Climate & Ecosystem Action (Part 1): A Framework

Compiled by the GTCA's *Climate & Ecosystem Group*
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Introduction

The **Climate & Ecosystem Group's mandate** is to:

1. Propose actions that address our current climate and ecological crises and that focus on the Gorge Tillicum neighbourhood and its well-being
2. Engage in local and wider consultations as we seek to identify the options available to the GTCA
3. Identify the various constituencies we anticipate working with
4. Propose to the Board those options that the C&E Group thinks would be: (a) the most beneficial and (b) the most feasible while keeping in mind our own resources and the resources we can muster elsewhere.

What we're offering is, in essence, a simplified climate action plan -- one with no vision statement, rationales, identified goals, implementation processes, timelines, or review processes -- one consisting of an **Action Framework** referring only to overarching strategies and action options (contained in this document) and **Suggested GTCA Priorities** (contained in a companion document).

The **overarching strategies** threaded through this work include:

- Conservation, Remediation and Restoration of natural ecosystems
- Mitigation & De-carbonization (i.e. minimize and slow carbon emissions and other root causes of climate change)
- Adaptation & Resilience (i.e. preparing for, and adapting to, current and projected impacts of climate change in order to minimize risk and future damage)

What follows is a **wide-ranging list of actions**, some drawn from the Saanich Climate Action Plan and some from elsewhere, that we think would be beneficial to our neighbourhood. [NB: There are many, many options listed here -- only some of which the Board and its collaborators will be able to work on.]

To facilitate our task, and inspired by the Saanich Climate Action Plan (CAP), we've selected the following **action categories** for this document:

- Mobility & Transportation
- Buildings & Infrastructure
- Economic Activity: Food & Other Materials
- Natural Ecosystems
- Community Wellbeing
- GTCA Operations

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Action Options

Mobility & Transportation

In general:
- Promote a shift away from cars: Prioritize walking, cycling, mobility devices, and other forms of active transportation as well as accessible public transit.
- Promote and accelerate the adoption of zero-emission / electric vehicles for personal use and for the delivery of goods and services
- Support the introduction or expansion of shared use of mobility vehicles (bikes, scooters, cars, transit, etc.)
- Review the Saanich Active Transportation Plan (ATP) for GT area and identify any gaps or incorrect prioritization. Advocate for moving up the timeline on significant projects such as Tillicum Road and Tillicum Bridge.
- Host public meetings for residents, businesses, and others to discuss mobility, transportation and parking in the neighbourhood and, in particular, the advantages of active transportation.

Infrastructure:
- Modify street design for use by walkers and users of all types of vehicles in order to slow traffic down and to promote safety (more sidewalks and bike lanes, reduce large vehicle lanes, etc.)
- Limit passage, or cut-through options, on some streets (e.g. residential streets) through the use of one way roads or cul-de-sacs (with or without "filtered permeability")
- Identify local areas which could use charging stations for various types of vehicles & promote installation

Walking:
- Do local walking tours to identify pedestrian impediments and gaps in infrastructure
- Advocate for improving the quality of pedestrian infrastructure (i.e. shade, surfacing, water fountains, etc.)

Cycling:
- Participate in Bike to Work Week by:
  - Encouraging local workplaces to report their employee's bike kilometres.
  - Promoting the existing Gorge Tillicum bike team for BTWW.
  - Encouraging BTWW organizers to set up a local station.
- Monitor number of bicyclists using existing infrastructure or obtain data from CRD counts.
- Promote / host cycling skills workshops with local schools (staff and PACs) and others

Transit:
- Advocate for better bus service in GT area -- including starting the proposed route 40 sooner rather than later
- Increase number of bus stops and shelters

Safety:
- Lower speed limits on residential (and some other?) streets
- Build / designate safe routes for walking, cycling and other zero emission mobility options -- in general and, particularly, to schools -- with attention to sidewalks and to intersections.
- Promote the use of speed monitors (especially on school access routes and near crosswalks), the installation of additional crosswalks, the removal of all slip lanes, and improvements to the Burnside off-ramp for pedestrian safety.

