
THE CLIMATE CHANGE ADVISORY COMMITTEE WILL HOLD THIS MEETING
USING A VIRTUAL, ZOOM WEBINAR, PER GOVERNOR INSLEE'S
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MEMBERS OF THE PUBLIC WILL BE ABLE TO CALL IN TO THE ZOOM MEETING.

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WEBINAR ID: 921 1048 3643

AGENDA

- 5:30 CALL MEETING TO ORDER/ROLL CALL/ACCEPT OF MODIFY AGENDA/CONFLICT OF INTEREST DISCLOSURE
- 5:35 APPROVE JANUARY 27TH MINUTES
- 5:40 PUBLIC COMMENT
- 5:50 CCAC/UAC SUBGROUP REPORT ON PSE FRANCHISE AGREEMENT (ATTACHED)
- 6:00 CLIMATE ACTION PLAN
 - DOWNLOAD FROM FEBRUARY 2ND CITY COUNCIL MEETING
 - CITY UTILITY FEES (ATTACHED)
- 6:15 CLIMATE LEGISLATION (HB 1084) – GREEN BUILDING
 - DOWNLOAD FROM STATE CLIMATE LEGISLATION FORUM AND GBTF.
- 6:25 COMMUNITY OUTREACH
 - COBI CONNECTS AND CITY MANAGER WEEKLY
 - LOGO IDEAS
- 6:40 BIOENERGY BI (ATTACHED)
- 6:55 POTENTIAL EMISSIONS FROM WYCKOFF
- 7:10 GRANT OPPORTUNITIES (ATTACHED)
- 7:30 ADJOURN

Materials

1. January minutes
2. CCAC/UAC Report on PSE Franchise Agreement
3. City Utility Fees
4. Conceptual design of a BI Bioenergy project
5. Grant Opportunities

CLIMATE CHANGE ADVISORY COMMITTEE
Special Meeting
Wednesday January 27, 2021

MINUTES

Present: Committee members Michael Cox, David McCaughey, Deborah Rudnick, Gary Lagerloef, Jens Boemer, Tim Meyers, Lara Hansen, Julie Matthews, Derik Broekhoff

Council Liaison: Joe Deets, Kirsten Hytopoulos

City staff: Ron Logghe

Public: Andy Swayne and Kierra Phifer PSE, Philip Favero, Marci Burkel, Diane Landry

Call meeting to Order/Roll Call/Accept of Modify Agenda/Conflict of Interest Disclosure

Jens needs to recuse himself from decisions regarding franchise agreement goals due to his employer working with PSE

Tim is expecting a child in May and will be leaving the committee. We expressed our appreciation and will send him a certificate of appreciation that was shared with the committee

Approve December 18th minutes

David moved to approve the minutes; Lara seconded

Public Comment

Diane Landry, Bainbridge Zero Waste chair, joined us to talk about waste and CAP goals. Slides included as attachment. Diane is proposing that the city work with Bainbridge Disposal to educate consumers about putting food waste in yard waste bins. Discussed putting this in the COBI connects as our next issue and starting the discussion about a potential flyer. Julie, Deb and Mike will work offline with Diane to move this forward.

Philip Favaro asked what the public can do to support CAP implementation? Lara indicated a list of priority actions and calendar, and that community members can particularly help as a voice to bring up these goals in city council meetings or with council members, holding us accountable that they do happen; and also, many items that we can do as individual citizens to contribute to the solution. Julie pointed to the section at the back of the CAP with individual actions. Councilmember Deets encouraged him to reach out with any questions.

CCAC/UAC Subgroup Report on PSE Franchise Agreement

Deb asked about whether undergrounding needs to be or should be a priority, just not fully understanding the pros and cons from the document. Jens mentioned the importance of not detracting from the priority of the looping of transmission, while undergrounding distribution lines may be a more common approach. Deb indicated that she just wanted to be a little more nuanced about the approach to a plan for undergrounding, mostly because there are both pros and cons, even when strictly talking about reliability (e.g., protection from wildfires a pro/but cons like vegetation intrusion and longer response/repair times).

Lara asked for a faster movement to the target and particularly for additionality in meeting the goals. Concerned that we have no schedule to meet any interim goals that are within the timeframe of the proposed agreement length. Derik and Lara will work on a few sentences to add that will address this point. Lara also wants us to ensure that we have interim goals that are not beyond the period of the franchise agreement.

Mike pointed out that CETA is giving them some interim goals. Derik pointed out that demanding clean as a community a) is a small component of PSEs energy delivery and b) may not be as meaningful if it does not push the entire system to steer towards clean energy. Gary and Deb voiced their agreement that we need something that defines a milestone within the franchise agreement period. Mike proposed our addition of interim goals looking towards a quicker move to carbon-free by 2035, a discussion of the undergrounding language, and language around additionality. Since UAC needs to review our changes, we will have to pull this from Feb agenda and get it back on in March, although we could give an update on status to Council in February.

Waste Water Treatment Plant Overflow

- Request from City Council to work with UAC to addressing several issues related to WWTP overflow (form a subgroup with UAC)
- Email to council by Lara, Council approved we work with UAC, Ellen requested we slow down and she'll loop us in when they get a forthcoming study completed
- Kirsten: council was simple, but Ellen has shared some internal complications
- Joe: Up to the committee
- Joe: Kitsap meeting- failures of WWTP around region (Poulsbo)
- Could we collaborate with other communities?
- Lara will email Ellen- timing and scope of the study, our interest is in being supportive and providing climate science expertise since it has been presented as a climate problem

Climate Action Plan

- Road maps: movement on a few things but most holding until the hire is completed
- GHG Inventory: Christian Berg (started with metrics he could do himself in December) working with maintenance to get data, then will be moving on the community data. Gary is interested in supporting replication of Cascadia study, as well as getting some household level data
- Hire: Ron Logghe reported that this is still targeted for the 2nd quarter (5 of 14 vacancies), hydrogeologist offer went out
- Greenhouse gas inventory
- Composting message
- Download from January 13th and 23rd Community Meetings
 - o Community engagement of small groups suggested to continue the conversations
 - o Speaking roster/calendar suggested of going to groups on Island to speak
 - o Joe hopeful that those who attended forums will outreach to people they know, a ripple effect
 - o Lots of asking "what can I do?", so we should think about refocusing on that question and strategizing around outreach on twitter, COBI connects, other venues. A multimedia short video of some kind? A way to capture peoples' attention
 - o Need to have the CAP document more widely available than embedded on the side of the CCAC page in small font.

February 2nd City Council study Session

- Recommendations on Police/Court Building
- Recommendations on PSE Franchise Agreement- document removed but Mike will give an update to Council
- 2020 Progress Report and 2021 Workplan – Mike will remove reference to parks discussion because we have not done that one yet, and get to Ron

Other

- DOE Connected Community Grant – David is working on a concept for submission in mid-February to get to the shortlist. Jens offered a preliminary title to the group about “Recognize opportunities” (acronym for resilient communities.... etc.). Jens would like to see how he might engage COBI, community groups, other stakeholders but still very conceptual. Mike suggested they would need a written document for buy-in, and Jens can share this within the next week to get some feedback
- FEMA BRICK funding- hazard mitigation: pre-disaster mitigation funds: grants to decrease community vulnerability to hazards. Looks to be a very large allocation from the Biden administration so this could be a good opportunity, must be pursued by the city
- Race Equity Advisory Committee – Mike and potentially Lara
- Communicating on Climate change through COBI newsletter
- Great climate wins at the state and federal level
- The city is moving forward with Blair King as the new City Manager, and Joe mentioned he could come to a future CCAC meeting

Adjournment

7:37 pm

Co-Chair

Date

Executive Summary:
Recommendations from the Climate Change and Utility Advisory
Committees' Subgroup on the PSE Franchise
(February 8th, 2021)

Scientific evidence has shown that Earth's changing climate is an immediate and existential threat to humanity. The cause is our civilization's overproduction of greenhouse gases (GHG) that trap the Earth's heat. Bainbridge Island has committed to do its part to address this crisis by reducing our GHG emissions by 90 percent by 2045 compared to levels in 2014. Our inventory of the sources of these emission reveal that 53% percent are from our use of electricity¹.

Therefore, to achieve the goals of our Climate Action Plan (CAP), the City of Bainbridge Island (COBI) intends to work collaboratively with Puget Sound Energy (PSE). Such a partnership can help COBI meets its climate, energy, safety, reliability, and undergrounding goals and PSE to meet its mandated requirements under the Washington State Clean Energy and Transformation Act (CETA)².

In addition, the 2017 Bainbridge Island Comprehensive Plan³ included a Utilities - Electrical element that had a goal to "ensure adequate, cost effective, reliable, and environmentally responsible electric service to the citizens of Bainbridge Island". The element also had nine policies that we believe are consistent with the recommendations in this report (see Appendix B).

The last PSE Franchise Agreement (Franchise Agreement) with COBI was a 15-year agreement begun in 2007 (Ordinance 2007-11)⁴. A

Vision: COBI and PSE will work collaboratively to support and achieve our respective goals for the benefit of Bainbridge Island residents, businesses and the broader community.

Principles: COBI and PSE will develop a Franchise Agreement and a parallel Partnership Agreement that:

- Protects public health and safety;
- Promotes collaboration;
- Advances equity;
- Provides accountability; and
- Is scalable.

Goals: COBI and PSE will work together to meet the following COBI goals:

- Reduce greenhouse gas emissions by 90 percent by 2045 compared to 2014 levels
- Achieve 100 percent carbon free electricity for Bainbridge Island by 2040
- Increase transparency on data related to reliability and bring Bainbridge Island's duration and frequency of interruptions up to PSE's system averages within 2-3 years.

¹ City of Bainbridge Island Greenhouse Gas Emissions Report. 2019. Final Findings Report. Cascadia Consulting Corp Inc. <https://www.bainbridgewa.gov/922/Climate-Change-Advisory-Committee>.

² CETA requires the State's electrical supply to be free of coal by 2025, carbon neutral by 2030 and 100% carbon-free by 2045.

³ Bainbridge Island Comprehensive Plan. 2017. <https://www.bainbridgewa.gov/162/Comprehensive-Plan>

⁴ AN ORDINANCE granting to Puget Sound Energy, a Washington public service company, and its successors and assigns, for a period of fifteen (15) years, the right, privilege, authority, consent and approval to set, erect, lay, construct, extend, support, attach, connect and stretch Facilities between, maintain, repair, replace, enlarge, operate and use Facilities in, upon, over, under, along, across and

new Agreement is scheduled to be completed by the end of April 2022. The current Agreement includes no reference to GHG, climate change, energy efficiency, renewable energy, local energy generation, green building standards, transportation electrification, or reliability. It does address undergrounding of utility lines (see Appendix A).

Our subgroup has concluded that COBI and PSE must take three important initial steps in developing a new Franchise and Partnership Agreements:

- Identify a shared vision for success;
- Agree on a general set of principles to guide negotiations; and
- Develop a mutual understanding of our respective climate, energy, safety, reliability, and undergrounding goals.

The main report contains a more detailed description of the vision, principles, and goals.

Recommendations

As a first step, the Subgroup conducted research to learn how other cities have incorporated climate, energy, safety, reliability and undergrounding goals into their Franchise Agreements. A particularly useful resource was a study completed by the National Renewable Energy Lab (NREL) that surveyed over 3600 municipalities⁵ regarding their Franchise Agreements. Seventy-two of those municipalities were in Washington State with 25 cities in the PSE service area⁶.

Based on that research, we developed recommendations in several areas as summarized below. The main report includes a more detailed discussion of the research, findings, and recommendations. We believe the recommendations are consistent with the goals and policies in the Bainbridge Island Comprehensive Plan.

Recommendation #1: COBI and PSE develop a separate Partnership Agreement in parallel with the development of a new Franchise Agreement.

While some cities have incorporated specific climate, energy, safety, reliability and undergrounding goals in their Franchise Agreements, many others have used parallel Partnerships Agreements⁷.

through the Franchise Area for purposes of transmission, distribution and sale of electric energy for power, heat, light and any other purpose for which electric energy can be used.

⁵ Cook, Jeffrey; Grunwald, Bryn; Holm, Alison; and Aznar, Alexandra. 2020. Wait, cities can do what? Achieving city energy goals through Franchise Agreements. Energy Policy (144)(2020) 111619. National Renewable Energy Laboratory. The National Renewable Energy Lab specializes in renewable energy and energy efficiency research and development. NREL is a government-owned, contractor-operated facility, and is funded through the United States Department of Energy.

⁶ Anacortes, Bainbridge Island, Bellevue, Bellingham, Black Diamond, Bonney Lake, Bremerton, Buckley, Burien, Des Moines, Duvall, Kenmore, Kent, Issaquah, Lynden, Maple Valley, Mercer Island, Normandy Park, Puyallup, Renton, Sammamish, Sea-Tac, Snoqualmie, Tumwater, and Woodinville.

⁷ Bonugli, Celina; Duncan, Jake; Crandall, Kelly, and Etter-Wenzel, Cassandra. 2019. Utilizing City-Utility Partnership Agreements to Achieve Climate and Energy Goals. World Resources Institute. Working Paper.

Partnership Agreements establish a working relationship between the City and a Utility to develop a workplan for achieving the City's goals. They also include a mechanism for administering the Partnership Agreement and establishing commitments from both parties to achieve those goals.

We recommend that COBI and PSE develop a Partnership Agreement in parallel with the Franchise Agreement. While this makes the process more complicated, it can help ensure COBI's climate, energy, safety, reliability, and undergrounding goals are achieved.

Recommendation #2: The Franchise Agreement and Partnership Agreements contain specific commitments from both PSE and COBI. We believe it is important that both the Franchise and Partnership Agreements contain specific commitments to maintain accountability over the lifetime of the Agreements. The commitments must have timelines, specify how PSE and COBI will work together to meet those commitments, and spell out consequence of not meeting the commitments.

Table 1 provides a summary of the major commitments that we recommend be included in the Franchise and the Partnership Agreements. We believe these commitments are consistent with the goals and policies in the 2017 Comprehensive Plan.

Table 1: Proposed Commitments for the Franchise and Partnership Agreements

Area	Franchise Agreement	Partnership Agreement
Collaboration	PSE and COBI work collaboratively to achieve our shared goals for reducing environmental impacts, preparing for climate change, and increasing safety and reliability.	PSE and COBI work collaboratively to achieve our shared goals for reducing environmental impacts, preparing for climate change, and increasing safety and reliability.
Transparency	PSE commits to provide a semi-annual report and presentation to the City Council on their current and planned efforts to achieve the goals of the Franchise Agreement.	PSE commits to provide a semi-annual report and presentation to the City Council on their current and planned efforts to achieve the goals of the Partnership Agreement.
Demand Reduction		PSE and COBI establish specific commitments to reduce both total energy demand and peak energy demand.
Energy Supply	PSE and COBI work collaboratively to provide 100% carbon free electricity to Bainbridge Island by 2040, five years ahead of the CETA requirements.	

September 2019. <https://wriorg.s3.amazonaws.com/s3fs-public/utilizing-city-utility-partnership-agreements-achieve-climate-energy-and-goals.pdf>.

Area	Franchise Agreement	Partnership Agreement
	PSE and COBI work collaboratively to set interim benchmarks for this pathway to carbon free electricity that provide meaningful waypoints within the length of the agreement. PSE commits to provide COBI with information needed to complete the Bainbridge Island GHG emissions inventory (e.g., annual average ratio of CO2 emissions per KWH power/year) and other information related to GHG reductions as requested by COBI.	
Local Generation		PSE and COBI commit to set targets for generating carbon free electricity on Bainbridge Island especially for low income, affordable, and senior housing.
Green Building Fund		PSE and COBI commit to explore establishing a Green Energy and Building Fund.
Electrification of Transportation		PSE and COBI commit to develop the infrastructure needed for electric vehicles on Bainbridge Island, including the installation of fast charging infrastructure. PSE and COBI coordinate with Washington State Ferries and other entities as necessary to evaluate the need for, and feasibility of, establishing charging infrastructure on the Island to service ferries.
Reliability	PSE commits to increase its transparency on reliability reporting and bring Bainbridge Island's SAIDI and SAIFI ⁸ numbers up to PSE's system averages.	PSE commits to post SAIDI and SAIFI comparisons to Kitsap County, the PSE service area, other major public private utilities in WA and IEEE or other industry standards. COBI commitments to facilitate discussion with the Community on improvements to the transmission, substations and other facilities on the island. PSE commits to post the status of projects completed, underway and planned to improve reliability by section and as a system. This should include "wired" and "non-wired"

⁸ The metrics that describe the duration and frequency of interruptions are known as the System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI).

Area	Franchise Agreement	Partnership Agreement
		solutions such as battery storage and demand management.
		PSE commits to evaluating adding a specific amount of tree wire ⁹ over the next 2-3 years.
Undergrounding	PSE commits to develop a 15 to 20-year plan to underground the remaining (and future) above ground distribution segments. PSE would prioritize these segments by expected impact on reliability and safety. The annual program should be approximately equal each year. COBI would provide its financial commit in a timely fashion each year or biennium.	PSE commits to evaluate providing walking and biking paths in the right of way under the utility distribution lines.

Recommendation #3: The length of the PSE Franchise Agreement should be 10 years. The length of the Partnership Agreement will be determined during its development. We recommend that the length of the Franchise Agreement be for 10 years, which is the length of the Franchise Agreements in Bellevue, Black Diamond, and Sammamish according to the survey conducted by NREL¹⁰.

Our current Franchise Agreement is for 15 years. We believe, however, that a shorter duration is important due to the changing nature of the energy field and the rapid advancement in integrating renewable energy into the energy mix.

We would prefer a Franchise Agreement of just 5 years but understand that the resources and time to complete Franchise Agreements is substantial. We recommend that the length of the Partnership Agreement be determined during the Franchise negotiations.

Next Steps

- Present the findings and recommendations of the CCAC/UAC to the City Council.
- Present the findings and recommendations of the CCAC/UAC to the City Staff responsible for the PSE Franchise Agreement negotiations.

⁹ Tree wire or covered open wire consists of the conductor (aluminum, aluminum alloy or ACSR) and the extruded covering (conductor shield, low density inner layer and protective outer layer). Covering thickness depends on the system voltage. It is designed for full span applications and is supported on polyethylene insulators

¹⁰ Cook, Jeffrey; Grunwald, Bryn; Holm, Alison; and Aznar, Alexandra. 2020. Wait, cities can do what? Achieving city energy goals through Franchise Agreements. Energy Policy (144)(2020) 111619. National Renewable Energy Laboratory.

- Participate in PSE Franchise Agreement negotiations as outlined in an October 18, 2019 memo to the City of Bainbridge Island from Elana Zana from Ogden, Murphy Wallace, PLLC on the public process for PSE Franchise Negotiations as presented at the October 22nd, 2019 City Council Meeting¹¹.

DRAFT

¹¹ <https://www.bainbridgewa.gov/1101/City-Council-Agendas>. October 22nd, 2019 Meeting.

PSE Franchise Agreement: Findings and Recommendations from Climate Change and Utility Advisory Committee's to the Bainbridge Island City Council

DRAFT

A. Introduction

The climate crisis is an immediate and existential threat to our children's existence. The world is now producing more carbon than is sustainable with consequences that are exceedingly dire. We believe therefore it is imperative for the City of Bainbridge Island (COBI) to work collaboratively with Puget Sound Energy (PSE) to create a partnership that can help COBI meet its climate, energy, reliability, safety, and undergrounding goals and for PSE to meet its mandated requirements under the Washington State Clean Energy and Transformation Act (CETA)¹².

This is reinforced by the goals and policies articulated in the 2017 Bainbridge Island Comprehensive Plan (see Appendix B). The Comprehensive Plan included an "Utilities Element - Electrical" with a goal to "Ensure adequate, cost effective, reliable, and environmentally responsible electric service to the citizens of Bainbridge Island". Under the goal there are nine policies. We believe the recommendations in this report are consistent with those goals and policies. A few of those policies are included below:

- Policy U 14.1 Develop a plan together with the electric service provider to undertake energy efficiency improvements and other alterations of electric utility facilities to provide capacity for future growth.
- Policy U 14.3 Encourage the electric service provider to improve reliability, with particular attention to adding transmission redundancy and mitigating impacts on service from storms or other natural events.
- Policy U 14.4 Encourage undergrounding new and existing electric transmission and distribution power lines, and develop a long-term strategy for future undergrounding, to include maximizing opportunities with new construction, and prioritizing the work that affects the greatest number of households and businesses.
- Policy U 14.5 Encourage the electric service provider and electricity users to use carbon neutral electricity generation, local electricity generation, and innovative technologies such as solar power that are reliable, cost effective, preserve resources, provide minimal environmental impact, and do not contribute to global warming.
- Policy U 14.9 Explore ways to obtain 100% green electricity including investing in new renewable energy projects.

The last PSE Franchise Agreement (Franchise Agreement) with COBI was in 2007 (Ordinance 2007-11)¹³. The Franchise Agreement was for 15 years and a new one is scheduled to be completed by the end of April 2022. The current Franchise Agreement

¹² CETA requires the State's electrical supply to be free of coal by 2025, carbon neutral by 2030 and 100% carbon-free by 2045.

¹³ AN ORDINANCE granting to Puget Sound Energy, a Washington public service company, and its successors and assigns, for a period of fifteen (15) years, the right, privilege, authority, consent and approval to set, erect, lay, construct, extend, support, attach, connect and stretch Facilities between, maintain, repair, replace, enlarge, operate and use Facilities in, upon, over, under, along, across and through the Franchise Area for purposes of transmission, distribution and sale of electric energy for power, heat, light and any other purpose for which electric energy can be used.

does not include any reference to climate change, energy efficiency, renewable energy or local energy generation, green building standards, transportation electrification, or reliability. The current Franchise Agreement does address undergrounding (see Appendix A).

B. Climate Change and Utility Advisory Committee Subgroup

In 2019, a subgroup consisting of representatives from the Climate Change Advisory Committee (CCAC) and Utility Advisory Committee (UAC) was formed. The purpose of the sub-group was to provide recommendations to the City Council on the 2022 renewal of the Agreement with COBI.

The subgroup recognizes COBI has established a process for negotiating with PSE on the Franchise Agreement and recognizes that it is not the role of the CCAC or the UAC to negotiate with PSE on the Franchise Agreement.

The process for the PSE Franchise Negotiation was outlined in an October 18, 2019 memo to the City of Bainbridge Island from Elana Zana from Ogden, Murphy Wallace, PLLC on the public process for PSE Franchise Negotiations as presented at the October 22nd, 2019 City Council Meeting¹⁴. This process may have been modified because of the pandemic but we would encourage the City to engage the CCAC and UAC early in the negotiations.

At the October 6th, 2020, the City Council approved the subgroup reconvening to provide information to COBI that can be used when renegotiating the Franchise Agreement.

C. Proposed COBI Vision for PSE Franchise Agreement

COBI and PSE both have their own visions for the future. For purposes of this Franchise Agreement, we propose the following shared vision. We believe this vision is consistent with the goals and policies articulated in the 2017 Bainbridge Island Comprehensive Plan.

- COBI and PSE will work collaboratively to support and achieve each other's goals for the benefit of Bainbridge Island residents, businesses and the broader community.
- We will work together to make Bainbridge Island a Regional leader in addressing climate change.
- We will work together to significantly reduce the Island's GHG emissions by working collaboratively to increase the supply of clean energy generated both on and off the Island and reducing energy demand on the Island.
- We will work together to make sure the solutions identified are equitable for all residents of Bainbridge Island.

¹⁴ <https://www.bainbridgewa.gov/1101/City-Council-Agendas>. October 22nd, 2019 Meeting.

- We will work together to develop a Green Energy and Building Fund to help residents who need assistance to reduce their energy demand.
- We will work together to develop the infrastructure needed for electric vehicles and where needed to ensure the smooth transition to the new hybrid ferries that service Bainbridge Island.
- We will work together to improve the safety and reliability of electricity on the Island for all people and locations and to complete undergrounding where appropriate.
- We both acknowledge that PSE's ability to implement innovations rapidly may be constrained by regulatory requirements. We will work to minimize both external and internal barriers to the rapid implementation of the climate, energy, safety, reliability, and undergrounding goals.

D. Proposed Principles for PSE Franchise and Partnership Agreements

We believe it is important that COBI and PSE agree on general principles for negotiating the new Franchise Agreement and the Partnership Agreements. We propose the following five principles to guide the discussion.

Public Health and Safety: COBI and PSE will create a Franchise and Partnership Agreements that protects the public health and safety of Bainbridge Island residents.

Collaboration: COBI and PSE will work collaboratively to achieve both organizations' goals with respect, transparency and innovative thinking, as well as establishing open and effective channels of communication.

Equity: COBI and PSE will create a Franchise and Partnership Agreements that considers and minimizes the potential for unintended and/or inequitable impacts, establishes partnerships with underserved communities and involves diverse community voices from the start of the negotiation.

Accountability: COBI and PSE will establish commitments to ensure the climate, energy, safety, reliability, and undergrounding goals in the Franchise and Partnership Agreements are achieved.

Scalability: COBI and PSE will create a Franchise and Partnership Agreements that are replicable, scalable, and available for other communities in Washington State.

E. Proposed Goals for Franchise and Partnership Agreements

The CAP established goals and targets in multiple areas that are relevant to the PSE Franchise and Partnership Agreements: greenhouse gas emissions, energy demand, energy supply, preparedness, green building, and electrification. In addition, the 2017 Bainbridge Island Comprehensive Plan included goals and policies that are relevant to the PSE Franchise and Partnership Agreements.

COBI does not currently have any specific goals or targets for reliability. PSE has announced a multiyear program for increasing reliability¹⁵ which includes a volunteer Community Sounding Board helping PSE evaluate routing. However, we believe there is a continued need to increase transparency and improve reliability.

There are currently no specific goals or targets for undergrounding. It is important to differentiate between undergrounding of transmission and distribution power lines. Transmission lines carry 115KVA and are much more expensive and dangerous to bury. They need a 25' by 8' by 8' vault buried every 2000 feet. Burying these lines is probably not worth considering. Undergrounding distribution power lines is common and required in new developments already. Many other communities have buried existing distribution power lines over time to improve reliability.

The UTC prohibits PSE from paying for the undergrounding on Bainbridge Island and then spreading the costs to all service areas rate payers. The Utilities and Transportation Commission (UTC) has created a tariff structure that COBI and PSE could utilize to create an undergrounding program for existing distribution lines. The Franchise and Partnership Agreements should require PSE to develop such a program, with PSE setting the priorities based on reliability gains subject to the City's ability to pay. Then COBI would need to decide where those resources would come from (e.g., general funds, or by establishing Local Utility Districts).

Table 2 provides the climate and energy goals and targets established in the CAP for COBI and proposes reliability and undergrounding goals and targets.

Table 2: COBI Climate, Energy, Reliability and Undergrounding Goals and Targets

Area	Goal	Target
GHG Emissions	Reduce GHG emissions	Reduce GHG emissions by 90% by 2045 compared to 2014 levels with interim goals of reducing greenhouse gases by 25% by 2025 and 60% by 2035 compared to 2014 levels.
Energy Demand	Increase energy conservation and efficiency throughout the planned and existing built environment, including	By 2022, COBI will have established a Green Energy and Building Fund to assist with conversions and efficiency upgrades for homes, businesses, and institutions with a focus on low-income housing.

