



CLIMATE CHANGE  
ADVISORY COMMITTEE  
REGULAR MEETING  
WEDNESDAY, JANUARY 15, 2020  
6:30 – 8:30 PM  
CITY HALL  
COUNCIL CONFERENCE ROOM  
280 MADISON AVENUE NORTH  
BAINBRIDGE ISLAND, WA 98110

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## AGENDA

MEMBERS: JENS BOEMER LARA HANSEN DAVID MCCAUGHEY (CO-CHAIR)  
DERIK BROEKHOFF GARY LAGERLOEF NORA FERM NICKUM  
MICHAEL COX (CO-CHAIR) JULIE MATTHEWS DEBORAH RUDNICK

LIAISON: JOE DEETS

6:30: CALL MEETING TO ORDER/ROLL CALL/ACCEPT OF MODIFY AGENDA/CONFLICT OF INTEREST DISCLOSURE

6:35: APPROVE DECEMBER 18<sup>TH</sup> MINUTES

6:40: PUBLIC COMMENT

6:50: UPDATES

- MONDAY FEBRUARY 3<sup>RD</sup>: JOINT STUDY SESSION WITH UAC AND CCA WITH PSE (SEE ATTACHED)
- MONDAY FEBRUARY 24<sup>TH</sup>: NEXT CCAC MEETING
- AN ADDITIONAL CCAC MEETING?
- GREEN BUILDING TASK FORCE APPLICATION
- SUSTAINABLE TRANSPORTATION COMMUNITY TASKFORCE APPLICATIONS
- CLIMATE EMERGENCY DECLARATION (SEE ATTACHED)

7:10: CLIMATE ACTION PLAN DISCUSSION (SEE POWER POINT OVERVIEW)

- SECTION 1: INTRODUCTION
- SECTION 2: GHG EMISSIONS INVENTORY
- SECTION: 5: BUILDINGS
- SECTION 6: WASTE
- SECTION 7: SHORELINES, AGRICULTURE, AND FORESTS
- DRAFT SCHEDULE (SEE ATTACHED)

8:15: OTHER BUSINESS

8:30: ADJOURN

## MATERIALS

1. DECEMBER MINUTES
2. PSE STUDY SESSION
3. CLIMATE EMERGENCY DECLARATION
4. CAP: OVERVIEW
5. DRAFT SCHEDULE FOR UPDATING CAP

# CLIMATE CHANGE ADVISORY COMMITTEE

## Regular Meeting

Thursday, December 18, 2019

### MINUTES

Present: Committee members Jens Boemer, Derik Broekhoff, Lara Hansen, Gary Lagerloef, David McCaughey, Nora Ferm Nickum, Deborah Rudnick; Council Liaison Joe Deets

Absent: Committee members Michael Cox, Julie Matthews

Public/guests: Gloria Saylor, Andy Swayne (PSE), Susan Loftus, Tom Hinz, Iain Evans-Rapp, Andy Rovelstad, Charlotte Rovelstad

1. The meeting was called to order at 6:31 pm.
  - Conflict of interest disclosure: Jens Boemer reminded everyone of his standard statement (see past meeting minutes).
2. Minutes from the previous meeting (November 18, 2019) were approved.
3. Public comment
  - Andy Swayne (PSE) said he is here as a resource if useful.
  - Gloria Saylor said she attended the Saturday workshop; she thought it was well done and great to see the turnout.
  - High schooler Iain Evans-Rapp said the Committee should try to bring in some younger people.
  - Charlotte Rovelstad said she went to the workshop last Wednesday and everyone did a great job. She would like the Climate Action Plan to consider more elements including current threats and vulnerability to near-term climate shocks, and our current destruction of the environment (e.g., through harmful pesticides and insect die-offs). She asked this Committee to support the Council in studying and adopting Rights of Nature. Finally, she recommended that we change the requirements for Committee membership as they seem to exclude youth.
4. BI Mobility Alliance presentation (alliance's name is changing soon)
  - Susan Loftus said that the BI Mobility Alliance was founded two years ago with the goal of expanding biking and walking. The group is active in the Sustainable Transportation Plan process. They were thrilled that the Council recently adopted a resolution to decrease GHG emissions by 90% by 2040. Another important element in the Sustainable Transportation Plan is using an equity lens (including gender). Access to e-bikes is important to increase bicycling, especially on a hilly island. They'll be advocating for mobility hubs that connect multiple modes of transportation.
5. Reflections on community workshops
  - A total of over 150 people attended the community workshops held on Dec. 7 and 11.
  - We shared some of the ideas that came up in the breakout groups. Chapter authors will use the ideas received at the workshop to add/refine focus area strategies and actions.