Parking:
- Promote the development of a strategy (possibly including time limits, pay parking, ticketing and towing) for vehicle parking on public property
- Explore ways to improve bike parking in public areas and at new and existing industrial, commercial and multi-unit residential buildings for tenants and visitors -- including by conducting an inventory of existing bike parking and working with local businesses and Saanich to fill gaps as necessary

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Buildings & Infrastructure (Water, Energy)

Buildings (New and/or Existing):
- Increased construction of various types and sizes of multi-unit buildings for a wide range of needs
- Promote energy efficiency (insulation, etc.) and low carbon operation (preferably electric only - heat pumps, EV charging, etc.) in all new buildings and, through retrofits, in existing buildings
- Encourage building design or retrofit measures to reduce impact from heat waves and poor air quality events through passive and active design strategies (e.g., shading devices, vegetation screens, heat pump/air conditioners with filters).
- Incorporate active transportation facilities within new development sites, including on-site parking and charging stations for various mobility options (bikes, scooters, cars). Support retrofits for such purposes in existing multi-family and commercial buildings as well.
- Decouple the cost of parking (if any) from housing units in multi-unit buildings
- Include on-site, indoor and/or outdoor gathering spaces for residents and visitors
- Promote living on-site green features (green walls, green roof, pollinator habitat, community gardens, etc.)
- Promote use of a "programmed roof" (where possible) for community benefits, including solar energy generation, community gardens, recreation spaces, and green roofs.
- Encourage the use of low-carbon materials in new construction and in retrofits and renovations.
- Minimize waste and pollution (practice deconstruction and use of subsequent materials; etc.)
- Maximize permeable surfaces for rainwater infiltration
- Host public meetings to discuss local development, building retrofits, and increased density

Water:
- Encourage rainwater collection, and the use of rain gardens and bioswales for stormwater management, on public and private lands.
- Promote water-wise irrigation practices
- Encourage the implementation of greywater recovery systems in new and, through retrofitting, existing residential, institutional, and commercial buildings
- Build resilience to flooding and sea level rise:
  - Conduct flood hazard planning in consideration of seasonally flooded areas, overflowing creeks and rivers, and sea-level rise -- identifying areas that could benefit from structures such as rain gardens, permeable paving, etc.
  - Encourage all new developments that drain into Colquitz and/or Cecelia Creeks to reduce runoff and improve water quality.
  - Consider flooding hazards when reviewing development applications and park projects

Energy:
- Promote local renewable energy production, use, and access
- Electrify everything that can't be done by human labour

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Economic Activity: Food & Other Materials

Food:
- Advocate for improved accessibility, quality, safety, and affordability
- Local, low-carbon production (drip irrigation, on site irrigation water storage, compost production & use, etc.)
- Community food production -- community gardens, farms, orchards; edible landscaping on private and public land; rooftop gardens (for-profit, social enterprise, or community garden)
- Use of permaculture &/or regenerative agriculture models
- Promote food knowledge (production, use, preservation, etc.) through workshops and other means

- Promote distribution of (surplus) produce within the neighbourhood through informal networks, groups or agencies
- Help connect neighbours seeking land to grow on with available land (in or beyond our area)
- Facilitate access to seeds, seedlings and other plants
- Encourage people to choose low-carbon foods (less and/or local meat consumption, etc.)
- Encourage food store and food service establishments to reduce food waste, offer low-carbon/plant-based food options, and use renewable-energy cooking methods.

Materials (in general):
- Promote local access to as wide a range of goods as possible
- Build local economy -- including boulevard and driveway sales, work/live spaces, etc.
- Consider bulk-purchase programs to provide at-cost equipment and technologies that reduce energy costs and/or improve resilience (e.g., rain barrels, solar kits, emergency kits, etc.)
- Promote street or neighbourhood level garage /plant sale days and strategies whereby free items can find new homes for themselves rather than being dumped on sidewalks

Waste reduction:
- Promote "lighter living" (reducing, reusing, repairing, etc.) through attention to consumption patterns and product climate impacts, use of the Saanich Carbon Calculator, tool libraries or tool sharing, repair cafes, second-hand initiatives, etc.
- Promote and facilitate waste reduction (zero waste) practices -- landfill waste diversion (including construction, demolition, agricultural, and industrial wood waste); deconstruction, salvaging and reuse of subsequent materials from buildings; elimination of excess packaging; community-led composting; school and other educational programs; etc.
- Work with local businesses on circular economy initiatives that recover and regenerate products and materials at the end of their useful lives

