



CITY OF  
BAINBRIDGE ISLAND

CLIMATE CHANGE  
ADVISORY COMMITTEE  
REGULAR MEETING  
WEDNESDAY, MARCH 20, 2019  
6:15 – 8:15 PM  
CITY HALL  
COUNCIL CONFERENCE ROOM  
280 MADISON AVENUE NORTH  
BAINBRIDGE ISLAND, WA 98110

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## AGENDA

Members:      Derik Broekhoff                      Gary Lagerloef                      Nora Fern Nickum  
                    Michael Cox (Co-Chair)                      David McCaughey (Co-Chair)                      Deborah Rudnick  
                    Lara Hansen                      Michelle McClure                      James Rufo-Hill

Liaison:              Councilmember Joe Deets

6:15      Call to Order / Roll Call / Accept or Modify Agenda / Conflict of Interest Disclosure

6:20      Approve February 2019 minutes

6:30      Public Comments

6:35      Western Washington University Intern Update

- Ben Persyn (Community Solar Proposal)
- Debbie Weinmann

6:50      Draft CCAC Workplan

- Overall goal for greenhouse gas reductions
- Mitigation Actions
- Adaptation Actions
- Community Engagement Actions

8:00      Updates

8:15      Adjourn

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## MINUTES

Present: Committee members Derik Broekhoff, Michael Cox, Lara Hansen, Gary Lagerloef, David McCaughey, Nora Fern Nickum, Deborah Rudnick, James Rufo-Hill; Council Liaison Joe Deets

Absent: Committee member Michelle McClure

Public: Deborah Weinmann, David Brown, Fran Korten

1. The meeting was called to order at 6:25 pm.
2. Minutes from the previous meeting (January 16) were approved.
3. Public Comment
  - David Brown is the new outreach coordinator for Puget Sound Energy for Kitsap County.
  - Fran Korten said climate change is the most important issue of our time.
4. Draft 2019 Work Plan
  - We discussed potential mitigation targets, which later this year could be presented for public comment and presented to the Council for adoption.
  - Subgroups for further work on potential targets:
    - Mitigation: David, Mike, Derik, and Gary
    - Citizen engagement: Deb, Nora, and David
    - Adaptation: Lara and Deb
  - Ultimately our recommendation to Council should include whether or not the City should use offsets to reach its targets.
5. Election of New Chair
  - Michael Cox was elected as the new committee chair. David McCaughey was elected as vice chair. They will have a one-year term in those positions starting March 1, 2019.
6. Updates and Other Business
  - The Committee presentation to Council will be on Tuesday, Feb. 26.
  - Debbie Weinmann is a Western Washington University extension student studying policy, and she is available as a resource to us to help with things like research.
  - Michael has been asked to talk to some classes at Woodward Middle School; James, Lara, and Deb can join as needed.
  - Lara presented the “Drink like you live here” concept for promoting the use of only reusable cups.
  - Deb and Lara are presenting at a *Wells to Whales: Protecting our Waters* conference on March 10 from 1-5 p.m. at Islandwood. Registration is on the Islandwood website.
7. The meeting was adjourned at 7:45 pm.

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Co-Chair

Date

# Bainbridge Island Climate Change Advisory Committee: Draft 2019/2020 Workplan (March 14<sup>th</sup>, 2019)

## Section 1: Background

The Bainbridge Island City Council established the Climate Change Advisory Committee (CCAC) in the fall of 2017<sup>1</sup>. The CCAC was established to serve as a technical and planning advisory committee to the city council, city manager, and department of planning and community development staff on issues related to climate change as directed by the City Council.

More specifically, the CCAC was tasked with assisting the city in implementing the climate related goals and policies of the comprehensive plan<sup>2</sup> by undertaking several tasks as expeditiously as committee and city resources allow as outlined in Ordinance 2017-13<sup>3</sup>.

The plan that follows is for calendar year 2019 and 2020. We believe it is more efficient to provide a workplan for two years as many of the actions will occur over two years or more.

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<sup>1</sup> Bainbridge Island City Council. Ordinance 2017-13. May 17, 2017. <https://www.bainbridgewa.gov/DocumentCenter/View/8510/Ordinance-No-2017-13-Climate-Action-Advisory-Committee-Approved-050917?bidId=>

<sup>2</sup> **Guiding Principle #7 Reduce greenhouse gas emissions and increase the Island's climate resilience.**

Guiding Policy 7.1 Mitigation: Participate with state, regional and local partners to reduce greenhouse gas emissions consistent with the 1990 benchmark and future year targets set forth in state law, educate the public about climate change and incentivize Island activities including land use patterns and building practices that reduce greenhouse gas emissions.