6. Draft schedule for updating Climate Action Plan
  - We reviewed the draft schedule (see meeting packet).
7. Draft 2019 Progress Report and 2020 Workplan
  - Edit: Say we will do “a workshop and a survey” (not “several workshops”). We can note that people will also have the opportunity to comment by coming anytime to one of our monthly meetings.
8. PSE study session with Utilities Advisory Committee
  - There will be a joint session for the UAC and CCAC with Puget Sound Energy on February 3. It will be open to the public. PSE will send subject matter experts.
9. PSE slide deck from Jens
  - Jens shared a presentation with thoughts on PSE’s Integrated Resource Plan and its Bainbridge Island initiative to improve reliability of service (see meeting packet).
10. Police/court building
  - Council wants it to be as energy-efficient as possible. We aren’t sure what the building’s current energy performance is. The cost of additional energy efficiency should be done as a lifetime assessment. The City could put out an RFP for an energy audit. PSE advisors could also take a look.
  - Lara mentioned that the Climate Change Adaptation Certification Tool could be used to take a look at the police/court building. It takes a couple of hours to run a project through the tool.
11. Other updates, report-outs, and other business
  - Troubleshooting ICLEI access information for Committee and BI School District.
  - Checked in on status of Green Building Code process – take it up with the new Council in the new year.
  - It was raised that Bainbridge Island should declare a climate emergency like the City of Tacoma recently did; Lara will send around that declaration.
  - Climate and Energy Forum: January 11 from 10-12. The Committee voted and supports having City Hall be the venue for this event.
  - Movies that Matter: January 9 at 7 pm at Bainbridge Public Library, topic is small-scale agriculture.
12. Upcoming meetings
  - Wednesday, January 15, 6:30-8:30 pm.
  - Monday, February 24, 6:30-8:30 pm.
13. The meeting was adjourned at 8:24 pm.

## **Proposed Joint Study Sessions with Utilities Advisory Committee and Climate Change Advisory Committee with PSE**

**Purpose:** The purpose of the study sessions is to discuss issues that are important for the Climate Change Advisory Committee (CCAC) to understand as they develop the Climate Action Plan (CAP) and for the Utilities Advisory Committee (UAC) as discussions on the PSE Franchise advance.

### **Date/Time/Location**

Monday February 3<sup>rd</sup>

6:00 pm – 8:00 pm

Bainbridge Island City Hall

### **Proposal**

We are proposing two potential meetings. We would complete the first meeting and then evaluate the need for a second meeting.

### Meeting #1: Create a foundational understanding of PSE's work

#### **Discussion**

1. PSE's plan to achieve the WA State Clean Energy Transformation Act (CETA)'s targets and the role PSE sees for Bainbridge Island in that transformation
2. Expected load growth on BI, key assumptions, and contributing factors (e.g., electric vehicles?)
3. Options for energy conservation and demand response on BI & community outreach

#### **Updates**

4. Financial expert for PSE's green power and solar choice programs' revenue streams and state rules
5. Renewable energy project development like community solar (also relates to PSE's recent RFI)

### Meeting #2: Understand and review potential solutions

6. Battery energy storage expert for opportunities beyond the non-wire solution / peak-shaving (e.g., islanded operation to power critical facilities for emergency preparedness).
7. Renewables for homes (roof-top solar, etc.) and plans to require "smart inverters" to enable high DER penetrations.
8. Other

#### **Format**

- This would be a special study session for the CCAC and UAC for 2 hours in the City Hall.
- We would not be taking public comment.
- The session would be announced via the same mechanism as all CCAC meetings.
- CCAC Co-Chairs would facilitate the meeting.
- PSE specialist would address a specific topic for 5-10 minutes and then we would have a general discussion for 20-25 minutes

## RESOLUTION NO. 2020-XX

**A RESOLUTION** of the City Council of Bainbridge Island, Washington, hereby declaring the existence of a Climate Emergency, reaffirming the City's commitment to Climate Action, and establishing a requirement for City planning and projects to be subjected to a Climate Change Mitigation and Adaptation Certification process, to ensure future City projects and actions are consistent with its adopted climate goals and policies.

**WHEREAS**, in April 2016, world leaders from 175 countries recognized the threat of climate change, that it is caused by human related greenhouse gas emissions, and the need to urgently combat it by adopting the Paris Agreement, and working to limit warming to no more than 1.5°C; and

**WHEREAS**, on September 12, 2017, the Bainbridge Island City Council adopted Resolution No. 2017-20, affirming the City of Bainbridge Island's commitment to meet or exceed the greenhouse gas goals established in the *Paris Climate Agreement*; and

**WHEREAS**, in 2018, the United Nations' Intergovernmental Panel on Climate Change ("IPCC") warned that it would not be possible to meet the 1.5°C goal unless global greenhouse gasses were reduced 45 percent below 2010 levels by 2030, requiring an unprecedented transformation of every sector of the global economy over the next 11 years; and

**WHEREAS**, global temperatures having increased approximately 1.1°C above late 19th century levels, causing overall climate disruption and global warming, resulting in higher temperatures, altered precipitation patterns, rising seas and acidified oceans, which in turn are causing increased and intensifying wildfires, floods, new ranges for diseases and pests, adverse health effects, economic hardship, homelessness, species extinctions, food and potable water shortages, droughts, and extreme weather; and

**WHEREAS**, Bainbridge Island is an Island surrounded by a sea, which is predicted to rise significantly in the coming years due to climate change; and

**WHEREAS**, Bainbridge Island's Comprehensive Plan, which serves as the City's Sustainability Plan, calls for the protection of the Island's finite environmental resources; and

**WHEREAS**, Bainbridge Island's Comprehensive Plan also calls for the reduction of greenhouse gas emissions, along with adaptation to the effects of climate change; and