¹⁵ Program includes: 1) Replacing the Winslow Tap; the distribution line from the top of the island to the Winslow substation (underway); 2) Constructing the "missing link" transmission line to connect the Winslow and Murden Cove substations; 3) Adding more "tree wire" and more tree trimming; and PSE is exploring various "non-wire" solutions such as battery storage capacity at Murden Cove and demand management solutions for residential and commercial locations.

Area	Goal	Target
Energy Supply	customer-owned generation. Eliminate carbon-based energy sources from all energy sectors.	By 2022, COBI adopts policies that prohibit propane, fuel oil, and wood stoves as the primary source of heating in all new residential, commercial, industrial, and municipal buildings. By 2040, all of Bainbridge Island's sources of electricity are carbon-free.
Preparedness	Create energy self-sufficiency for emergency preparedness and increase energy infrastructure reliability and resilience in light of the changing climate.	By 2023, half of the twelve Bainbridge Prepares disaster hubs have installed 6-20kW solar arrays and storage for resilience.
Green Building	Reduce GHG emissions from all municipal, commercial, industrial and residential buildings (work with other taxing districts such as schools and parks).	By 2021, COBI has adopted green building standards and practices for all new municipal, residential, commercial, and industrial buildings, including affordable housing and all renovations and additions of a certain size.
Electrification of Transportation	Reduce GHG emissions from motorized transportation, including through electrification of all modes (on-road, off-road, and ferries) and encourage reduction of air travel.	By 2025, transition COBI's fleet to 75% electric vehicles and the remainder to biofuels. By 2030, increase the mode share of public transit to 5% (currently 2%) and to 10% by 2045. By 2045, 80% of registered vehicles on Bainbridge Island will be either electric vehicles or plug-in hybrid electric vehicles. Coordinate with Washington State Ferries, PSE, and other entities as necessary to evaluate the need for, and feasibility of, establishing charging infrastructure on the Island to service ferries.
Reliability	Increase transparency and improve reliability	PSE commits to publicly post on their website details of reliability dating back 10 years to the present for the Island as a whole and the major distribution branches.

Area	Goal	Target
		PSE commits to bring Bainbridge Island's SAIDI and SAIFI ¹⁶ numbers up to PSE's system averages with 2-3 years.
Undergrounding	Increase undergrounding	PSE commits within the first year of the Franchise Agreement to develop a 15 to 20-year plan to underground the remaining (and future) above ground distribution segments.

F. Research Questions and Findings

The subgroup started its work by asking several questions and then looking for examples of how other cities have incorporated climate, energy, safety, reliability, and undergrounding goals into their Franchise Agreements. The best source we found was a study completed by the National Renewable Energy Lab (NREL) that surveyed over 3600 municipalities¹⁷ with 72 of those in Washington State. The data base includes 25 cities that are in the PSE service area¹⁸.

In addition, NRLE published a paper that summarizes their findings from the survey and includes detailed analysis of the programs in Chicago, Denver, Sarasota, Minneapolis, and Salt Lake City¹⁹.

Have cities incorporated climate, energy, safety, reliability, and undergrounding goals in their Franchise Agreements?

Findings: The NREL study found the following on how cities have incorporated their climate and clean energy goals into their Franchise Agreements:

- Questions on reducing GHG emissions was not included in survey
- 127 cities mentioned energy efficiency (4%)
- 73 cities mentioned renewable energy (2%)
- 56 cities had a 100% renewable energy goal (2%)
- 41 cities mentioned electric vehicles or electric infrastructure (1%)

¹⁶ The metrics that describe the duration and frequency of interruptions are known as the System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI).

¹⁷ Cook, Jeffrey; Grunwald, Bryn; Holm, Alison; and Aznar, Alexandra. 2020. Wait, cities can do what? Achieving city energy goals through Franchise Agreements. Energy Policy (144)(2020) 111619. National Renewable Energy Laboratory.

¹⁸ Anacortes, Bainbridge Island, Bellevue, Bellingham, Black Diamond, Bonney Lake, Bremerton, Buckley, Burien, Des Moines, Duvall, Kenmore, Kent, Issaquah, Lynden, Maple Valley, Mercer Island, Normandy Park, Puyallup, Renton, Sammamish, Sea-Tac, Snoqualmie, Tumwater, and Woodinville.

¹⁹ Cook, Jeffrey; Aznar, Alexandra; Grunwald, Bryn; and Holm, Alison. Hand me the Franchise Agreement: Municipalities Add Another Policy Tool to their Clean Energy Toolbox. 2020. Solar Energy. In Press

The data base indicates none of the 25 Franchise Agreements for cities in the PSE service area include references to energy efficiency, renewable energy, 100% renewable energy goals, or electric vehicle infrastructure. The NREL survey found that 322 utilities had included provisions for undergrounding infrastructure in their Franchise Agreements (9%). The survey did not ask questions about reliability.

For the PSE customers, the NREL data base indicated 12 of 25 cities included undergrounding provisions in their Franchise Agreements.

Have Cities Used Other Types of Agreements (Partnerships Agreements) along with the Franchise Agreement to advance their climate, energy, safety, reliability, and undergrounding goals?

Findings: A paper by the World Resource Institute evaluated how Cities have developed Partnership Agreements to achieve their climate and energy goals²⁰ independent of Franchise Agreements. The paper provides a step-by-step process for establishing these partnerships and identifies the common elements in the agreements (e.g., structure, implementation/governance, administration, who should be involved, when and how to pursue agreements, approving agreements, and delivery of agreement).

The paper provides the links to six city-utility partnerships: Sarasota, Minneapolis, Salt Lake City, Madison, Denver, and Charlotte (see Tables 4-6 for more details). Seven of the eight cities presented in the two studies used Partnership Agreements with utilities instead of Franchise Agreements to achieve their climate and energy goals.

The Partnership Agreements are negotiated in parallel or separately from the Franchise Agreements. In addition, the Partnership Agreements are generally non-binding and establish working partnerships with the utility to develop a workplan for achieving the cities goals along with a mechanism for administering the Partnership Agreements and establishes metrics and commitments from both parties.

What is the average length of other cities Franchise Agreements?

Findings: The current PSE Franchise Agreement with COBI is for 15 years. Based on the NREL data base we found the following length of time for Franchise Agreements in cities.

- 1-10 years (6%)
- 11- 20 years (18%)
- 21-30 years (19%)

²⁰ Bonugli, Celina; Duncan, Jake; Crandall, Kelly, and Etter-Wenzel, Cassandra. 2019. Utilizing City-Utility Partnership Agreements to Achieve Climate and Energy Goals. World Resources Institute. Working Paper. September 2019. <https://wriorg.s3.amazonaws.com/s3fs-public/utilizing-city-utility-partnership-agreements-achieve-climate-energy-and-goals.pdf>.

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- > 30 years (6%)
- No term limit identified (6%)
- Not available (44%)

The length of the Franchise Agreements for the 25 cities in the PSE service area in the NREL data base are as follows along with the expiration date on their current Franchise Agreement:

- 10 years: Bellevue (2028); Black Diamond (2028); and Sammamish (2026)
- 15 years: Bainbridge Island (2022); Bremerton (2019); Buckley (2029); Burien (2019); Duvall (NA); Maple Valley (2020); Renton (2022); and Woodinville (2020).
- 20 Years: Normandy Park (2027)
- 25 years; Bellingham (2028); Kent (2018); and Lynden (2039).
- 30 years: Anacortes (2027); Issaquah (2040); and Puyallup (2014).
- Not included: Bonney Lake, Des Moines, Kenmore, Mercer Island, Sea-Tac, Snoqualmie, and Tumwater,

Other Findings from Outreach to Researchers and Municipalities

During our research we had conversations with several people who had done research on Franchise Agreements or had been involved in negotiating Franchise Agreements. These included staff at NREL, staff from the World Research Institute, staff from Missoula, Montana, and individuals who have worked on Franchise Agreements in our area. The findings from those conversations are included below.

NREL Staff

- Most Cities negotiate a separate agreement parallel with the Franchise Agreement that incorporates Climate and Energy Goals. They are generally non-binding but have specific commitments.
- Separate agreements need to have performance metrics and/or commitments to ensure implementation.
- The length of the Franchise term is usually the most contentious topic (utilities want longer, cities want shorter). This can be used to negotiate other aspects of the Franchise Agreements.
- Include pilot projects in a separate agreement as a way to move forward.
- Franchise fees are used to fund specific projects.

World Research Institute

- Partnership Agreements between a City and Utility are a common method to achieve the Cities climate and energy goals.
- There are common elements to Partnership Agreements such as:
 - o Framing Agreement (vision, values, collaboration, agreed on outcomes, agreement on “not tos”).
 - o Implementation and Governance (governing body, work plans, regular dialogue, time frame, roles and responsibilities, and public engagement)

- o Administration (duration, enforceability, costs and handling disagreements).
- To ensure a successful Agreement, must have clear metrics to track progress.

Other

- Need engaged leadership from City Council and City Manager.
- Need public engagement early and often.
- Need to start at least one year in advance of the expiration of the Franchise Agreement.
- Need to reach out to other communities in the PSE service area who are renegotiating Franchise Agreements in the next few years.
- Need to reach out to other communities who have done Franchise Agreements to learn from them.

G. Recommendations

Based on the research and findings above and the goals and policies of the 2017 Comprehensive Plan, the subgroup makes the following recommendations on the issues identified below.

Recommendation #1: COBI and PSE will work to develop a separate Partnership Agreement in parallel with the development of a new Franchise Agreement. While some cities have incorporated specific climate, energy, safety, reliability and undergrounding goals in their Franchise Agreements, many others have used parallel Partnerships Agreements²¹.

Partnership Agreements establish working partnerships with the utility to develop a workplan for achieving the cities goals along with a mechanism for administering the Partnership Agreements and establishes metrics and commitments from both parties.

The pros and cons of incorporating COBI climate, energy, safety, reliability, and undergrounding goals in a Franchise Agreement or Partnership Agreement are highlighted below.

Incorporate Climate and Energy Goals		Pros	Cons
Franchise Agreements		• Franchise is a contract so agreements have more force.	• Less flexibility.

²¹ Bonugli, Celina; Duncan, Jake; Crandall, Kelly, and Etter-Wenzel, Cassandra. 2019. Utilizing City-Utility Partnership Agreements to Achieve Climate and Energy Goals. World Resources Institute. Working Paper. September 2019. <https://wriorg.s3.amazonaws.com/s3fs-public/utilizing-city-utility-partnership-agreements-achieve-climate-energy-and-goals.pdf>.

Incorporate Climate and Energy Goals	Pros	Cons
Partnership Agreement in parallel	• May not be as contentious and easier to reach agreement. • Provides more flexibility • Majority of cities have developed Partnership Agreements in parallel.	• Generally non-binding.
Both	• Some issues are more amendable in the Franchise Agreement versus the Partnership Agreement and vice-versa. • Provides more flexibility.	• More time and resources.

We recommend that COBI and PSE develop a Partnership Agreement in parallel with the Franchise Agreement. While this makes the process more complicated, it can help ensure COBI's climate, energy, safety, reliability, and undergrounding goals are achieved.

Recommendation #2: The Franchise Agreement and Partnership Agreements shall contain specific commitments from both PSE and COBI. We believe it is important that both the Franchise and Partnership Agreements contain specific commitments to maintain accountability over the lifetime of the Agreements. The commitments must have timelines, specify how PSE and COBI will work together to meet those commitments, and spell out consequence of not meeting the commitments.

Table 3 provides a summary of the major commitments we recommend go into the Franchise Agreement and the Partnership Agreement. We believe these commitments are consistent with the goals and policies in the 2017 Comprehensive Plan.

Table 3: Proposed Commitments for the Franchise and Partnership Agreements

Area	Franchise Agreement	Partnership Agreement
Collaboration	PSE and COBI work collaboratively to achieve our shared goals for reducing environmental impacts, preparing for climate change, and increasing safety and reliability.	PSE and COBI work collaboratively to achieve our shared goals for reducing environmental impacts, preparing for climate change, and increasing safety and reliability.
Transparency	PSE commits to provide a semi-annual report and presentation to the City Council on their current and planned efforts to achieve the goals of the Franchise Agreement.	PSE commits to provide a semi-annual report and presentation to the City Council on their current and planned efforts to achieve the goals of the Partnership Agreement.

Area	Franchise Agreement	Partnership Agreement
Demand Reduction		PSE and COBI establish specific commitments to reduce both total energy demand and peak energy demand.
Energy Supply	PSE and COBI work collaboratively to provide 100% carbon free electricity to Bainbridge Island by 2040, five years ahead of the CETA requirements. PSE and COBI work collaboratively to set interim benchmarks for this pathway to carbon free electricity that provide meaningful waypoints within the length of the agreement. PSE commits to provide COBI with information needed to complete the Bainbridge Island GHG emissions inventory (e.g., annual average ratio of CO2 emissions per KWH power/year) and other information related to GHG reductions as requested by COBI.	
Local Generation		PSE and COBI commit to set targets for generating carbon free electricity on Bainbridge Island especially for low income, affordable, and senior housing.
Green Building Fund		PSE and COBI commit to explore establishing a Green Energy and Building Fund.
Electrification of Transportation		PSE and COBI commit to develop the infrastructure needed for electric vehicles on Bainbridge Island, including the installation of fast charging infrastructure. PSE and COBI coordinate with Washington State Ferries and other entities as necessary to evaluate the need for, and feasibility of, establishing charging infrastructure on the Island to service ferries.
Reliability	PSE commits to increase its transparency on reliability reporting and bring Bainbridge Island's SAIDI and SAIFI ²² numbers up to PSE's system averages.	PSE commits to post SAIDI and SAIFI comparisons to Kitsap County, the PSE service area, other major public private utilities in WA and IEEE or other industry standards.

²² The metrics that describe the duration and frequency of interruptions are known as the System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI).

Area	Franchise Agreement	Partnership Agreement
		COBI commitments to facilitate discussion with the Community on improvements to the transmission, substations and other facilities on the island. PSE commits to post the status of projects completed, underway and planned to improve reliability by section and as a system. This should include “wired” and “non-wired” solutions such as battery storage and demand management. PSE commits to evaluating adding a specific amount of tree wire²³ over the next 2-3 years.
Undergrounding	PSE commits to develop a 15 to 20-year plan to underground the remaining (and future) above ground distribution segments. PSE would prioritize these segments by expected impact on reliability and safety. The annual program should be approximately equal each year. COBI would provide its financial commit in a timely fashion each year or biennium.	PSE commits to evaluate providing walking and biking paths in the right of way under the utility distribution lines.

Recommendation #3: The length of the PSE Franchise Agreement shall be 10 years. The length of the Partnership Agreement will be determined during its development. We recommend that the length of the Franchise Agreement be for 10 years, which is the length of the Franchise Agreements in Bellevue, Black Diamond, and Sammamish according to the survey conducted by NREL²⁴.

Our current Franchise Agreement is for 15 years. We believe, however, that a shorter duration is important due to the changing nature of the energy field and the rapid advancement in integrating renewable energy into the energy mix.

²³ Tree wire or covered open wire consists of the conductor (aluminum, aluminum alloy or ACSR) and the extruded covering (conductor shield, low density inner layer and protective outer layer). Covering thickness depends on the system voltage. It is designed for full span applications and is supported on polyethylene insulators

²⁴ Cook, Jeffrey; Grunwald, Bryn; Holm, Alison; and Aznar, Alexandra. 2020. Wait, cities can do what? Achieving city energy goals through Franchise Agreements. Energy Policy (144)(2020) 111619. National Renewable Energy Laboratory.

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We would prefer a Franchise Agreement of just 5 years, but understand that the resources and time to complete Franchise Agreements is substantial. We recommend that the length of the Partnership Agreement be determined during the Franchise negotiations.

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Table 4: Comparison of Cities Franchise and Partnership Agreements for Salt Lake City, Denver, and Minneapolis

Element	Salt Lake City	Denver	Minneapolis
Utility (Population Served)	Rocky Mountain Power (201K)	Xcel Energy (717K)	Xcel Energy (425K)
Climate Goal	Net 100% renewable by 2032	Reduce GHG emissions by 80 percent by 2050 from a 2005 baseline.	Reduce GHG Emissions by 15% 2015, 30% by 2025, and 80 percent by 2050 using 2006 as a baseline.
Franchise Agreement and/or Partnership Agreement	Franchise Agreement with parallel Joint Clean Energy Cooperation Statement	Franchise Agreement with parallel Low-Income Energy Assistance and Energy Conservation Contribution Agreement	Franchise Agreement with parallel Clean Energy Partnership
Length of Agreement	5 years	20 years	10 years with a termination clause that allows the city to exit the agreement at five years, provided a one-year notice is given and a two-thirds majority vote by City Council
Franchise Fee	6% Municipal Energy Sales and Use Tax—the maximum allowable under state law—from Rocky Mountain Power, the revenue from which goes into Salt Lake City's general fund.	3% of gross revenue	Decoupled franchise fee rates from the Franchise Agreement and established a separate city ordinance that governs the franchise fees Xcel Energy customers pay to the City of Minneapolis
Types of Actions	- Renewable energy - Energy Efficiency - EV infrastructure	- Smart technology. - Xcel provided \$2 million for energy efficiency - Fuel switching-Mobile and Stationary Sector - Resilience: Microgrids - Transparency and data access	- Renewable energy - Energy Efficiency - Green cost share program received \$1 million from Franchise fees.
Metrics and/or Accountability Measures	Established in workplan.	Established in workplan.	Established in work plan.
Administration	Develop implementation plan with dates and deadlines to achieve goals and deliverables.	Develop workplan every two years. Staff meet quarterly	Established a "Board" consisting of officials from the City and utility that develop a joint workplan,

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Element	Salt Lake City	Denver	Minneapolis
	Publish annual report each year.		meet quarterly, and prepare an annual report.

SLC: https://drive.google.com/file/d/1Zo_mLTVNO-sg01vnyZuszLfmLpcyd8LG/view

Denver: <file:///C:/Users/bcsha/OneDrive/Documents/Mike/PSE/Denver%20Xcel%20Clean%20Energy%20MOU.pdf>

Minneapolis: <https://mplscleanenergypartnership.org/wp-content/uploads/2015/02/xcel-mou-attach-b.pdf>

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Table 5: Comparison of Cities Franchise and Partnership Agreements for Sarasota, Madison, and Charlotte

Element	Sarasota	Madison	Charlotte
Utility (Service Population)	Florida Power & Light (58K)	Madison Gas and Electric Company (113K)	Duke Energy (360K)
Climate Goals	Reduce GHG emissions by 35% by 2025 from a 2003 baseline.	Carbon neutral by 2030 and 80% reduction in carbon emissions by 2050	100% of energy use in buildings and fleet from 100% carbon free sources by 2030 and city wide GHG emissions to below 2 tons CO ₂ e per capita annually by 2050
Franchise Agreement or Partnership Agreement	Franchise Agreement with parallel Renewable Energy Agreement	Wisconsin law prohibits Franchise Agreements. City has a MOU with Madison Electric (Clean Energy 2030 Framework)	North Carolina prohibits Franchise Agreements. City has a MOCU with Low Carbon, Smart City Collaboration.
Length of Agreement	30 years	State does not allow Franchise Agreements but MOU is for 3 years.	NA
Franchise Fee	Maximum 6% fee on FPL's gross revenues in city limits that is passed to Sarasota.	State does not allow collection of Franchise fees.	NA
Types of Actions	• EV charging stations • LEED Training • Energy education • Energy audits • Rooftop PV •	• Expansion of Solar • Expansion of the use of Electric Vehicles • Promotion of Energy Efficiency • Social Equity and Economic Development • Other Transportation topics	• Smart technology. • Energy efficiency • Fuel switching-Mobile and Stationary Sector • Resilience: Microgrids • Transparency and data access • Reliability and Operations
Metrics and/or Accountability Measures	Established in annual workplan	Annual progress report to City Council.	Developed as part of workplan for MOU.
Administration	FPL and city personnel provide biannual updates to the City Commission on FPL's activities in relation to the Renewable Energy Agreement	Establish an Energy Collaboration Steering Committee whose members will include up to five members from each Party.	Workplan that is updated every two years.

Sarasota: <https://www.sarasotafl.gov/home/showdocument?id=1008>

Madison: <https://madison.legistar.com/View.ashx?M=F&ID=5194697&GUID=0E90141C-723E-4A8C-B70F-584955371518>

Charlotte: <https://charlottenc.gov/sustainability/seap/SEAP/Duke%20MOU.PDF>

Table 6: Comparison of Cities Franchise and Partnership Agreements for Chicago and Missoula

Element	Chicago	Missoula
Utility (Service Population)	Commonwealth Edison (2.7 million)	Northwestern (74K)
Climate Goals	Reduce GHG by 25% by 2020 compared to 1990 levels and 80% reduction by 2050.	100% clean electricity by 2030 and carbon neutrality for City operations by 2025
Franchise Agreement or Partnership Agreement	Franchise Agreement with incorporated energy objectives	Montana law does not allow Franchise Agreements. Missoula developed a MOU with Northwestern.
Length of Agreement	29 years	No Franchise agreement.
Franchise Fee	ComEd was required to pay the equivalent of a 4% fee on aggregate revenues received from accounts in Chicago's jurisdiction over the life of the agreement	No Franchise fee.
Types of Actions	• Energy efficiency programs for small businesses • Revolving loan funds for city energy efficiency projects • Research and development for renewable energy projects at city facilities	• New Utility-Scale Renewables • New Community-Scale Renewables • Expanded energy efficiency, conservation, and other demand-side measures • Electrification of Transportation • Distribution Grid Modernization • Resilience Planning
Metrics and/or Accountability Measures	Metrics included in Supplemental Agreement for energy conservation, reliability, cogeneration, transmission and distribution lines	Developing an implementation plan that will include commitments and metrics.
Administration	City staff in conjunction with Con Ed.	Established working committee with City and Northwestern.

Chicago: <https://drive.google.com/file/d/1rzNco24TIOh5TQtIOkE3SW4Td6QZbGL/view?usp=sharing>.

Missoula: <https://www.engagemissoula.com/missoulas-100-clean-electricity-initiative>

Appendix A: Current COBI and PSE Franchise – Undergrounding.

14 Underground of Facilities

14.1 PSE acknowledges that the City desires to promote a policy of undergrounding of facilities within the Franchise area. The City acknowledges the PSE provides electrical service on a non-preferential basis subject to and in accordance with the Tariffs on file with the WUTC. Subject to and in accordance with such Tariffs, PSE will cooperate and participate with the City in the formulation of policy and development regulations that concerning undergrounding of PSE's facilities within the Franchise Area.

14.2 The City by written notice to PSE, require PSE to underground its existing distribution facilities (of 15,000 volts or less) within the Franchise Area: provided, that such conversion of PSE's existing Franchise shall be accomplished in accordance with PSE's applicable tariffs and schedules on file with the WUTC.

14.3 If PSE elects to install new overhead distribution facilities (of 15,000 volts or less within the Franchise Area or a new extension of existing overhead distribution facilities within the Franchise Area, PSE will provide written notice to the City. The City may be written notice to PSE, may require PSE to install such facilities underground within the Franchise Area; provided, that such installation underground of PSE's Facilities shall be accomplished in accordance with PSE's applicable tariffs and schedules on file with the WUTC.

Appendix B: 2017 Bainbridge Island Comprehensive Plan

UTILITIES ELEMENT

ELECTRICAL

The City is currently served by Puget Sound Energy (PSE), which provides electricity generation sources, transmission, distribution and maintenance of electrical facilities throughout the island. PSE is regulated by the Washington Utilities and Transportation Commission (WUTC.) It is the commission's responsibility to ensure regulated companies provide safe and reliable service to customers at reasonable rates, while allowing them the opportunity to earn a fair profit.

GOAL U-14 Ensure adequate, cost effective, reliable, and environmentally responsible electric service to the citizens of Bainbridge Island.

Policy U 14.1 Develop a plan together with the electric service provider to undertake energy efficiency improvements and other alterations of electric utility facilities to provide capacity for future growth.

Policy U 14.2 Encourage the conservation of electrical energy, especially during periods of peak usage, and encourage energy saving building code strategies, local renewable energy, and other cost-effective approaches to meeting the island's energy needs, including distributed energy systems.

Policy U 14.3 Encourage the electric service provider to improve reliability, with particular attention to adding transmission redundancy and mitigating impacts on service from storms or other natural events.

Policy U 14.4 Encourage undergrounding new and existing electric transmission and distribution power lines, and develop a long-term strategy for future undergrounding, to include maximizing opportunities with new construction, and prioritizing the work that affects the greatest number of households and businesses.

Policy U 14.5 Encourage the electric service provider and electricity users to use carbon neutral electricity generation, local electricity generation, and innovative technologies such as solar power that are reliable, cost effective, preserve resources, provide minimal environmental impact, and do not contribute to global warming.

Policy U 14.6 Periodically undertake comparative evaluations of electric service reliability, cost, and environmental impact, customer service and customer support and evaluate opportunities to provide improved and less costly electrical service from alternative service providers.

Policy U 14.7 New taxpayer-funded buildings shall use carbon-neutral energy for heating, cooling, and operational use to the maximum extent practical within site specific and existing technology limitations.

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Policy U 14.8 Encourage new development to integrate environmentally responsible and innovative energy systems.

Policy U 14.9 Explore ways to obtain 100% green electricity including investing in new renewable energy projects

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Use of Utility Tax and Franchise Fees to Achieve COBI Goals (February 11th, 2021)

In 2019, a subgroup consisting of representatives from the Climate Change Advisory Committee (CCAC) and Utility Advisory Committee (UAC) was formed. The purpose of the sub-group was to provide recommendations to the City Council on the 2022 renewal of the PSE Franchise Agreement with the City of Bainbridge Island (COBI).

The subgroup is developing a report for the full CCAC and UAC committees on the subgroups recommendations on the renegotiation of the PSE Franchise Agreement. An issue that came up during the subgroups discussions was whether the funds generated from the 6% Utility Tax on PSE gross revenue and the Franchise Fees paid by PSE for using the Right-of-Way (ROW) could be used to help achieve COBI's climate, energy, safety, reliability, and undergrounding.

Background

The City Council approved the first-ever Community Climate Action Plan (CAP) on November 10th, 2020. The CAP contains over 170 actions to reduce greenhouse gas emissions, prepare our Island from the impacts of climate change, and engage the Community in taking action.

The largest source of greenhouse gas emissions on our Island comes from the use of electricity. The CAP recommends actions to both green our energy supply and to reduce our energy demand. In order to meet our goals, we will need to significantly increase our efforts to reduce our energy consumption.

Increasing energy efficiency and energy conservation measures for homes and businesses takes money. In addition, if we want to generate our own local power that also requires resources. Puget Sound Energy provides incentive programs for homeowners and businesses to conserve energy, but to reach our goals more is needed.

The CCAC and UAC believes it is important that all people regardless of their economic means should have an opportunity to share in the benefits of reducing their energy bills. With this in mind, the CAP recommends the establishment of a Green Energy and Building Fund to help fund those projects.

3.A.2.a. Establish and use the Green Energy and Building Fund to provide incentives to building owners and residents to increase electrification conversions and battery storage and to assist in energy audits for residential home projects, including affordable housing (e.g., install energy conservation measures, provide financial incentives for existing building owners to transition from propane, fuel oil, and wood stoves to all electric buildings).

In COBI's budget for 2021 – 2022 there is \$500,000 in dedicated funding for implementation of the CAP. The specific areas of funding have not been established, but will be worked out over

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the next several months. In addition, COBI has committed to a fulltime new position dedicated to implementation of the CAP. This funding is significant and indicates a commitment from COBI to implement the CAP.

