Climate Action Revenue Incentive (CARIP) Public Report for 2015

Regional District of Nanaimo

Report Submitted by: Name: Chris Midgley Role: Manager, Water Services and Asset Management

Date: June 1, 2016



The Regional District of Nanaimo has completed the 2015 Climate Action Revenue Incentive Program (CARIP) Public Report as required by the Province of BC. The CARIP report summarizes actions taken in 2015 and proposed for 2016 to reduce corporate and community-wide energy consumption and greenhouse gas emissions (GHG) and reports on progress towards achieving carbon neutrality. There is also an opportunity to report on climate adaptation 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

COMMUNITY-WIDE BROAD PLANNING - 2015 ACTIONS

In the following section, please identify up to five community-wide Broad Planning actions taken in 2015 (one action per box). There is a separate box for additional actions that you wish to report.

2015 Community-Wide Broad Planning Actions

2015 Community-Wide Broad Planning Actions	Third reading and adoption of RDN Land Use and Subdivision Bylaw No. 500.396, 2014; and Regional District of Nanaimo Area 'F' Zoning and Subdivision Bylaw No. 1285.22, 2014 to remove regulatory barriers to green building features, systems and technologies.
2015 Community-Wide Broad Planning Actions	Completed a sustainability review of Electoral Area Official Community Plans, identifying regulatory barriers to green building features, systems and technology and strategies to overcome them – recommendations incorporated into the 2016 Work Plan.
2015 Community-Wide Broad Planning Actions	Revised the RDN Green Building Action Plan to reflect five years of activities and accomplishments, and new direction for outreach, communication and monitoring.
2015 Community-Wide Broad Planning Actions	Continued to work with Regional Community Utilities and the Ministry of Transportation and Infrastructure in preparing for the implementation of the model sustainable communities at Lakes District and Schooner Cove.
2015 Community-Wide Broad Planning Actions	Completed the process to develop indicators and targets to achieve key RGS policies, including indicators relating to community energy use and emissions.

Additional Community-Wide Actions Taken in 2015

For those communities that would like to provide additional actions - please list, separated by a forward slash /, any additional community-wide Broad Planning actions in the boxes below **(optional)**.

Agricultural area plan implementation/RGS amendment to provide clarity on the criteria for minor amendments/Initiated Electoral Area H review

COMMUNITY-WIDE BROAD PLANNING - ACTIONS PROPOSED FOR 2016

In the following section, please identify up to five community-wide Broad Planning actions proposed for 2016 (one action per box).

2016 Community-Wide Broad Planning Proposed Actions

2016 Community-Wide Broad Planning Proposed Actions	Initiate Bylaw 500 and Subdivision Servicing Bylaw Review
2016 Community-Wide Broad Planning Proposed Actions	Review RGS to ensure support for agriculture, affordable housing and renewable energy.
2016 Community-Wide Broad Planning Proposed Actions	Continued implementation of Agricultural Area Plan
2016 Community-Wide Broad Planning Proposed Actions	Establish criteria for evaluating community impacts of residential and community scale renewable energy systems to support decision-making in relation to development variance permits
2016 Community-Wide Broad Planning Proposed Actions	(No response)

CORPORATE

CORPORATE BROAD PLANNING - 2015 ACTIONS

In the following section, please identify up to five corporate Broad Planning actions taken in 2015 (one action per box). There is a separate box for additional actions that you wish to report.

2015 Corporate Broad Planning Actions

2015 Corporate Broad Planning Actions	Initiated strategic asset management program for the RDN
2015 Corporate Broad Planning Actions	Developed and adopted Asset Management Policy.
2015 Corporate Broad Planning Actions	Developed Asset Management Implementation Plan and 2-year Asset Management Resource Plan
2015 Corporate Broad Planning Actions	(No response)
2015 Corporate Broad Planning Actions	(No response)

Additional Corporate Actions Taken in 2015

For those communities that would like to provide additional actions - please list, separated by a forward slash /, any additional corporate Broad Planning actions in the boxes below **(optional)**.

(No response)

CORPORATE BROAD PLANNING - ACTIONS PROPOSED FOR 2016

In the following section, please identify up to five community-wide Broad Planning actions proposed for 2016 (one action per box).

2016 Corporate Broad Planning Proposed Actions

2016 Corporate Broad Planning Proposed Actions	Formalize reporting structures and mechanisms for asset management reporting to management, senior management and the Board.
2016 Corporate Broad Planning Proposed Actions	Establish Manager and Coordinator level positions for asset management
2016 Corporate Broad Planning Proposed Actions	Initiate strategic risk review and develop strategic risk register for the RDN, including risks relating to climate change

2016 Corporate Broad Planning Proposed (No response) Actions |

2016 Corporate Broad Planning Proposed (No response) Actions

SNAPSHOT QUESTIONS

Does your local government set aside funds in a climate reserve fund or something similar?

Yes

Does your local government have a corporate GHG reduction plan?

Yes

What is your current GHG reduction target (s) as identified in your OCP or RGS?

80% reduction below 2007 levels by 2050.

Has your local government used the Community Energy and Emissions Inventory (CEEI) to measure progress?

No

What plans, policies or guidelines govern the implementation of climate mitigation in your community?

- Energy and Emissions Plan
- Community-Wide Action Plan

• OCP

• Other, please specify ...: Green Building Action Plan

Building and Lighting

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

COMMUNITY-WIDE BUILDING AND LIGHTING - 2015 ACTIONS

In the following section, please identify up to five community-wide Building and Lighting actions taken in 2015 (one action per box). There is a separate box for additional actions that you may want to report.