Guiding Policy 7.2 Adaptation: Minimize or ameliorate the impacts of climate change on our community and our Island's ecosystems through climate-informed policies, programs and development regulations.

Guiding Policy 7.3 Evaluate the climate vulnerabilities and implications of City actions and identify policies that alleviate those vulnerabilities. Consider the effects of shifting conditions (sea level rise, changing rainfall patterns, increasing temperatures and more extreme weather events) and the effects they cause (altered vegetation, changing water demands, economic shifts).

<sup>3</sup> **Tasks for CCAC**

1. Provide advice and/or recommendations to the city council or city staff, as appropriate, on methods of completing a baseline island-wide greenhouse gas (GHG) inventory for the city.
2. To the degree directed by the city council, assist with or manage the completion of a baseline island-wide GHG inventory.
3. Provide advice and/or recommendations to the city council or city staff, as appropriate, related to city GHG emission reduction targets.
4. Work with city staff, as appropriate, to complete and recommend to the city council a city climate action plan and implementation strategy.
5. Provide advice and /or recommendations to the city council or city staff, as appropriate, on how to measure progress toward meeting the city's GHG emission reduction targets and adaptation actions.
6. As directed by the city council, assist the city with participation in regional climate change efforts.
7. Provide education and outreach to the public regarding climate change and the work of the committee and the city relating to climate change.

## Section 2: Proposed Goals

The CCAC believes that in order to achieve the comprehensive plans guiding principles for climate change and complete the specific tasks requested by the City Council, the CCAC needs to establish goals that can be measured and tracked over time. At this time, the CCAC is proposing one goal in each of the three areas: mitigation, adaptation, and community engagement. The mitigation goal has a specific timeframe while the adaptation and community engagement goals are more qualitative in nature. As we progress in the implementation our workplan we may develop more quantitative goals for the adaptation and community engagement areas. The CCAC believes these three areas are consistent with the guiding principles in the Comprehensive Plan. The goal and the basis for the goal are included in Table 1.

**Table 1: Proposed Goals for Mitigation, Adaptation, and Community Engagement**

Area	Goal	Basis
<b>Mitigation</b>	By 2040 Bainbridge Island will reduce its greenhouse gas emissions by 80% compared to 2013 levels and strive to reduce by 90% with interim goals of reducing greenhouse gases by 25% by 2023 and 60% by 2033 compared to 2013 levels. <sup>4</sup>	<p>The urgency to dramatically reduce our greenhouse gas emissions is highlighted in a 2018 report from the Intergovernmental Panel on Climate Change<sup>5</sup> that indicated in order to keep global temperatures below 1.5 degrees Celsius compared to post-industrial levels will require net zero global carbon emissions by 2050. Net zero global carbon emissions mean some of those emissions can be offset with carbon credits.</p> <p>We selected an 80% greenhouse gas emissions goal, with aspirational goal of 90%, because we did not want to utilize carbon offsets in our goal because we believe carbon offsets can be difficult to evaluate and verify.</p> <p>We selected the year 2040 because we wanted to achieve our goal earlier than 2050.</p> <p>We selected 2013 because this is the baseline year that Cascadia will use in the GHG inventory. We will evaluate after we receive the GHG inventory if it is possible to hindcast to 2005. This is the year used by the USA in the Paris agreement.</p> <p>We selected interim targets of 2023 and 2033 because this provides a 10 year progress report for the Island.</p>

<sup>4</sup> We will revisit this goal after the 2019 State Legislative session. There are several bills that may impact meeting this goal.

<sup>5</sup> IPCC, 2018: Summary for Policymakers. In: Global warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty. <https://www.ipcc.ch/sr15/>