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Natural Ecosystems

Natural spaces and species:
- Protect, restore, expand and connect wildlife habitat in the area (shorelines, parks, urban forest, boulevards, private gardens, etc.).
  - Encourage Saanich to plant/care for public parcels along Colquitz riverfront (3085 Colquitz and 3104 Austin) or allow GTCA to do so
  - Encourage CRD to plant along Galloping Goose trail, and MOTI to plant along Mackenzie, at the interchange
- Support species (resident and/or migratory) whose well-being and dispersion rates are unable to keep pace with climate change (native plants, pollinator habitat restoration, bat boxes, etc.)
- Support invasive plant removal from public and private land
- Promote naturalization approaches (Green Shore, etc.) to protect the shoreline from erosion and sea-level rise
- Promote stewardship tools for private land owners to adapt to, and mitigate, climate change by expanding on existing programs, such as Naturescaping, recommended plant lists, and invasive species management.
- Foster connection to the natural environment through: experiencing parks and natural areas; volunteering as park stewards (via Pulling Together); participating in natural area projects (park cleanups or planting, etc.); "Natural Intelligence" (a new Parks department program); use of "I-naturalist" (a plant ID program, especially native plants)

Trees:
- Address tree protection, retention and replacement on private and public property -- during development and at other times

- Promote and support tree planting efforts through Saanich programs and other avenues. Consider: the need for shade (larger trees); the use of native trees; drought, wet winters, sea level rise, and other climate impacts; edible alternatives such as chestnut or hazelnut; biodiversity enhancement, etc.
- Advocate for neighbourhood level, street tree watering where owner or Saanich is unwilling or unable.
- Conduct a gap analysis of street trees in the GT area -- where is the strongest need
- Do an inventory of native trees in Gorge Waterway Park and encourage Saanich to make all new trees native rather than ornamental.
- Host public events addressing the need for trees for various purposes.
- Profile Colquitz Street trees (as has been done on Shelbourne) through our media
- As trees thrive in micro-ecosystems, encourage other plantings around them

Miscellaneous:
- Boulevard transformation & care (pollinator-friendly, xeriscape, etc.)
- Promote / support citizen volunteer groups for all parks (cleanup, invasive removal, replanting, etc.) -- via Pulling Together or other avenues
- Minimizing or eliminating use of herbicides, pesticides, and other pollutants
- Partner with schools to support environmental / stewardship education and encourage naturalization projects on school grounds.
- Develop educational programs to assist residents in understanding the value of ecosystems and becoming stewards.

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Community Wellbeing

Meeting each other / having fun:
- Promote personal connections and networks within the community through building- and street-based groups and events, Block Watch, welcome programs for new residents & businesses, use of street and park furniture, Neighbour-Neighbour program, etc.
- Ensure that our approach to climate action is equitable -- one that addresses factors such as income, age, gender, ethnicity and ability. (Develop ongoing relationships with equity-seeking groups to inform action; avoid replicating or furthering historical inequities; address the diverse barriers, needs, and priorities of different parts of our community; etc.)

Information, support and resources:
- Promote access to information, resources and services within the local community (health, education, food, repair, material items, funding/rebates, projects, etc.)
- Develop online (and other) resources providing climate mitigation and adaptation information and action resources for use by people and organizations in the neighbourhood.
- Facilitate neighbours helping each other with upgrades to their homes through information sharing, workshops, visits, and other means

Building resilience, health and well-being:
- Build resilience -- including through emergency planning for fire, smoke, flooding, heat, earthquake & tsunami, wind, food shortages, etc. -- especially for vulnerable local populations (elderly, unhoused, etc.)
- Undertake heat mapping in urban areas to inform priorities for urban forests, landscaping, cooling amenities (e.g., drinking fountains), building materials and/or building features (e.g., green walls), with particular attention to improving equitable health outcomes.

Working together:
- Promote accessible communication, collaboration, and engagement opportunities for the full range of local residents, businesses, schools, and other organizations
- Seek opportunities to partner with, or otherwise support, (climate) initiatives and (climate-related) priorities of the Songhees and Esquimalt Nations and the Victoria Native Friendship Centre.