2015 Community-	Wide Building an	d Lighting Actions

2015 Community-Wide Building and Lighting Actions	Green Building Open House and Workshop series featured 4 homes and 4 green building workshop sessions, attracting approximately 250 attendees.
2015 Community-Wide Building and Lighting Actions	Hosted a Passive House Design Workshop for local designers, architects, builders and developers, held in Parksville, September, 2015.
2015 Community-Wide Building and Lighting Actions	Disbursed \$43,950 in green building incentives to residents who have improved the performance of their home.
2015 Community-Wide Building and Lighting Actions	Led a Real Estate Energy Efficiency Project in partnership with the City of Nanaimo and the Vancouver Island Real Estate Board and trained a total of 87 local REALTORS® on home energy efficiency
2015 Community-Wide Building and Lighting Actions	(No response)

Additional Community-Wide Building and Lighting Actions Taken in 2015

For those communities that would like to provide additional actions - please list, separated by a "/", any additional community-wide Building and Lighting actions in the boxes below **(optional)**.

(No response)

COMMUNITY-WIDE BUILDING AND LIGHTING - ACTIONS PROPOSED FOR 2016

In the following section, please identify up to five community-wide Building and Lighting actions proposed for 2016 (one action per box).

2016 Community-Wide Building and Lighting Proposed Actions

2016 Community-Wide Building and	Continued delivery of green building outreach, training and program
Lighting Proposed Actions	delivery

2016 Community-Wide Building and Lighting Proposed Actions	Supporting Nanaimo Aboriginal Center with the development of the Nanaimo Passive House.
2016 Community-Wide Building and Lighting Proposed Actions	Continued delivery of Green Building Incentive Program
2016 Community-Wide Building and Lighting Proposed Actions	(No response)
2016 Community-Wide Building and Lighting Proposed Actions	(No response)

CORPORATE

CORPORATE BUILDING AND LIGHTING - 2015 ACTIONS

In the following section, please identify up to five corporate Building and Lighting actions taken in 2015 (one action per box). There is a separate box for additional actions that you may want to report.

2015 Corporate Building and Lighting Actions

2015 Corporate Building and Lighting Actions	Corporate support for \$15,000 for a comprehensive energy study for the Ravensong Aquatic Centre.
2015 Corporate Building and Lighting Actions	Corporate investment of \$25,000 for a heat recovery system at the Oceanside Place Arena.
2015 Corporate Building and Lighting Actions	Continued coordination of energy and sustainability initiatives to develop and implement a comprehensive energy management strategy for RDN recreation facilities.
2015 Corporate Building and Lighting Actions	Submitted applications to Community Energy Leadership Program (CELP) and Corporate Climate Action Fund (CCAF) and received approval for funding (CELP -\$20,000; CCAF-\$25,000), to complete Heat Recovery project for DHW. Received tenders and work to be completed by February 2016
2015 Corporate Building and Lighting Actions	A request for quotation to provide RDN aquatic centre with a strategic energy plan was awarded to Design Air Systems. To be completed in early 2016,

Additional Building and Lighting Corporate Actions Taken in 2015

For those communities that would like to provide additional actions - please list, separated by a "/", any additional corporate Building and Lighting actions in the boxes below **(optional)**.

(No response)

CORPORATE BUILDING AND LIGHTING - ACTIONS PROPOSED FOR 2016

In the following section, please identify up to five corporate Broad Planning actions proposed for 2016 (one action per box).

2016 Building and Lighting Proposed Actions

2016 Building and Lighting Proposed	Ongoing implementation for Green Building policy for RDN Facilities in relation to all
Actions	building projects planned for 2016

2016 Building and Lighting Proposed Actions	Corporate investment of \$90,000 for rural fire hall efficiency assessments and upgrades
2016 Building and Lighting Proposed Actions	Aquatic Center energy plan to outline future operational procedures and capital expenditures that together will create an integrated approach to maximizing operational efficiencies and identifying opportunities for future reductions in omission and utility consumption
2016 Building and Lighting Proposed Actions	Continued investment of CARIP rebate into Corporate Climate Action Fund for the purpose of investing in equipment, systems, and initiatives that result in operational saving, energy conservation and emissions reductions at RDN facilities.
2016 Building and Lighting Proposed Actions	(No response)

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.

COMMUNITY-WIDE

COMMUNITY-WIDE ENERGY GENERATION - 2015 ACTIONS

In the following section, please identify up to five community-wide Energy Generation actions taken in 2015 (one action per box). There is a separate box for additional actions that you may want to report.

2015 Community-Wide Energy Generation Actions

2015 Community-Wide Energy Generation Actions	Executed agreement with the Gabriola Commons Foundation to install a 10kw solar array at the Gabriola Commons, and provided 50% of the funds for installation - now in place.
2015 Community-Wide Energy Generation Actions	Executed Agreement with the Cedar Community Association for an HVAC system upgrade from heating oil to a more efficient heat pump system - now in place.
2015 Community-Wide Energy Generation Actions	(No response)
2015 Community-Wide Energy Generation Actions	(No response)
2015 Community-Wide Energy Generation Actions	(No response)

Additional Community-Wide Energy Generation Actions Taken in 2015

For those communities that would like to provide additional actions - please list, separated by a foward slash /, any additional community-wide Energy Generation actions in the boxes below **(optional)**.

(No response)

COMMUNITY-WIDE ENERGY GENERATION - ACTIONS PROPOSED FOR 2016

In the following section, please identify up to five community-wide Energy Generation actions proposed for 2016 (one action per box).