The subgroup had several questions related to the potential use of revenues generated from the Utility Tax that COBI assesses on PSE's gross revenue and the Franchise Fee COBI assess on PSE for the use of ROW. Based the answers from those questions, the subgroup provides several recommendations for City Council consideration.

What revenues does COBI generate from the Utility Tax and Franchise Fee?

Findings: COBI assess a 6% charge to consumers on PSE gross revenue (i.e., utility tax). This revenue goes to the COBI general fund. This is based on Municipal Code 3.88.050(B)¹. According to DeWayne Pitts, COBI Finance Director², the total revenue collected in 2019 was \$1,468,600 and represents about 8.5% of COBI's general fund revenue and supports the equivalent of 12 to 14 FTEs. For 2020 through November, it was \$1,332,050. Mr. Pitts said 6% is the maximum COBI can charge without putting it to a vote of the citizens.

According to Mr. Pitts, [RCW 35.21.860](#) appears to eliminate the city's authority to impose a franchise fee on light and power. The same statute however does allow a fee to be charged to recover actual administrative expenses incurred by the city that are directly related to approving permits, licenses, and franchises. This cost reimbursement is the amount the City is currently receiving and is referenced in the current Puget Sound Energy franchise agreement that is subject to sunset in April of 2022.

Currently there is a schedule of services where the City interacts with PSE³. It is variable annually but is typically around \$5,000 to \$8,000 per year. The ROW funds are generally designed to recover the costs of Public Works and other departments in facilitating and coordinating with PSE to ensure the integrity of the ROW.

Do other Cities generate revenues from a Utility Tax or Franchise Fee and how have they used those funds?

Findings: A paper by the Local Institute for Local Self Reliance⁴ discussed the use of utility taxes or franchise fees to assist Cities to meet their climate and energy goals. They found that in most states (including Washington State), cities may assess utility taxes or franchise fees on electric

¹ Electric Light and Power. Upon every person engaged in or carrying on the business of furnishing electric light and power within the city, a fee or tax equal to two percent of the total gross income from such business in the city during the 1998 calendar year, four percent of such gross income during the 1999 calendar year, and six percent of such gross income during subsequent calendar years. (Ord. 97-33 § 1, 1997).

² Personal communication with Ted Jones and DeWayne Pitts, BI Director of Finance

³ RIGHT-OF-WAY USE PERMITS (Ordinance No. 2014-24 and Resolution No. 2014-15

⁴ Utility Franchise Fees. Institute for Local Self Reliance. Accessed October 23rd 2020.

<https://ilsr.org/energy/utility-franchise-fees/>

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and gas utility bills within their boundaries. Fees are assessed on the bills of customers of private companies, not usually customers of cooperatives or city-owned utilities.

Typically, a franchise fee recoups the cost of the utility companies' use of public space—also called public ROW—for energy infrastructure such as power lines or gas pipelines.

The National Renewable Energy Lab (NREL) surveyed over 3600 municipalities⁵ with 72 of those in Washington State. The survey collected data on several parameters for each municipality including information on the use of utility taxes and franchise fees. The data base includes 25 cities that are in the PSE service area⁶. The NREL survey found the following in terms of whether cities assess a Utility tax or Franchise Fee.

- 5% or greater of gross receipts from Utility (14%)
- Less than 5% of gross receipts from Utility (40%)
- Municipal electricity provided for free (2%)
- Other fee such as cost per kWh or flat fee (10%)
- Reserve right to charge Franchise Fee (1%)
- No fee (14%)
- Information not available (20%)

The majority of the cities in the NREL data base have some form of Utility Tax or Franchise Fee (66%). The NREL data base indicates that three PSE customers indicate that they do not have Franchise Fees (Anacortes, Puyallup, and Snoqualmie). The data base does not have any information on the other 22 PSE customers.

In addition to the NREL study, we reviewed data from the Association of Washington Cities. Their database provides information on the utility tax rates for electricity used by Washington cities. The spreadsheet from their web page⁷ showed the following

- Federal Way: 7.75%
- Vader: 6.5%
- 62 cities: 6%
- 9 cities: < 6%
- 16 cities: Did not report.

⁵ Cook, Jeffrey; Grunwald, Bryn; Holm, Alison; and Aznar, Alexandra. 2020. Wait, cities can do what? Achieving city energy goals through Franchise Agreements. Energy Policy (144)(2020) 111619. National Renewable Energy Laboratory.

⁶ Anacortes, Bainbridge Island, Bellevue, Bellingham, Black Diamond, Bonney Lake, Bremerton, Buckley, Burien, Des Moines, Duvall, Kenmore, Kent, Issaquah, Lynden, Maple Valley, Mercer Island, Normandy Park, Puyallup, Renton, Sammamish, Sea-Tac, Snoqualmie, Tumwater, and Woodinville.

⁷ AWC Tax and User Fee Survey. 2018 Municipal taxes and fees. Association of Washington Cities. <https://wacities.org/data-resources/municipal-rates-and-fees>

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As can be seen, the majority of Cities reporting have the same 6% utility rate as Bainbridge Island.

Recommendation: COBI should evaluate whether some of the revenue generated from the Utility Tax paid by Island consumers should be used to support actions such as the Green Energy and Building Fund.

We recommend that the City evaluates whether it makes sense to utilize some of the funds generated from the utility tax to fund actions related to achieving the goals of the CAP and those related to reliability and undergrounding. We recognize that COBI has already dedicated substantial funds for the implementation of the CAP, but believe it still makes sense to discuss using some of these funds for additional projects.

For example, could some funds be used to provide resources to the Green Energy and Building Fund (e.g., energy efficiency programs) and towards reliability and safety projects (e.g., paying the undergrounding tariff in a well-planned undergrounding program).

This would require evaluating the tradeoffs of using these funds for achieving the goals of the CAP and the existing uses of those funds. As stated above, the utility tax funds are used to support between 12-14 FTEs and about comprise about 8.5% of the total revenues for COBI. In addition, we recommend that the City review the payment schedule for ROW projects to see if they need to be revised.



CONCEPTUAL DESIGN OF A BAINBRIDGE ISLAND BIOENERGY PROJECT

TM Number 2: INCLUDING ALL SOURCE SEPARATED ORGANIC WASTES



October 24, 2017

1001 NW 167th St Shoreline, WA 98177

www.impactbioenergy.com



TECHNICAL MEMORANDUM NO. 2

To: Mr. Thomas MacLean, Manager, PSE Customer Renewable Energy Programs
 CC: Karen Brubeck, PSE Local Government Affairs Representative
 From: Jan Allen, P.E., CMQ/OE, President, Impact Bioenergy, Inc.
 Date: October 24, 2017

RE: TM No. 2 - CONCEPTUAL DESIGN OF A BAINBRIDGE ISLAND BIOENERGY PROJECT

Purpose

The purpose of this study is to explore the use of anaerobic digestion to convert residential, commercial, and agricultural pre and post consumer organic waste on the island into locally-generated renewable energy and soil amendment products with zero waste.

Bioenergy is a term used to describe the harvesting of renewable energy from organic waste before the recycled (anaerobically digested) waste is returned to the land in a beneficial way. This can be designed as a zero-waste system that reduces waste export from the island, reduces traffic and vehicle emissions, and supports a localized circular economy of jobs, food production, and sustainable soil stewardship.

A previous Technical Memorandum (TM) was prepared on March 17, 2016 to explore the use of anaerobic digestion to convert commercial pre- and post-consumer organic waste on the island into locally-generated renewable energy and soil amendment products with zero waste. The previous focus was on commercial organic waste. Residential and agricultural organic wastes were not the primary focus at that time. The concept design showed alternative configurations between 2,000 and 6,800 tons per year of recycling capacity, electrical generating capacity between 0.07 MW and 2.8 MW, and liquid digestate production between 37,000 and 123,000 gallons per month (or between 4 and 13 tons of dry fertilizer per month).

Since that TM was prepared the community has expressed greater interest in recycling a wider spectrum of organic wastes locally. The combination of commercial, residential, and agricultural organic wastes can be commingled and recycled together in a more comprehensive community-wide public service. This Technical Memorandum evaluates that potential. The service would include an anaerobic digester on Bainbridge Island to accept:

- Commingled food, paper products, compostable foodservice products (including compostable tableware), landscape waste and animal bedding
- Commercial, residential, and agricultural organic wastes in a commingled state (not just commercial as described in TM No. 1)

This service could be configured as an Island-only option, or an island-plus Poulsbo and Clearwater Casino option. It would also include the concept of a finishing facility for the digester output, which uses drying, composting, screening, bagging, and soil blending. The concept design herein includes a summary of feedstock potentials, corresponding energy production possibilities, and other outputs with costs and/or revenue streams.

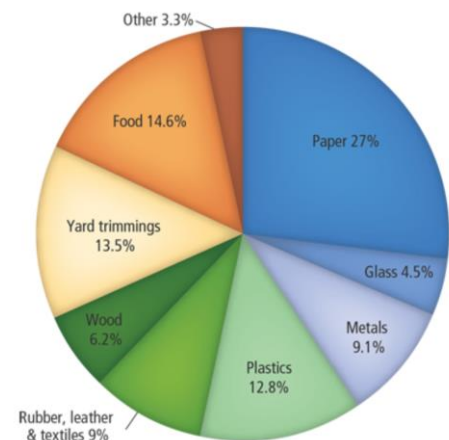


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This TM presents a new concept design showing alternative configurations between 11,400 and 15,200 tons per year of recycling capacity, electrical generating capacity between 0.28 MW and 3.50 MW, plus compost production between 8,400 and 11,300 cubic yards per year, and liquid digestate production of 1,500 gallons per month, and about 0.7 tons per month of dry fertilizer. This concept also generates between 93,000 and 145,000 therms per year of heat energy. This heat can be used to dehydrate and produce dry fertilizer, or heat adjacent greenhouses.

Some of the primary stakeholders for a recycling, energy, and soil improvement project like this will likely include the City of Bainbridge Island, Bainbridge Island School District, Bainbridge Disposal, local agriculture and farmers, food merchants, local gardeners, and other stakeholders that may benefit from or enjoy this project. Bainbridge Island has a history that is “rooted in its open spaces, winding roads and small-scale agricultural establishments”. This project can and should be sensitive to its natural environment, recognize that the Island's environmental resources are finite, and be designed so enjoyment of life and property can be sustained over the long term.

Locally based bioenergy projects touch on the food cycle, energy landscape, employment, traffic, air emissions, soil quality, and water reuse. Benefits may include reducing truck traffic, landfilling, chemical fertilizers, pesticides, nutrient runoff into surface water, and irrigation water demand. In some way this conceptual project touches a number of interesting and sustainable aspects of the local environment, economy, and culture.



The pie chart shows the national average of total MSW generation by material (2013), and by implication the potential for a facility that can handle yard trimmings, food waste, and a portion of the waste paper that is from kitchens and food service environments. These are the three largest segments by composition. This concept is targeting only a portion of the approximately 25,000 tons per year of waste that leaves the island. Depending upon policy, economics, and regulatory changes over the next 20 years, more diversion may be possible. If half the paper can be digested with landscape and food waste these three categories represent 40% of the total waste export (10,000 tons per year). This concept is focused on the easily separable fraction. There is an appendix that shows what a higher diversion rate (and larger capital facility) would look like.

A market sounding was conducted to insure this conceptual design is sensitive to existing private sector stakeholders on the island and to turnkey service providers (design-build-operate) that routinely deliver projects in this industry. This market sounding revealed a few key features that have been incorporated herein.

1. The separation, collection, and transfer of organic materials is expected to be managed by Bainbridge Disposal. They currently divert approximately 4,500 tons per year of landscape and food wastes to remote composting facilities off-island. This concept assumes Bainbridge Disposal will remain active in an on-island project, and they would be handling 7,200 to 11,000 tons per year on-island.
2. Local entrepreneurs are active on the island in the areas of zero waste, organic waste recycling, composting, topsoil production, manure management, and sustainable agriculture. This concept has assumed there are an additional 4,200 tons per year of uncontaminated, high-quality landscape and food waste (herein called Tier 1 organic waste) that could likely be diverted, processed (composted), and recycled by local entrepreneurs more cost-efficiently than this bioenergy concept envisions.

3. This concept design is focused on the Tier 2 organic materials (7,200 – 11,000 tons/yr) and includes decontamination, depackaging, anaerobic digestion, power generation, and partial enclosure to manage product quality and odor control. Hence it will be possible to divert, process, and recycle more complex, wet, and odorous Tier 2 organic waste that would not be feasible for a Tier 1 facility. This concept assumes local private sector operators will provide Tier 1 diversion services, and may be interested in finishing/composting the digestate from an on-island Tier 2 project as well (estimated to be 6,000 to 9,000 tons per year).
4. Turnkey service providers are active in this space on a national basis and have indicated this type of project is large enough to capitalize and operate on a turnkey basis. This means they would be prepared to design, finance, build, own, and operate such a facility, anchored by agreements for land lease, organic waste processing feedstock supply, power purchase, and digestate marketing and sales.

Technology Review from TM No. 1

Biogas is produced when organic materials, most notably uneaten food waste, naturally decompose in an oxygen-free environment. The process is called anaerobic digestion (AD) and usually occurs in a specialized tank or vessel—the anaerobic digester. Anaerobic digesters produce not only biogas, but digestate, a nutrient-rich product that can be applied directly on landscapes, turf, and agricultural land. It can also be marketed as a commercial fertilizer and various forms of soil amendment. The capturing and utilization of biogas is a powerful tool for reducing greenhouse gases (GHGs). GHGs are reduced in three ways: first, the biogas produced is a source of renewable energy that can replace fossil fuels and, second, the capturing of biogas reduces methane, a very potent greenhouse gas that would otherwise be free to escape into the atmosphere, and third, converting organic materials locally reduces trucking and fuel use to transport waste out and food and fertilizer into the the community. The technology is proven and reliable, although scale, design, and operation are key success factors for any specific project.

The state of the art for Anaerobic Digestion at any scale can be seen in several commercial sectors in North America. In the United States there are about 1,500 AD systems in operation, including 192 farm-based systems and 1,238 wastewater systems. In the United States, there are about 600 landfill-based AD systems in operation as well. PSE has contracts with 7 digesters and 2 landfill operations. Globally there are over 20 million AD systems in operation today. China, India, South Asia, and Latin America lead in total number of systems and number of smaller, community-scale systems. There are over 9,400 larger, urban, industrial, and agricultural AD systems in over 20 industrialized countries. Germany has been the leader with close to 7,000 AD systems, digesting both energy crops and urban organic wastes, and connected to the power grid.

Community-based AD systems have significant potential in North America as they are becoming simpler, quicker to develop, and more resource-efficient than large regional facilities. Transportation, permitting, planning, geotechnical, and market risks can be more effectively managed with small to medium sized facilities.

Urban foodwaste diversion is just beginning to gain traction in coastal US cities and in Canada. The main driver in this trend is the convergence of zero waste and climate change goals on solid waste practices. The trend towards micro-grid power, clean technology, and renewables is also a driver and emerging trend.

In North America there are nearly 40 different AD technology vendors or developers offering at least 12 types of AD technology. They include CSTR, plug flow, SEAD, UASB, BIMA, IBR, AF, reclaimable bioreactor cells, and HSAD in continuous, single-stage batch, two-stage batch, and three-stage (AD + Aerobic) operation. The waste characteristics are the most important consideration in choosing a technology. Other considerations

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include odor control, surrounding community context, product markets, water balance, seasonality, climate, variable loading, and contaminant removal. The two most promising technologies for Bainbridge Island are:

- CSTR, or continuously stirred tank reactors
- HSAD, or high-solids (batch or continuous) anaerobic digestion

HSAD continuous anaerobic digestion is recommended for Bainbridge Island in this concept design, given the diversity of feedstocks. CSTR is generally less capital intensive and has lower operating costs, but is limited to high-moisture and low-contaminant feedstocks (i.e. no plastic, glass, and metal). HSAD is the opposite being more expensive but able to take landscape waste, cardboard, and higher rates of contamination. The contamination can more easily pass through an HSAD system but still must be removed to insure the resulting digested waste can be marketed and used beneficially.

Energy yield per ton of capacity vary by feedstock and technology. Food waste has the highest gas generation potential due to its inherent higher energy density of high-moisture food waste (starches, sugars, fats, etc.) vs. landscape materials, bedding, and cardboard.

In both technologies the biomethane production, conditioning, and uses are universal and similar. Biomethane is produced as biogas which is 55 – 70% methane and 30-45% carbon dioxide with trace amounts of reduced sulfur, oxygen, and nitrogen compounds. The biogas can be conditioned to remove moisture and sulfur, and then used to generate electricity, building heat, domestic hot water, radiant heat, lighting, cooking gas, CNG vehicle fuel, pipeline quality gas, and fireplace or firepit gas. CNG vehicle fuel and pipeline gas generally requires upgrading (refining) the biogas to at least 93% methane, as well as compression and storage.

Scale for Bainbridge Island

The overall “wasteshed” and scale for this TM has been defined as four separate streams; residential, commercial, agricultural, and possibly municipal (in the form of biosolids). The table below shows eight different waste sub-components for estimating tons per year. Each of these components were assumed to be captured (or diverted from disposal) at different, including food waste, paper waste, landscape waste, manure and bedding, and muncipal biosolids. Commercial waste sub-components have varying rates of capture, based on historical observtions of overall efficiencies of separation,with foodwaste and paper waste being higher than landscape waste. This is due to the likelihood that most lanscape waste from this sector is handled and recycled by third party contractors. Residential waste has a similar pattern with overall efficiencies slightly higher than commercial waste. The higher rates are due to better contaminant control and uniformity of waste materials from residential sources. Manure rates are assumed to be a small percentage of manure and animal bedding that might currently be hauled off the island. This assumes most of this agricultural waste material is already land applied or composted onsite and not hauled offsite. Biosolids are assumed to be a small percentage of the generation rate as a way to diversify municipal options but not to process all the biosolids on the island. The biosolids are added in reasonable volumes to enhance but not overload the anaerobic digestion process. With the assumptions stated, biosolids are limited to 35% of the overall mass input for the larger scenario. There are no biosolids in the smaller scenario, and there is a specific discussion in the Market Development section herein regarding the regulation of biosolids in soil products.

Component	Capture
commercial food waste	15%
commercial paper waste	29%
commercial landscape waste	5%
residential food waste	26%
residential paper waste	39%
residential landscape waste	6%
manure and bedding	28%
biosolids	22%

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Appendix A includes a concept for higher capture and diversion rates, with a larger facility, for comparison. It is much more ambitious but may, in fact, be reasonable in the future.

The mass input rates were prepared using current population rates for both Bainbridge Island and Poulsbo area (24,000 and 10,000 respectively). This overall 34,000 population is expected to grow to 43,000 by the year 2035. So for facility sizing, a population basis for year 2035 was used.

The discussion below relies on the two tiers of organic materials being recycled in separate systems: Tier 1 being the current, low-contamination, compostable feedstock that can be processed by others at a lower overall cost per ton. Tier 2 is the future, more-complex digestible mix of feedstock with more protein, fat, paper products, moisture, and incidental contaminants containing plastic, glass, and metal.

Using these numbers, the concept was first applied to a smaller Bainbridge Island facility without off-island organic materials or municipal biosolids. This is the minimum effective planning size (7,200 tons per year of Tier 2 feedstock). Then the Poulsbo area and a portion of the municipal biosolids were added for the maximum effective planning size (11,000 tons per year Tier 2 feedstock). This approach provides a bandwidth of potential capacity in the year 2035 that has been used for capital cost opinion and land requirements. This approach assumes Tier 1 feedstock (4,200 tons per year) is being processed by others.

population	24000	10000	34000	43000
AD ONLY + PRIVATE COMPOSTING	Bainbridge	Poulsbo	Total	2035
Selected for TM 2 Design	tons/yr	tons/yr	tons/yr	tons/yr
commercial food waste	1,500	500	2,000	2,500
commercial paper waste	450	250	700	900
commercial landscape waste	200	50	250	300
residential food waste	1,000	-	1,000	1,300
residential paper waste	200	-	200	300
residential landscape waste	1,100	-	1,100	1,400
manure and bedding	500	-	500	500
biosolids	3,800	-	3,800	3,800
Subtotal Bainbridge Island only	4,950		5,750	7,200
Subtotal with Poulsbo & Biosolids	8,750	800	9,550	11,000
tons by sector	Bainbridge	Poulsbo	Total	2035
	tons/yr	tons/yr	tons/yr	tons/yr
commercial	2,150	800	2,950	3,700
residential	2,300	-	2,300	3,000
manure	500	-	500	500
biosolids	3,800	-	3,800	3,800
Subtotal	8,750	800	9,550	11,000
Min size, tons/yr	7,200			7,200
Max size, tons/yr	11,000			11,000

The two geographic areas share the same collection company which makes the combined area practical from a collection and scale perspective. This project could be developed for either of these scenarios or in phases, growing incrementally over time. The renewable energy generation equipment ranges from lower efficiency

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(lower capital cost) generation equipment and biomethane yields to higher efficiency equipment and yields. It also includes a peaking strategy vs. base load 24-7 generation. Both are feasible within bioenergy projects so long as there is capital available for procurement of gas storage and larger generation and interconnect equipment.

The actual biogas and energy yield is determined by the design, operation, amount, and energy content of the organic waste received each week. This conceptual design follows the state of art by designing for a relatively high energy density (calories per wet lb.) of waste material. Uneaten food, especially starch, sugar, and fat are high in energy density. Vegetables, grass, and paper products, landscape waste, manure, and biosolids are less energy dense. Designing for a relatively high energy density is prudent to insure all the energy produced is captured and used. It helps insure the energy generation equipment is not undersized. The reality of this approach typically results in the actual energy production being less than the maximum nameplate capacity however, on any typical day.

The resulting organic fertilizer and soil product yield is determined by how moisture control and final curing of the digested output is managed. This conceptual design includes a small (400 tons/yr) liquid digester for high-organic-strength (high biogas yield) liquids to be digested in a relatively small CSTR digester. This would be in parallel to the larger HSAD dry continuous digester (6,800 to 10,600 tons/yr), and insure the larger digester operates at its optimum moisture content (not too wet). The small CSTR digester generates a liquid plant food that can be used in that form or dried to a granular fertilizer that can be stored, packaged, and transported easily. The larger HSAD digester generates a fibrous, wet material that must be cured, amended, and aerated to make a finished compost. This Tier 2 design includes the composting and finished systems to make a final, commercially valuable product. The concept design further anticipates a Tier 1 facility may be near or adjacent to this system. The Tier 1 facility is assumed to be designed, purchased, built, owned, and operated by others (4,200 tons/yr).

This is a zero-waste system that does not rely on a wastewater treatment system or landfill or export of any material off the island. That notwithstanding, to the extent there is plastic, glass, or metal commingled in the organic waste, the system is designed to anticipate a small percentage (less than 1%) for removal. This incidental contamination represents the only by-product of the system.

The renewable energy generation is designed as a combined heat and power station (CHP) that delivers both electricity and heat. For simplicity we have expressed the energy output as a continuous generation on a 24 hour basis. For larger energy plants this is sensible since startup and shutdown takes time and labor to execute. However, it may be in the final design that the plant would be operated at peak daily periods to supply peak electrical demand. For example, the plant could be operated 3 hours within each 24 hour period and therefore generate 8 times the kW when operating. The table below is showing continuous generation without this peaking factor, which is approximately 284 to 442 kW on a 24-hour basis, plus another 256 to 399 therms per day of heat generation. The second table shows how the peak generation could be designed for 3 or 8 hours per day. At 3 peak hours per day the generation rate could be approximately 2.2 MW to 3.5 MW. This requires gas storage for the remaining 21 hours each day. The co-generated heat is valuable for digestate finishing and for co-located year round greenhouse production. The capital budgets presented herein assume generation on a 24-hour basis (24/7).