Area	Goal	Basis
<b>Adaptation</b>	Bainbridge Island is climate savvy, and can withstand the impacts of climate change (e.g., sea level rise, warming temperatures, and changing precipitation patterns, changing vegetation).	<p>As an Island community Bainbridge Island is vulnerable to climate change. In fact, we are already experiencing the effects of climate change and are committed to much more change in the coming years. To this end, it is prudent governance to both understand the potential implications of climate change (vulnerabilities) and reduce those vulnerabilities to our community (risk reduction or adaptation). Failing to plan for the impacts of climate change and act to avoid them would result in long-term harm to our Island’s people, culture, economy and environment.</p> <p>By 2020, Bainbridge Island will have a formal process to evaluate all permits and expenditures for their climate vulnerability and a standardized approach to reduce that vulnerability.</p> <p>By 2019, Bainbridge Island will have tools to educate the community about climate vulnerability and the need to implement adaptation.</p>
<b>Community Engagement</b>	The City of Bainbridge Island inspires action across the community and partners with local and regional organizations to take meaningful climate change mitigation and adaptation actions.	<p>Community engagement is essential to effectively implement actions throughout this workplan and to achieve the overarching mitigation and adaptation goals; as such, community engagement is interwoven in the mitigation and adaptation sections. Given its importance and its cross-cutting nature, we are also calling it out with its own goal.</p> <p>We need to increase public understanding and awareness of the magnitude and consequences of climate change in order to create engagement in and support for mitigation actions.</p> <p>We need to work with extant community groups to disseminate information and achieve adaptation and mitigation goals and improve coordination/collaboration with other City advisory committees and Bainbridge Island taxing entities.</p> <p>We need to foster regional collaboration to support and advise the City in engaging in regional climate change efforts, with benefits such as sharing best practices and lessons learned.</p>

Over time the CCAC plans to propose additional goals for the different areas. For example, the CCAC envisions proposing goals for moving the Island to 100% clean, renewable energy or dramatically reducing greenhouse gas emissions from transportation or establish green building standards for all Island projects.

Table 2 provides a road map for the different areas the CCAC will be concentrating its efforts over the next two years.

**Table 2: Road Map for CCAC 2019/2020 Workplan**

Area	Sub-Work Areas
<b>Mitigation</b>	Greenhouse Gas Emissions Inventory
	Energy Use <ul style="list-style-type: none"> <li>- Energy provider</li> <li>- Energy conservation and energy efficiency</li> <li>- Local renewable energy sources</li> </ul>
	Transportation <ul style="list-style-type: none"> <li>- Public Transportation</li> <li>- Electric Vehicles</li> <li>- Non-motorized transportation infrastructure</li> </ul>
	Buildings
	Land-Use/Forestry/Agriculture
	Waste Management
	Consumption
<b>Adaptation</b>	Vulnerability Assessments
	Risk Reduction
<b>Community Engagement</b>	Community Awareness
	Island Collaboration
	Regional Collaboration

## Section 3: Mitigation

As highlighted above, the urgency to dramatically reduce our greenhouse gas emissions is highlighted in a 2018 report from the Intergovernmental Panel on Climate Change<sup>6</sup> that indicated in order to keep global temperatures below 1.5 degrees Celsius compared to post-industrial levels will require net zero global carbon emissions by 2050. This is also supported by the 4<sup>th</sup> National Climate Assessment<sup>7</sup> and many other scientific publications that indicated the impacts of climate change on our communities.

**Goal: By 2040 Bainbridge Island will reduce its greenhouse gas emissions by 80% compared to 2013 levels and strive to reduce by 90% with interim goals of reducing greenhouse gases by 25% by 2023 and 60% by 2033 compared to 2013 levels.<sup>8</sup>**

We are proposing actions in seven areas for mitigation for 2019/2020.

- 1. Greenhouse gas emissions** - Need to complete GHG emissions inventory to establish baseline for measuring progress;
- 2. Energy Use** – Need to move towards 100% clean, renewable electrical energy source for Island, increase energy conservation and energy efficiency in our buildings, and encourage use of renewable energy on the Island.
- 3. Transportation** – Need to increase use of public transportation, encourage electrification of ferry fleet, increase use of electric vehicles; and support development of infrastructure to increase biking and walking on Island.
- 4. Buildings** – Need to develop green building standards for public, residential, and commercial buildings on Island.
- 5. Land Use/Forestry/Agriculture** – Need to develop guidelines and strategies to reduce GHG emissions in development and work with local entities to develop strategies to preserve the existing stock of forest and to promote sustainable agriculture on the Island;
- 6. Waste Management** – Need to develop food waste diversion programs and evaluate our wastewater facility to reduce GHG emissions.
- 7. Consumption** – Need to provide education how individuals and businesses can reduce their carbon footprint by their individual choices.

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<sup>6</sup> IPCC, 2018: Summary for Policymakers. In: Global warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty. <https://www.ipcc.ch/sr15/>

<sup>7</sup> Fourth National Climate Assessment. Volume 11: Impacts, Risks, and Adaptation in the United States. 2018. <https://nca2018.globalchange.gov/>

<sup>8</sup> We will revisit this goal after the 2019 State Legislative session. There are several bills that may impact meeting this goal.