2016 Community-Wide Energy Generation Proposed Actions

2016 Community-Wide Energy Generation	Continued investment in community renewable energy demonstration
Proposed Actions	projects as opportunities arise.

2016 Community-Wide Energy Generation Proposed Actions	(No response)
2016 Community-Wide Energy Generation Proposed Actions	(No response)
2016 Community-Wide Energy Generation Proposed Actions	(No response)
2016 Community-Wide Energy Generation Proposed Actions	(No response)

CORPORATE

CORPORATE ENERGY GENERATION - 2015 ACTIONS

In the following section, please identify up to five corporate Energy Generation actions taken in 2015 (one action per box). There is a separate box for additional actions that you may want to report.

2015 Corporate Energy Generation Actions

2015 Corporate Energy Generation Actions	Produced approximately approx. 790,000kWh of electricity at the Greater Nanaimo Pollution Control Centre in 2015 using biogas to run our cogeneration engine (equivalent to the power usage of 70 homes for one year).
2015 Corporate Energy Generation Actions	Captured and diverted landfill gas for electricity generation at the Cedar Road Bioenergy Centre (actual values for electricity generated not known).
2015 Corporate Energy Generation Actions	(No response)
2015 Corporate Energy Generation Actions	(No response)
2015 Corporate Energy Generation Actions	(No response)

Additional Corporate Energy Generation Actions Taken in 2015

For those communities that would like to provide additional actions - please list, separated by a forward slash /, any additional corporate Energy Generation actions in the boxes below **(optional)**.

(No response)

CORPORATE ENERGY GENERATION - ACTIONS PROPOSED FOR 2016

In the following section, please identify up to five community-wide Energy Generation actions proposed for 2016 (one action per box).

2016 Energy Generation Proposed Actions

2016 Energy Generation Proposed	Exploration of options for enhanced electricity generation at the Greater Nanaimo
Actions	Pollution Control Centre

2016 Energy Generation Proposed Actions	Continued collection of Landfill Gas to be used for electricity generation at Cedar Road Bioenergy Centre.
2016 Energy Generation Proposed Actions	(No response)
2016 Energy Generation Proposed Actions	(No response)
2016 Energy Generation Proposed Actions	(No response)

SNAPSHOT QUESTIONS

Is your local government developing or constructing...

• None of the above

Is your local government operating...

• A renewable energy system

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? http://www.toolkit.bc.ca/tool/integrated-resource-recovery-irr

No

Greenspace

GREENSPACE ACTIONS

Greenspace refers to parks and greenways, boulevards, community forests, urban agriculture, riparian areas, gardens, recreation/school sites, and other green spaces, such as remediated brownfield/contaminated sites.

COMMUNITY-WIDE

COMMUNITY-WIDE GREENSPACE - 2015 ACTIONS

In the following section, please identify up to five community-wide Greenspace actions taken in 2015 (one action per box). There is a separate box for additional actions that you may want to report.

2015 Community-Wide Greenspace Actions

2015 Community-Wide Greenspace Actions	State of our Streams maps for publication
2015 Community-Wide Greenspace Actions	Community Watershed Monitoring Network maps updates and exports for publishing on website
2015 Community-Wide Greenspace Actions	Englishman River and Nanaimo River Watershed School maps
2015 Community-Wide Greenspace Actions	Prepared and disseminated information to raise awareness of the unique attributes of the Parksville Qualicum Beach Wildlife Management Area
2015 Community-Wide Greenspace Actions	Replanted native vegetation at the Cedar Plaza

Additional Community-Wide Greenspace Actions Taken in 2015

For those communities that would like to provide additional actions - please list, separated by a forward slash /, any additional community-wide Greenspace actions in the boxes below **(optional)**.

Completed design for Blueback Community Park and construction initiated (EA E)/ Resurfaced trails and installed signs at Errington Community Park (EA F)/ Rebuilt Shoreline Drive Beach Access Stairs (EA H)/ Completed various upgrades at Horne Lake Regional Park and Descanso Regional Park

COMMUNITY-WIDE GREENSPACE - ACTIONS PROPOSED FOR 2016

In the following section, please identify up to five community-wide Greenspace actions proposed for 2016 (one action per box).

2016 Community-Wide Greenspace Proposed Actions

2016 Community-Wide Greenspace Proposed Actions	Implement the Parks and Trails Design Guidelines for both maintenance and development
2016 Community-Wide Greenspace Proposed Actions	Use Community Works funds to design and develop Community Parks and Trails

2016 Community-Wide Greenspace Proposed Actions	Use Regionally Significant Gas Tax Funding for design and construction of the E&N and other Regional Trails
2016 Community-Wide Greenspace Proposed Actions	(No response)
2016 Community-Wide Greenspace Proposed Actions	(No response)

CORPORATE

CORPORATE GREENSPACE - 2015 ACTIONS

In the following section, please identify up to five corporate Greenspace actions taken in 2015 (one action per box). There is a separate box for additional actions that you may want to report.

2015 Corporate Greenspace Actions

2015 Corporate Greenspace Actions	Worked with Snuneymuxw First Nation in EA 'A' on a funding agreement for a community sport court.
2015 Corporate Greenspace Actions	(No response)
2015 Corporate Greenspace Actions	(No response)
2015 Corporate Greenspace Actions	(No response)
2015 Corporate Greenspace Actions	(No response)

Additional Corporate Greenspace Actions Taken in 2015

For those communities that would like to provide additional actions - please list, separated by a forward slash /, any additional corporate Greenspace actions in the boxes below **(optional)**.

(No response)

CORPORATE GREENSPACE - ACTIONS PROPOSED FOR 2016

In the following section, please identify up to five corporate Greenspace actions proposed for 2016 (one action per box).