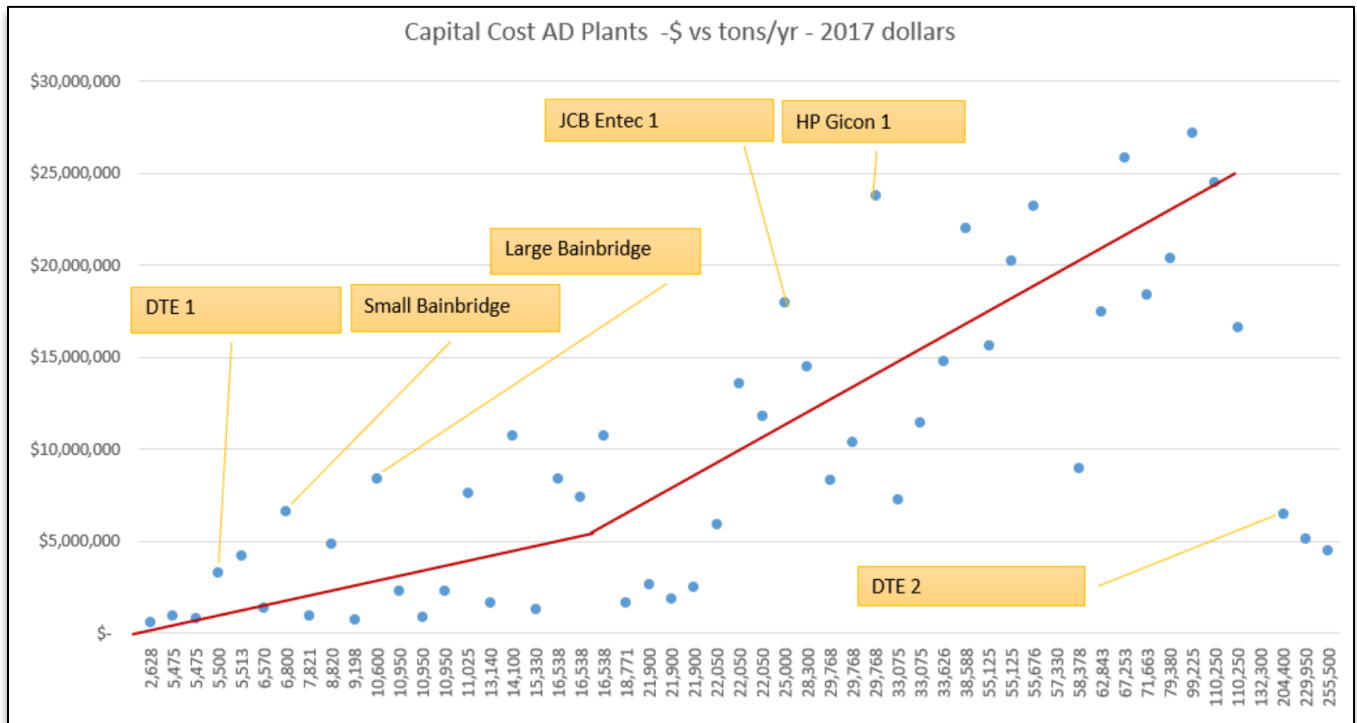
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CHP sizing	Small Concept	Large Concept
tons/yr	6,810	10,610
BTU/hr gross	2,516,976	3,921,456
gross kW	737	1,148
electric efficiency assumed	38.5%	38.5%
kW output typical, 24-7 basis	284	442
heat output typical btu/hr	1,065,939	1,660,737
heat output typical therm/day	256	399
thermal efficiency	42%	42%
no of CHP units	2	2
peak output kW all units	600	900

Generation Alternatives		Smaller	Larger	
Electric only	low efficiency	230	360	24/7 baseload
CHP (heat not shown) base case	high efficiency	280	440	24/7 baseload
CHP (heat not shown)	high efficiency	840	1,300	8 hr/day peak
CHP (heat not shown)	high efficiency	2,200	3,500	3 hr/day peak

Order of Magnitude Cost

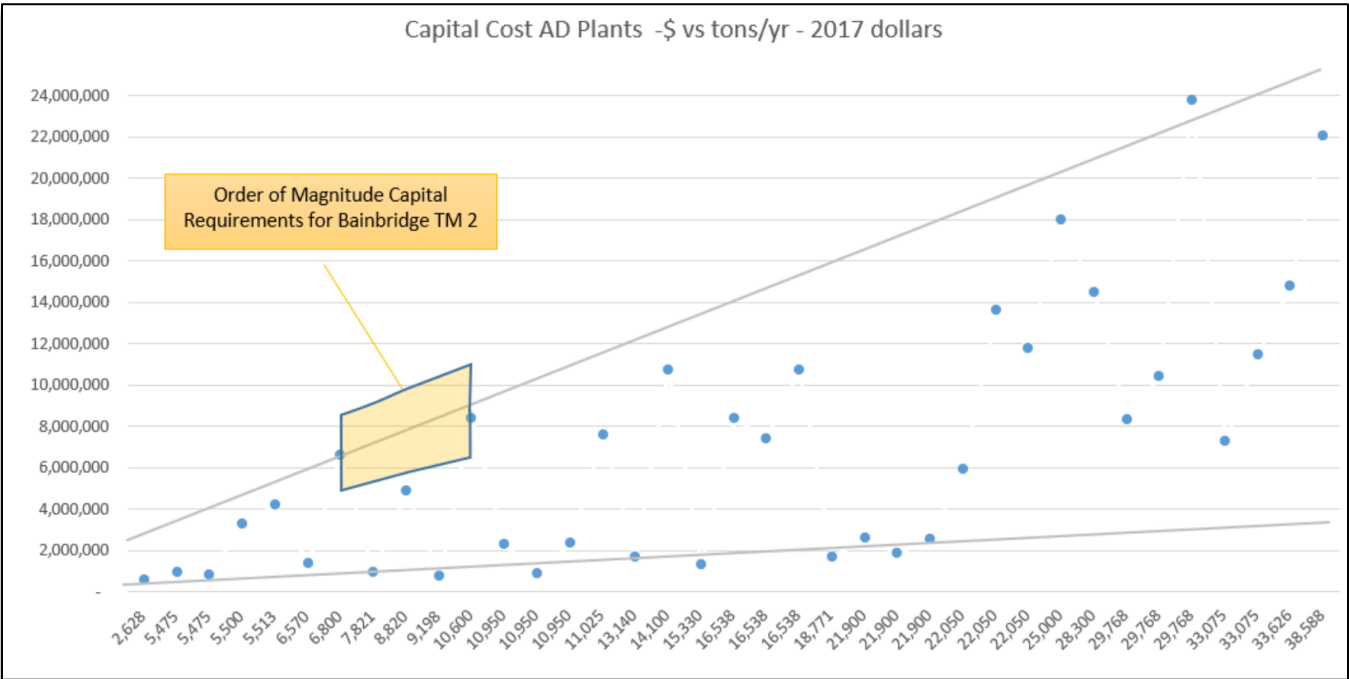
Capital Cost varies considerably due to technology type, feedstock type, facility location and climate, vendor location, currency conversions, geotechnical conditions, permitting, odor control, architectural design, contamination rate, gas conditioning, digestate finishing, and energy generation equipment. The conceptual cost in this TM estimates the capital investment between \$5,100,000 and \$10,900,000 without land cost. The graph below shows a sampling of capital cost vs. scale (tons per year). This shows a high variability of capital cost per ton per year. The data in this graph is for all technologies and feedstocks. The scale (x) axis is not linear but rather indexed to each datapoint from 2,600 to 256,000 tons per year. Four specific datapoints are highlighted representing CSTR and HSAD facilities in the Northwest (Daritech DTE 1 has not been built). The Gicon and Entec projects had a number of escalating factors including currency conversion, feedstock contamination, geotechnical problems, odor control complications, and long development cycles. The Daritech DTE 2 project did not have any of those challenges and was designed for agricultural organic waste (manure).



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Using the upper and lower boundaries in this chart our cost opinion reveals a wide variability in capital estimates. As the design process progresses the upper and lower boundaries can be brought closer together with greater confidence. The table and graph below show the lower and upper estimated cost.

Order of Magnitude Capital Cost Opinion				
	calculated	min	max	
small	\$ 6,597,368	\$ 5,100,000	\$ 8,600,000	
large	\$ 8,411,457	\$ 6,500,000	\$ 10,900,000	



A value engineering exercise was performed to evaluate opportunities to manage costs down if necessary. The capital cost could be lowered using any or all of these changes in the overall basis of design.

1. Separating the composting/finishing process from the bioenergy process, with composting of Tier 2 feedstock discharged by the anaerobic digestion system to be performed by an existing third party contractor at a different location. System complexity and risk would increase. **These elements account for approximately 25% of the capital cost and 45% of the land requirements.**
2. Phasing the scale of development into two distinct phases between now and 2035. This would de-risk the capital investment to some degree by insuring full potential and appropriate scale is reached initially. There may also be improvements in technology for electrical generation and energy storage. For example, building the initial plant at the minimum size (7,200 vs. 11,000 tons/yr). **This could reduce the capital cost by approximately 25%.**
3. Elimination or delay of the liquid CSTR digester. Presuming the liquids can be initially managed within the continuous HSAD digester this accounts for approximately 6% of the capital cost and land requirements. **This could reduce the capital cost by approximately 6%.**

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4. Reduction of the size of the gas storage elements in the bioenergy process. The current concept allows for a 24 hours of biogas production to be stored for energy generation. If this were reduced the cost of gas storage could be reduced proportionately. For example, a reduction in biogas storage to 12 hours might account for a reduction of 4% of the capital cost and land requirements. **This could reduce the capital cost by approximately 4%.**
5. Innovative contracting methods with incentives for cost underruns and collective risk minimization may reduce the overall capital cost. Developing win-win contract terms can sometimes yield quicker and more cost-effective construction without reducing quality. **For the purpose of discussion a 5% capital cost reduction is used in this TM for illustration purposes.**

Applying the compounded potential of all five elements described above creates a Cumulative Potential in reducing Capital Cost. The overall potential is shown below – representing a focal point to strive for, for cost management. This may not be completely feasible given the specific evolution of the project but nonetheless illustrates how to manage capital cost if necessary.

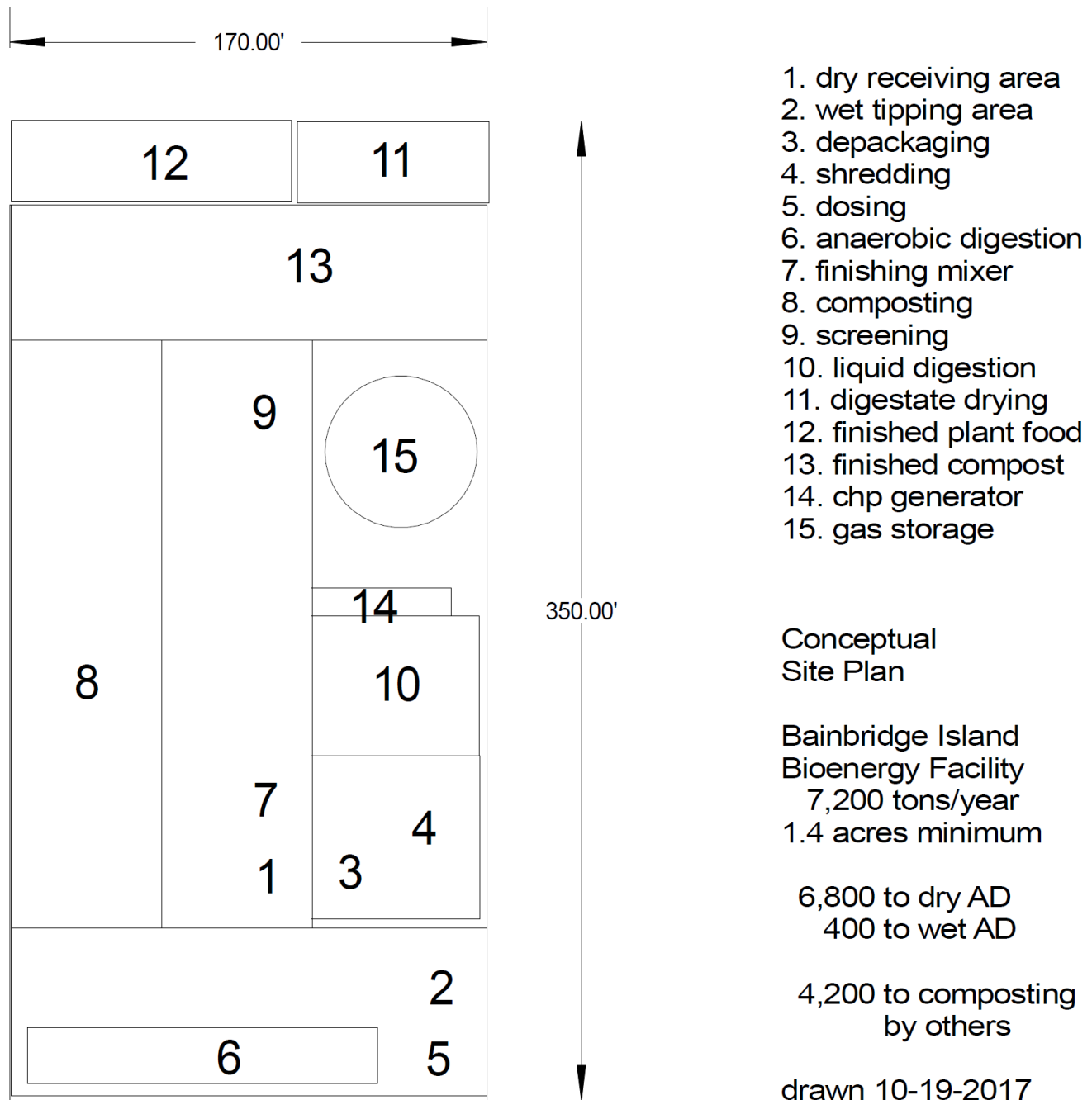
Cumulative Potential Results of Value Engineering Discussion Above

Order of Magnitude Capital Cost Opinion					
	calculated		min	max	
small	\$	3,958,421	\$	3,000,000	\$ 5,100,000
large	\$	5,772,510	\$	4,400,000	\$ 7,500,000

The land requirements for both the small and large versions of this concept design are depicted in the following site plans, ranging from 1.4 to 1.6 acres. These were prepared to show the relative size of each element and what the facility might look like in plan view.

The following two site plans correspond to the small and large concept designs.

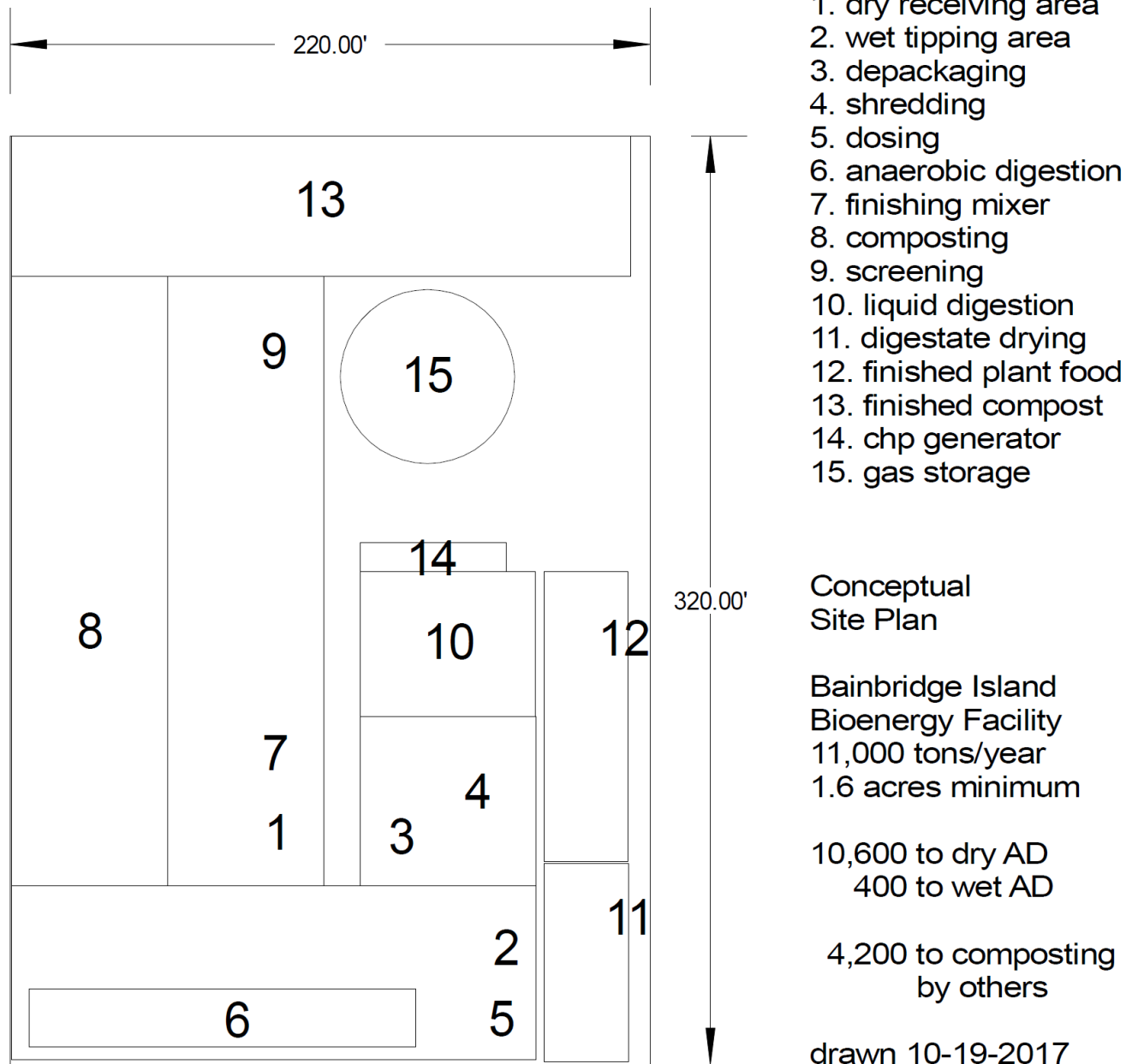
Smaller Facility Concept



Note: Waste receiving, feedstock preparation, material handling areas, drying, screening, transfer areas are enclosed or partially enclosed for odor control and weather protection. Resident compost piles and screened compost storage are assumed unenclosed.

This is a site plan with both Tier 1 and Tier 2 composting operating in parallel at the same location. The Tier 1 facility is not included in the cost opinion. It is assumed to be owned by others is estimated to have a capital cost of approximately \$1,900,000, and may increase the overall land requirements.

Larger Facility Concept



Note: Waste receiving, feedstock preparation, material handling areas, drying, screening, transfer areas are enclosed or partially enclosed for odor control and weather protection. Resident compost piles and screened compost storage are assumed unenclosed.

This is a site plan with both Tier 1 and Tier 2 composting operating in parallel at the same location. The Tier 1 facility is not included in the cost opinion. It is assumed to be owned by others is estimated to have a capital cost of approximately \$1,900,000, and may increase the overall land requirements.

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Operating costs are highly site specific. The table on the following page shows a small facility sized at 175 tons per year. We then factored proportionally to arrive at an annual rate for each item which will serve as a placeholder value for future design and planning. We assumed receiving a REAP grant (USDA Rural Energy for America Program) which Bainbridge Island qualifies for as a non-urban area. The State of Washington Clean Energy Fund FY 15/17 has four subprograms that might also yield funding for this type of project.

The table shows capital required, income and avoided costs, operating expenses, and net annual project income. This model can be used when more refined figures are generated during design and budgeting.

It should be noted that this conceptual design is presented as a zero waste plan with only the disposal of incidental contaminants. All the outputs from the facility are monetized. This is expected to be possible for Bainbridge Island and vicinity. The interest in community supported agriculture and sustainable practices is high. The income and avoided costs show a value stream for recycling services, renewable energy, carbon credits, and plant food/soil amendment sales. These together represent a significant value stream to offset capital and operating costs. We have discounted the value of electricity and heat to be 50% of that used for commercial food waste as a sole waste stream, and then applied a second factor of 70% to account for daily variations in energy density below the nameplate maximum.

We have conducted a market survey of plant food/soil amendments marketed at the retail level. Liquid products are often concentrated and represent a dehydrated version of what might be discharged directly from the digester. The pricing ranges from \$18 to \$140 per gallon. Likewise the retail pricing for comparable dry fertilizer product is \$2 to \$7 per lb., and the retail pricing of compost is \$30 to \$40 per cubic yard. This does illustrate the potential for value-added marketing and branding of a new liquid product into this market.

This concept design illuminates a noteworthy water conservation dynamic for Bainbridge Island. These organic products may be valuable in the overall sustainability and irrigation demand dynamics during the dry summer months on Bainbridge Island. It can reduce demand on potable and groundwater sources. More discussion on this can be found in the Market Development of Soil Amendments below.

Both sizes show a positive net annual value below. This can be refined and validated during design, operations, and marketing follow up work on this concept. No contingency, geotechnical, interconnect, engineering, architectural, land, or legal costs are shown at this time.

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Base case is assuming a totally portable AD system AD 25-2

Capital Investment	quantity	units	unit cost	amount	TM 2 Smaller	TM 2 Larger
					Bainbridge Island Small	Bainbridge Island Large
Anaerobic Biomethane System with 2.5 kW power output	1	LS	\$ 108,200	\$ 108,200		
Digestate storage tank for forklift, 330 gal	-	EA	\$ 1,000	\$ -		
gas storage	1	LS	\$ 35,500	\$ 35,500		
dedicated CHP system	1	LS	\$ 100,000	\$ 100,000		
supplemental perimeter odor control misting system	-	LS	\$ 2,900	\$ -		
supplemental digestate batch pasteurization system	-	LS	\$ 17,500	\$ -		
composting system for HORSE	-	LS	\$ 45,000	\$ -		
subtotal capital cost				\$ 243,700	\$ 6,600,000	\$ 8,400,000
offsetting grant, crowdfunding, private party participation				\$ -	\$ 1,650,000	\$ 2,100,000
adjusted gross CAPEX				\$ 243,700	\$ 4,950,000	\$ 6,300,000

Income and Avoided Costs	assuming 60% of total seattle curbside rate					
avoided tip fees paid to AD	175	tons	\$ 167.26	\$ 29,270	\$ 1,204,256	\$ 1,839,836
tip fees for Composting	-	tons	\$ -	\$ -	\$ -	\$ -
tip fees for Biocarbon production	-	tons	\$ -	\$ -	\$ -	\$ -
carbon credits - avoided greenhouse gases	280	tonnes	\$ 53.47	\$ 14,972	\$ 615,992	\$ 941,098
value of fertilizer (discounted due to volume)	37,770	gallons	\$ 0.40	\$ 15,108	\$ 186,475	\$ 284,892
value of heat (ALTERNATIVE 1)	8,738	therms	\$ 0.40	\$ 3,495	\$ 50,331	\$ 76,895
value of electricity (ALTERNATIVE 2)	89,556	kwhr	\$ 0.090	\$ 8,060	\$ 116,064	\$ 177,321
subtotal; value or revenue				\$ 72,365	\$ 2,233,187	\$ 3,411,814

Expenses

labor	500	hours	\$ 28.00	\$ 14,000	\$ 864,000	\$ 1,320,000
offsite material handling	164	tons	\$ 65.00	\$ 10,660		
onsite material handling	-	tons	\$ 20.00	\$ -	\$ 108,000	\$ 165,000
power	3,651	kwhr	\$ 0.090	\$ 329	\$ 13,519	\$ 20,654
subsurface landscape feeding	12,464	gallons	\$ 0.02	\$ 194		
consumables and repairs	175	tons	\$ 10.00	\$ 1,750	\$ 72,000	\$ 110,000
disposal of trash	0.88	tons	\$ 319.45	\$ 280	\$ 11,500	\$ 17,570
subtotal expenses				\$ 27,213	\$ 1,069,019	\$ 1,633,224

Project Financial Metrics

Annual Project Savings (Cost)	10%	15%	\$ 492,000	\$ 923,000
Simple payback period in years	10.1	6.8		

Market Development of Soil Amendments

The conversion of the soil amendments into commercially valuable products is equally important to the renewable energy generation. The table below shows the expected annual finished product value stream for both the small and large concepts.

Finished Product	Small Concept	Large Concept
Compost	8,400	11,300 CY/yr
Dried Fertilizer 80%	8	8 tons/yr
Liquid Plant Food 20%	18,000	18,000 gal/yr

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The anaerobic digestion and composting processes yield water, nutrients, organic matter, and beneficial microbes. Frequently the liquid soil amendment is also aerated after digestion to activate facultative and aerobic microbes. These populations consist of living microorganisms such as rhizobacteria, which when applied to soil in an aerobic environment, colonize the rhizosphere and promote growth by increasing the supply or availability of primary nutrients to the host plant. As a result, macronutrients and micronutrients are readily available in liquid soil amendments. The same holds true for compost and dry fertilizer, although dry fertilizer has less live microorganisms but can be stored, packaged, and shipped easier.

Organic matter and probiotics are so important in the soil matrix that they are commonly cited as the source of both nutrients and microbial populations that facilitate nutrient transfer to plants. In this relationship, the plant and soil system are interrelated. Plants put 60-80 percent of their energy back into the soil, about half of it in the form of exudates that feed the soil food web. Microbes and fungi rely on these plant exudates as their basic food source, and the plants rely on the microbes and fungi to make enzymes (which the plants cannot make themselves) to convert nutrients into plant-usable forms.

Plant food/soil amendments can be used both as a soil amendment and liquid products can be an irrigation supplement. They are rich with probiotics believed to promote beneficial endophytes that have been depleted from our biosphere due to deforestation, agrochemical use, pollution and other human activities. Despite conditions with limited nitrogen, plant-endophyte relationships result in fuller root systems and taller, larger plants with more biomass¹.

One important market issue to consider is the regulations regarding inclusion of biosolids in this project. While biosolids have valuable nutrients, probiotics, organic matter, and moisture for soil stewardship, they are not allowed for use in organic food production and cannot be OMRI or USDA certified as an organic soil amendment or fertilizer.

There are a number of market pathways for digestate. Some of them are complimentary to compost and mulch sales. The list below shows a few that can and should be considered:

1. Liquid fertilizers or soil amendments
2. Dried organic fertilizers
3. Dried and pelleted organic fertilizers
4. Dried and pelleted fuel
5. Constructed wetlands, forests, bogs, and other high-carbon soil banking projects
6. Constructed pasture and cropland
7. Constructed high organic matter crop land
8. Integrated farming systems in greenhouses and vertical farms
9. Hydroponic farming systems

Some of these produce heat and some require heat during their manufacture. Several of these systems can be combined to make a more robust and sustainable system. Employment opportunities are associated with all these pathways. These examples illustrate how diverse the options are for recycled product marketing. When combined with composting and gasification the list can also include these pathways:

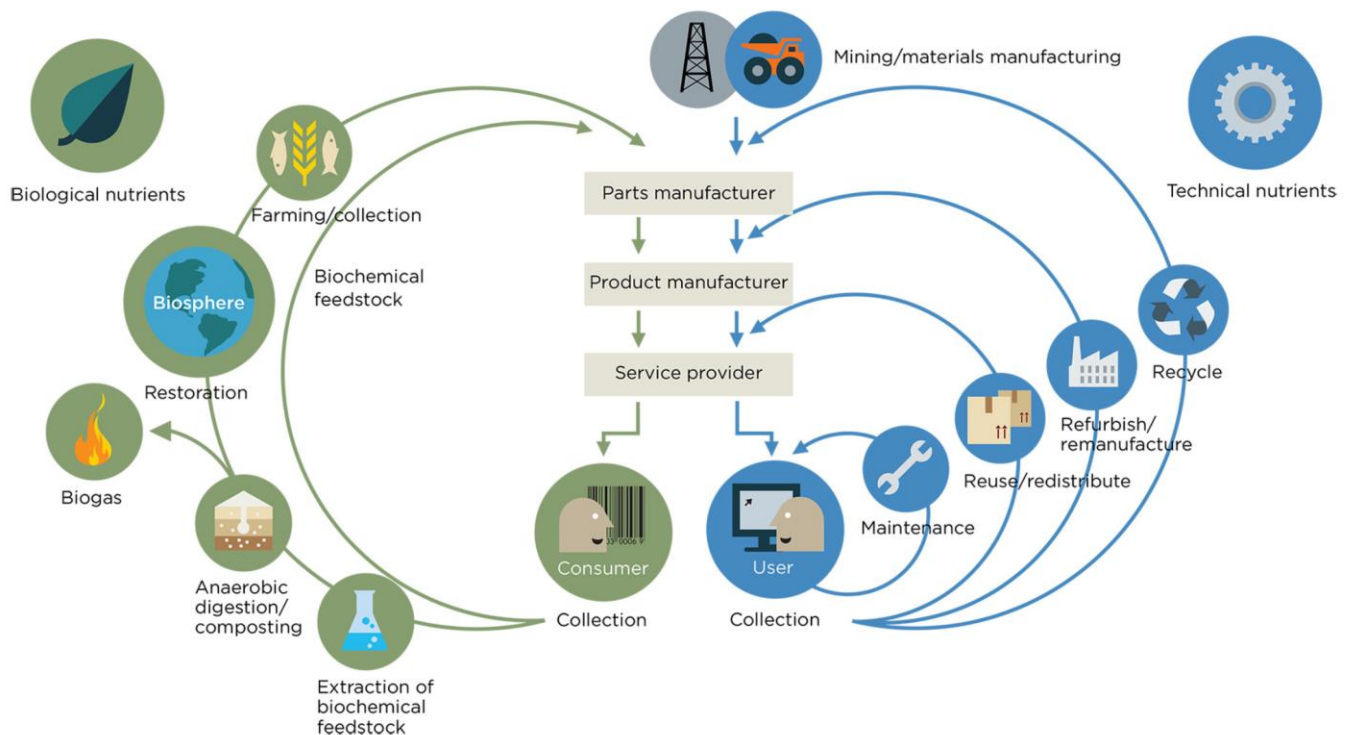
10. Gasified biochar and charcoal products

¹ Research performed by Sharon Doty, Assistant Professor and team, University of Washington: <https://www.agronomy.org/news/media-inquiries/releases/2015/0708/679/>

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11. Prepared (shredded and screened) and dried wood fuel
12. Integrated surface water treatment systems and living roofs
13. Non-traditional systems like vermiculture, aquaculture, black soldier fly cultivation

The diagram below how organic waste plays a significant role in a zero-waste circular economy. The green loops and icons represent organic wastes. The blue loops and icons represent plastic, paper, glass, and metal. Source: Ellen MacArthur Foundation.



Elements to Achieve a Successful Project

The key elements for success in this type of project are shown below.