For each of the actions areas we include: 1) description of the action; 2) whether the action is a high, medium, or low priority; a timeline to complete; 4) resources needed to accomplish; 5) CCAC Lead; and 6) status for each action. These tables will be updated every 6 months and presented to the City Council.

### Section 3.1: Greenhouse Gas Emissions

In order to measure progress in reducing greenhouse gas emissions it is necessary to have a baseline from which to measure progress. Currently, Bainbridge Island does not have a baseline for greenhouse gas emissions. The GHG emissions inventory will provide that baseline. In addition, it will be important to update the GHG emissions inventory periodically to evaluate what programs are successful and which programs need to be modified. Table 3 provides the actions for 2019/2020 for greenhouse gas emissions.

**Table 3: Greenhouse Gas Emissions**

Action	Priority	Timeline	Staff Time	CCAC Lead	Status
<b>3.1: Complete Island-wide GHG Inventory:</b> City will hire consultant to complete and Island-wide GHG emissions inventory	High	2019		Derik and Gary	Draft: May/June Final: June/July
<b>3.2: Work with High School on Annual update to GHG Inventory:</b> CCAC will collaborate with BISD/BHS/Eagle Harbor High to add curriculum module that will include an annual GHG inventory by students	High	2020		Lara	
<b>3.3: Develop COBI internal carbon pricing program:</b> COBI would incorporate a shadow price for carbon in evaluating all new capital and procurement decisions, and/or implement a carbon fee for operations, revenues from which could be invested in energy efficiency and clean energy projects at city facilities. Each department is given a carbon budget (as well as a financial budget) for the year.	Medium	2020		Derik and Lara	CCAC members will meet with City Council and city staff to discuss.



### Section 3.3: Energy Use

Currently the City of Bainbridge Island receives about 5%<sup>9</sup> of its electricity from clean, renewable energy sources. In Washington State electricity generation contributes about 20% of the States greenhouse gases<sup>10</sup>. Bainbridge Island is currently conducting a greenhouse gas inventory for the Island, but it is anticipated that the contribution from electrical generation maybe higher than the State average since a large percentage of electrical generation in the State is from hydroelectricity. Bainbridge gets its electricity from Puget Sound Energy that has a fuel mix of over 60% fossil fuels. It is anticipated that Bainbridge Islands percent of greenhouse gases from electricity generation will be greater than the State average. The values from the inventory will be used as a baseline for evaluating potential reductions in emissions.

The Washington State legislator is considering establishing a goal of achieving 100% clean energy from electricity generators by 2045<sup>11</sup>. Across the U.S. over 90 cities, more than ten counties and two states, have already adopted ambitious 100% clean energy goals. Six cities in the U.S.-- Aspen, Burlington, Georgetown, Greensburg, Rock port, and Kodiak Island--have already hit their targets<sup>12</sup>.

We believe Bainbridge Island should strive to achieve 100% clean, renewable energy in order to do our part to keep global temperatures below 1.5 degrees Celsius compared to post-industrial levels. The CCAC will be working over the next year to determine the correct timeframe and interim goals to achieve 100% clean, renewable energy.

Table 4 provides specific actions for 2019 and 2020 in three areas:

- Energy provider:
- Energy conservation and energy efficiency; and
- Local renewable energy sources

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<sup>9</sup> Greenhouse Gas Emissions Inventory, Prepared for the Puget Sound Clean Air Agency by Cascadia Consulting Group. June 2018. Assume fuel mix for PSE on Page 17 was the same for Bainbridge Island.

<sup>10</sup> Washington State Greenhouse Gas Emissions Inventory: 1990-2015. Report to the Legislature. December 2018. Publication No. 18-02-043. <https://fortress.wa.gov/ecy/publications/documents/1802043.pdf>

<sup>11</sup> SB-5116- 2019-20. <https://app.leg.wa.gov/billsummary?BillNumber=5116&Initiative=false&Year=2019>. Accessed February 5<sup>th</sup> 2019.

<sup>12</sup> 100% Commitments in Cities, Counties, and States. Sierra Club Home Page. Accessed February 5<sup>th</sup> 2019. <https://www.sierraclub.org/ready-for-100/commitments>.