**WHEREAS**, in 2017 the City Council took a step towards implementing the goals and policies contained in the Comprehensive Plan by creating a Climate Change Advisory

Committee to assist in continuing to implement the Comprehensives Plan’s climate related goals, including a reduction of our Island’s greenhouse gas emissions and an increase in our Island’s adaptation to the effects of climate change; and

**WHEREAS**, at its annual retreat in January of 2019 the City made the creation and implementation of a Climate Action Plan one of its highest priorities for the coming year; and

**WHEREAS**, the City’s Climate Change Advisory Committee has been working on a draft Climate Action Plan and will be presenting that plan to the City Council in March of 2020; and

**WHEREAS**, the City is also working to develop a Sustainable Transportation Plan, to promote a shift in transportation modes, with an overall goal of a net reduction in transportation related greenhouse gas emissions, as well as a host of additional concomitant benefits; and

**WHEREAS**, despite the current climate related planning there are additional short-term actions that could and should be taken to advance progress on the overall goals of climate change mitigation and adaption prior to final adoption and implementation of the aforementioned climate related plans; and

**WHEREAS**, the longer we delay taking action to reduce greenhouse gas emissions, the greater the threat posed by climate change to current and future-generations, and the more costly it will be to protect and maintain our community; and

**WHEREAS**, the City of Bainbridge Island takes pride in being a model City for progressive environmental legislation and sustainability, and has demonstrated itself to be a leader in this front through numerous adopted Ordinances and Resolutions; and

**WHEREAS**, on September 20, 2019, the City’s youth and young adults joined with their companions around the world to call for a global climate strike and greater, more urgent climate leadership from their elected officials and public institutions.

**NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF BAINBRIDGE ISLAND DOES RESOLVE AS FOLLOWS:**

**Section 1.** The City declares that our City, region, state, nation, global humanity and the natural world are experiencing a Climate Emergency. The City Council hereby expresses a renewed commitment to ensure every decision going forward is in line with reducing the impact of that emergency, and that no decision results in a net increase in emissions that further contribute to the problem of Climate Change.

**Section 2.** The City will require that all of its plans and projects will be evaluated through a “Climate Lens”, in the form of a Climate Change Mitigation and Adaptation

Certification process prior to approval to ensure they are consistent with the City's adopted climate goals and policies, including reductions in greenhouse gas emissions and reduced climate vulnerability of city, community and individual assets, resources and values.

PASSED by the City Council this \_\_\_\_ day of \_\_\_\_\_, 2020.

APPROVED by the Mayor this \_\_\_\_ day of \_\_\_\_\_, 2020.

By: \_\_\_\_\_  
\_\_\_\_\_, Mayor

ATTEST/AUTHENTICATE:

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By: \_\_\_\_\_  
Christine Brown, City Clerk

FILED WITH THE CITY CLERK:  
PASSED BY THE CITY COUNCIL:  
RESOLUTION NO.

2020-\_\_

# Climate Action Plan Review Session

**CCAC**

**Wednesday January 15th**

# CAP Content

Sections	# Goals	# Targets	# Strategies	# Priority Actions	# Other Actions	# Pages
Exec. Summary	0	0	0	0	0	6
1. Intro.	0	0	0	0	0	20
2. GHG Inventory	0	0	0	0	0	10
3. Energy	3	TBD	6	25	10	8
4. Transportation	3	9	7	16	14	6
5. Buildings	2	5	7	29	8	7
6. Waste Reduction	4	6	10	16	14	7
7. Forests	5	4	9	28	19	9
8. Community Engagement	3	3	5	14	6	7
9. Implementation	TBD	TBD	TBD	TBD	TBD	TBD
<b>Total</b>	<b>20</b>	<b>31</b>	<b>43</b>	<b>128</b>	<b>71</b>	<b>79</b>

# My Initial Observations

- **Shorten “Challenges and Current Actions” Areas**
  - I think these are important but they take up a good share of the space for some sections.
- **Have one target per goal**
  - This may not be possible in some cases but take a look.
- **Consolidate Strategies**
  - Take another look and see if possible to combine strategies
- **Reduce Priority Actions**
  - This will be hard, but 128 priority actions is too many and I already know Council will ask for the top 20 actions.

# Process for Review

**Section 1 and 2:** General discussion at CCAC meetings and provide detailed comments in the google docs

**Sections 3-9:** We will discuss each section at CCAC meetings and provide editorial comments in google docs. We will discuss the following for each section. I have provided questions to think about when reviewing. I am sure you will have your own.

- **Goals for each section**
  - Are the goals clear?
  - Are there goals missing or could we delete or combine some?
- **Targets for each section**
  - Are the targets clear and aligned with specific goals and strategies?
  - Do we have the tools to measure or quantify the targets?
  - Are the targets achievable?
  - Are there targets missing or could we delete or combine some?
- **Strategies for each section**
  - Are the strategies clear?
  - Will the strategies help meet the goals?
  - Are there any goals that are not supported by strategies?
  - Are there strategies missing or could we delete or combine some?
- **Priority Actions for each section**
  - How did you decide on what were priority actions or other actions?
  - What is the balance between priority actions and other actions.
  - Are there priority actions we can delete or combine some?