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GTCA Operations

Communication:
- Recognize, celebrate, and profile relevant actions by individuals, buildings, businesses, schools, Saanich, etc. For example:
  - Students and parents at local schools who use AT to get to school during BTWW or at any time
  - Local businesses that encourage cycling, have good facilities, or currently use EVs for work purpose
  - Saanich refurbishing or Pearkes arena
- Carry out effective communication campaigns in support of mitigation and adaptation strategies
- Implement a communications campaign that highlights the urgency of climate action, promotes mitigation and adaptation strategies, and showcases examples of local residents and businesses taking meaningful action, and integrates messaging into existing public education and programs (e.g., Saanich Emergency Program).
- Create a Google Group that can be used to invite people to help out with local projects or activities

Learning / Education / Engagement:
- Implement a tangible and hands-on neighbourhood-level education and support program that encourages and empowers neighbours and neighbourhood businesses to take action on climate change together -- include "green" home tours in the neighbourhood (and field trips elsewhere?) and the use of neighbourhood energy and resilience inventories and plans. The program could address home retrofits, gardening, water-wise landscaping, stormwater management, flood mitigation, emergency preparedness, and more -- and be aligned with emergency preparedness, nature education, and other Saanich initiatives -- and provide opportunities for mutual and other types of support
- Collaborate with post-secondary institutions to inform and/or support local initiatives
- Work with UVic mapping program on a workshop for directors and others on the use of community mapping.
- Create an inventory of what's already been done in the community (buildings, land use, mobility options, etc.). Create a digital map showcasing the locations of these projects. Host tours of / visits to these sites; use them as demonstration spaces for educational purposes.
- Work with Saanich to develop one of its properties in the neighbourhood (VCKC building or another one) into a model climate action demonstration property.

GTCA events and collaborations:
- Maximize use of renewable energy / zero-waste resources at events and in projects -- including use of vendor agreements to achieve high rates of waste reduction and diversion, providing easy-to-use recycling and composting receptacles, etc.
- Host an annual climate fair where progress and success are celebrated, key lessons are shared, cross-pollination of ideas is encouraged, and citizen-led networks are strengthened.
- Host a Community Climate Collaborative involving local residents, businesses and organizations to advise, monitor progress, and be ambassadors and partners for community climate action. Besides the GTCA, include schools, Indigenous nations / groups, daycares, Les Passmore, Saanich Neighbourhood Place, Pearkes, etc. (This process could result in the formation of a non-GTCA group with a climate action focus.)
- Host a Community Food Collaborative involving local residents, businesses and organizations to advise, monitor progress, and be ambassadors and partners for community food resilience. (This process could result in the formation of a non-GTCA group with a food resilience focus.)
- Work with the arts community to install public art pieces that awaken, inspire, and remind people of climate risks and opportunities for climate action while potentially providing functional benefits to address climate mitigation and/or adaptation.

Provide input:
- Review proposed and pending projects from developers, Saanich, and others

Funding:
- Review options whereby the GTCA might fund its C&E activities - grants, rebates, fundraising, etc.
- Review options whereby residents, local businesses, and other organizations might fund their relevant efforts

Support, promote and advocate for:

Mobility & Transportation:
- The establishment of complete, compact centres and active transportation-oriented corridors
- Acceleration of the implementation of the Active Transportation Plan
- Changes to provincial legislation to lower default speed limits on residential streets to improve safety for all transportation.
- All reductions in parking requirements as proposed by developers
- Encourage BC Transit to transition to a zero emissions (electric) transit network
- The updating of Saanich's (very old) parking requirements for development to avoid the need for project-by-project debate.

Buildings:
- Increased density, of various kinds, in selected areas of the neighbourhood
- Mixed use, multi-family development in the GT area -- particularly major re-development at Tillicum and Burnside.
- Provincial regulation leading to the phasing out of fossil fuel-related energy sources in homes and other buildings
- Require that electric chargers (for various types of vehicles) be installed as standard features of <u>all</u> new homes / buildings (including single family homes, townhouses and apartments)
- Legislation requiring builders, renovators, and developers to deconstruct / recycle / reuse parts of old buildings (as much as possible)
- The Saanich development review process, with particular attention to achieving net-zero carbon new construction and/or meeting the upper steps of the BC Energy Step Code.
- Support the development by Saanich of a comprehensive building retrofit strategy to accelerate energy and emissions reduction retrofits of residential and commercial buildings

Natural Areas:
- The protection of trees on private property
- More (pocket) parks in our area

Food:
- Accelerated action on the Agriculture and Food Security Plan

Money:
- Increased provincial and local funding needed to expand and improve public transit service levels to meet our public transit mode share targets
- The use of increases and/or reductions to fees and taxes (tied to identified behaviours such as onsite food production, the number of personal cars, EV vs fossil fuel use, rain gardens, etc.) as incentives or disincentives

Other:
- Make climate an issue during council elections
- Promote improvements to the stairs into the Gorge at the foot of Colquitz Ave to facilitate their use as an important cooling option in heat waves.

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