**Table 4: Energy Use**

Action	Priority	Timeline	Staff Time	CCAC Lead	Status
<b>Energy Provider</b>					
<b>4.1: Ensure energy delivered to Bainbridge Island is from renewable, lowest GHG emissions sources:</b> Work with the City and UAC to develop an RFP and criteria for the renewal of our island electric utility provider franchise agreement that requires delivery of 100% lowest carbon, renewable energy to all consumers on Bainbridge Island that is additive to the fuel mix of the energy provider (unless they are already 100% renewable carriers with excess product to sell).	High	2020		James, David, Gary, and Derik	CCAC members will meet with Council and members of the UAC.
<b>Energy Conservation and Efficiency</b>					
<b>4.2: Incentivize reduction in propane use:</b> Work with the City and propane providers to develop strategies to reduce GHG emissions and improve air quality from generation, transportation and combustion of propane.	Medium	2020		David	
<b>4.3: Limit GHG emissions from buildings:</b> Work with the City and the design review board to develop regulations that would require that all new and re-development minimizes GHG emissions by 1) maximizing energy efficiency and 2) increasing renewable generation either on site or at a community renewable energy investment site. This will decrease our total grid demand decreasing the need to expand our energy delivery infrastructure (which is costly) and decrease greenhouse gas emissions from a mixed grid.	High	2019/2020		Mike and Lara	Attend Design Review board meetings and provide input when needed.
<b>Island Renewable Energy</b>					
<b>4.4: Create community renewable energy project sites:</b> Work with the City and others to develop renewable energy projects on the Island. Not all sites on Bainbridge Island are suitable for renewable energy generation, but local renewable generation is part of building our resilience while decreasing our GHG	High	2019/2020		David and Mike	Work with Climate Action Bainbridge to complete an analysis of

Action	Priority	Timeline	Staff Time	CCAC Lead	Status
emissions. Giving community members the opportunity to invest in and benefit from local generation (including financially through benefit from selling electrons into the grid) can increase local generation for those sited where it is not a functional option, and protect local tree canopy in those locations.					potential for community solar projects on Island.
<b>4.5: Develop Local Micro-grids:</b> Work with the City to evaluate harnessing local renewable energy production into local micro-grids to increase our resilience including increasing reliability.	Medium	2020		David and Mike	

### Section 3.4: Transportation

In Washington State, transportation is estimated to produce almost 43%<sup>13</sup> of greenhouse gases. Bainbridge Island is currently conducting a greenhouse gas inventory for the Island, but it is anticipated that the contribution from transportation will be similar to the State wide percent of emissions. The values from the Inventory will be used as a baseline for evaluating potential reductions in emissions from transportation.

Table 5 provides specific actions for 2019 and 2020 in three areas:

- Public transportation;
- Electric vehicles; and
- Non-motorized transportation infrastructure

**Table 5: Transportation**

Action	Priority	Timeline	Staff Time	CCAC Lead	Status
<b>Public Transportation</b>					
<b>5.1: Develop better understanding of park and rides:</b> CCAC and City staff would meet with Kitsap Transit to improve the park and ride system on the Island to potential	High	2019		Nora	

<sup>13</sup> Washington State Greenhouse Gas Emissions Inventory: 1990-2015. Report to the Legislature. December 2018. Publication No. 18-02-043. <https://fortress.wa.gov/ecy/publications/documents/1802043.pdf>

Action	Priority	Timeline	Staff Time	CCAC Lead	Status
reduce GHG emissions. We would need to better understand the current locations, how are they planned and is there a plan for future park and rides.					
<b>Electric Vehicles</b>					
<b>5.2: Support and incentivize electrification of transportation on island:</b> CCAC would work with the City to create incentives to move our Island transportation fleet toward electrification in order to reduce GHG emissions and improve local air quality (e.g., reduce local car tabs for electric vehicles and develop electrical charging stations around Island).	High	2020		Deb	
<b>5.3: Encourage School District/COBI/Parks to move towards electric fleets:</b> CCAC would work with the school district, parks, and COBI to move towards electrification of their fleet and battery storage. Some examples can be found at <a href="https://driveevfleets.org/">https://driveevfleets.org/</a> of ideas from other cities.	High	2019		James and Deb	
<b>5.4: Support Washington State Ferries Efforts towards electrification:</b> City would continue to work with Washington State Ferries on the electrification of the ferries and continue to support efforts to use VW funds to make this conversion. Also ask the WSF to consider lower rates for electric cars as it would also provide health benefits for their deck hands.	High	2019		David and Deb	
<b>5.5: Explore Options with Kitsap Transit to move towards electrification of their fleet:</b> City, CCAC, and Multi-Modal committee would meet with Kitsap Transit to learn of their plans for fleet electrification and how they could increase the use of electric buses.	High	2019		James and Nora	
<b>5.6: Develop strategies to encourage use of electric vehicles:</b> City would develop strategies for increasing electric vehicle infrastructure and access for high density housing. CCAC would evaluate how many electric cars on the Island and explore innovative ways to use cars during low	Medium	2020		David, Deb, Derik, and James	