# Section 1: Introduction

1.0: Background

1.1: Why Develop a CAP?

1.2: Federal, State, and Local Climate Legislation

1.3 BI Climate Impact Assessment

- Temperature
- Precipitation
- Sea Level Rise
- Vegetation Change
- Slope Stability

1.4: Results from Community Survey and Workshop

1.5: Goals of CAP

1.6: Challenges with Developing CAP

# Section 2: GHG Inventory

2.0: Background

2.1 Inventory Approaches

2.2 Inventory Methodology

2.3 Inventory Boundaries

2.4 Inventory Years

2.5 Inventory Results - Community Emissions

2.6 Inventory Results - City Government Operations

2.7 Inventory Results - Consumption Based Emissions

2.8 Greenhouse Gas Reductions Needed to Meet Targets

2.9 Conclusions and Next Steps

# Energy

# Goals

- A. Increase energy conservation and efficiency across all energy sectors (electricity, transportation, and heating and cooling).
  
- B. Eliminate carbon-based energy sources from all energy sectors.
  
- C. Create energy self-sufficiency for emergency preparedness and increase energy infrastructure reliability and resilience in light of the changing climate.

# Targets

- TBD

# Strategy A.1. Promote energy efficiency through existing and potentially newly funded City programs.

## Priority Actions

- Use high-performance retrofit technologies in City projects (e.g., Police Station, WWTP improvements).
- Convert City motor vehicle fleet to electric where feasible, including creating EV infrastructure to support this transition.
- Create a matrix of incentives for building owners within the permitting process to increase energy efficiency in their projects.
- Work with PSE to increase access to energy conservation and efficiency programs, focusing on below-average-income households and nonprofit organizations. Real-time feedback on usage potentially leading to TOU (time of use) pilot program. Smart Meters and other forms of demand management (EVs, washing machines, hot water tanks, cooling). This should include customer-owned generation like roof-top solar to include assistance for condo associations to be supported in organizing projects. Strong marketing campaign with local whitepapers of success.
- Work with the Affordable Housing Task Force to develop a subsidized home energy efficiency retrofit program.
- Develop a tool kit and provide resources for homeowners to reduce energy use. Reinstate a REPOWER entity.

# Strategy A.2. Establish a Bainbridge Green Energy Fund

## Priority Actions

- Create a new Green Energy Fund similar to the funds collected from the PSE Solar Choice and Green Power programs.
- Utilize resources from the Green Energy Fund to provide incentives to building owners, residents and businesses, and automotive drivers to increase electrification conversions.
- Develop a feedback scoring system to award points for deeper energy savings.

# Strategy B.1. Partner with energy providers and local businesses on programs that will reduce emissions.

## Priority Actions

- Work collaboratively with PSE to move towards a 100% carbon-free electrical supply, preferably sooner than the WA State mandated goals.
- Work with PSE and local banks/credit unions to create local renewable energy projects, such as community solar, urban wind power, and other forms of generation and storage.
- Develop local policies that incentivize renewable energy adoption and passive PV solar or other technologies. Schools and fire should be taking advantage of their large roof spaces.
- Partner with PSE, Chevron/76 and other gasoline providers for electric vehicle fast charging stations at strategic locations.
- Create a local cargo e-bike subsidy that encourages island residents to run errands by cargo e-bike instead of by car.
- Develop incentives to replace propane use as a primary heating source with a cleaner energy source.

## Strategy B.2. Partner with neighboring municipal and tribal communities on programs that will reduce emissions.

### Priority Actions

- Develop and hold trainings for Island and neighboring communities' contractors that can help Bainbridge Island to implement the fuel-switches from carbon-based to electrification of building stock.
- Collaborate with neighboring and tribal communities to learn about more sufficient-living practices over efficient living styles.

# Strategy C.1. Create microgrid for critical infrastructure within community energy resources

## Priority actions

- Work with PSE to develop a local program to encourage owners of homes that have sufficient potential to acquire customer-owned generation like roof-top solar and small wind turbines.
- Research and develop microgrids for community emergency preparedness centers (City Hall, Seniors Center, BI Schools, Island Wood). Reference Bainbridge Prepares.
- Research the community's willingness to underground Transmission and/or Distribution while also providing walking biking corridors for safety and mobility.
- Work with WSF to install charging infrastructure at the ferry that will improve resiliency for the Island.
- Investigate partnerships with adjacent communities to COBI (Poulsbo, Suquamish, Kitsap, Brownsville, Manchester, Silverdale) in order to coordinate and utilize similar technologies and information sharing.

# Strategy C.2. Large scale neighborhood microgrids with distributed energy resources

## Priority actions

- Research and develop large scale neighborhoods microgrids with customer-based storage.
- Research and develop large scale neighborhoods microgrids with utility-scale energy storage.
- Research the feasibility of a co-located CHP (combined heat and power) biodigester sited adjacent to the community pool.

# Buildings

# Goals

A. Reduce energy use, water consumption, greenhouse gas emissions, and increase reuse and recycling of materials for all new, renovated and existing buildings.

B. Establish procedures to ensure buildings and infrastructure are resilient to climate change impacts (e.g., higher precipitation, sea level rise, and temperatures).