2016 Greenspace Proposed Actions

2016 Greenspace Proposed Actions	(No response)
2016 Greenspace Proposed Actions	(No response)
2016 Greenspace Proposed Actions	(No response)
2016 Greenspace Proposed Actions	(No response)
2016 Greenspace Proposed Actions	(No response)

SNAPSHOT QUESTION

Does your local government have urban forest policies, plans or programs?

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

COMMUNITY-WIDE SOLID WASTE - 2015 ACTIONS

In the following section, please identify up to five community-wide Solid Waste actions taken in 2015 (one action per box). There is a separate box for additional actions that you may want to report.

2015 Community-Wide Solid Waste Actions

2015 Community-Wide Solid Waste Actions	Waste diversion, including recycling programs and organic diversion in the region remains high at approximately 68%.
2015 Community-Wide Solid Waste Actions	Worked with staff at Nanaimo Organics Waste to reduce the amount of leachate and contamination in the organics transfer loads from Church Road Transfer Station
2015 Community-Wide Solid Waste Actions	To reduce water use during the dry summer months, the landfill truck wash down area was closed.
2015 Community-Wide Solid Waste Actions	Commissioned the 2014 Horizontal and 3 vertical Landfill Gas Collection wells installed in 2014.
2015 Community-Wide Solid Waste Actions	Increased our landfill gas collection efficiency from 59% in January to 67% in December.

Additional Community-Wide Solid Waste Actions Taken in 2015

For those communities that would like to provide additional actions - please list, separated by a forward slash /, any additional community-wide Solid Waste actions in the boxes below **(optional)**.

(No response)

COMMUNITY-WIDE SOLID WASTE - ACTIONS PROPOSED FOR 2016

In the following section, please identify up to five community-wide Solid Waste actions proposed for 2016 (one action per box).

2016 Community-Wide Solid Waste Proposed Actions

2016 Community-Wide Solid Waste Proposed Actions	Continue to achieve high diversion rates through curbside collection of recycling and household organic waste
2016 Community-Wide Solid Waste Proposed Actions	Consult the public on Solid Waste Management Plan
2016 Community-Wide Solid Waste Proposed Actions	(No response)

2016 Community-Wide Solid Waste Proposed (No response) Actions |

2016 Community-Wide Solid Waste Proposed (No response) Actions

CORPORATE

CORPORATE SOLID WASTE - 2015 ACTIONS

In the following section, please identify up to five corporate Solid Waste actions taken in 2015 (one action per box). There is a separate box for additional actions that you may want to report.

2015 Corporate Solid Waste Actions

2015 Corporate Solid Waste Actions	Continue enhancement of landfill gas collection system efficiency
2015 Corporate Solid Waste Actions	(No response)
2015 Corporate Solid Waste Actions	(No response)
2015 Corporate Solid Waste Actions	(No response)
2015 Corporate Solid Waste Actions	(No response)

Additional Solid Waste Actions Taken in 2015

For those communities that would like to provide additional actions - please list, separated by a forward slash /, any additional corporate Solid Waste actions in the boxes below **(optional)**.

(No response)

CORPORATE SOLID WASTE - ACTIONS PROPOSED FOR 2016

In the following section, please identify up to five corporate Solid Waste actions proposed for 2016 (one action per box).

2016 Solid Waste Proposed Actions

2016 Solid Waste Proposed Actions	Verify and sell and/or retain the rights to 21,123 tonnes of GHG offsets from landfill gas collection project.
2016 Solid Waste Proposed Actions	Reduce rainwater infiltration and leachate generation by extending the cover system and priority on repair to ditch/culvert lining systems
2016 Solid Waste Proposed Actions	Undertake North Berm design, tender and substantially complete construction to extend landfill life
2016 Solid Waste Proposed Actions	(No response)
2016 Solid Waste Proposed Actions	(No response)

SNAPSHOT QUESTIONS

Yes

Does your local government have organics reduction/diversion policies, plans or programs?

Yes

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

COMMUNITY-WIDE TRANSPORTATION - 2015 ACTIONS

In the following section, please identify up to five community-wide Transportation actions taken in 2015 (one action per box). There is a separate box for additional actions that you may want to report.

2015 Community-Wide Transportation Actions

2015 Community-Wide Transportation Actions	Implemented a 5,000 hour annual conventional transit expansion.
2015 Community-Wide Transportation Actions	Implemented weekday evening handyDART service.
2015 Community-Wide Transportation Actions	Implemented a trail service extension into Qualicum First Nations.
2015 Community-Wide Transportation Actions	Completed new transit shelters at Wembley Mall.
2015 Community-Wide Transportation Actions	Implemented an updated 'Z-card' bike/transit route map in conjunction with the City of Nanaimo.

Additional Community-Wide Transportation Actions Taken in 2015

For those communities that would like to provide additional actions - please list, separated by a forward salsh /, any additional community-wide Transportation actions in the boxes below **(optional)**.

Supported creation of local transit service on Gabriola Island/ Constructed new trail, installed signs and drainage completed in Mount Benson Regional Park/ Designed new trail and received approvals for construction at Coats Marsh Regional Park/ Worked with volunteers on trails restoration and rerouting at Mount Arrowsmith Massif Regional Park/ •Designed and installed trail at Price Road as part of the ACT trail system (Area F).

COMMUNITY-WIDE TRANSPORTATION - ACTIONS PROPOSED FOR 2016

In the following section, please identify up to five community-wide Transportation actions proposed for 2016 (one action per box).