Action	Priority	Timeline	Staff Time	CCAC Lead	Status
production time.					
<b>5.7: Explore the use of electric vehicles with UPS/Fedex/USPS:</b> CCAC would meet with the deliver companies to determine if they have pilot programs with electrification or if we could work with them to develop a pilot program. Also, we could prompt anti-idling programs with them.	Medium	2020		Derik	
<b>Non-Motorized Transportation Infrastructure</b>					
<b>5.8: Work with the Council, Multi-modal Committee (MMC), and Bainbridge Mobility Alliance (BMA) on possible second levy for non-motorized transportation:</b> CCAC would work with all the groups to provide support on efforts to advance non-motorized transportation on the Island and increase island non-autocentric transit paths.	High	2019		Mike	Had meeting with BMA and will meet with City Council.
<b>5.9: Introduce hierarchy of transit concept for adoption by council:</b> CCAC would work with the MMC and BMA to develop strategies that that promote transit equity and community safety by considering the most vulnerable, then design and implement transit to support pedestrians, bicycles, mass transit and individual cars, in that order.	Medium	2020		Deb and Mike	
<b>5.10: Anti-idling ordinance:</b> CCAC would work with MMC and BMA to develop an anti-idling ordinance for the Island especially for the ferries.	Medium	2020		James	

### Section 3.5: Buildings

In Washington State, residential, commercial, and industrial buildings are estimate to provide almost 21% of greenhouse gases<sup>14</sup>. Bainbridge Island is currently conducting a greenhouse gas inventory for the Island, but it is anticipated that the contribution from buildings will be similar to

<sup>14</sup> Washington State Greenhouse Gas Emissions Inventory: 1990-2015. Report to the Legislature. December 2018. Publication No. 18-02-043. <https://fortress.wa.gov/ecy/publications/documents/1802043.pdf>

the State wide percent of emissions. The values from the greenhouse inventory will be used as a baseline for evaluating potential reductions in emissions.

Table 6 provides specific actions for 2019/2020 for buildings.

**Table 6: Buildings**

<b>Action</b>	<b>Priority</b>	<b>Timeline</b>	<b>Staff Time</b>	<b>CCAC Lead</b>	<b>Status</b>
<b>6.1: Support development of mandatory Green Building standards for all City-owned buildings over 5000 square feet:</b> Work with Design Review board, city staff, and others to develop a mandatory green building program.	High	2019		Mike, Lara, and Deb	
<b>6.1: Support development of incentive programs for residential and commercial development:</b> Work with the design review board and City to develop incentive programs that could include reducing plan check and building permit fees and expedited permit review for those projects that pursue some minimum green building standards.	High	2019		Mike, Lara, and Deb	

### **Section 3.6: Land Use/Forestry/Agriculture**

Decisions about land use and land cover can affect, positively and negatively, how much our climate will change and what kind of vulnerabilities humans and natural systems will face as a result. Because humans control land use, and to a large extent, land cover, individuals, businesses, non-profit organizations, and governments can make land decisions to adapt to and/or reduce the effects of climate change. Adaptation options include varying the local mix of vegetation or elevating homes to reduce exposure to sea level rise or flooding. Land use options for mitigating climate change include expanding forests to accelerate removal of carbon from the atmosphere and altering agricultural management practices to increase carbon storage in soil<sup>15</sup>.

<sup>15</sup> Fourth National Climate Assessment. Volume 11: Impacts, Risks, and Adaptation in the United States. 2018. Land Use and Land Change Chapter. <https://nca2014.globalchange.gov/report/sectors/land-use-and-land-cover-change>.

Table 7 provides specific actions that we propose to assist to meet the building and land use targets.

**Table 7: Land Use/Forestry/Agriculture**

Action	Priority	Timeline	Staff Times	CCAC Lead	Status
<b>7.1: Create Island-wide land use plan that reflects mitigation and adaptation goals:</b> City would develop guidelines to encourage siting of projects to reduce greenhouse gas emissions: This could include where to develop to decrease GHG emissions (e.g., decrease miles driven), maintain open space services (e.g., water recharge, water filtration, air filtration, temperature amelioration), increase permeable surfaces (built and natural), manage for change, etc.	High	2019		Michelle, Deb, and Lara	

### Section 3.7: Waste Management

In Washington State, solid waste and wastewater management contribute about 4% of total greenhouse gases<sup>16</sup>. Bainbridge Island is currently conducting a greenhouse gas inventory for the Island, but it is anticipated that the contribution from solid waste and wastewater management will be similar to the State-wide percent of emissions. The values from the greenhouse inventory will be used as a baseline for evaluating potential reductions in emissions. Table 8 provides specific actions to reduce GHG emissions for waste management.