- Adequate financial capital to build and operate the facility
- A suitable real property site that is compatible with traffic, utilities, and land use
- A collection system that addresses economics, source separation education, and contaminant control
- A practical plan for the beneficial use of the renewable energy
- A practical plan for the beneficial use of the organic matter, water, nutrients and probiotics in the digestate or compost or soil products
- A strong partnership with local farmers and the land and landscape

Summary of Project Benefits

1. Production of continuous, onsite, renewable energy. The energy can be stored at night and used during the day if necessary. It does not depend upon sunlight or wind for production.

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2. Elimination of foodwaste dumpsters with the associated odor, birds, flies, rodents, insects, and leakage that foodwaste can produce.
3. Elimination of the hauling, fuel use, and traffic impacts associated with trucking waste from the city to a distant processing facility. This reduces urban traffic congestion as well as truck exhaust emissions.
4. Conversion of the organic materials into valuable plant food, compost, and fertilizer. This can be returned to the soil to improve the sustainability of local gardening.
5. New employment of people in the conversion of waste to bioenergy, commercial products, and the local food supply chain industry, sometimes referred to as a circular economy.
6. Collaboration with local educational curriculums such as culinary arts, horticulture, sustainable agriculture, viticulture and wine technology, engineering, environmental science, business, biology, and education.
7. Achieving significant diversion of waste from disposal, moving the city closer to zero-waste goals.
8. Improving the local soil-water-air ecosystem by returning carbon to the soil and displacing the need for chemical fertilizers, pesticides, and herbicides.
9. Improving the opportunities for farm-to-table food production and healthy food networks which will improve the well-being of its communities.

Examples of Existing Bioenergy Projects

The following images show various bioenergy projects without any architectural or landscape treatment.

These are strictly machinery images and process diagrams.

Accessory uses like greenhouse production and educational venues (for student visits and internships), architectural and landscape features are possible but not shown in these images.



Thoni



Thoni

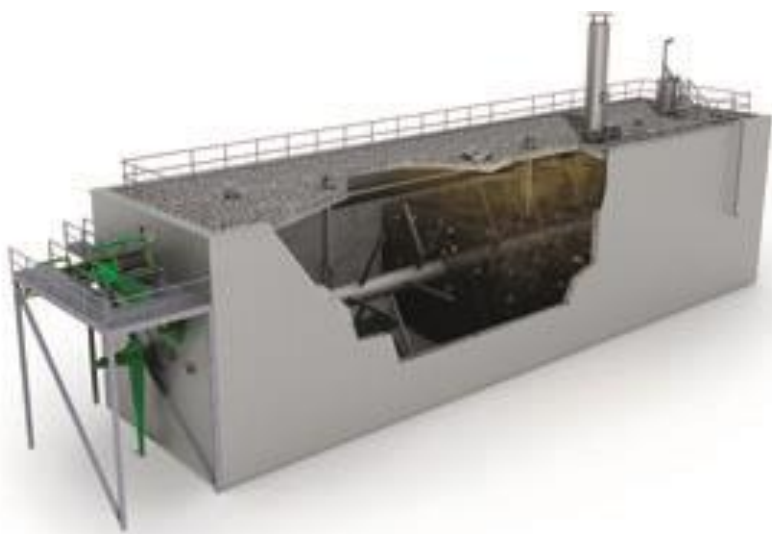
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Thoni



Thoni



Kompogas

TECHNICAL MEMORANDUM – IMPACT BIOENERGY INC



Kompostogas



Kompostogas



Dranco

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Dranco



Valorga

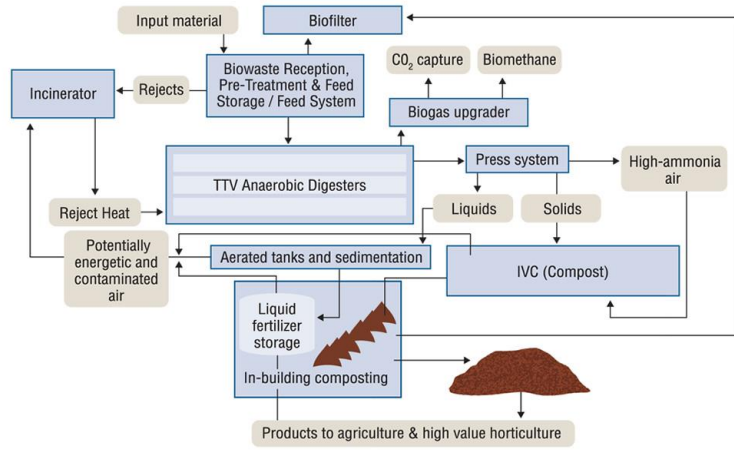


Valorga



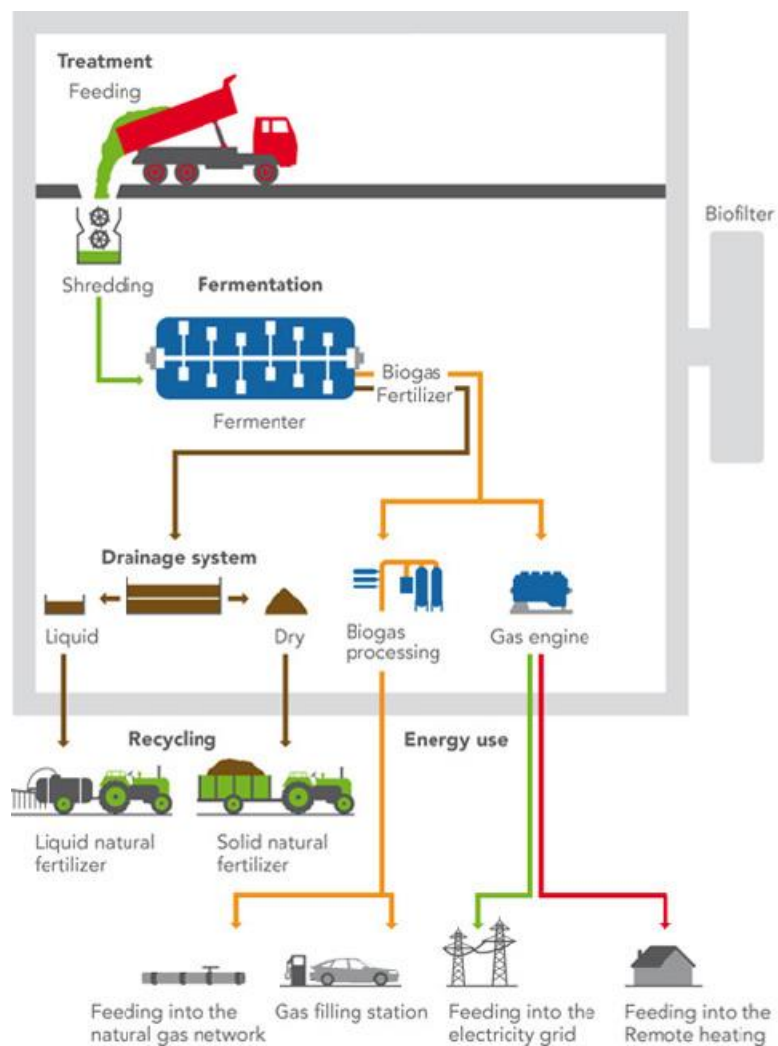
Thoni Process

Figure 1. Process flow diagram

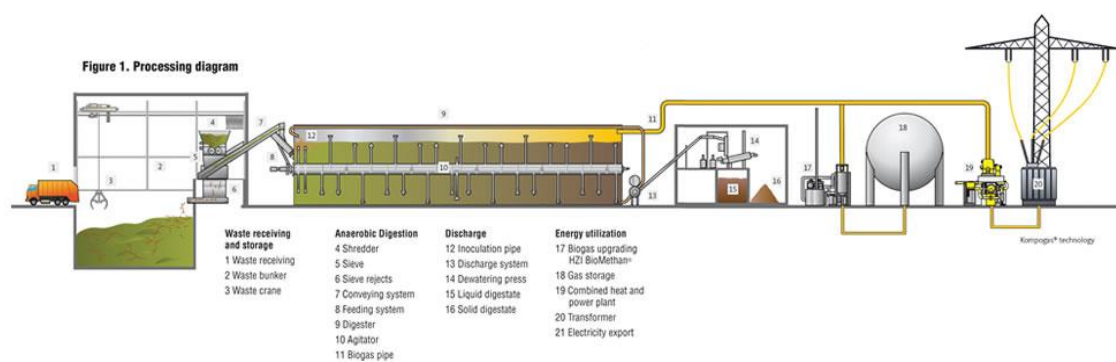


Thoni Process

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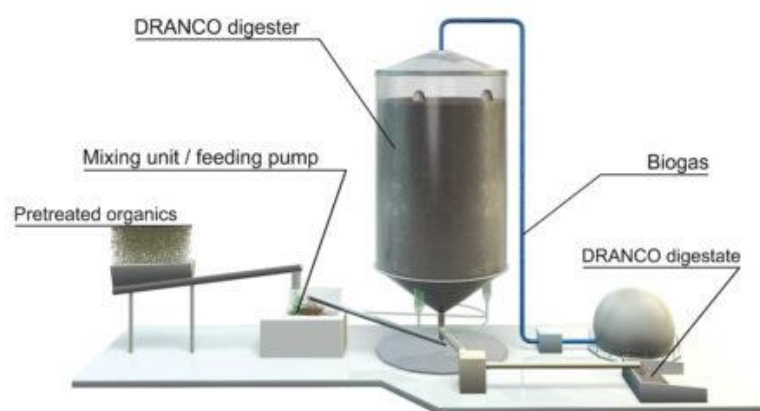


Kompostogas Process

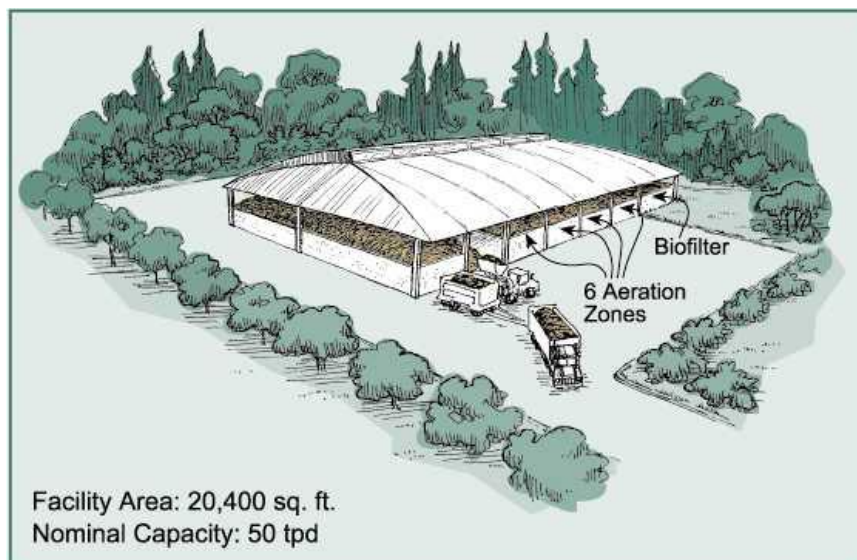


Kompostogas Process

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Dranco Process



Partially Covered Composting



Uncovered Composting

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Partially Covered Composting



Compost Finishing



Compost Seasonal Storage

Appendix A

First Concept Development

Assuming 50% Commercial SSO Diversion and 80% Residential Diversion

Using these assumed diversion numbers, the same concept was applied to a smaller, Bainbridge Island facility without Poulsbo or municipal biosolids as the minimum effective planning size (16,400 tons per year). Then the Poulsbo area and a portion of the municipal biosolids were added for the maximum effective planning size (31,100 tons per year). Then, as in the above memo a bandwidth of potential capacity in the year 2035 has been used for capital cost and land requirements.

population	24000	10000	34000	43000
	Bainbridge	Poulsbo	Total	2035
Selected for TM 2 Design	tons/yr	tons/yr	tons/yr	tons/yr
commercial food waste	5,400	2,300	7,700	9,700
commercial paper waste	900	400	1,300	1,600
commercial landscape waste	500	200	700	900
residential food waste	2,200	-	2,200	2,800
residential paper waste	300	-	300	400
residential landscape waste	3,200	-	3,200	4,000
manure and bedding	500	-	500	600
biosolids	8,700	-	8,700	11,000
Subtotal Bainbridge Island only	13,000		15,900	16,400
Subtotal with Poulsbo & Biosolids	21,700	2,900	24,600	31,100
tons by sector	Bainbridge	Poulsbo	Total	2035
	tons/yr	tons/yr	tons/yr	tons/yr
commercial	6,800	2,900	9,700	12,300
residential	5,700	-	5,700	7,200
manure	500	-	500	600
biosolids	8,700	-	8,700	11,000
Subtotal	21,700	2,900	24,600	31,100
Min size, tons/yr	16,400			16,400
Max size, tons/yr	31,100			31,100

This conceptual design includes a small (1,000 – 1,200 tons/yr) liquid digester for high-organic-strength (high biogas yield) liquids to be digested in a relatively small CSTR digester. A small fraction (1,300 – 1,600 tons/yr) would also be diverted directly to composting. This would be in parallel to the larger HSAD dry continuous digester (14,100 to 28,300 tons/yr), and insure the larger digester operates at it's optimum moisture content (not too wet). The concept design further anticipates composting and finishing as part of the overall process.

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The table shows eight different waste components for estimating tons per year. Each of these components were assumed to be captured (or diverted from disposal) at different overall rates, including food waste, paper waste, landscape waste, manure and bedding, and municipal biosolids.

Component	Capture
commercial food waste	60%
commercial paper waste	50%
commercial landscape waste	15%
residential food waste	80%
residential paper waste	80%
residential landscape waste	25%
manure and bedding	50%
biosolids	50%

The table below is showing continuous generation without this peaking factor, which is approximately 700 to 1,300 kW on a 24-hour basis, plus another 300 to 600 therms per day of heat generation. The heat is valuable for digestate finishing and for co-located year round greenhouse production.

CHP sizing	Small Concept	Large Concept
tons/yr	14,096	28,290
BTU/hr gross	2,960,118	5,940,900
gross kW	867	1,740
electric efficiency assumed	38.5%	38.5%
kW output typical, 24-7 basis	334	670
heat output typical btu/hr	1,253,610	2,515,971
heat output typical therm/day	301	604
thermal efficiency	42%	42%
no of CHP units	2	2
peak output kW all units	700	1,300

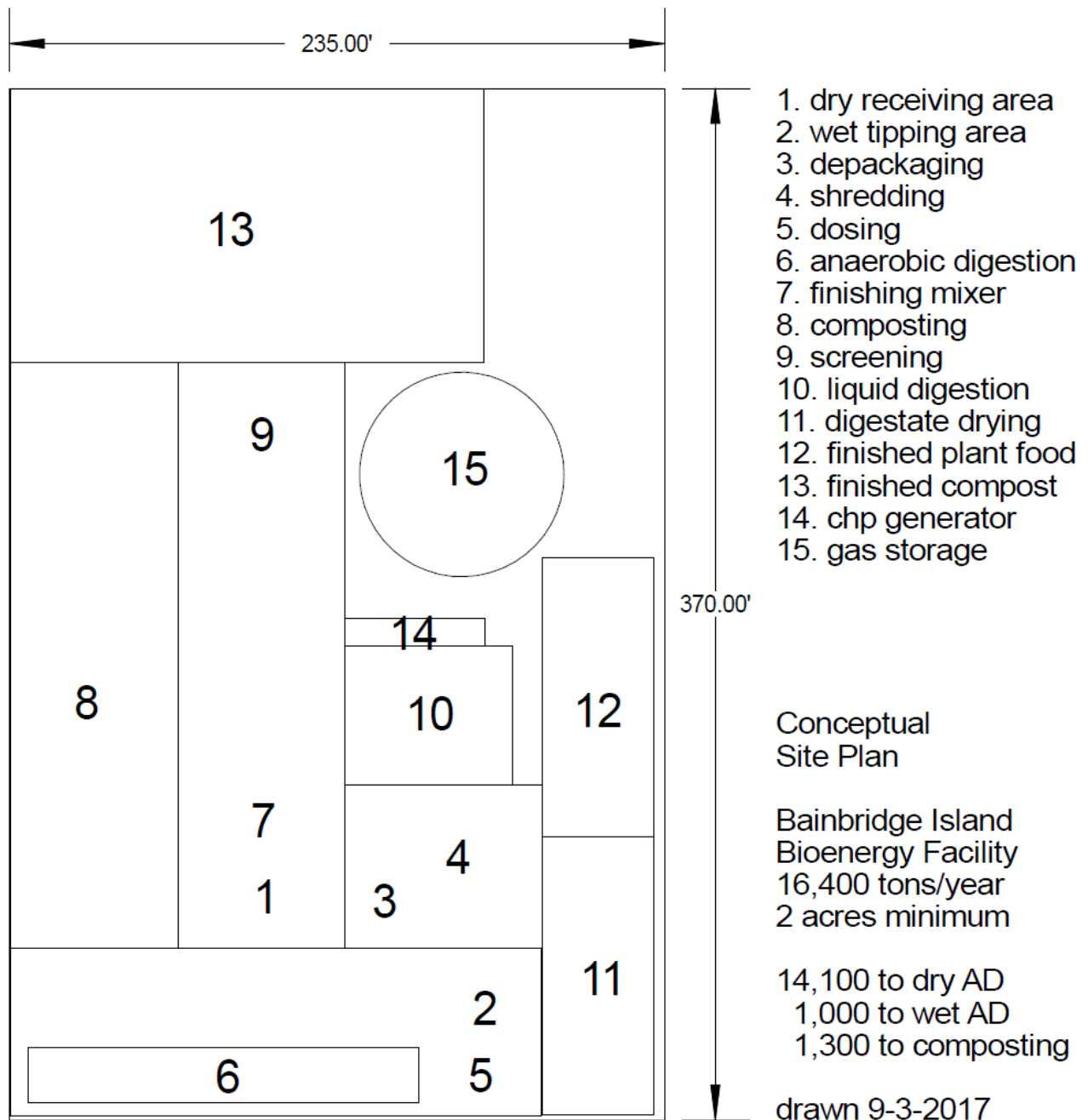
Market Development of Soil Amendments

The conversion of the soil amendments into commercially valuable products is equally important to the renewable energy generation. The table below shows the expected annual finished product value stream for both the small and large concepts.

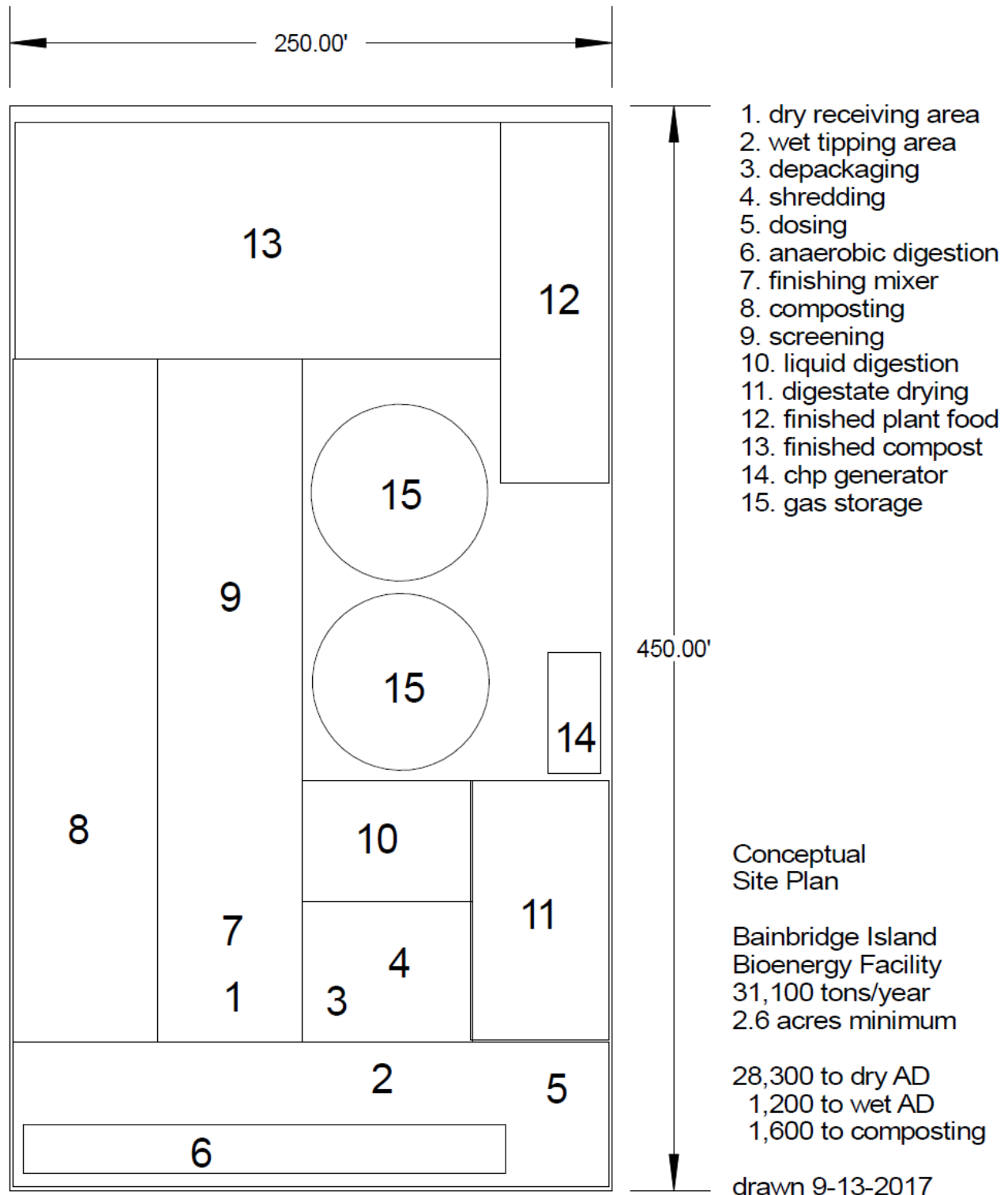
Finished Product	Small Concept	Large Concept	
Compost	11,500	22,200	CY/yr
Dried Fertilizer 80%	20	24	tons/yr
Liquid Plant Food 20%	44,000	54,000	gal/yr

The land requirements for both the small and large versions of this concept design are depicted in the following site plans. These were prepared to show the relative size of each element and what the facility might look like in plan view. The following two site plans correspond to the small and large concept designs.

The site plans are followed by a capital cost opinion as in the above memo.

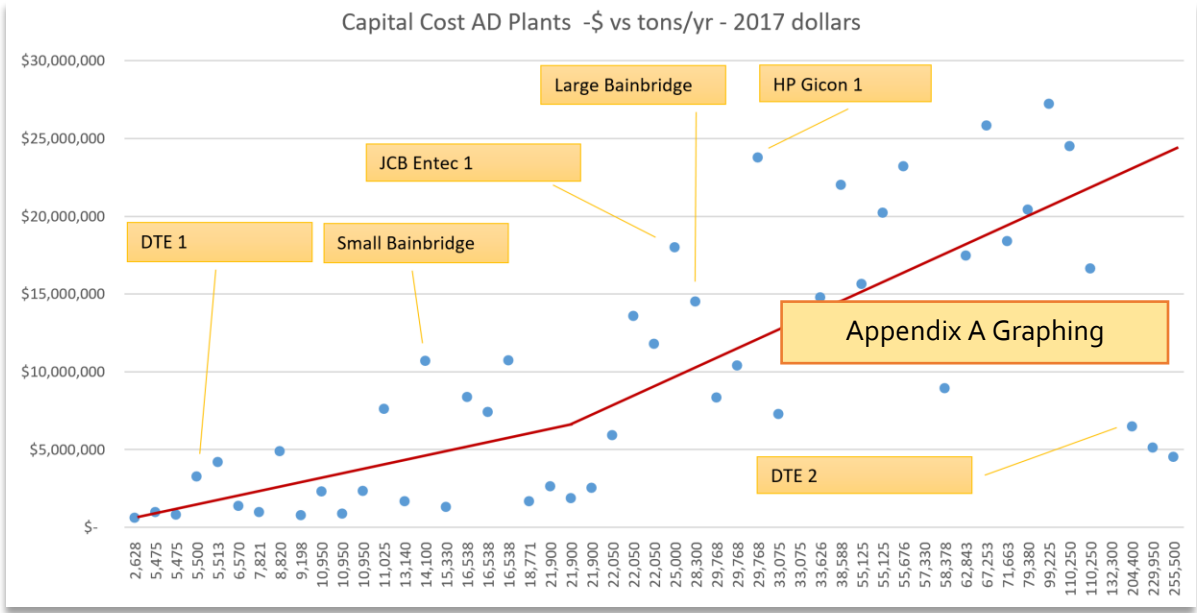


Note: Waste receiving, feedstock preparation, material handling areas, drying, screening, transfer areas are enclosed or partially enclosed for odor control and weather protection. Resident compost piles and screened compost storage are assumed unenclosed.

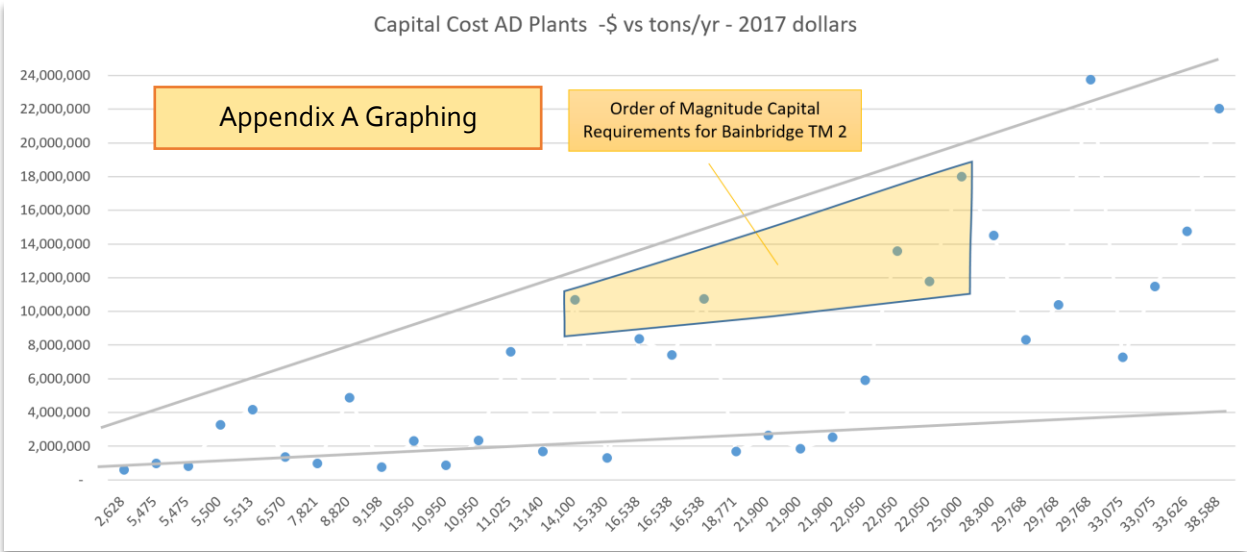


Note: Waste receiving, feedstock preparation, material handling areas, drying, screening, transfer areas are enclosed or partially enclosed for odor control and weather protection. Resident compost piles and screened compost storage are assumed unenclosed.