2016 Community-Wide Transportation Proposed Actions

2016 Community-Wide Transportation Proposed Actions	Expansion of active transportation network in RDN Electoral Areas
2016 Community-Wide Transportation Proposed Actions	Promote transit at Vancouver Island University

2016 Community-Wide Transportation Proposed Actions	(No response)
2016 Community-Wide Transportation Proposed Actions	(No response)
2016 Community-Wide Transportation Proposed Actions	(No response)

CORPORATE

CORPORATE TRANSPORTATION - 2015 ACTIONS

In the following section, please identify up to five corporate Transportation actions taken in 2015 (one action per box). There is a separate box for additional actions that you may want to report.

2015 Corporate Transportation Actions

2015 Corporate Transportation Actions	Corporate support for \$8,000 for the purchase of a Hybrid electric vehicle for the Building Inspection service.
2015 Corporate Transportation Actions	Conducted a fleet efficiency analysis.
2015 Corporate Transportation Actions	Worked with BC Transit on the procurement of 24 CNG buses to be delivered in November 2016.
2015 Corporate Transportation Actions	Implement a taxi program in Parksville and Qualicum Beach.
2015 Corporate Transportation Actions	(No response)

I.

Additional Corporate Transportation Actions Taken in 2015

For those communities that would like to provide additional actions - please list, separated by a forward slash /, any additional corporate Transportation actions in the boxes below (optional).

(No response)

CORPORATE TRANSPORTATION - ACTIONS PROPOSED FOR 2016

In the following section, please identify up to five corporate Transportation actions proposed for 2016 (one action per box).

2016 Transportation Proposed Actions

2016 Transportation Proposed Actions	Implement Fleet Management Software
2016 Transportation Proposed Actions	(No response)
2016 Transportation Proposed Actions	(No response)
2016 Transportation Proposed Actions	(No response)
2016 Transportation Proposed Actions	(No response)

SNAPSHOT QUESTIONS

Does your local government have policies, plans or programs to support:

- Transit
- Electric Vehicles

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)?

No

Does your local government have policies, plans or programs to support local food production (thus reducing transportation emissions)?

Yes

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

COMMUNITY-WIDE WATER AND WASTEWATER - 2015 ACTIONS

In the following section, please identify up to five community-wide Water and Wastewater actions taken in 2015 (one action per box). There is a separate box for additional actions that you may want to report.

2015 Community-Wide Water and Wastewater Actions

2015 Community-Wide Water and Wastewater Actions	Provided SepticSmart workshops in the communities of French Creek (G), Extension (C), Coombs (F), and Lighthouse (H)
2015 Community-Wide Water and Wastewater Actions	Commenced design of the Bowser Village Centre wastewater collection and treatment system. This \$300k design project is funded through a gas tax grant, and will result in a tender ready engineering design, that would enable the community to move forward with wastewater treatment, should they decide to do so in the future.
2015 Community-Wide Water and Wastewater Actions	Beneficially reused 100% of biosolids from the RDN treatment facilities
2015 Community-Wide Water and Wastewater Actions	Developed and launched a new web-interface for Drinking Water Watershed Protection program information, as a map-based site where users can click on their "Water Region" and explore Streams, Aquifers, Water Supply, First Nations Significance, Community Programs and Land Use.
2015 Community-Wide Water and Wastewater Actions	Completed a Regional Climate & amp; Hydrometric Monitoring Scoping Study, to identify priority areas for data collection on climate and/or streamflow.

Additional Community-Wide Water and Wastewater Actions Taken in 2015

For those communities that would like to provide additional actions - please list, separated by a forward slash /, any additional community-wide Water and Wastewater actions in the boxes below **(optional)**.

Completed a Regional Climate & Hydrometric Monitoring Scoping Study, to identify priority areas for data collection on climate and/or streamflow/ Completed well rehabilitation at Fairwinds #2/ Initiated Surfside Wellhead Protection study./ Rolled-out the BC Water Use Reporting Centre, a web-based data tracking and reporting tool, to the improvement districts and EPCOR to assist with building a regional data repository for water demand info, and to provide resources for these smaller water systems manage their data and reporting./ Administered Region-wide rebate programs for Rainwater Harvesting and for Rural Water Quality Testing and Well Protection Upgrades./ Continued with Team WaterSmart workshops, community display booths and irrigation check-ups, as well as a new Yard Sign campaign to promote water conservation during the drought./ Continued collecting groundwater level data via the Volunteer Observation Well Network in 11 wells, including three that are volunteered by the Qualicum First Nation.

COMMUNITY-WIDE WATER AND WASTEWATER - ACTIONS PROPOSED FOR 2016

In the following section, please identify up to five community-wide Water and Wastewater actions proposed for 2016 (one action per box).

2016 Community-Wide Water and Wastewater Proposed Actions	Continue major capital program to bring secondary treatment to the Greater Nanaimo Pollution Control Centre
2016 Community-Wide Water and Wastewater Proposed Actions	Continue rainwater, wellhead protection and related rebate programs
2016 Community-Wide Water and Wastewater Proposed Actions	Continue with community outreach and engagement through Team Watersmart Activities
2016 Community-Wide Water and Wastewater Proposed Actions	(No response)
2016 Community-Wide Water and	(No response)

2016 Community-Wide Water and Wastewater Proposed Actions

CORPORATE

Wastewater Proposed Actions |

CORPORATE WATER AND WASTEWATER - 2015 ACTIONS

In the following section, please identify up to five corporate Water and Wastewater actions taken in 2015 (one action per box). There is a separate box for additional actions that you may want to report.