# Targets

- By 2023, all new and renovated municipal, residential, commercial, and industrial buildings, including affordable housing, are required to meet all green building standards and practices adopted by the City.
- By 2025, all existing residential, commercial, industrial and municipal buildings are required to be all electric.
- By 2022, the City will have incorporated climate change into its emergency preparedness programs.
- By 2022, the City will have completed an analysis, developed a plan, and developed a process for regular updating the plan, to ensure all City owned assets will be protected from sea level rise over the next 50 years.
- By 2023, the City will have completed an analysis, and public outreach activities, identifying those properties at highest risk from sea level rise impacts over the next 50 years.

# Strategy A.1: For all new and renovated municipal buildings, require adoption of green building practices and standards, such as the Living Building Challenge or a net zero standard.

## Priority Actions

- Evaluate, identify, adopt, and require appropriate green building practices and standards for all new and renovated municipal buildings, following the recommendations from the green building task force.
- Require that all new and renovated municipal buildings not utilize fossil fuels for their operations (e.g., all electric).
- Require a net zero or “no net increase” (by maximizing energy on site and increasing efficiency by other existing users on island) building standard for all new construction.
- Create a “no net increase” water standard in which new or re-development or any activity requiring a permit must maximize water efficiency and support improved water efficiency of other projects such that no net increase in water use is created by the new project.
- Adopt a requirement for a life cycle cost/benefit analysis for all new municipal and renovated municipal buildings.
- Ensure that water-dependent permits include plans for future water conditions.
- Require that all new and renovated municipal buildings apply the Climate Change Adaptation Certification to identify and avoid climate risks.

# Strategy A.2: For all new and renovated residential, commercial and industrial buildings, require adoption of green building practices and standards.

## Priority Actions

- Establish a Green Building Task Force to develop green building standards and practices for the Island which would consider at a minimum the following:
  - Require, and if appropriate provide incentives, for all new and renovated buildings to adopt green building standards and practices and be all electric;
  - Amend the City's land use and development codes to implement green building codes and adapt to climate impacts;
  - Upgrade building code to require "solar + storage readiness" of new buildings that have sufficient solar exposure including solar heating capacity.
  - Change building code for all new construction and major renovations to include electric vehicle readiness.
  - Require or in some cases develop incentives for the use of reused and recycled building materials and techniques in all types of construction.
  - Create "no net increase" water and energy standard in which new or re-development or any activity requiring a permit must maximize water and energy efficiency and support improved water and energy efficiency of other projects such that there is no net increase Island-wide in water or energy use created by the new project.
  - Require that all new and renovated residential, commercial and industrial buildings apply the Climate Change Adaptation Certification to identify and avoid climate risks.
- Work with the Affordable Housing Task Force and the Green Building Task Force to develop guidelines for green affordable housing.
- Provide green design assistance for affordable housing projects.

# Strategy A.3. Increase collaboration and outreach activities to other entities on the Island, the building community and homeowners to prompt reduction in energy use, water consumption, and greenhouse gas emissions

## Priority Actions

- Work with the BI School District, BI Parks Department, and Fire and Police to ensure any new buildings are built to the highest green building standards.
- Join the Regional Code Collaborative to leverage economies of scale in developing and updating green codes.
- Develop a training and outreach programs to provide technical assistance to developers, contractors, and homeowners on green building that includes the cost/benefit of green building, use of reused and recycled materials, and the health benefits from green buildings to occupants.

# Strategy A.4. Develop homeowners assistance programs

## Priority Actions

- Establish an energy fund to assist in energy audits for residential home projects, including affordable housing, using the “no net increase” requirement.
- Provide incentives for existing building owners to transition from combustion equipment to all electric buildings.
- Work with PSE to create new incentive/rebate programs, including customers that do not use electricity for heating/cooling and expand homeowner energy efficiency workshops and other energy efficiency outreach.
- Apply for grants and subsidies for energy efficiency improvements for low-income residents to mitigate equity concerns.

# Strategy B1: Identify and mitigate city assets at risk due to sea level rise

## Priority Actions

- As recommended by the 2019 CCAC Report on Sea Level Rise, conduct a systematic, high-resolution analysis of exposure of City assets.
- Using this analysis, create a prioritized list for addressing assets at high risk by 2023 by either adapting or moving them as appropriate in advance of inundation and flooding.
- Integrate sea-level rise analysis into all City planning to identify and avoid or minimize risk to planned infrastructure and development. This includes both elevational data as well as impacts on shore forms and processes including geologically hazardous areas, shoreline erosion rates, and saltwater intrusion.

# Strategy B2. Help property owners identify risks to extant and planned infrastructure from sea level rise and other climate change impacts.

## Priority Actions

- Integrate sea-level rise analysis into all City permitting to help applicants identify and avoid or minimize risk to planned infrastructure and development. This includes both elevational data as well as impacts on shore forms and processes including geologically hazardous areas, shoreline erosion rates, and saltwater intrusion.
- Host community workshops on climate impacts, how they might impact buildings, and how to prepare buildings from these impacts.

## Strategy B.3: Incorporate climate change into City emergency preparedness programs.

### Priority Actions

- City works with Climate Change Advisory Committee and others to develop materials on the impacts of climate change to include in their emergency preparedness outreach.