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Order of Magnitude Capital Cost Opinion				
	calculated	min	max	
small	\$ 10,669,998	\$ 8,200,000	\$ 13,900,000	
large	\$ 14,499,380	\$ 11,200,000	\$ 18,800,000	



Grant Opportunities Report for Climate Change and Sustainable Transportation

Created by Nick Shiach

Prepared for Climate Action Bainbridge and Bainbridge GreenWays

February 12th, 2021

Attached: Climate Change and Sustainable Transportation Grant Opportunities Spreadsheet



Ferry heading towards Bainbridge Island (photo: Don Willott)

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5. The Beyond Grants section outlines the strategies and ideas that could provide crucial funding or non-monetary support for climate action and sustainable transportation projects.	18
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7. The Grantors in Detail section highlights some of the top grantmakers and explains the process they use.	27
8. The Next Steps section outlines the important application information for a few top grant programs and provides a to-do list for the general grant application process.	33
9. Appendix A has more information on high priority sustainable transportation grants that are not mentioned elsewhere.	36
10. Appendix B has more information on high priority climate action grants that are not mentioned elsewhere.	41
11. Appendix C has detailed information about the application process for selected grant programs.	44
12. Appendix D is a directory of contacts for the groups and departments that manage grant programs.	49
13. The Spreadsheet lists detailed information on each grant opportunity, many of which are not mentioned in this report.	Attached

1. Executive Summary

This project catalogues over 60 grant opportunities that could support climate change action and sustainable transportation on Bainbridge Island. These two topics represent two distinct projects that were combined. The climate change action project was commissioned by Climate Action Bainbridge (CAB), which is part of the nonprofit Sustainable Bainbridge. It is intended to identify grant opportunities that could provide funding to the City of Bainbridge Island (COBI) and potentially other taxing districts such as the Bainbridge Island School District (BISD) or the Bainbridge Island Metro Park and Recreation District (BIMPRD) to achieve the goals outlined in the city's first-ever Climate Action Plan (CAP).

One of the goals of the climate change action project is to provide the city's first Climate Mitigation/Adaptation Officer (Climate Officer) information on grant opportunities once a candidate is identified and hired for that position. This report will enable the Climate Officer to immediately focus on the highest priority grants with upcoming deadlines as the city's CAP implementation efforts begin.

The CAP was created by the COBI Climate Change Advisory Committee (CCAC) and approved in November 2020 by the Bainbridge Island City Council. It is a response to the worsening global climate crisis and the need for Bainbridge Island to prepare for its consequences. The CAP is intended to be a comprehensive roadmap that outlines specific actions that COBI and the community can undertake to reduce greenhouse gas (GHG) emissions and increase the Island's resilience as the climate changes.



Eagle Harbor on a summer day (photo: Visit Bainbridge Island)

The second project is on sustainable transportation, and was commissioned by Bainbridge GreenWays, which is also a part of Sustainable Bainbridge. The sustainable transportation project compliments the CAP-focused project by finding more funding opportunities and taking a deeper look at sustainable transportation grant programs. The main goal of the project is to provide guidance to COBI, Kitsap Transit, local nonprofits, and the BIMPRD and BISD on potential grant opportunities. The CAP calls for 50% of all trips on Bainbridge Island to begin

with walking or biking. To achieve this goal, Bainbridge GreenWays seeks to create a community-wide network of safe, convenient, and environmentally-friendly transportation options for people of all ages and abilities. The network must include an Island-wide interconnected system of dedicated biking and walking paths, protected bike lanes, safe low-traffic roads, and sidewalks. This would enable a shift away from fossil fuel transportation and towards walking and biking. Expanding and electrifying public transportation infrastructure such as buses, ferries, and their accompanying facilities is another important way to help people switch to more sustainable and efficient forms of transportation.

The result of these projects is this memo and the attached spreadsheet. The attached spreadsheet includes organized and detailed information on grant programs that could aid the implementation of the city's CAP and sustainable transportation programs. An effort was made to find grants from a diverse variety of federal government, state government, and nonprofits. Most high priority grants are originated or managed by the departments of the State of Washington using federal funds, state funds, or both.



One of Kitsap Transit's new electric buses (photo: Proterra)

Corporate or nonprofit giving is focused on donations to nonprofits, not government entities. The grants in the spreadsheet are organized into three main categories: CAP, walking/biking infrastructure, and motorized transportation.

COBI's existing financial capacity is limited and additional resources are needed to achieve the identified goals for climate action and sustainable transportation. Funds from grant programs must be used to bridge this gap. Most projects will need to pull funding from several different grant programs that each partially fund the project. This was true, for example, of the Olympic Drive Project which now provides greatly improved and accessible pedestrian and bicycle facilities between Winslow Way and the Washington State Ferries terminal.

Projects will require creative non-grant funding strategies as well, such as loans and requirements for new development, which would build momentum and public engagement for

climate action and sustainable transportation. Non-grant funding and community engagement are often important parts of successful grant applications and implementation of projects. These alternative strategies are outlined in the **Beyond Grants** section.

Due to grant timelines, many of the best grant opportunities will not be available until late 2021 or early 2022, and many of those opportunities may be more narrowly focused or competitive at that time due to decreased funding in the aftermath of the COVID-19 pandemic. These realities are unfortunate, but the good news is that climate change mitigation and adaptation and active transportation continue to be high priorities for state and regional funding. It is possible that federal stimulus funding may be provided which could give increased priority to bicycle, pedestrian, and other sustainable transportation modes and to local climate action.

The **Grantors in Detail** section takes a closer look at some of the most important grantmaking organizations, the **Next Steps** section seeks to provide guidance on the grant process in general, and the appendices provide additional information on individual grants and a detailed directory.

Below is a summary of the highest priority grant opportunities. The subjective ranking scale is based on the criteria listed in **Table #2** in the methodology section. Many of the deadlines and award amounts are based on information published for previous grant cycles.

Table #1: Overview of Priority 1 Grant Opportunities (Sorted by Projected Deadline)

Name/Link	Grantor	Summary	Award	Deadline
Grid Modernization	WA State Dept. of Commerce	Clean, renewable energy technologies and transmission and distribution control systems, along with sustainable microgrids.	TBA	Spring 2021
Urban Sidewalk Program (SP)	TIB ¹	This program funds safety, access, and system connectivity through accessible sidewalk construction.	Average: \$320,000	August 2021
Solar Grants Program	WA State Dept. of Commerce	This grant is designed to reduce costs and fossil fuel use by installing solar panels on public buildings.	Max: \$350,000	Summer or Fall 2021
Large Grant Program (Huney)	Rotary Club Bainbridge Island	This local grant gives the community assets that would improve the quality of life for people in our community.	\$25,000-\$500,000	September 1st, 2021

¹ Washington State Transportation Improvement Board (TIB)

Name/Link	Grantor	Summary	Award	Deadline
Community Forestry Assistance Grant	WA Dept. of Natural Resources	This program seeks to implement or update Community Forest Management Plans, urban forest planning, programming tools, and tree inventories.	\$5,000-\$20,000	Fall 2021
Transportation Alternatives Program (TAP)	PSRC and KRCC ²	This program funds construction of bicycle/pedestrian facilities, historic preservation of transportation assets, and environmental mitigation	\$2.5m limit	Fall 2021 or later
Volkswagen Enforcement Action Grants	WA Dept. of Ecology	Funds from the Volkswagen emission cheating fund are disbursed to decrease vehicle emissions through new electric vehicles and electric vehicle infrastructure.	TBA	Late 2021
Community Forests Program (CFP)	RCO ³	This program seeks to empower communities to purchase forested land and to preserve, restore, and open it to non-motorized recreation.	Max: \$3 million	October 2021
2021 Leadership in Community Resilience (LCR) Grant	National League of Cities (NLC)	This grant supports climate resilience capacity building for local governments. This grant is broadly focused and tailored to the community.	\$10k plus technical support	December 2021
PeopleForBikes Community Grant Program	People for Bikes	PeopleForBikes is a national nonprofit that seeks to fund bike infrastructure projects such as bike paths, lanes, trails, and bridges.	\$1,000-\$10,000	TBA, but likely sometime in 2021
Doppelt Family Trail Dev. Fund	Rails-to-Trails Conservancy	This small grant opportunity seeks to improve or build greenways and fill trail gaps for increased connectivity on the Great American Rail Trail.	\$5k to \$30k	January 2022
Coastal Protection Fund - Terry Husseman Account (THA)	WA Dept. of Ecology	This grant program works through restoring or enhancing habitat areas on the coastline and in wetlands, which could increase climate resiliency, including bank stabilization.	Up to \$50,000	Early 2022

² Puget Sound Regional Council (PSRC) and Kitsap Regional Coordinating Council (KRCC)

³ Washington State Recreation and Conservation Office (RCO)

Name/Link	Grantor	Summary	Award	Deadline
Waste Reduction and Recycling Education (WRRED)	WA Dept. of Ecology	Facilitates public outreach through educational programs that aim to increase composting, recycling, littering awareness, and overall waste reduction.	\$11,250-\$60,000	Spring 2022
Surface Transportation Program (STP)	See footnote ⁴	Funds for highway, arterial, transit, bicycle, pedestrian, system and demand management, and technology projects.	\$100,000 to tens of millions	Spring 2022
WA Wildlife and Recreation Program (WWRP-REC)	RCO	Funding from this grant can be used to buy land and create and improve parks and regional trails.	Trails: no limit Parks: \$1 million	June 2022
Pedestrian and Bicyclist Program	WSDOT ⁵	Building connected, low traffic walking and biking facilities for all ages and abilities and making walking and biking more popular.	No limit	July 2022
Safe Routes to School Program	WSDOT	This grant funds construction of walking biking paths within 2 car miles of schools to increase the number of children who walk/bike to school safely.	No limit	July 2022
First Mile / Last Mile Connections Grants	WSDOT	Connecting people with fixed route public transportation services through connector services, microtransit, and enhancing pedestrian infrastructure.	\$100k to \$500k	TBA 2022
Energy Efficiency (EE) Grant Program	WA State Dept. of Commerce	Funding from this grant can be used to retrofit public buildings to make them more energy efficient and cost effective.	Max: \$500,000	TBA 2022
Complete Streets Grant	TIB	This grant funds local complete street projects. Cities must have an adopted Complete Streets Ordinance.	TBA	TBA
Electrification of Transportation Systems (ETS) Program	WA State Dept. of Commerce	The grant provides electric vehicle supply equipment (EVSE) and helps with electrical grid load management. Projects can focus on private vehicles or public transportation.	\$25,000-\$2.5 million	Suspended until state approves more funds

⁴ Puget Sound Regional Council (PSRC) and Kitsap Regional Coordinating Council (KRCC)

⁵ Washington State Department of Transportation (WSDOT)

2. Introduction

This report is a combination of two distinct grant research projects for the Bainbridge Island community: one focused on implementing the **Climate Action Plan (CAP)** and one focused on improving **sustainable transportation**. The first project was commissioned by the local organization Climate Action Bainbridge (CAB) after the Bainbridge Island City Council approved the Climate Action Plan (CAP) on November 10th, 2020. CAB is part of Sustainable Bainbridge, a nonprofit organization on Bainbridge Island. This project is meant to support the CAP by identifying funding sources that can be used to assist in the implementation of the CAP and to support the City of Bainbridge Island (COBI)'s new Climate Mitigation/Adaptation Officer (Climate Officer) position and departments in COBI.

The CAP is subtitled “a plan for mitigating and adapting to climate change on Bainbridge Island.” The first-ever CAP for Bainbridge Island, the CAP was developed by the COBI Climate Change Advisory Committee (CCAC) at the request of the Bainbridge Island City Council. The CAP outlines both broad and specific goals to decrease greenhouse gas (GHG) emissions, increase climate resiliency on Bainbridge Island, and engage the community.

The Three CAP Goals	The Six CAP Focus Areas
Mitigation: Reduce greenhouse gas emissions by 90% by 2045 compared to 2014 levels with interim milestones of 25% reduction by 2025 and 60% by 2035 compared to 2014 levels.	- Energy
Adaptation: Bainbridge Island is climate savvy, and can withstand the impacts of climate change.	- Transportation
Community Engagement: COBI inspires community action and partners with local and regional organizations to take meaningful and equitable climate change mitigation and adaptation actions.	- Buildings
	- Natural Environment
	- Waste
	- Community Engagement

The urgency of the CAP is motivated by the realities of climate change for an island city in the Pacific Northwest. Bainbridge Island is faced with rising sea levels, increasingly severe flooding and drought events, and large-scale climate shifts that will affect everything from vegetation and wildlife health to the quality of our drinking water. To meet these imposing challenges, the CAP presents three overarching goals. In



Gazzam Lake (photo: Paul Brians)

2019, COBI contracted with Cascadia Consulting Group Inc.⁶ to quantify the GHG emissions produced by the Bainbridge Island Community and COBI operations.

Based on this research, the CAP identifies six focus areas through which the CAP goals will be achieved. The attached spreadsheet loosely uses the six focus areas to sort the grants into categories, although some of the grants could be used to address multiple focus areas. The Climate Officer will play a central role in implementing the CAP by prioritizing projects, organizing resources, and navigating the grant application processes. Once the city's Climate Officer position is filled, this document could kickstart their efforts to secure funding for CAP-related projects.

The sustainable transportation portion of this report was commissioned by Bainbridge GreenWays, which is also a program of Sustainable Bainbridge. The project identifies funding sources for implementing and planning sustainable transportation projects on Bainbridge Island. Sustainable transportation grants are organized by impact area both in this report and in the attached spreadsheet, which provides the nuts and bolts of all of the grant programs included in this project. The two umbrella categories are walk/bike infrastructure and motorized transportation. Walk/bike infrastructure includes grants for greenways, complete streets, and trails, while motorized transportation includes programs that fund public transportation and clean vehicles.

The CAP calls for sustainable transportation investments as part of a larger effort to reduce greenhouse gas emissions. According to the CAP, 35% of Bainbridge Island's greenhouse gas emissions came from transportation in 2014. Of the 2014 total, on-road vehicles were

⁶ City of Bainbridge Island GHG Emissions Inventory, Final Findings Report, Cascadia Consulting Group Inc. 2019

responsible for 13% of the Island’s emissions, which amounts to approximately 28,000 metric tons of carbon dioxide equivalent per year.

Sustainable Transportation Grant Sub-Categories	
Greenways	Grants in this category would fund the planning or construction of dedicated multi-use paths intended for pedestrians and bicyclists that are separated from roads and distinct from sidewalks. There are multiple key greenway projects to expand safe walking and biking on Bainbridge Island, including the STO.
Complete Streets	Complete Streets are roads that people of all ages and abilities can safely and conveniently use no matter what mode of transportation they choose, including driving, biking, walking, and bussing. They are always ADA compliant and include sidewalks, and often include bike lanes, bus lanes, and safe crosswalks.
Trails	Grant programs in this category would enable forestland acquisition or the construction of trails. Trails built from these grants may not be near major roads and economic centers and would be more narrow and less likely to be paved. More trails on the Island could improve connectivity and encourage non-fossil fuel transportation.
Public Transportation	Many of the grants in this category are geared towards public transit entities such as Washington State Ferries and Kitsap Transit and would involve either an expansion of service or a decrease in emissions.
Clean Vehicles	This category primarily covers grants that fund the installation of electric vehicle infrastructure both for personal vehicles and busses.

To achieve sustainable transportation and CAP goals, local governments and nonprofits will need to apply for and secure grant funding. This research project is intended to guide local efforts to secure this essential funding source by identifying grants that would help the city and other local entities prepare for climate change, reduce emissions, and achieve a transportation system that encourages and enables more walking, biking, and public transportation use. In addition, these grants can contribute to developing the infrastructure needed to support the electrification of transportation on the Island (e.g., bikes, cars, buses, and ferries). Most available grants are competitive, and most applicants fail to secure funding. Securing funding

will require consistent and organized work to ensure that our applications can compete successfully.

It is also important to note that securing large grants from prominent grantors is not the only way to fund sustainable transportation projects or climate change. Some smaller grants could go a long way towards building community support and the momentum needed to secure larger grants. In addition to grant programs, this report summarizes some of the non-grant funding sources that will be important for many proposed or possible sustainable transportation and climate change projects.



Trail users on the Sound to Olympics Trail on Bainbridge Island (photo: © Don Willot 2016)

3. Methodology

For both projects, I reviewed and evaluated multiple sources and research strategies to locate grant opportunities, including:

- Websites of state and federal governmental agencies⁷
- Federal and state governmental grant databases⁸
- Private non-profit organizations that have created climate grant databases⁹
- Piggybacking off other CAPs in Washington to see what grant funding opportunities they utilized to achieve their climate change goals¹⁰
- Articles from the archives of local news outlets that identify grants that have been awarded to local and regional climate projects in the recent past
- General internet searches, which turned up some grants directly
- Transferring over, editing, and updating information on some sustainable transportation grant programs that I researched for the CAP project into the sustainable transportation project

After locating and analyzing grant opportunities, I contacted the people in charge of the most promising grants for further information, using both email and phone calls. After gathering data, I organized it into columns on a spreadsheet so that readers can quickly glean the most important information about each grant. To truly understand a grant program and whether it's worth pursuing, it's crucial to have detailed information, including:

- **Applicant Eligibility:** Who can apply?
- **Project Eligibility:** What types of projects are eligible for funding?
- **Relevance:** How does the grant program relate to climate change or sustainable transportation for Bainbridge Island?
- **Award:** What are the maximum, minimum, and typical funding amounts given to successful applicants?
- **Matching:** How much must the applicant contribute to the project?
- **Competitiveness:** What kinds of applicants and projects is the grant program looking for and what would it take to create a competitive application?

⁷ Such as the [Washington State Department of Transportation \(WSDOT\)](#) and the [U.S. Environmental Protection Agency \(EPA\)](#).

⁸ Sources included [Access Washington](#)'s environmental grants database, which lists state funding opportunities, and [Grants.gov](#), which lists federal funding sources.

⁹ This includes the [Georgetown Climate Center's Adaptation Clearinghouse](#).

¹⁰ One such document I used is [King County's Climate Action Toolkit](#).

- **Timeline:** What are the important dates and deadlines for the application and project process?
- **Contact:** Who is in charge of the grant, and how can they be contacted?

My hope is that this report and the attached spreadsheet are organized and presented clearly so that this crucial information is quickly and accurately imparted. Based on this information, I ranked each grant opportunity on a scale from 1 to 5. Refer to **Table #2** for an explanation of the methodology I used for these rankings and what each ranking is meant to indicate. Please note that grant deadlines and program status are not reflected in these subjective rankings. By program status, I mean whether the program is active, dormant, suspended, or has an unclear status. I did not want the frequently changing deadlines and statuses to affect the rating of grant program desirability.

Table #2: Priority Level Rankings of Grant Opportunities

Rank	Explanation
1	The grant is a very high priority for the city to pursue, meaning that the program directly addresses decreasing GHG emissions, helps us prepare for climate impacts, or provides funds to make our transportation system more sustainable. The program and Bainbridge Island are good fits for each other.
2	A rank of 2 means that the grant is a high priority to pursue, but may achieve GHG emissions reduction, climate adaptation, or transportation sustainability indirectly. Bainbridge Island may have a lower chance at securing funding based on the applicants/projects that the program is looking for.
3	Medium priority. These grants would enable projects related to climate mitigation, adaptation, or sustainable transportation, but the scale or focus of the grant might make Bainbridge Island a weaker candidate. However, if there are enough resources/time, these grant opportunities should be applied for.
4	Low priority. These grants are extremely limited in scope, being reserved for circumstances that do not align well with Bainbridge Island's needs. Applications should be submitted if something changes on the Island or with the program.
5	Very low priority. COBI would not be a typical applicant, and/or resulting projects would be only tangentially related to the CAP or sustainable transportation.

4. Results

My research found and analyzed over 60 grant opportunities, including:

- **27** very high priority grant opportunities
- **16** high priority grant opportunities
- **34** non-transportation-focused CAP grants
- **23** grant programs for walking and biking infrastructure
- **15** grant opportunities to make motorized transportation more sustainable
- **27** with an established or projected deadline in 2021 (after January 20th)
- **39** deadlines in 2022, which includes annual grants that are also available in 2021

As you can see, there are several high-quality grant opportunities available for CAP projects and for both sustainable transportation categories. Some of these grants may be more applicable to other entities on Bainbridge Island such as the Bainbridge Island Metro Park and Recreation District (BIMPRD) or the Bainbridge Island Land Trust (BILT). It should be noted that Kitsap Transit has already applied for and received funding for many of the grants in the motorized transportation category, including programs focused on expanding service and programs that focus on decreasing fossil fuel use.

The second most active local governmental body when it comes to grant applications appears to be BIMPRD, which has secured funding from several grant opportunities for parks and trails development. The attached spreadsheet breaks down CAP and sustainable transportation grant opportunities by



A wind storm felled a tree across power lines on Miller Rd. in 2010 (photo: Bainbridge Island Review)

eligible recipient category, including special purpose districts, school districts, nonprofits, and private citizens. A list of Washington special purpose districts can be found [here](#).¹¹

It is also of note that there are more grant deadlines in 2022 than 2021. Additionally, some of the 2021 grants are annual and will also be available in 2022. This may seem odd at first because most grant opportunities are officially announced 1-4 months before they are due, and thus you would expect that a literature review completed at the end of 2020/ beginning of 2021 would turn up far more 2021 grants than 2022 grants. The main reason this is not the case is that many of the available grants are funded by Washington State's biennial budget, and thus are typically available only in even-numbered years.

I emailed and called several of the top grant programs to find more information and confirm important details. Information on program websites is often out of date, and some grant programs are in more flux than usual due to the COVID-19 pandemic. These are the lines of communication I opened as a researcher for Sustainable Bainbridge:

- I emailed the Director of the Washington State Department of Commerce's **Solar Grants Program**, Dever Haffner-Ratliffe, to confirm the grant timeline on the website that indicated a September to November 2020 application window. They emailed me back almost immediately and informed me that the grant cycle is delayed, but should become available in Spring 2021.



Solar panels on top of Bainbridge Island City Hall (photo: Community Solar Solutions)

- I called Kitsap Community Resources to inquire about their **Weatherization Program**. They provided several new pieces of information, including that they are currently not providing service to clients at high risk for COVID-19, they draw both state and federal

¹¹ Municipal Research and Services Center, "Types of Special Purpose Districts in Washington State"

funds, there are no priority considerations, households must need insulation, and they accept applications on a rolling basis.

- I had a Zoom call with WSDOT's Grant Analyst, Evan Olsen, to learn more about their grantmaking structure. He gave me a lot of helpful information, including that the **First Mile / Last Mile Connection Grant** can fund walking and biking infrastructure. He confirmed that all WSDOT grants are available every odd-numbered year and clarified the process for the **Public Transportation Consolidated Grants**.
- I emailed the Puget Sound Regional Council to inquire about the **Transportation Alternatives Program (TAP)**, which does not have any recent information online. Kelly McGourty, PSRC's Director of Transportation Planning, confirmed that the TAP program is distinct from the 10% set-aside of the **Surface Transportation Program (STP)** for bicycle/pedestrian projects. They also confirmed that future rounds of the program will be distributed via a stand-alone regional competition. The next round of funding will be Fall 2021 or later and \$13.5 million of 2022-2024 funding will be available. Quick action will be required if the TAP program will be available in late 2021.
- I called the Director of WSDOT's **Pedestrian and Bicyclist Program**, Brian Wood, who gave me a lot of technical details and information. He let me know that it's very important for any state highway projects (e.g., Sound to Olympics Trail on 305) to get final approval (not just concurrence) from WSDOT on the final technical/project plans before submitting a proposal to the program. He's very unsure how COVID-19 will affect program funding but they are currently planning for the next round to take place in 2022 as planned.
- The deadlines have passed for the Washington State Department of Ecology's **Volkswagen Enforcement Action Grants**, which focuses on clean vehicles, but it is unclear on their website whether there would be further rounds of funding. Ecology's Environmental Planner, Brett Rude, informed me that the program's future is undetermined, but that they hope to announce at least one funding opportunity in the late Spring or Summer of 2021.

Grant opportunities that aren't due until 2022 will require swift action to make sure that any applications are ready to go and as strong as possible by the deadline. Significant lead time will also be needed to build organizational capacity for grant writing and partnership building. See **Table #1** below for overviews of the most important information for the top grant opportunities.

Grants ranked as a 1 are included. Most of the deadlines and some of the award amounts are unofficial projections based on the program's previous grant cycles. For more information on any grant opportunity listed and grant programs not included here, please consult the attached Climate Change and Sustainable Transportation Grant Opportunities Spreadsheet.

Table #1: Overview of Priority 1 Grant Opportunities (Sorted by Projected Deadline)

Name/Link	Grantor	Summary	Award	Deadline
Grid Modernization Project	WA State Dept. of Commerce	This program advances clean, renewable energy technologies and transmission and distribution control systems, along with sustainable microgrids.	TBA	Spring 2021
Urban Sidewalk Program (SP)	TIB ¹²	Funding enables projects that address safety, access, and system connectivity through the construction of ADA accessible sidewalks.	Average: \$320,000	August 2021
Solar Grants Program	WA State Dept. of Commerce	This grant is designed to reduce costs and fossil fuel use by installing solar panels on public buildings.	Max: \$350,000	Summer or Fall 2021
Transportation Alternatives Program (TAP)	PSRC and KRCC	Building bicycle/pedestrian facilities, historic preservation of transportation assets, and environmental mitigation	\$2.5m limit	Fall 2021 or later
Community Forestry Assistance Grant	WA State Dept. of Natural Resources	Implement or update Community Forest Management Plans. It can support urban forest planning, programming tools, and creating tree inventories.	\$5,000-\$20,000	Fall 2021
Volkswagen Enforcement Action Grants	WA Dept. of Ecology	Funds from the Volkswagen emission cheating fund are disbursed to decrease vehicle emissions.	TBA	Late 2021
Community Forests Program (CFP)	RCO ¹³	Empowering communities to purchase forested land and to preserve, restore, and open it to non-motorized recreation.	Max: \$3 million	October 2021
2021 Leadership in Community Resilience (LCR) Grant	National League of Cities (NLC)	This grant supports climate resilience capacity building for local governments. This grant is broadly focused and tailored to the community.	\$10,000 plus technical support	December 2021
PeopleForBikes Community Grant Program	People for Bikes	PeopleForBikes is a national nonprofit that seeks to fund bike infrastructure projects such as bike paths, lanes, trails, and bridges.	\$1,000-\$10,000	TBA, but likely 2021

¹² Washington State Transportation Improvement Board (TIB)

¹³ Washington State Recreation and Conservation Office (RCO)

Name/Link	Grantor	Summary	Award	Deadline
Waste Reduction and Recycling Education (WRRED)	WA Dept. of Ecology	Facilitating public outreach through educational programs that aim to increase composting, recycling, littering awareness, and overall waste reduction.	\$11,250-\$60,000	Spring 2022
Surface Transportation Program (STP)	See footnote ¹⁴	Funds for highway, arterial, transit, bicycle, pedestrian, system and demand management, and technology projects.	\$100,000 to tens of millions	Spring 2022
WA Wildlife and Recreation Program (WWRP-REC)	RCO	Funding from this grant can be used to buy land and create and improve parks and regional trails.	Trails: no limit Parks: \$1 million	June 2022
Pedestrian and Bicyclist Program	WSDOT ¹⁵	Building connected, low traffic walking and biking facilities for all ages and abilities and making walking and biking more popular.	No limit	July 2022
Safe Routes to School Program	WSDOT	This grant funds construction of walking biking paths within 2 car miles of schools to increase the number of children who walk/bike to school safely.	No limit	July 2022
First Mile / Last Mile Connections Grants	WSDOT	Connecting people with fixed route public transportation services through connector services, microtransit, and enhancing pedestrian infrastructure.	\$100k to \$500k	TBA 2022
Energy Efficiency (EE) Grant Program	WA State Dept. of Commerce	Funding from this grant can be used to retrofit public buildings to make them more energy efficient and cost effective.	Max: \$500,000	TBA 2022
Complete Streets Grant	TIB	This grant funds local complete street projects. Cities must have an adopted Complete Streets Ordinance.	TBA	TBA
Electrification of Transportation Systems (ETS) Program	WA State Dept. of Commerce	The grant provides electric vehicle supply equipment (EVSE) and helps with electrical grid load management. Projects can focus on private vehicles or public transportation.	\$25,000-\$2.5 million	Suspended until state approves more funds

¹⁴ Puget Sound Regional Council (PSRC) and Kitsap Regional Coordinating Council (KRCC)

¹⁵ Washington State Department of Transportation (WSDOT)

5. Beyond Grants

In the course of research on funding opportunities, I came across many non-grant options that are important to note. Pursuing non-grant funding sources could play a part in improving Bainbridge Island's standing to win a large grant. Many of these options are easier to achieve than the big grants and would help build interest and momentum in the community. These options can also be implemented more quickly than projects requiring large grants and could ensure that progress continues to be made while the community builds grant capacity.¹⁶

- **Partner with governmental agencies and local groups:** Lobbying for and earning a monetary or in-kind investment from a community group or government agency.
 - WSDOT funds their own projects on state highways and roads, such as the SR305/Johnson Way Roundabout project that will include a greenway
 - The Kitsap Public Utilities District (PUD) funds economic development projects on a selective case-by-case basis
 - The Bainbridge Island Parks Foundation provided \$100,000 of funding in 2020 for the existing section of the STO through private donations to the Friends of the STO Fund
 - Squeaky Wheels, a local bicycle advocacy group, provided funds through a partnership with COBI to create a safe path to school
 - The Bainbridge Island Land Trust (BILT) has a number of conservation easements on the Island and it is important for any infrastructure projects that would use or impact their land to reach out to BILT and work with them at the beginning
 - Sustainable Bainbridge provides funds for projects
 - Partner with local groups such as Climate Action Bainbridge and Citizens Climate Lobby
 - Kitsap Conservation District partners with local agencies to run grant programs for landowners that could be used to advance climate related actions
 - Washington State Ferries (WSF) provides funding support to projects that would help ferry users safely, conveniently, and efficiently travel to and from ferries
 - To improve or expand public transit, Bainbridge Island will need to partner with Kitsap Transit
- **Join Coalitions and Groups:** There are organizations that offer expert guidance, technical assistance and non-financial resources.