**Table 8: Waste Management**

Action	Priority	Timeline	Staff Time	CCAC Lead	Status
<b>8.1: Increase use of greenwaste bins for</b>	Medium	2019		David and	

<sup>16</sup> Washington State Greenhouse Gas Emissions Inventory: 1990-2015. Report to the Legislature. December 2018. Publication No. 18-02-043. <https://fortress.wa.gov/ecy/publications/documents/1802043.pdf>

Action	Priority	Timeline	Staff Time	CCAC Lead	Status
<b>household and commercial food waste:</b> City would develop food waste diversion program for households and commercial businesses to greenwaste bins for compost or energy production to eliminate landfilling of food waste which causes methane emissions				Nora	

### Section 3.8: Consumption

The consumption of goods and services by humans contributes significantly to greenhouse gases. The choices we make on the food we eat, the type of vehicle we drive, how often we travel by airplane, the amount of goods we purchase, and the type of housing we select all have a large impact on global greenhouse gas emissions. When developing the actions outlined in this workplan we will strive to include discussion of what we can do as a City, Community, and individually to make different choices on how we use goods and services. Table 9 includes actions for 2019 and 2020.

**Table 9: Consumption**

Action	Priority	Timeline	Staff Time	CCAC Lead	Status
<b>9.1: Work with City Green Team:</b> CCAC would work with the City Green Team on sustainable purchasing and other activities to reduce the City's greenhouse gas footprint.	Medium	2019		Mike	
<b>9.2: Present findings from greenhouse gas consumption inventory:</b> CCAC will work with City staff to present findings from the greenhouse gas consumption inventory to the public.	Medium	2019		Derik	



## Section 4: Adaptation

As an Island community Bainbridge Island is vulnerable to climate change. In fact, we are already experiencing the effects of climate change and are committed to much more change in the coming years. To this end, it is prudent governance to both understand the potential implications of climate change (vulnerabilities) and reduce those vulnerabilities to our community (risk reduction or adaptation). Failing to plan for the impacts of climate change and act to avoid them would result in long-term harm to our Island’s people, culture, economy and environment.

**Goal: Bainbridge Island is climate savvy, and can withstand the impacts of climate change (e.g., sea level rise, warming temperatures, changing precipitation patterns, changing vegetation).**

We propose actions in two areas.

**1. Vulnerability Assessments** – We would work with the City to conduct vulnerability assessments around the Island and provide that information in community forums.

**2. Risk Reduction** – We would work with the City to develop a process for using the information from the vulnerability assessments for evaluating projects on the Island and communicating that process to citizens.

Table 10 provides specific actions for 2019/2020 for adaptation.

**Table 10: Adaptation**

Action	Priority	Timeline	Staff Lead	CCAC Lead	Status
<b>Vulnerability Assessments</b>					
<b>10.1: Map Climate Impacts to COBI assets:</b> CCAC in collaboration with City staff would start with a sea level rise evaluation to evaluate the vulnerability of COBI assets including roads (motorized & non), other infrastructure (sewage treatment, water, buildings), and marine access. This first assessment will also provide a template for subsequent assessments. As needed, City staff will map additional climate impacts (e.g., fire, drought, vegetation change, precipitation changes).	High	2019 – Sea level rise  2020 – Other Analysis		James	

Action	Priority	Timeline	Staff Lead	CCAC Lead	Status
<b>10.2: Hold community discussions around vulnerable COBI sites:</b> City would host community conversations from the sea-level analysis and other analyses regarding findings and how to adapt to those changes.	High	2019		James and David	
<b>10.3: Create tool for use in the evaluation of vulnerability of COBI and non-COBI assets and activities on Bainbridge Island:</b> CCAC would work with City to identify, and eventually require, the use of a tool (e.g., Climate Change Adaptation Certification) for use in evaluation of climate vulnerability of any activity or investment on Bainbridge Island. This would also include training for City staff, Council, and Committees in the use of the tool. Aforementioned climate impact maps, may be used to inform these vulnerability assessments.	High	2019		Lara	
<b>Risk Reduction</b>					
<b>10.4: Incorporate vulnerability evaluation tool into all COBI (departments, committees and council) workflow in order to identify vulnerability and risk reduction opportunities:</b> City, Council and committees will develop processes by which all decisions, including permits and expenditures, are evaluated for their vulnerability to climate change, and determinations can be made based on this assessment in order to ensure better long-term outcomes in the face of factors such as sea level rise, altered precipitation patterns, increasing temperatures and other climate related hazards. CCAC can advise in this process.	High	2020		Lara, Deb, and Mike	
<b>10.5: Apply the tool in permitting, planning and budgetary decisions:</b> Results from application of the vulnerability assessment tool are used by the	High	2020		Lara, Deb, and Mike	