# Waste Reduction

# Goals

- A. Reduce Island waste generation.
- B. Increase diversion of waste from the landfill.
- C. Optimize collection and disposal systems to minimize emissions.
- D. Ensure that any new waste-related infrastructure is not sited in current or future hazard areas.

# Targets

- By 2021, the City's approved sustainable procurement plan is applied across all departments for 100% of purchases.
- By 2023, regular commercial compost services are established and consistently used.
- By 2025, establish an ordinance to substantially reduce the use of single-use disposable food service ware by Island businesses.
- By 2025, there are adequate numbers of water dispensers in City facilities and other public locations so that residents and visitors can easily refill reusable water bottles with clean drinking water, and there are no single-use plastic water bottles sold on the island.
- By 2025, Bainbridge Island has a requirement for the diversion of all food waste from landfill.
- By 2030, Bainbridge has a closed-loop system for its green waste, such that organic materials are recycled and reused on Island to the maximum extent practicable.

# Strategy A1: Promote sustainable consumption within City operations

## Priority actions

- Ensure compliance with the City's sustainable procurement policy - assign an auditing function.
- Centralize purchasing within the City to increase consistent adherence to sustainable procurement policy.
- Ensure that purchasing policy includes purchase of items with minimal packaging.

## Strategy A.2 Promote sustainable consumption in the community

### Priority actions

- Adopt an ordinance to reduce the use of single-use plastic food service ware, including take-out containers.

# Strategy A.3. Reduce food waste in the community

## Priority actions

- Educate the community about ways to reduce food waste and promote opportunities for viable food to get to those who need it, including food banks and neighborhood giving.
- Work with partnering organizations such as Kitsap Harvest to increase gleaning activities at private and public farmlands.

# Strategy B.1. Increase composting within City facilities.

## Priority actions

- Consistently pair and provide clear signage for all compost and recycling bins in all meeting rooms in COBI facilities.

## Strategy B.2 Expand residential and commercial recycling and composting participation

### Priority Actions

- Work with Bainbridge Disposal to offer weekly instead of biweekly curbside compost pickup for commercial facilities.
- Require that all food service businesses participate in curbside composting, and incorporate oversight and enforcement into these requirements.
- Require that all commercial entities participate in recycling.

# Strategy B.3 Require waste diversion at City-permitted special events

## Priority actions

- Require that organizers and vendors of festivals, sporting events, and official gatherings provide and fund composting and recycling services for their events to maximize waste diversion from landfill; this can be done through language in permit forms for special events.
- Fund oversight and enforcement of waste diversion at City-permitted events.

# Strategy B.4 Increase the collection and diversion of construction and demolition waste

## Priority actions

- Study ways to require and incentivize the reduction, collection and diversion of construction and demolition waste.

# Strategy C.1 Reduce emissions associated with disposal of wastewater treatment plant biosolids

## Priority actions

- Evaluate options for reducing the emissions associated with disposal of wastewater treatment plant biosolids; for example, through the use of on-site anaerobic digester and/or through selection of vendors that can find more local application of biosolids.

## Strategy C.2 Reduce emissions associated with off-island transportation of green waste.

### Priority actions

- Evaluate and support opportunities to build infrastructure for on-island or more local processing of green waste.

Strategy D.1 Consider projected climate change impacts and factor that into site selection.

Priority actions

- Apply the Climate Change Adaptation Certification to any new waste-related infrastructure projects.

# Shorelines, Agriculture, and Forests

# Goals

A. Steward Bainbridge Island's natural resources to function as healthy, resilient ecosystems that can continue to serve multiple ecological functions, including providing habitat to support native biodiversity, maintaining the hydrologic cycle, and storing carbon, in the face of the added stresses of climate change.

B. Manage forested areas for healthy soil and ecosystems to contribute to carbon storage, air quality, water quality, and for adaptation to expected changes in hydrology, disease and wildfire risk

C. Protect and maintain the integrity of our Island's surface and groundwater resources in the face of climate change to continue to provide clean and sufficient water resources for people, wildlife, and all of the Island's natural systems.

D. Steward our Island's shorelines to allow for resilience in the face of climate impacts including sea level rise.

E. Support an agricultural system that prioritizes climate change resilient, local food production, and ecosystem services including soil carbon storage and water management.

# Targets

- By 2023, the City should adopt a groundwater management plan that accounts for climate change in its projections and guidance
- By 2023, Bainbridge Island should adopt community goals for local food production and consumption
- By 2025, the City should integrate into its shoreline management approaches to address and adapt to the impacts of sea level rise on the natural resources of our shorelines, and should be working collaboratively with all stakeholders that manage shoreline resources to establish consistency in priorities and planning for sea level rise across jurisdictions and ownership
- By 2025, the City should adopt a forest management plan that incorporates adaptation to climate change risk factors including wildfire, drought and pathogens, and should be working collaboratively with all stakeholders that manage forest resources to establish consistency in priorities and planning for climate change impacts on forests across jurisdictions and ownership.