¹⁶ Don Willott and Safe Routes to School National Partnership (https://www.saferoutespartnership.org/sites/default/files/resource_files/local_at_financing_approaches_final_0.pdf) helped provide ideas for this section.

- Examples include the Safe Routes to School National Partnership, the National Complete Streets Coalition, and the U.S. Dept. of Energy's Clean Cities Coalition Network
- The Leafline Trails Coalition focuses on regional trail networks and serves Kitsap, Snohomish, King, and Pierce Counties
- The Rails to Trails Conservancy manages the Great American Rail Trail between Washington, D.C. and La Push, Washington, going through Bainbridge Island on the STO
- **Update local and regional plans:** It is important to ensure that all relevant plans and guiding documents reflect the goals, vision, and specific projects for climate action and sustainable transportation, as being in plans is important for meeting criteria for many grants and it is important for being able to require developers to support climate or transportation projects.
 - Work with WSDOT to update their State Route 305 Statement of Purpose and Need to ensure that future 305 projects align with the climate and multimodal goals of the Bainbridge Island community
 - Work to update the Island-wide Transportation Plan (IWTP), which was last updated in 2016
 - The Bainbridge Island Comprehensive Plan should include a detailed and defined vision for the STO greenway that is consistent with community expectations
 - Work with the Kitsap and Puget Sound Regional Planning Councils to ensure climate change and sustainable transportation are integrated into their planning
 - Some areas of the Island have their own plans, such as the Winslow Master Plan, which includes plans for zoning, trails, and climate mitigation
- **Development Conditioning Requirements:** Require potential developers to create or finance climate adaptation, renewable energy, and/or multimodal infrastructure on or near the land they are seeking to develop; requiring developers to pay for the impending increase in transportation use and environmental impact that comes with development is a process known as concurrency.
 - COBI requires developers to build capital projects along the length of their property as street frontage improvements, as the real estate developer Visconsi did to eventually build the STO from High School Rd. to the existing unpaved trail in Sakai Park
 - COBI has assessed Transportation/Development Impact Fees since 2015, which require developers to pay for the increase in road use from development and funds transportation infrastructure that increases capacity
 - Require new city developments to include multimodal and energy sustainability planning and implementation

- Make sure desired projects are in local planning documents to ensure facility construction will be a condition of development
- Developers can also contribute to the Green Energy and Building Fund recommended in the CAP to assist local residents to reduce their GHG emissions
- **Pursue Loan Opportunities:** There are low interest loans available for climate adaptation and sustainability work that could be just as good as grants in the long run.
 - The Washington State Treasurer's LOCAL program
 - Use loans to improve building energy efficiency through the Washington State Dept. of Enterprise Services' Energy Savings Performance Contracting (ESPC)



Bainbridge Island homes experience flooding during a 2013 king tide
(photo: Association of Bainbridge Communities Youtube)

- **City budget:** Advocate for climate action and sustainable transportation projects to be prioritized within COBI's biennial budget.¹⁷
 - The next budget process will begin in January 2022 and will cover the 2023-2024 biennium
 - Public hearings for community input are held in October or November
 - The Capital Improvement Plan (CIP) is created and implemented on a similar timeline, but can be revised as needed

¹⁷ COBI 2021-2022 proposed budget:

<https://www.bainbridgewa.gov/DocumentCenter/View/14149/2021---2022-Proposed-Budget---Full-Document>

- **Collaborate with other taxing districts:** Often, sustainable transportation and climate action goals and the strategic goals of local taxing districts overlap, enabling joint projects.
 - Relevant entities could include Bainbridge Island School District, Kitsap County, BIMPRD, Kitsap PUD, and South Bainbridge Island Sewer District
 - In the past, the city has worked with the sewer district to widen road shoulders as part of sewer improvement work
 - Work with and support other districts when they are applying for grants or seeking bond levies
- **Explore local tax options:** Propose to voters a new tax that would be dedicated to funding transportation improvements.
 - Bainbridge Island already has a Transportation Benefit District (TBD) which imposes a \$20 vehicle licensing fee; this fee could be increased
 - COBI already has a Real Estate Excise Tax (REET) of the maximum 0.5% on every home or property sale, which must be spent on capital construction projects; many localities use the REET as a dedicated funding stream for multimodal construction
 - Sales tax increases may be possible but would disproportionately affect people with lower incomes
- **City Debt:** The increased sale of bonds could fund transportation or climate resiliency infrastructure.
 - COBI could increase *Limited Tax General Obligation (LTGO) Bonds* with a majority vote from City Council, without voter approval from taxpayers
 - As of 2020, Bainbridge Island is at 9.5% of its legal limit for LTGO bonds
 - *Special Levy General Obligation Bonds*, also known as *Unlimited Tax General Obligation Bonds (UTGO)* could be used for transportation projects with a 60% vote of the taxpayers
 - As of 2020, Bainbridge Island is at 2.1% of its legal limit overall and 6.3% of the limit for the Parks and Open Space category
 - *Local Improvement District (LID) Bonds* have no limit, must be approved by homeowners, and are meant to ensure that the homeowners that benefit most from projects are the ones paying for it
 - *Public Works Trust Fund (PWTF) Loans* have no limit and are used to repair, replace, or create domestic water systems, sanitary sewer systems, storm sewer systems, roads, streets, solid waste/recycling facilities, and bridges
- **Traffic fines and fees:** Speed limit enforcement can be used to fund transportation safety improvements and new transportation infrastructure.

- Recently, the City of Seattle net \$13.2 million in one year from school zone traffic cameras that funded school transportation safety projects
- However, when fines are not adjusted for the financial means of the violator, they hugely impact low-income persons while merely inconveniencing wealthy persons
- Camera placement can lead to people of color and low-income people being disproportionately fined
- **Establish a new taxing district:** Creating a Regional Metro Park District could help raise funding for climate action or sustainable transportation capital projects such as the STO.
- **Pop-up and community engagement events:** Events such as creating a temporary bicycle and walking path along a road using volunteers could generate public engagement and showcase the benefits of a capital project that would make multimodal capacity permanent.
- **Complete Streets Ordinance:** These ordinances require new road projects to include capacity for all people to safely and conveniently use any transportation method.
 - Passage of this ordinance and/or reporting it to the Transportation Improvement Board (TIB) if it has already been passed would qualify COBI for their Complete Streets Grant program



A portion of Rockaway Beach Rd. was narrowed to one lane in 2013 due to erosion.
(Photo: Tad Sooter for the Kitsap Sun)

6. Discussion

This project demonstrates that there are many available or soon-to-be available grant funding opportunities available for pursuing CAP goals and building sustainable transportation infrastructure and capacity. This funding is intended to be distributed to communities like Bainbridge Island, and the resulting projects would greatly benefit the health of residents and ensure that the Island is doing its part to decrease greenhouse gas emissions.

Many of the most promising grant opportunities are funded by Washington State and are administered by the various departments of state government. Since the Washington State legislature passes biennial budgets, most of these grants are awarded biannually and around the same time during even-numbered years.

Unfortunately, most grant deadlines for the current budget cycle have passed, meaning these grants will not be available again until 2022. However, this gives the community time to prepare for these grants. Grant opportunities are usually announced 1-4 months before they're due, making it crucial that work begins before Calls for Projects are posted.

Additionally, many grant programs are expecting lower funding levels for future grant cycles due to the state budget shortfall caused by the COVID-19 pandemic. With this in mind, applicants should focus on getting ready for the 2022 wave of grant opportunities. However, the state and federal government have signaled that climate action and sustainable transportation might remain high funding priorities. An even more focused effort than usual will be needed to ensure that applications are in great shape for the 2022 grant funding cycle given the potential for greater competition for some grants. As we await new stimulus and transportation funding from the

Matching Funds

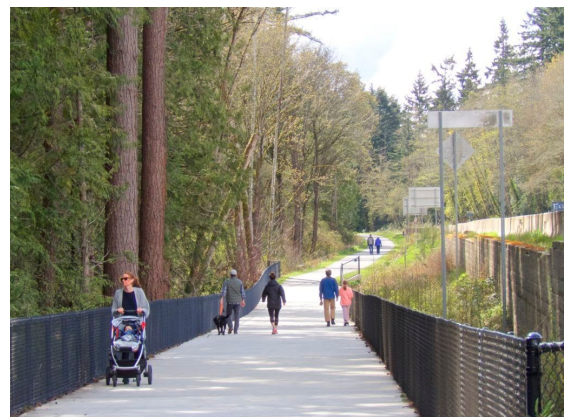
Most grants require matching, which is funding or resources that the applicant must provide toward the total project cost. A 25% (1:3) match requirement means that the grant program will cover no more than 75% of the project's eligible costs. Thus, some grant programs are called "cost sharing initiatives." Programs vary, but there are generally several ways to satisfy match requirements.

- Cash and bonds directly from the applicant
- In-kind contributions, such as the labor of staff or project partners
- Funds from other grants
 - Most federal grants require that no federal funds are used, and state grants typically prohibit state funds from being used
- Donations from outside groups, including cash, in-kind, and material donations

state and federal levels, it will be beneficial for potential construction projects to be “shovel ready.” Grant programs will be most interested in funding projects that will have immediate benefits to the job market and economy.

Some grant programs prioritize projects that benefit vulnerable or underserved populations. Many of these programs use census tract data to quantify need. Bainbridge Island has four census tracts, and three of them show very high median household incomes and few people of color. The fourth census tract is centered around Winslow and shows more modest income and a higher percentage of people of color. Thus, projects that take place within this census tract may have a better chance at securing funding from these grant programs. Some grant programs also use elderly populations to quantify populations in need, a population that Bainbridge Island has a higher percentage of. Elderly populations need special transportation options that focus on accessibility. There are multiple WSDOT grant programs specifically for elderly populations.

I also searched for grant programs related to micromobility, but there is not much available. Micromobility refers to bikes, e-bikes, scooters, or e-scooters, and often consists of an individual user paying a small fee for a one-time use. This area of sustainable transportation is currently dominated by private companies and there is a distinct lack of public investment.¹⁸



Pedestrians using the Sound to Olympics Trail (photo: Don Willott)

In fact, local and state governments most often tax the use of micromobility services. To bring micromobility to the Island, COBI would need to either buy the equipment themselves or partner with a micromobility company. The biggest micromobility companies are Lime and Bird.¹⁹ The pandemic has hit the industry hard, but it is beginning to recover.²⁰ If Bainbridge Island reaches out to these companies and pitches a partnership, they may be willing to invest their own resources to start a micromobility service here. A more robust network of sidewalks, paved trails, and bike lanes would also build demand for micromobility on Bainbridge. There is one grant I found that mentions micromobility: WSDOT’s First Mile/Last Mile Connections Grant has funded micromobility in previous cycles.

¹⁸ <https://www.theverge.com/2020/5/13/21257307/electric-scooter-bikeshare-covid-19-bird-lime-uber-subsidies>

¹⁹ *ibid.*

²⁰ <https://fortune.com/2020/06/22/scooter-coronavirus-covid-19-reopening/>

One bright spot in my research was Kitsap Transit. Several times, I found a grant opportunity for public transportation only to discover that Kitsap Transit has already won funding from that program. This suggests that Kitsap Transit already has a robust grant writing apparatus and is already committed to decreasing their carbon footprint. Hopefully, governmental agencies and nonprofits on the Island that are interested in kick-starting grant writing efforts can look to Kitsap Transit for knowledge and inspiration, and even partner with them on specific sustainable transit projects.

One important way to work towards walking and biking infrastructure for sustainable transportation goals is through the continued development of the Sound to Olympics Trail (STO), our regional trail which will connect the Bainbridge Island ferry terminal to the Hood Canal Bridge with a continuous, paved, and traffic- separated multi-use greenway. This trail will also serve as the spine of an Island-wide network of interconnected paved and unpaved paths that would provide safe and convenient



non-motorized transportation options. The STO is already serving as a magnet for connector trails. The first section of the existing and planned trail is shown here, and is borrowed from COBI's 2020 grant application to the Puget Sound Regional Council's (PSRC) Surface Transportation Program (STP). The STO could also benefit climate action goals such as creating a wildlife habitat corridor with native species and providing opportunities for carbon sequestration. Once completed, the STO will likely serve as a catalyst for a mindset shift among Bainbridge Island commuters and travellers and could motivate other Island greenway projects. There are several other greenway projects that will be important for realizing Bainbridge Island's potential for accessible walking and biking paths. The STO is limited in that it would primarily serve the middle and North End of Bainbridge Island. Notably, a greenway project on the Island's South End has recently obtained federal funding.

On December 27th, 2020, the President signed into law the fiscal year 2021 omnibus appropriations bill, known officially as the Consolidated Appropriations Act, 2021, which set federal funding levels for coronavirus response and general appropriations. Within the bill, funding is allocated towards transportation infrastructure and grants, generally through September 2021. The bill provides \$14 billion in COVID-19 emergency funds for public transportation. The purpose of this emergency appropriation is to maintain the staffing and service levels of public transit agencies. Funding can be used for the staff and operational costs

of public and private transit agencies. The large majority of this funding, \$13.27 billion, goes to the FTA's Urbanized Area Formula Program (5307) and State of Good Repair (5337), which is disbursed by the PSRC as FTA funding. \$679 million is for rural areas under the FTA's Formula Grants for Rural Areas (5311) that is managed by WSDOT. Bainbridge Island is categorized as an urbanized area. \$50 million is destined for the FTA's Enhanced Mobility of Seniors and Individuals with Disabilities (5310), also managed by WSDOT under the **Public Transportation Consolidated Grants** program.²¹ It is unclear whether this emergency funding will be disbursed directly from the FTA or through WSDOT.

The Department of Transportation (DOT) saw a slight funding increase, with \$1 billion through FY2024 for the **Better Utilizing Investments to Leverage Development (BUILD) grant program**, which funds public transportation and multi-modal surface transportation projects. FHWA funding for state and local government sub-allocation is steady from 2020 at \$46.4 billion. These funds will be disbursed under the one-year extension of the FAST Act. The FTA saw a \$6 million funding increase for transit infrastructure grants, to \$516 million. These FHWA and FTA funding sources are crucial for PSRC, KRCC, and WSDOT grants. The omnibus funding bill also provides funding to the EPA, which saw an increase of 2%. Included were funds for the **Diesel Emissions Reduction Act (DERA) grant program**, environmental justice programs, air quality management grants, funding for Superfund sites and Brownfields, and drinking water loan programs.²²



Complete street, water main, and storm drainage improvements on Wyatt Way (COBI)

The new presidential administration proposed legislation known as the American Rescue Plan on January 20th, 2021. The plan proposes \$20 billion to the “hardest hit” public transit agencies and to increase the school bus capacity of schools to decrease the number of students on a bus at one time. Thus, at this point (early February), the American Rescue Plan does not include any increase in transportation grant funding beyond emergency grants to the hardest hit public transit agencies to help them avoid layoffs and reductions in service.²³

²¹ [American Public Transportation Association](#)

²² [National Conference of State Legislatures: FY 2021 Omnibus Appropriations Bill](#)

²³ [American Rescue Plan](#)

7. Grantors in Detail

When applying for grant funding, it will be helpful to know who is in charge of the funds and what their systems and processes are like. Below is an overview of some of the major grant providers for sustainable transportation and climate action projects in Washington state.

1. Washington State Department of Transportation (WSDOT)

WSDOT is one of the prominent grantors in Washington State when it comes to funding sustainable transportation projects. They have a plethora of grants and programs, some of which are nested into each other, and their website is somewhat disorganized.

The following chart of WSDOT's programs is meant to provide more clarity. The programs in green are focused on public transportation, while the grants in blue deal with electric vehicle infrastructure (Green Transportation Capital and Regional Mobility grants can do both, but are colored based on their focus). The gold-colored grants would fund biking and walking infrastructure.

Connecting Washington is a 16-year funding package that began in 2015 and is funded primarily by an 11.9 cent gas tax increase. Grants that I couldn't confirm as falling under Connecting Washington are colored in lighter green.

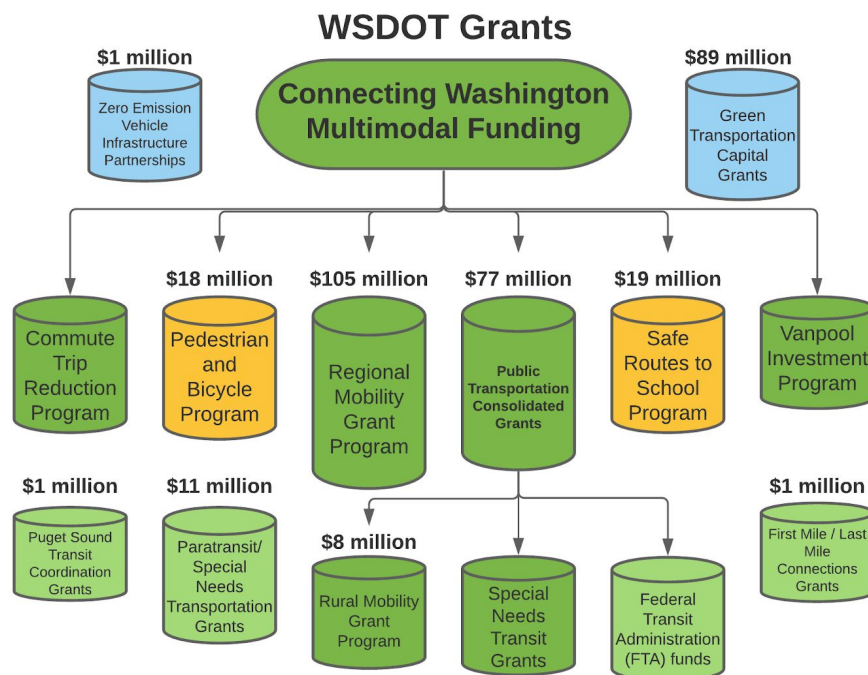


An electric vehicle charging station in Winslow (photo: PlugShare.com)

One application process covers several grant programs listed under **Public Transportation Consolidated Grants**. This program is somewhat unique and easier to apply for because applicants do not need to specify which funding stream within the program they are seeking. The Puget Sound Regional Council is also involved in the project selection process for this program. FTA funds come from Enhanced Mobility of Seniors and Individuals with Disabilities (5310), Formula Grants for Rural Areas (5311), and Grants for Buses and Bus Facilities Formula Program (5339). Dollar amounts are from the 2019-2021 funding cycle and are subject to change. There are two programs that address special needs transportation funding, one under

Public Transportation Consolidated Grants and one separate from it. More information on most of these grants is available on the attached grant spreadsheet. The Commute Trip Reduction Program is a tax incentive for businesses, not a grant available to public entities or nonprofits.

Figure 1: WSDOT's Available Grant Programs



WSDOT is responsible for State Route 305, so lobbying them to invest in corridor improvements that align with community priorities is another important way to benefit from WSDOT funding. To advocate within WSDOT, it may be helpful to research their best practices and reach out to their active transportation staff.

2. Washington State Department of Commerce

Commerce has a variety of grant programs²⁴ that should be used to fulfill CAP goals and targets. Commerce grants cover a wide array of issues, from electric vehicle infrastructure to rent relief. Grant opportunities are generally funded by Washington State, and do not use federal funds, meaning they are awarded on a biannual basis in even-numbered years. However, the pandemic has pushed some of the programs into 2021. Some of the most relevant grant programs are summarized below.

- The **Energy Efficiency Grant** provides \$3.57 million in grants of up to \$500,000 each to local agencies and school districts for energy efficiency improvements in public buildings. Projects can save electricity, natural gas, water, or other resources consumed at the facility. The program favors projects that provide a healthy amount of matching

²⁴ <https://www.commerce.wa.gov/open-grants-loans/>

funding (50% required) and would produce a lot of energy savings. This grant was due on January 29th, 2021. Projects that win funding are often in cities of a similar size as Bainbridge Island. An energy audit must be completed and the project must pay for itself within 35 years.²⁵

- The **Solar Grants Program** will open again in Spring 2021. It will likely provide \$3.57 million for solar installations, with each project able to seek up to \$350,000. Eligible recipients are schools and government buildings. Past cycles of the program have favored projects that provide more of their own funding (50% is required), have a fast return on investment (ROI), and use materials made in Washington. The ROI must be 50 years or less.²⁶
- The **Grid Modernization Program** is currently in a funding cycle. \$4.6 million is available to fund public and private electric utilities to help them implement clean energy technology, improve transmission and distribution control systems, and deploy sustainable microgrids. The program will be funded through Washington state's Clean Energy Fund 3 (CEF3) and Clean Energy Transition 4 (CET4). This grant program will open for application in March 2021 with a deadline in the first half of 2021. More details will be available when the Call for Projects is released in March.²⁷

3. Washington State Department of Ecology

Ecology has a plethora of climate action and adaptation-oriented grant programs addressing issues from flooding to composting. Grant opportunities are organized into the following categories: Air & Climate, Water & Shorelines, Waste & Toxics, and Spills & Cleanup. Grant opportunities are generally funded by Washington State, and do not use federal funds, meaning they are awarded on a biannual basis in even-numbered years. Below are summaries of some of the best and most representative opportunities.

- **Coastal Protection Fund - Terry Husseman Account (THA) Grants** support local governments with on-the-ground projects that restore or enhance the natural environment. Typical projects address water quality and fish and wildlife habitat in or adjacent to streams, lakes, wetlands, or the ocean. Grant awards are up to a maximum of \$50,000. The typical grant award ranges from \$10,000 to \$25,000. Projects on the Island could look like invasive species removal from a riparian zone and replacing them with native species and stream bank stabilization, which could help with flooding and erosion control. Restoration of habitat areas near the coastline and in wetlands could increase climate resiliency. Another possibility might be cleaning up the creosote in Pritchard park. No matching funds are required.

²⁵ <https://www.commerce.wa.gov/growing-the-economy/energy/energy-efficiency/>

²⁶ <https://www.commerce.wa.gov/growing-the-economy/energy/energy-efficiency-and-solar-grants/>

²⁷ <https://www.commerce.wa.gov/growing-the-economy/energy/clean-energy-fund/energy-grid-modernization/>

- The **Waste Reduction and Recycling Education (WRRED) Grants Program** offers up to \$60,000 for local governments and nonprofits to facilitate local public education programs that aim to increase composting, recycling, littering awareness, and overall waste reduction. This connects directly to the CAP, which calls on Bainbridge Island to "facilitate education and outreach to consumers about green waste options and what materials are acceptable for composting" and "expanding municipal, residential and commercial recycling and composting participation." A 25% match is required.
- The **Water Quality Combined Funding Program** is a combination of several grant and loan opportunities that can fund projects involving wastewater facilities, onsite sewage systems, stormwater facilities, and pollution reduction. The opportunity could address several CAP areas of concern, including making stormwater infrastructure more resilient to high precipitation events and aquifer preservation. Public outreach may be helpful to decrease water use in certain areas where aquifer levels are at risk. The program could be used to accomplish the CAP goal to "increase aquifer recharge, e.g. through upland discharge or infiltration of tertiary sewage effluent." This program includes some federal funding along with state funds. Match requirements vary from 0 to 25%.

4. Puget Sound Regional Council (PSRC)

The PSRC is a Metropolitan Planning Organization (MPO) and Regional Transportation Planning Organization (RTPO) that manages transportation planning and regional competitions for federal funding for transportation projects in Kitsap, King, Pierce, and Snohomish counties. The PSRC is one of the major large grant distributors for sustainable transportation projects in Washington state. Securing funding from this source will require years of careful planning, building capacity, and evidence of progress.

Each county is required to receive funding that approximately equals its share of the regional population, which for Kitsap County is 7.5%. This usually helps projects in Kitsap County achieve funding. PSRC manages Federal Transit Administration (FTA) funding, Federal Highway Administration (FHWA) funds, and some state money, which is disbursed through multiple programs and processes. For both the PSRC and KRCC, FTA and FHWA funds make up the vast majority of available funding.