2015 Corporate Water and Wastewater Actions

2015 Corporate Water and Wastewater Actions	Completed a 5 year supply contract for reuse of Ferrous Chloride a waste product from steel production used to reduce odour and corrosion in our wastewater collection system.
2015 Corporate Water and Wastewater Actions	Commenced Departure Bay Pump Station, Pump # 1 replacement project, with high efficiency pump, which will help the station continue to pump up to 100 million litres per day of wastewater to Greater Nanaimo PCC.
2015 Corporate Water and Wastewater Actions	Awarded the BC Hydro "New Plant Design Study" for the GNPCC secondary treatment project to AECOM, the study will focus on finding energy efficient equipment for our treatment plant and may lead to incentives for purchasing high efficiency equipment.
2015 Corporate Water and Wastewater Actions	(No response)
2015 Corporate Water and Wastewater Actions	(No response)

Additional Corporate Water and Wastewater Actions Taken in 2015

For those communities that would like to provide additional actions - please list, separated by a forward slash /, any additional corporate Water and Wastewater actions in the boxes below **(optional)**.

(No response)

CORPORATE WATER AND WASTEWATER - ACTIONS PROPOSED FOR 2016

In the following section, please identify up to five corporate Water and Wastewater actions proposed for 2016 (one action per box).

2016 Water and Wastewater Proposed Actions

2016 Water and Wastewater Proposed Actions	(No response)
2016 Water and Wastewater Proposed Actions	(No response)
2016 Water and Wastewater Proposed Actions	(No response)
2016 Water and Wastewater Proposed Actions	(No response)
2016 Water and Wastewater Proposed Actions	(No response)

SNAPSHOT QUESTION

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

Yes

CLIMATE CHANGE ADAPTATION ACTIONS

For local governments, adaptation to a changing climate can take the form of changes in policy, management, technology and behaviour that minimize negative impacts or exploit opportunities. It can involve both "hard" and "soft" solutions, including: changes in infrastructure engineering, planning, zoning, bylaws and public education.

COMMUNITY-WIDE

COMMUNITY-WIDE ADAPTATION - 2015 ACTIONS

In the following section, please identify up to five community-wide Adaptation actions taken in 2015 (one action per box). There is a separate box for additional actions that you may want to report.

2015 Community-Wide Adaptation Actions	Collaborated with VIU, MOE Snow Program, MFLNRO, Island Timberlands, RDN Parks and Arrowsmith Water Service to successfully achieve the installation of a snow/weather monitoring station (snow pillow) on Mt. Arrowsmith to fill that priority data gap.
2015 Community-Wide Adaptation Actions	Established the Rainwater Working Group tasked with the commitments under the Liquid Waste Management Plan.
2015 Community-Wide Adaptation Actions	Expanded groundwater and surface water monitoring in Nanoose Bay, which will continue and expand further across Area E in 2016.
2015 Community-Wide Adaptation Actions	Continued the Gabriola groundwater modelling study, now in its final phase, with Simon Fraser University researchers.
2015 Community-Wide Adaptation Actions	Climate change and sea level rise: Conducted research and developed a Background Report for sea level rise in the RDN; Created 2-page Backgrounder on Sea Level Rise Adaptation; Formed a Sea Level Rise Interdepartmental Advisory Group ;Created SharePoint Library of sea level rise resources for all RDN staff to access; Consulted with professionals regarding best approach for sea level rise mapping in the RDN; Consulted with Geological Survey of Canada regarding current rates of land uplift in the RDN Consulted with other local government staff regarding sea level rise planning and adaptation; Tweets and Facebook posts on King Tides and Livesmart BC King Tide Photo Initiative. Added local photos to Photo Initiative.

2015 Community-Wide Adaptation Actions

Additional Community-Wide Adaptation Actions Taken in 2015

For those communities that would like to provide additional actions - please list, separated by a forward slash /, any additional community-wide Adaptation actions in the boxes below **(optional)**.

Worked with the Coastal Fire Centre crew on a Fire Hazard abatement Project in Oakdowne Community Park (Area H).

COMMUNITY-WIDE ADAPTATION - ACTIONS PROPOSED FOR 2016

In the following section, please identify up to five community-wide Adaptation actions proposed for 2016 (one action per box).

2016 Community-Wide Adaptation Proposed Actions

2016 Community-Wide Adaptation Proposed Actions	Continued development and implementation of the Sea Level Rise Project
2016 Community-Wide Adaptation Proposed Actions	Integration of adaptation measures into Official Community Plans (OCPs)
2016 Community-Wide Adaptation Proposed Actions	(No response)
2016 Community-Wide Adaptation Proposed Actions	(No response)
2016 Community-Wide Adaptation Proposed Actions	(No response)

CORPORATE

CORPORATE ADAPTATION - 2015 ACTIONS

In the following section, please identify up to five corporate Adaptation actions taken in 2015. One action per box. There is a separate box for optional additional 2015 actions your community may want to report.

2015 Corporate Adaptation Actions

2015 Corporate Adaptation Actions	Initiate study on infrastructure vulnerability to climate change
2015 Corporate Adaptation Actions	(No response)
2015 Corporate Adaptation Actions	(No response)
2015 Corporate Adaptation Actions	(No response)
2015 Corporate Adaptation Actions	(No response)

Additional Corporate Adaptation Actions Taken in 2015

For those communities that would like to provide additional actions - please list, separated by a forward slash /, any additional corporate Adaptation actions in the boxes below **(optional)**.

(No response)

CORPORATE ADAPTATION - ACTIONS PROPOSED FOR 2016

In the following section, please identify up to five corporate Adaptation actions proposed for 2016 (one action per box).

