded environmental education throughout all Community Services programs and special events. Themes such as composting and crafts related to environmental education hosted at a number of community events and festivals. | |
| Conducted Solid Waste Review for municipal curbside solid waste collection services. | |
| Completed solid waste Garbage & Recycling Regulations bylaw to establish recycling collection services and requirements for residential dwellings. | |
| Developed framework to include commercial properties into the property tax structure for commercial recycling services. | |
| Expanded Solid Waste Garbage & Recycling regulations bylaw to include commercial properties. | |
| Subsidized Solar Cone “Digester” for citizens so they can purchase their own solar cones for composting kitchen and garden waste to reduce the amount of organics disposed of in traditional solid waste stream. | Ridge Meadows Recycling Society |
| Expanded Recycling pick up services further east to increase access to recycling services for citizens. | Ridge Meadows Recycling Society |
| Expanded number of business involved in the Recycling Program. | Ridge Meadows Recycling Society |
| Developed pilot recycling program at Memorial Peace Park to reduce recycling material contamination of waste stream. | |
| Expanded range of items accepted at Recycling Depot, including Styrofoam, cooking oil, electronic devices, records, CDs, electronic toys, power tools and exercise equipment to reduce the amount of waste stream contamination. | Ridge Meadows Recycling Society |
| Expanded blue-box recycling service area to include a wider range and apartment recycling pickup. | Ridge Meadows Recycling Society |
| Introduction of Repair Cafes to reduce the amount of consumer products that are recycled and/or disposed of. | Ridge Meadows Recycling Society |

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| Corporate Actions | Partner |
|--|----------------|
| Promoted Waste Reduction Week for staff. | |
| Investigated and made recommendation on potential recycling programs in parks to divert recyclable materials from the landfill. | |
| Launched paper towel composting program pilot project at Municipal Hall to divert paper from the landfill. | |
| Developed and adopted a policy for hosting environmentally sustainable meetings and events. Staff have already incorporated many of the initiatives included in the policy for hosting these events. | |
| Environmentally friendly practice expectations incorporated into janitorial contract RFP. | |
| Migrated resident billing solutions, staff forms, and Council meeting documents to electronic format. | |
| Implemented concrete and asphalt recycling procedure instead of purchasing aggregate. | |
| Implemented new process for organics collection at all civic facilities. | |
| Introduced award-winning corporate composting program for municipal facilities to decrease organics diverted to landfills. | |

Water

| Community Actions | Partner |
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| Participated and offered input into the modernization of BC's Water Act to protect aquifers and watersheds located in Maple Ridge. | Province of BC |
| Installed aquifer signage to advise residents and visitors of ground water usage. | |
| Publish season specific notices in the local paper regarding sprinkling regulations to reduce demand during peak drought season. | |
| Introduced Low Flow Toilet Rebate Program to promote the reduction of household water use. | |

| Corporate Actions | Partner |
|---|----------------|
| Developed a specification for installation of computerized irrigation control system with rain sensors to minimize water consumption. | |
| Modified field designs to require less water. | |
| Installed water efficient fixtures in parks and washrooms. | |
| Planted drought resistant plants to reduce water consumption at several municipal sites. | |
| Optimized spray park programs to reduce duration and water volume when in use. | |

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Additional Actions

| Corporate Actions | Partner |
|---|---------------------------------------|
| Collaborated with PhD candidate to apply SFU's Community Capital Framework to Maple Ridge assets. The project included a comprehensive evaluation of strategic documents to support amendments to the OCP, which embed considerations that will support the development of a well-rounded community for Maple Ridge citizens. | SFU MATICS |
| Conducted a climate change adaptation scan of measures and impacts within City departments. | |
| Worked with community partners to continue to provide education and to promote awareness of gardening opportunities and the importance of agriculture and eating locally. | Ridge Meadows Recycling Society |
| Conducted school workshops: Composting, Worms, Recycling, Lawn care, Water Wise, Bear Aware, Waste Audits. | Ridge Meadows Recycling Society |
| Became a signatory to the Mexico City Pact, a voluntary initiative of mayors and local authority representatives that aims to advance climate actions at the local level. | |

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