**Strategy A1: Steward Bainbridge Island’s natural areas using the best scientific knowledge available to maximize multiple ecological functions including air quality, water quality and quantity, wildlife habitat, microclimate/local climate attenuation, and carbon storage.**

### Priority Actions

- Ensure that the City and stakeholders are using the most appropriate, relevant and recent data and information about natural resources, climate change and other associated parameters in decision-making, including the following:
  - Streams and wetlands data (e.g., Wild Fish Conservancy Stream Typing Data, Fish Culvert Passability data)
  - Bainbridge Island Climate Impact Assessment, Climate Change Adaptation Certification and other local source suggested climate data (e.g., sea level rise, precipitation, flooding, temperature, wildfire, slope stability) including mapping
  - Tree health data
  - Ongoing surface and groundwater quality monitoring by the City’s Water Resources program and consultants.
- Adopt a comprehensive strategy for addressing invasive species on City lands to reduce these significant stressors on forested ecosystems.
- Work with partners including the Bainbridge Island Land Trust to refine and update mapping resources of key wildlife habitat of interior forest cores and connective networks.
- Evaluate all land acquisition and management decisions using the Climate Change Adaptation Certification (or other similar tool) to ensure decisions are climate informed.

Strategy B1. Proactively manage Bainbridge forests for anticipated vegetational composition shifts expected under climate change.

### Priority Actions:

- Work with City arborist and partnering community groups, as appropriate, to create a preferred list of tree and plant species expected to be favored by climate change projections for use in City planning and restoration efforts. This list can also be used to advise local landowners and be applied to climate savvy development.

# Strategy B2: Mitigate wildfire and forest disease risk through proactive forest management

## Priority Actions:

- Conduct an assessment of stocking densities on City owned lands and evaluate forest health improvements and wildfire risk reduction.
- Prioritize the control and elimination of early-successional invasive species such as scotch broom that are known to have additional wildfire risk (flammability).
- Prioritize wildfire risk reduction in proximity to homes and infrastructure while prioritizing retention of wildlife habitat values in areas farther from homes and infrastructure, and creating wildfire reducing design guidelines for island construction (residential and business)
- Work with partnering agencies, including the Bainbridge Island Fire Department, to help communicate to private landowners techniques and resources for reducing wildfire risk while maintaining forest health and wildlife habitat values.
- Work with public agencies (e.g., Transportation, Parks) and utilities to design and maintain infrastructure and land use to reduce wildfire risk.

# Strategy C1: Maximize protections for intact hydrologic processes including aquifer recharge and stormwater runoff.

## Priority Actions

- Fully integrate Low Impact Development (LID) methods for capturing and slowing stormwater runoff into Green Design and Building Codes, including permeable surface standards and protection of intact vegetation (see Buildings section).
- Incentivize and maximize opportunities for incorporation of water conservation features in Green Design and Building Codes (see Buildings section).
- Create a “no net increase” water standard in which new or re-development or any activity requiring a permit must maximize water efficiency and support improved water efficiency of other projects such that no net increase in water use is created by the new project.
- Prioritize enforcement of the Critical Areas Ordinance to maintain the integrity of streams, wetlands and their buffers.
- Continue a robust surface water monitoring program that can identify trends in streamflow and water quality to inform adaptive management to protect stream health and integrate climate change-sensitive parameters as appropriate into monitoring.
- Prioritize the restoration of wetlands that have been degraded by historic use, clearing, hydrologic alteration and/or invasive plants.

# Strategy C2: Identify and implement targets that will balance aquifer discharge and recharge, incorporating climate change projections.

## Priority Actions

- Complete and implement the City's Groundwater Management Plan, including incorporation of expected changes to groundwater inputs and outputs under climate change.
- Identify and implement targets for sustainable yield (inputs = outputs) of groundwater for human use from all major aquifers. This will include the need to monitor and assess water use from private wells on Bainbridge Island.

# Strategy D1: Incorporate sea level rise and other ocean climate impacts into shoreline management planning decisions

## Priority Actions:

- Ensure that planning for sea level rise is incorporated into decision making around City-owned shorelines, including incorporating capacity for inundation and change to natural shoreline features, such as advance planting for shifting vegetative communities, infrastructure movement or abandonment to adapt to habitat loss at shoreline.
- Implement a monitoring program for tracking shoreline erosion and slope stability around the island that can be used to inform planning decisions and resources, including changes and updates to geologically hazardous areas.
- When creating local rules or making land use or management decisions that can impact nearshore water quality (e.g., nutrient, particulate, or chemical run-off) evaluate acceptable levels of these stresses by including the added stresses of climate change (e.g., increasing water temperature, reduced dissolved oxygen, ocean acidification, altered precipitation) currently present and anticipated.
- Ensure that ecosystem concerns are included in any plans for potential transitions of properties that will be inundated by sea level rise or degraded by coastal erosion and/or slope instability to open space or living shorelines. Begin community conversations regarding our desired outcomes related to sea level rise, coastal erosion and slope instability.

Strategy E1: Maximize opportunities for agricultural practices that mitigate climate change, including lower energy intensive practices, carbon storage, aquifer recharge, and smaller foodsheds.

Priority Actions:

- Pursue City policies that facilitate local agricultural opportunities (e.g., agricultural zoning, tax structure).
- Continue work with Kitsap Conservation District and local partners to bring best practices to farming methods that support carbon storage, hydrologic integrity and climate appropriate crops.