Action	Priority	Timeline	Staff Lead	CCAC Lead	Status
City in decision-making to reduce risk and improve long-term benefits. This includes training of City staff, Council and committees in use of necessary tools.					
<b>10.6: Community training on adopted risk reduction process:</b> City would host community conversations with vulnerable sites and how to adapt to those changes.	High	2020		Lara, Deb, and Mike	

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## Section 5: Community Engagement

Community engagement is essential to effectively implement actions throughout this workplan and to achieve the overarching mitigation and adaptation goals; as such, community engagement is interwoven in the mitigation and adaptation sections. Given its importance and its cross-cutting nature, we are also calling it out with its own goal. Areas of the workplan where community engagement is essential for success include:

- Working with community groups is an integral component of the actions in Tables 4, 5, 6, and 8;
- Working with the Council, Multi-modal Committee, and Mobility Alliance on possible second levy for non-motorized transportation is included in Table 5;
- Increasing awareness and helping with community preparation is embedded the actions on vulnerability assessments and integration in City Operations in Table 8 and 9; and
- Holding community discussions around vulnerable sites, in Table 10, is also an example of community engagement.

**Goal: The City of Bainbridge Island inspires action across the community and partners with local and regional organizations to take meaningful climate change mitigation and adaptation actions.**

We propose actions in three areas for 2019/2020.

- 1. Increase Community Awareness** – Increase public understanding and awareness of the magnitude and consequences of climate change in order to create engagement in and support for mitigation actions.
- 2. Encourage and Support Island Collaboration** – Work with extant community groups to disseminate information and achieve adaptation and mitigation goals and improve coordination/collaboration with other City advisory committees and Bainbridge Island taxing entities.
- 3. Foster Regional Collaboration** – Support and advise the City in engaging in regional climate change efforts, with benefits such as sharing best practices and lessons learned.

Table 11 provides specific actions that we propose for community engagement in 2019-2020.

**Table 11: Community Engagement**

Action	Priority	Timeline	Staff Time	CCAC Lead	Status
<b>Increase Community Awareness</b>					
<b>11.1: Create Climate Change Week:</b> Council proclamation to designate a week each year (in conjunction with Earth Month) for City and community evaluation of the progress made on meeting our community commitments and goals relating to reducing our contribution and vulnerability to climate change.	Medium	2020		Mike and Lara	Work with Sustainable Bainbridge this year on Earth Month but do not have a separate event.
<b>11.2: Convene semi-annual City events:</b> Collaborate with the City to convene at least semi-annual programs on issues relating to climate change and how the City is addressing this in their daily operations as well as future planning.	High	2019		All	<b>June 22:</b> Share work of BI committees on Climate Change <b>September:</b> GHG Inventory
<b>Encourage and Support Island Collaboration</b>					
<b>11.3: Support community events on climate change:</b> Participate in ongoing information forums such as the Climate and Energy Forum and the Movies that Matter.	High	Ongoing		All	CCAC members are active in organizing and participating in ongoing events
<b>11.4: Increase cooperation with other City advisory committees:</b> Attend other relevant City Advisory Committees (e.g., Multi-modal, UAC, and ETAC) at least twice a year.	High	Ongoing		Liaisons TBD at meeting	Possible Committees: - Multi-Modal - Utilities - ETAC - Design Board
<b>11.5: Attend Intergovernmental Working Group (IWG) – COBI, BIFD, BIPD, and BISD:</b> Work with IWG in a collaborative approach to identify and implement mitigation and adaptation actions with buy-in, engagement, and leadership from all of these relevant entities.	High	2019 – Initial Contact 2020 – Identify actions		Mike	Need to work with other taxing entities as other parts of workplan indicate need to work with BISD, BIFD, and Parks.

**Foster Regional Collaboration**

<p><b>11.6: Foster regional collaboration:</b> Make a recommendation to the City on regional collaborations that Bainbridge Island should participate in and the form that involvement should take. (For example, Puget Sound Climate Preparedness Collaborative; Kitsap Public Transportation, and WSF)</p>	<p>Medium</p>	<p>2020</p>		<p>Nora</p>	<p>Identify groups and evaluate possible role of CCAC.</p>
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