2016 Adaptation Proposed Actions	Continue study on infrastructure vulnerability to climate change
2016 Adaptation Proposed Actions	adoption of new language and communications processes in relation to watering restrictions
2016 Adaptation Proposed Actions	Ongoing monitoring of watersheds and aquifers for impacts of and vulnerabilities to climate change.
2016 Adaptation Proposed Actions	(No response)
2016 Adaptation Proposed Actions	(No response)

2016 Adaptation Proposed Actions

SNAPSHOT QUESTIONS

Are you familiar with the Plan2Adapt guidance located on the Climate Action Toolkit Website? http://www.toolkit.bc.ca/Resource/Plan2Adapt

No

Are you familiar with "Preparing for Climate Change - An Implementation Guide for Local Governments in BC? http://www.toolkit.bc.ca/Resource/Preparing-Climate-Change-Implementation-Guide-Local-Gov

Yes

Have you visited the climate change adaptation guidance page on the BC Climate Action Toolkit? http://www.toolkit.bc.ca/adaptation-challenges-and-opportunities

No

<u>Other</u>

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

COMMUNITY-WIDE OTHER - 2015 ACTIONS

In the following section, please identify up to five community-wide Other actions taken in 2015 (one action per box).

2015 Community-Wide Other Actions	Gained ownership of (est.) 21,123 verified tonnes CO2e emission reductions (offsets) arising from landfill gas capture – a regional emission reduction project that will enable the RDN to earn, revenues from offsets, achieve carbon neutral operations for 10+ years, or a combination of both.
2015 Community-Wide Other Actions	Coordinated the development of the RDN Asset Management Program, including: Held a level of service workshop with the Solid Waste department as a model for other departments; Provided one Board Seminar Session on Asset Management Secured \$20,000 in Provincial funding to support the delivery of Asset Management programs; Developed a 2-year Resource Plan for the RDN Asset Management Program; Developed a job description for a 2-year Asset Management Coordinator position and secured funding to support the position for the full 2-year term of the Resource Plan.; Coordinated attendance of 4 staff to Asset Management training program.
2015 Community-Wide Other Actions	(No response)
2015 Community-Wide Other Actions	(No response)
2015 Community-Wide Other Actions	(No response)

COMMUNITY-WIDE OTHER - ACTIONS PROPOSED FOR 2016

In the following section, please identify up to five community-wide Other actions proposed for 2016 (one action per box).

2016 Community-Wide Other Proposed Actions	(No response)
2016 Community-Wide Other Proposed Actions	(No response)
2016 Community-Wide Other Proposed Actions	(No response)
2016 Community-Wide Other Proposed Actions	(No response)
2016 Community-Wide Other Proposed Actions	(No response)

CORPORATE

CORPORATE OTHER - 2015 ACTIONS

In the following section, please identify up to five corporate Other actions taken in 2015 (one action per box).

2015 Corporate Other Actions

2015 Corporate Other Actions	(No response)
2015 Corporate Other Actions	(No response)
2015 Corporate Other Actions	(No response)
2015 Corporate Other Actions	(No response)
2015 Corporate Other Actions	(No response)

CORPORATE OTHER - ACTIONS PROPOSED FOR 2016

In the following section, please identify up to five corporate Other actions proposed for 2016 (one action per box).

2016 Other Proposed Actions

2016 Other Proposed Actions	(No response)
2016 Other Proposed Actions	(No response)
2016 Other Proposed Actions	(No response)
2016 Other Proposed Actions	(No response)
2016 Other Proposed Actions	(No response)

Innovation/Peer Learning

INNOVATION AND PEER LEARNING

Innovation

This section provides the opportunity to showcase an innovative Corporate and/or Community-wide reduction or adaptation activity that your local government has undertaken and that has had a significant impact 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.

Community-Wide Innovation

Provided Team WaterSmart educational presentations for Qualicum, Snaw-naw-as and Snuneymuxw First Nations schools Worked with Aboriginal Education Coordinator in SD69 to include significant First Nations place names on the new DWWP website map interface.

Work with First Nations (Qualicum (QFN), Nanoose (NFN) and Nanaimo (SFN)) on joint flood operations reviews, assistance with information material, campsite evacuation planning, earthquake presentation and seasonal hazards. First Nations reps invited and participated in training sessions.

Supported the delivery of the Flourishing in a Green Economy event in Qualicum Beach (April, 2015).

Co-hosted forum with Island Health open to local governments, School District and First Nation Band members to increase mutual understanding of the organizations and explore potential partnerships.

Corporate Innovation

Reduced Data Centre Server rack space by 25% by continuing consolidation of servers into a virtual environment.

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 appropriate box below separated by a forward slash / (e.g. program1/program2/...).

Programs, Partnerships and Funding

Gas Tax Funs (Community Works Funds for community renewable energy systems and Regionally Significant Projects fro major capital projects)/ Community Energy Leadership Program to support investment in high efficiency equipment/ Provincial Woodstove Exchange Program to support green building incentive program/ BC Hydro and Real Estate Foundation for BC funding for community projects relating training realtors/ BC Hydro funding for energy studies/ CARIP program for investing in corporate energy efficiency initiatives/ virtually any and all grant programs are helpful.

2015 Carbon Neutral Progress 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 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 survey, please ensure that you are familiar with guidance available on the B.C. Climate Action Toolkit website, especially *Becoming Carbon Neutral: A Guide for Local Governments in British Columbia*.

Did you measure your local government's corporate GHG emissions in 2015?