## Strategy E2: Identify opportunities for reducing water use and increasing water conservation on agricultural lands.

### Priority Actions:

- Integrate water budget targets (see Strategy C2) into agricultural land use permitting and planning.
- Ensure that water-dependent permits include plans for future water conditions
- Collaborate with Public Farmland partners and resource agencies (e.g., Kitsap Conservation District) to ensure water conservation efforts are integrated into public farmland management.

Strategy E3: Improve manure management to reduce emissions associated with livestock waste and fertilizer delivery.

### Priority Actions

- Require manure management for all permitted agricultural activities.

# Implementation Table for each Action

Action #	Description	Mitigation, Adaptation, or Both	City Lead (Department or Staff)	CCAC Role	Potential Partners	Time Frame (short or long term)	Targets or Benchmarks
A.2.a	Ordinance to reduce the use of single-use plastic food service ware	M	Council	TBD	BIZW	Short-term: Draft ordinance by spring 2020, passed by summer 2020	Business survey may be appropriate- needs to be created

# Individual and Community Actions

## • **What can YOU do? (aim for 5-10 ideas per focus area)**

### **Send less waste to the landfill**

- Bring your own containers to restaurants for take-out orders or leftovers.
- Patronize and thank stores that have sustainable alternatives (e.g., bulk items, no packaging, or plastic-free packaging).
- Choose products with less (or no) packaging.
- Buy local.
- Buy less new stuff. Donate or trade things instead of sending them to the landfill.
- Ask your legislators to vote for state policies to decrease single-use plastics.
- Use reusable water bottles and coffee mugs – drink like you live here!
- Volunteer with local groups like Bainbridge Island Zero Waste, which organizes Styrofoam recycling events and diverts waste at festivals.

# Schedule for Draft CAP to City Staff and City Council

Section	CCAC First Review	Editorial Review	City Staff Review and Discussion
Exec. Summary	2/24	3/2 – 3/11	3/18 – 4/1
Intro.	1/15	2/3 – 2/17	2/24 – 3/5
GHG Inventory	1/15	2/3 – 2/17	2/24 – 3/5
Energy	1/15	2/3 – 2/17	2/24 – 3/5
Transportation	2/24	3/2 – 3/11	3/18 – 4/1
Buildings	1/15	2/3 – 2/17	2/24 – 3/5
Waste Reduction	1/15	2/3 – 2/17	2/24 – 3/5
Shorelines/Forests	1/15	2/3 – 2/17	2/24 – 3/5
Community Engagement	2/24	3/2 – 3/11	3/18 – 4/1
Implementation	2/24	3/2 – 3/11	3/18 – 4/1

**March 18<sup>th</sup>: CCAC Meeting: Review of City Staff Comments**

**April 15<sup>th</sup>: CCAC Meeting: Review of City Staff Comments**

**May 5<sup>th</sup>: City Council Review**

## **Proposed Schedule for Climate Action Plan (1/10/20)**

### **January 15<sup>th</sup> (CCAC Meeting)**

- Discuss revised introduction, GHG Inventory, energy, buildings, waste, and forests sections.
- Discuss adding individual actions and filling out matrix of items like timeline, responsibility, and individual milestones.

### **January 22<sup>nd</sup>**

- CCAC members provide editorial comments on introduction, GHG inventory, energy, buildings, waste, and forests using google docs.

### **February 3<sup>th</sup>**

- Authors incorporate comments from CCAC meeting and resolve editorial comments on introduction, GHG inventory, energy, buildings, waste, and forests.
- Authors add individual actions and fill out matrix of items like timeline, responsibility, and individual milestones.
- Start editorial process for all of the above.

### **February 17<sup>th</sup>**

- Editorial review is completed for Introduction, GHG Inventory, energy, buildings, waste, and forests.

### **February 24<sup>th</sup> (CCAC Meeting)**

- Discuss executive summary, transportation and community engagement sections.

### **February 25<sup>th</sup>**

- CCAC sends first group of sections to City for their review.

### **March 5<sup>th</sup>**

- Receive comments from City Staff from first sections.
- Authors incorporate comments into executive summary, transportation and community engagement sections.
- Authors add individual actions and fill out matrix of items like timeline, responsibility, and individual milestones.
- Start editorial process for the above sections,

### **March 18<sup>th</sup> (CCAC Meeting)**

- CCAC does final review for introduction, GHG inventory, energy, buildings, waste, and forest sections that includes incorporating City Staff comments.
- Approves sending executive summary, transportation, and community engagement to City Staff for review.

### **March 19<sup>th</sup>**

- CCAC sends second group of sections to City staff for their review.

**April 1<sup>st</sup>**

- Receive comments from City staff on second set of sections.

**April 15th (CCAC Meeting)**

- Authors incorporate comments from City Staff.
- CCAC approved sending Draft to City Council.

**May 5<sup>th</sup>**

- City Council review

**Mid-May (need discussion on best way to receive public comment on draft and when?)**

- Public meeting to discuss Draft CAP.

**Late May**

- All comments incorporated into CAP

**Early June**

- Final editorial review and formatting of the document

**Late June**

- Deliver final CAP to City Council