Yes

If your local government measured 2015 corporate GHG emissions, please report the number of corporate GHG emissions from services delivered <u>directly</u> by your local government:

(in tonnes of carbon dioxide equivalent)

2076.5

If your local government measured 2015 corporate GHG emissions, please report the number of corporate GHG emissions from <u>contracted</u> services:

(in tonnes of carbon dioxide equivalent)

641

Total Corporate GHG Emissions for 2015: 2717.5 tCO2e

Reductions and Offsets

Reporting Reductions and Offsets

To be carbon neutral, a local government must balance their TOTAL corporate GHG emissions by one or a combination of the following actions:

undertake Option 1 Projects (Green Communities Committee (GCC)-supported)

undertake Option 2 Projects (alternative) community GHG emissions reduction projects that meet project eligibility requirements

purchase carbon offsets from a credible offset provider

Reductions

If applicable, please report the 2015 GHG emissions reductions being claimed from Option 1 GHG Reduction Projects:

Energy Efficient Retrofits

(in tonnes of carbon dioxide equivalent (tCO2e))

(No response)

Solar Thermal

(in tonnes of carbon dioxide equivalent (tCO2e))

(No response)

Household Organic Waste Composting

(in tonnes of carbon dioxide equivalent (tCO2e))

1228.8

Low Emission Vehicles

(in tonnes of carbon dioxide equivalent (tCO2e))

(No response)

Avoided Forest Conversion

(in tonnes of carbon dioxide equivalent (tCO2e))

(No response)

2015 OPTION 1 REDUCTIONS = 1228.8 tCO2e

If applicable, please report the names and 2015 GHG emissions reductions being claimed from Option 2 GHG Reduction Projects:

Option 2 Project Name

GHGs Reduced (tCO2e)

2015 OPTION 2 REDUCTIONS = 0.0 tCO2e

Offsets

If applicable, please report the number of offsets purchased from an offset provider for the 2015 reporting year.

Note: Please do not include funds set aside in a climate action reserve fund.

(in tonnes of carbon dioxide equivalent (tCO2e))

1488.7

If your local government purchased offsets, please identify the name of the offset provider:

The Regional DIstrict of Nanaimo verified and validated 21,123 tonnes of offsets arising from an existing landfill gas collection project. Of these, 5,000 tonnes have been listed through the Community Carbon Marketplace. The remainder will be subject to future listings as well as counted against RDN corporate emissions for the purpose of achieving carbon neutral operations.

2015 OFFSETS = 1488.7 tCO2e

2015 REDUCTIONS AND OFFSETS = 2717.5 tCO2e

Corporate GHG Emissions Balance for 2015

Your 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.

2015 CORPORATE GHG EMISSIONS BALANCE: 0.0 tCO2e

If your Corporate GHG Emissions Balance is negative or zero,

your local government is carbon neutral.

CONGRATULATIONS!

Recognition

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 - Progress on Charter Commitments: for local governments who demonstrate progress on fulfilling one or more of their Charter commitments

Level 2 - Measurement: for local governments who have measured their Corporate GHG Emissions for the reporting year and demonstrate that they are familiar with the Community Energy and Emissions Inventory (CEEI)

Level 3 - Achievement of Carbon Neutrality: for local governments who achieve carbon neutrality in the reporting year.

Based on your local government's 2015 Climate Action/Carbon Neutral Progress Survey, please check the GCC Climate Action Recognition Program level that best applies:

Level 3 - Achievement of Carbon Neutrality

Email Address

An email confirming that the survey was successfully submitted will be sent to the address provided in the box below.

cmidgley@rdn.bc.ca

Other Opportunities for Awards and Recognition

In addition to the GCC's Climate Action Recognition Program, your local government may be eligible for other award and recognition programs that recognize a range of aspects related to climate action. Here is a list of some award programs, submission timelines and web links.

Climate Energy Action (CEA) Awards – The CEA awards are offered annually to a municipality or regional district implementing a project or program best integrating energy / climate planning into community planning and development, corporate operations and collaboration with public service organizations. Submission: May. http://communityenergy.bc.ca/apply-now-for-2014-climate-energy-action-awards/

UBCM Community Excellence Awards – The UBCM Community Excellence Awards program is an opportunity to showcase municipalities and regional districts who "lead the pack", take risks to innovate, establish new partnerships, question established ways of doing business and pioneer new customer service practices. One of the five categories recognized in 2015, "Leadership Innovation, Green Initiatives", related to climate action. **Submission**: July. http://www.ubcm.ca/EN/main/convention/Awards/15021/community-excellence-awards-application.ht

<u>LG Info</u>

LOCAL GOVERNMENT INFORMATION

LOCAL GOVERNMENT INFORMATION Name of Local Government	Regional District of Nanaimo
LOCAL GOVERNMENT INFORMATION Name of member Regional District (RD)	Nanaimo
LOCAL GOVERNMENT INFORMATION Regional Growth Strategy (RGS) in your region	Yes
LOCAL GOVERNMENT INFORMATION Population	100,000+

Submitted by:

Submitted by: Name	Chris Midgley
Submitted by: Position	Manager, Water Services and Asset Management
Submitted by: Telephone # (123-456-7890)	250-390-6545
Submitted by: Email Address	cmidgley@rdn.bc.ca

This year we comined two online surveys with one in additon to other changes to streamline and improve the reporting process. We would like to know what you think.

Please check the answer that best describes your thoughts on how the new survey process compares to last year's process.

Neutral

Before submitting your survey, please ensure that it is your local government's complete and final 2015 Climate Actions Survey. Please submit this survey only once.

Is this your local government's complete and final 2015 Climate Actions Survey?

Yes

Once you have submitted your survey, be sure to download your survey report from the 'Thank You' page and use it as your public report.