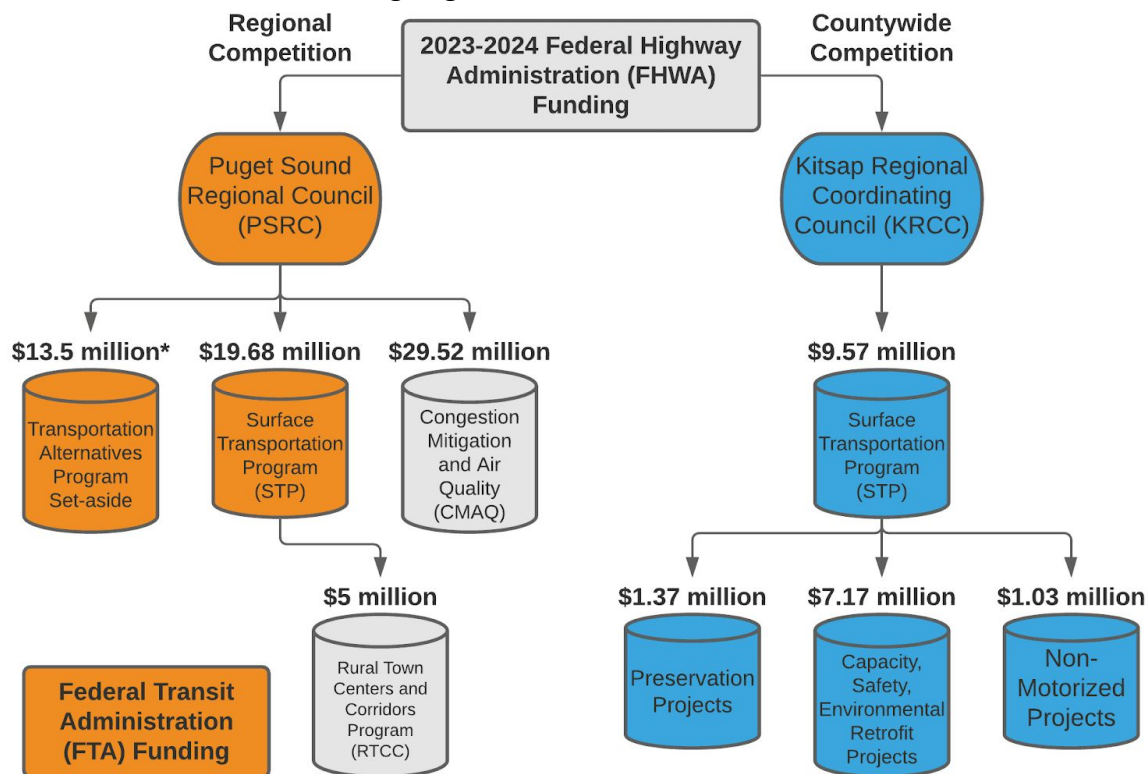
The PSRC's STP and FTA programs are limited to projects that serve Regional Growth Centers. Based on this requirement, projects on Bainbridge Island must improve transportation between the Bainbridge Island Ferry Terminal and the Agate Pass Bridge, effectively limiting projects to those that take place within the SR305 corridor or benefit transportation along the corridor. A detailed explanation of PSRC's Surface Transportation Program (STP) can be found in **Appendix C**, which contains information on the program, the application process, and its requirements.

Beyond the PSRC boards and committees that decide which projects receive funding, such as the Regional Project Evaluation Committee (RPEC), there are many other bodies within the PSRC that control policy plans and regional planning priorities that could affect how funding is allocated in the future. For example, the Transportation Demand Management (TDM) Advisory Committee provides guidance and assistance to communities and regional policy-makers to promote TDM. TDM is a strategy to reduce congestion and improve transportation efficiency by encouraging the use of public transit, walking, biking, carpooling, and teleworking. PSRC committees are a great resource and tool for shaping regional priorities and learning new strategies for local transportation improvements.

5. Kitsap Regional Coordinating Council (KRCC)

Each of the four counties within the PSRC has their own coordinating committee that also distributes funding through competitions separate from the PSRC. The KRCC also administers FHWA STP funding. KRCC funding has greater flexibility in the funding they offer. Projects do not need to connect Regional Growth Centers. Instead, they must serve Local Growth Centers, and there several of those on Bainbridge Island. Applicants can apply to both KRCC and PSRC simultaneously for the same project. See **Appendix C** for more detailed information about KRCC’s STP grant program.

Figure 2: PSRC and KRCC’s Funding Organizational Chart



This chart intends to illustrate the organization of PSRC and KRCC grant offerings. Note that Bainbridge Island is not eligible to apply for CMAQ or RTCC funding. Individual projects can receive funding from one or more of the three KRCC STP set-asides. The application periods for these funds concluded in 2020 with one exception. The next round of TAP will be Fall 2021 or later and will cover 2022-2024. The FTA funds that PSRC manages is Urbanized Area Formula Program (5307), State of Good Repair (5337), and Bus and Bus Facilities (5339). FTA grants are public transit-oriented, and Bainbridge Island applicants would need to reach out to a sponsor who would nominate their project for funding.



Beginning of the Sound to Olympics Regional Trail at Winslow Way (photo: Barb Chamberlain)

8. Next Steps

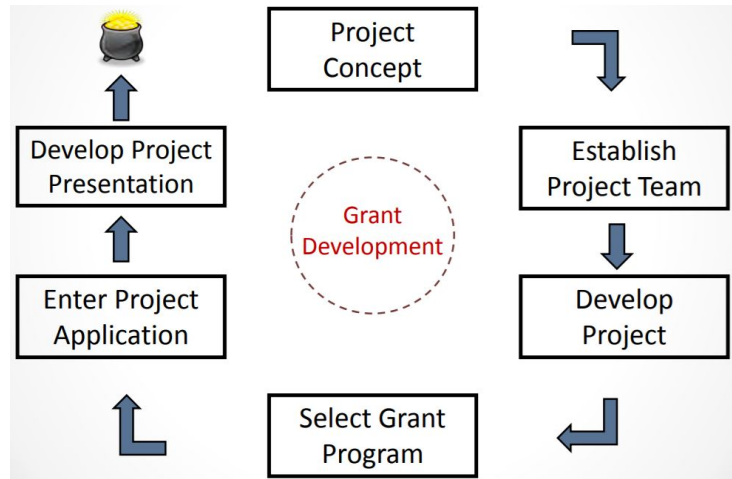
Below are some of the next steps that an applicant may undertake in order to secure grant funding.²⁸ Note that many steps do not need to be completed in the order they are presented.

1. Allocate resources towards obtaining grants, including hiring staff
 - a. For COBI, the priority is to hire the Climate Officer
2. Prioritize the actions that need the most outside funding to accomplish
3. Create a project concept, including the project purposes and goals and feasibility study
4. Begin the ongoing process of gathering input from members of the community and building support
5. Assemble a project team. The team should include and value input from, employees, community experts and stakeholders, and any relevant existing committees:

- a. Project lead
- b. Specialist for cultural resources, maintenance, GIS, acquisition, finance, permitting
- c. Community leaders, local citizens, and volunteers
- d. City planners, graphic artists, engineers, biologists
- e. Leaders from relevant local and regional

governmental and nonprofit groups, such as the Bainbridge Island Park and Recreation District, Kitsap Transit, and Sustainable Bainbridge

6. Use the information in this report to rank grant opportunities and identify which ones to begin pursuing
7. If the city is applying for a grant over \$50,000, City Council must approve the application before it is submitted (\$50,000 includes proposed in-kind contributions from COBI)
8. Dig into the current grant information, whether it is funding guidelines, Request for Applications (RFA) documents, or Notices of Funding Opportunity (NOFOs) for the most up-to-date requirements and information. Program requirements and priorities often change between funding cycles, especially since this report was created just after the application deadlines for most biannual state grants.



²⁸ Image and some ideas are from the [“RCO Grant Writing 101”](#) document.

9. Pay careful attention to the funding source, particularly whether federal funds are involved. Grant programs that include federal funding, including grants that are managed by state agencies, have additional requirements and restrictions.
10. Establish and cultivate communication with the main contact person for the grant
11. Delegate tasks in order to complete project prerequisites in accordance with the CAP and the grant opportunity:
 - a. Finalize the project concepts and plans
 - b. Prepare the application materials and get to know the application submission process and software
 - c. Create a budget timeline for the project based on grant requirements
 - Consider time to get permits, time for cultural resource surveys, time to bid the project (hiring contractors), and weather delays or other unforeseen circumstances
 - Identify and secure matching funds
 - d. Identify and connect with community partners or stakeholders that would enable or enhance the project, such as landowners, other local or state governmental entities, businesses, and nonprofits
 - e. Attend any application workshops or technical assistance seminars conducted by the grantor
12. If the project is large or involves cutting trees, make sure to create a PR campaign with COBI's Communication Director and seek more community input and engagement than normal.
 - a. Actively seek press coverage if possible
 - b. Artist renderings of the proposed project make it easier to gain publicity and support
13. One crucial strategy for achieving grant funding via community engagement is through Letters of Support from community organizations, which showcase buy-in from the local community.
 - a. Requires active conversation to ensure the community leaders writing the letters know exactly what the project is so they can write about it effectively
14. When working on the grant application, it may be useful to consult the "Priority Considerations" column on the spreadsheet. This column contains information that can be used to strengthen the application and put COBI in the best possible position to secure funding.
15. After the application is submitted, be ready to respond quickly to questions from the grantor. You may be assigned a grant manager by the program who will suggest edits and conduct evaluations. Ensure a positive and responsive relationship with this person and do not be afraid to ask them questions.

16. Schedule and prepare for interviews, presentations, and site visits with the grantor, if applicable.
17. After being awarded funding, there is often a contract negotiation phase.
18. After the project is completed, make sure there is organizational capacity and a prioritized plan for maintaining the new infrastructure, if applicable.
 - a. Chip sealing pavement periodically before it needs to be completely redone
 - b. Sweeping shoulders, bike lanes, and greenways for bicycle safety
 - c. Bioswales need maintenance to remain effective and aesthetic
19. Projects can take several years or even decades from start to finish, so consistent effort is needed to keep the projects alive, even through staff and City Council turnover.
 - a. Before scraping a project, consider the money and time invested by volunteers, staff, and consultants



View from Hawley Cove Park (Photo: Shaun Swalley)

9. Appendix A: Selected Sustainable Transportation Grants

Tables #3 - #7 feature sustainable transportation grants broken down by sub-category. Please consult the attached spreadsheet for more detailed information about these grants and grants not mentioned in this report.

Table #3: Overview of High Priority Greenway Grants

Name/Link	Grantor	Summary	Award	Deadline
Transportation Alternatives Program (TAP)	PSRC and KRCC	Building bicycle/pedestrian facilities, historic preservation of transportation assets, and environmental mitigation	\$2.5m limit	Fall 2021 or later
Doppelt Family Trail Dev. Fund	Rails-to-Trails Conservancy	Improve or build greenways and fill trail gaps for increased connectivity on the Great American Rail Trail.	\$5k to \$30k	January 2022
Surface Transportation Program (STP)	See footnote ²⁹	Funds for highway, arterial, transit, bicycle, pedestrian, system and demand management, and technology projects.	\$100k to tens of millions	Spring 2022
Land and Water Conservation Fund (LWCF)	RCO	Funding to acquire, preserve, and develop outdoor recreation resources including parks and trails.	\$25k-\$500k	June 2022
WA Wildlife and Recreation Program (WWRP-REC)	RCO	Funding from this grant can be used to buy land and create and improve parks and regional trails.	Trails: no limit Parks: \$1m	June 2022
Pedestrian and Bicyclist Program	WSDOT	Building connected, low traffic stress walking and biking facilities for all ages and abilities and make walking and biking a more popular mode of transportation.	No limit	Summer 2022
Safe Routes to School Program	WSDOT	This grant funds construction of walking/ biking paths near schools to allow children to walk/bike to school safely.	No limit	Summer 2022
Safe Routes to Parks Activating Communities	Safe Routes Partnership	Develop and implement a Safe Routes to Parks Action Plan for safe and equitable access to parks. Geared towards nonprofits.	\$12.5k and technical assistance	TBA

²⁹ Puget Sound Regional Council (PSRC) and Kitsap Regional Coordinating Council (KRCC)

Table #4: Overview of High Priority Complete Streets Grants

Name/Link	Grantor	Summary	Award	Deadline
Urban Sidewalk Program (SP)	TIB ³⁰	Funding enables projects that address safety, access, and system connectivity through the construction of ADA accessible sidewalks.	Average: \$320k	August 2021
Urban Arterial Program (UAP)	TIB	Funding to improve the safety, growth potential, condition, and mobility of the state's arterial roads.	Average: \$2m	August 2021
Surface Transportation Program (STP)	PSRC and KRCC	Funds for highway, arterial, transit, bicycle, pedestrian, system and demand management, and technology projects.	\$100k to tens of millions	Spring 2022
Highway Safety Improvement Program (HSIP) - City Safety Program	WSDOT	Reduce fatal and serious injury crashes on city streets and state highways using engineering improvements and countermeasures. Could improve pedestrian safety.	\$13k to \$2.3m	March 2022
Safe Routes to School Program	WSDOT	This grant funds construction of walking biking paths within 2 car miles of schools to increase the number of children who walk/bike to school safely.	No limit	Summer 2022
Pedestrian and Bicyclist Program	WSDOT	Building connected, low traffic stress walking and biking facilities for all ages and abilities and make walking and biking a more popular mode of transportation.	No limit	Summer 2022
Complete Streets Grant	TIB	This grant funds local complete street projects. Cities must have an adopted Complete Streets Ordinance.	TBA	TBA
Safe Routes to Parks Activating Communities	Safe Routes Partnership	Develop and implement a Safe Routes to Parks Action Plan to further safe and equitable access to parks. Geared towards nonprofits.	\$12,500 and technical assistance	TBA

³⁰ Washington State Transportation Improvement Board (TIB)

Table #5: Overview of High Priority Trail Grants

Name/Link	Grantor	Summary	Award	Deadline
Coastal Program	USFWS ³¹	Focused on habitat improvements including decreasing habitat fragmentation, the program also favors projects that provide recreational opportunities such as trails.	Up to \$500,000	September 30th, 2021
WA Wildlife and Recreation Program (WWRP-REC)	RCO	Funding from this grant can be used to buy land and create and improve parks and regional trails.	Trails: no limit Parks: \$1 million	2022
Community Forests Program (CFP)	RCO ³²	Empowering communities to purchase forested land and to preserve, restore, and open it to non-motorized recreation.	Max: \$3 million	Fall 2021
Land and Water Conservation Fund (LWCF)	RCO	Funding to acquire, preserve, and develop outdoor recreation resources including parks and trails. Kitsap County and BIMPRD have used this program.	\$25,000-\$500,000	Summer 2022

Table #6: Overview of High Priority Public Transportation Grants

Name/Link	Grantor	Summary	Award	Deadline
Public Transportation Consolidated Grants	WSDOT	Improve public transportation within and between communities, purchase new buses and equipment, and offer public transportation to seniors and people with disabilities.	Average: \$600k	January 15th, 2021
Section 5307, 5337, and 5339 FTA Funds	PSRC	Increasing bus services and making bus infrastructure more sustainable.	\$100k-\$21m	April 2022
Regional Mobility Grants	WSDOT ³³	Improving connectivity between regional population centers, reducing transportation delay, and providing for electric vehicle infrastructure.	\$160k-\$10m, \$2m average	September 2022

³¹ U.S. Fish and Wildlife Service (USFWS)

³² Washington State Recreation and Conservation Office (RCO)

³³ Washington State Department of Transportation (WSDOT)

Name/Link	Grantor	Summary	Award	Deadline
Green Transportation Capital Grants	WSDOT	Funding for transit agencies for capital projects to reduce the carbon intensity of the Washington transportation system.	\$300k- \$1.7m	TBA 2022
Paratransit / Special Needs Grants	WSDOT	Funding to sustain and expand services to persons with disabilities, seniors, children and people in rural areas.	\$10k- \$4m	TBA 2022
First Mile / Last Mile Connections Grants	WSDOT	Connecting people with fixed route public transportation services through connector services, microtransit, and enhancing pedestrian infrastructure.	\$100k to \$500k	TBA 2022
Electrification of Transportation Systems (ETS) Program	WA State Dept. of Commerce	The grant provides electric vehicle supply equipment (EVSE) and helps with electrical grid load management. Projects can focus on private vehicles or public transportation.	\$25,000- \$2.5 million	TBA
Low or No Emission Vehicle Program - 5339(c)	FTA ³⁴	Funding for the purchase or lease of zero-emission and low-emission transit buses as well as acquisition, construction, and leasing of supporting facilities.	Average: \$3m Range: \$350k- \$7m	TBA
Access and Mobility Partnership Grants	FTA	Improve access to public transportation for disadvantaged groups by building partnerships among health, transportation and other service providers.	Less than \$20,000 to over \$700,000	TBA

³⁴ Federal Transportation Administration (FTA)

Table #7: Overview of High Priority Clean Vehicle Grants

Name/Link	Grantor	Summary	Award	Deadline
Electrification of Transportation Systems (ETS) Program	WA State Dept. of Commerce	The grant provides electric vehicle supply equipment (EVSE) and helps with electrical grid load management. Projects can focus on private vehicles or public transportation.	\$25,000-\$2.5 million	TBA
Volkswagen Enforcement Action Grants	WA Dept. of Ecology	Funds from the Volkswagen emission cheating fund are disbursed to decrease vehicle emissions.	TBA	Late 2021
Green Transportation Capital Grants	WSDOT ³⁵	Funding for transit agencies for capital projects to reduce the carbon intensity of the Washington transportation system.	\$300k-\$1.7m	TBA 2022
Clean Diesel Grant	WA Dept. of Ecology	Funding to reduce harmful diesel exhaust by converting or replacing diesel vehicles with clean diesel or electric.	\$35k max per vehicle	April 2022
Regional Mobility Grants	WSDOT	Improving connectivity between regional population centers, reducing transportation delay, and providing for electric vehicle infrastructure.	\$160,000-\$10m, \$2m average	September 2022
Zero Emission Vehicle Infrastructure Partnerships (ZEVIP)	WSDOT	Funding for projects to build electric vehicle charging stations and hydrogen fuel cell refueling infrastructure.	Average: \$500k	TBA
Low or No Emission Vehicle Program - 5339(c)	FTA	Funding for the purchase or lease of zero-emission and low-emission transit buses as well as acquisition, construction, and leasing of supporting facilities.	Average: \$3m Range: \$350k-\$7m	TBA

³⁵ Washington State Department of Transportation (WSDOT)

10. Appendix B: Selected Climate Action Grants

Table #8 and **#9** include non-transportation-focused CAP grants. Please consult the attached spreadsheet for more detailed information about these grants and grants not mentioned in this report.

Table #8: Overview of Priority Level 2 CAP Grant Opportunities

Name/Link	Grantor	Summary	Award	Deadline
Weatherization Program	KCR ³⁶	Reduces energy costs for low-income households by increasing energy efficiency. COBI's role would be to provide eligible households with guidance so they can apply.	Average value per unit: \$4,695	Accepts apps on a rolling basis
Flood Mitigation Assistance (FMA) Grant Program	See footnote ³⁷	Funds to reduce the risk of flood damage for structures that are covered by the National Flood Insurance Program (NFIP). Grants are available for planning initiatives, updating Hazard Mitigation Plans, and flood mitigation projects.	Planning: \$25,000 Scoping: \$600,000 Project: \$30 mil.	January 29th, 2021
National Coastal Wetlands Conservation (NCWC) Grant	WA Dept. of Ecology	This program seeks to acquire, restore, conserve, and enhance wetlands of U.S. coastal states.	Typically: \$125,000 Max: \$1 million	Spring 2021
Streamflow Restoration Grants	WA Dept. of Ecology	These grants help implement local plans and projects to improve streamflow and aquatic resources.	No limits	2021
Local Solid Waste Financial Assistance	WA Dept. of Ecology	This program provides solid and hazardous waste planning and implementation, as well as enforcement of solid waste rules and regulations.	Based on formula	2021
Wetland Program Development Grants (WPDGs)	EPA	This program works to protect, manage, and restore wetlands by helping applicants develop and refine a comprehensive Wetland Program Plan. Plan implementation is not included.	\$25,000-\$400,000 Average: \$100,000	2021

³⁶ Kitsap Community Resources

³⁷ The Washington Military Department's Emergency Management Division

Name/Link	Grantor	Summary	Award	Deadline
Water Quality Combined Funding Program	WA Dept. of Ecology	A combination of grants and loans that can fund wastewater facilities, onsite sewage systems, stormwater facilities, and pollution reduction.	Varies	2021
Coastal Protection Fund - Terry Husseman Account Grants	WA Dept. of Ecology	Restoration and enhancement of the natural environment, addressing water and habitat quality in or near bodies of water, and invasive species replacement.	\$10,000-\$25,000 Max: \$50,000	2022
Estuary and Salmon Restoration Program (ESRP)	RCO	Restoration and conservation in near-shore areas in Puget Sound to ensure estuaries, bays, and shorelines are functioning and resilient.	Small Grants: \$30,000-\$150,00	2022

Table #9: Priority Level 3 Grant Opportunities

Name/Link	Grantor	Summary	Award	Deadline
Conservation Reserve Enhancement Program (CREP)	WA State Conservation Commission (SCC), Kitsap Conservation District	Money goes to farmers so that a buffer can be built around streams and wetlands to preserve salmon and their rivers. The SCC identifies several streams on BI that could be eligible.	Variable	Apps accepted on a rolling basis
Salmon Recovery and Puget Sound Acquisition and Restoration (PSAR)	RCO and Puget Sound Partnership	Restoration of degraded salmon habitat and protection of existing high-quality habitat. Aimed at increasing the amount and health of the places salmon live, which will increase the number of salmon. Projects may include the actual habitat used by salmon and the land and water that support processes important to salmon.	Min: \$5,000	June 28th, 2021
Environmental Information Exchange Network (EN)	EPA	Supporting better environmental decisions through timely, consistent, and shareable data. COBI would need to partner with a state agency like the WA Dept. of Ecology to be eligible.	Typical: \$50,000-\$300,000 Limit: \$400,000	2021

Name/Link	Grantor	Summary	Award	Deadline
BUILD Transportation Discretionary Grant Program	US Dept. of Transp. (DOT)	Broadly intended for roads, this program can support green infrastructure, better management of stormwater runoff from transportation infrastructure, and complete street projects to encourage walking and biking.	\$1 million to \$25 million	2021
Aquatic Lands Enhancement Account (ALEA)	RCO	Funding to buy, protect, and restore shorelines. Grants may be used for the acquisition, improvement, or protection of aquatic lands for public purposes. They also may be used to provide or improve public access to the waterfront.	Max: \$1 million	2022
Watershed plan implementation/flow achievement grants	WA Dept. of Ecology	This grant could provide water management infrastructure improvements.	Limits: No Typical: \$45,000-\$400,000	2022
Smart Growth Grants	EPA	This program could help develop and execute Green Development and affordable housing on the Island.	TBA	TBA



A brush fire on Bainbridge Island in 2013. The CAP seeks to mitigate risk of future forest fires. (photo: Bainbridge Island Review)

11. Appendix C: Selected Grant Breakdowns

Below is a detailed breakdown of the application process and funding criterias for three high priority grant programs.

1. Puget Sound Regional Council (PSRC) Surface Transportation Program (STP) (Regional Competition)

Required match: 13.5%

Highlighted funding source: Federal Highway Administration (FHWA)

Timeline: This program follows a biannual timeline and will next accept applications in 2022. In 2020, the timeline was as follows:

1. March 2nd: Eligibility Screening Forms Due
2. April 3rd: Application Deadline
3. April 23rd-24th: Project Presentations
4. May 21st-22nd: Regional Project Evaluation Committee (RPEC) recommendation meeting (important decisions are made on ranking and funding)
5. July 9th: Transportation Policy Board (TPB) Recommendation Meeting (rubber stamp)
6. January 2021: Final state and federal approval

Local Impact: In 2020, COBI requested \$2.5 million in STP funding to extend the Sound to Olympics Trail from High School Rd. to Madison Ave. North, but was not awarded funding.

Project Types: Funds are awarded to a variety of projects including improving or building highway, arterial, transit, bicycle, pedestrian, system and demand management, and technology infrastructure.

Application Evaluation: PSRC selects projects based on the following process and criteria:

- The applicant submits their project in one of three categories:
 - Category A: Projects within a Regional Growth Center
 - Category B: Projects within a Manufacturing/Industrial Center
 - Category C: Projects on a transportation corridor that serves Regional Growth Centers or Manufacturing/Industrial Centers
- There are no Regional Growth Centers on Bainbridge Island, so projects should compete in Category C and impact the SR305 corridor or otherwise improve transportation between the Bainbridge Island Ferry Terminal and the Agate Pass Bridge, with the idea to improve transportation between Seattle and Silverdale/Bremerton
- Projects are scored based on four areas with **100 points possible**. Projects are ranked by point value and then funding is allocated from the top down until it is allocated. In 2020, projects earning scores from 54 to 75 received funding. Projects that scored from 19 to 69 were placed on the recommended prioritized contingency list.

- *Benefit to Regional Growth or Manufacturing/Industrial Center: **40 points***
 - Supports housing and employment development in a center
 - Proposals should explain how they will enable businesses to have geographically broader workforce and customer bases and improve travel time for commuters and goods to show benefits for the retention or establishment of new jobs or businesses
 - Applications must address how project will benefit the specific industry clusters mentioned in the regional economic strategy
 - Provides a range of travel modes or a missing mode to users going to/from centers
 - The more centers that benefit, the better
 - Benefits many groups, possibly including commute, residential, recreational, and commercial users
 - Benefits minorities, low-income populations, seniors, people with disabilities, populations in highly impacted communities and/or areas with high unemployment or chronic underemployment
- *System Continuity/Long-Term Benefit and Sustainability: **35 points***
 - Projects should improve traffic flow and remove transportation barriers between centers
 - Projects should improve and address safety and security
 - Enables active transportation that fosters health benefits
- *Projects in all categories are scored based on greenhouse gas and air pollution reductions, especially diesel particulates: **20 points***
- *All projects are also scored on project readiness and their financial plan: **5 points***

2. Kitsap Regional Coordinating Council (KRCC) Surface Transportation Program (STP) (Kitsap Countywide Competition)

Required Match: 13.5%

Funding Source: Federal Highway Administration (FHWA) funds

Timeline: This program follows a biannual timeline and will next accept applications in 2022. In 2020, the timeline was as follows:

1. February 5th: Call for Projects was released
2. February 12th: Kitsap County application workshop
3. March 20th: Countywide Project eligibility screening deadline
4. May 8th: Applications due
5. July 9th: Transportation Policy Board (TPB) Recommendation Meeting
6. January 2021: Final state and federal approval

Local Impact: In 2020, COBI applied for funding for three projects: Blakely to Lynwood Bicycle and Pedestrian Improvements, Rolling Bay Bicycle and Pedestrian Improvements, and Winslow to Eagledale Bicycle Improvements – Phase 1. Winslow to Eagledale Bicycle Improvements – Phase 1 was funded for \$735,000, which will enable 0.5 miles of road widening resulting in new paved bike lanes on both sides of the roadway. This process also funded the Madison Ave. Sidewalks Project, which will widen the sidewalk and add ADA improvements from Wyatt Way to High School Rd. that will be completed in 2023.

Application Evaluation: KCRR selects projects based on the following process and criteria:

- Projects must support Local Centers
 - a. Centers on or near Bainbridge Island include Winslow, Day Road Business/ Industrial Area, Sportsman Triangle Business/ Industrial Area, Lynwood Center, Rolling Bay, Island Center, Suquamish, and Poulsbo
- For non-motorized funds, must focus on bike/pedestrian transportation more than recreation
- For the non-motorized set-aside funding, priority is given to increasing safe walking/biking routes to schools
- Instead of a points system, projects are evaluated based on ratings of low, medium, and high in **7 equally weighted categories**. For the 2023-2024 cycle, 6 out of 18 (33%) of ranked projects were funded. The following are characteristics of projects that score highly:
 - a. *Project provides significant benefits to Local or Regional Centers*
 - b. *strong financial plan, clear approach to completion, project includes previous PSRC funding*
 - c. *At least two jurisdictions and agencies involved and some project coordination opportunities*
 - d. *Project provides significant safety and capacity benefits*
 - e. *Project provides significant benefits to “highly-impacted communities” and greatly supports access to transit and positive health outcomes*
 - f. *Project provides significant air quality benefits*
 - g. *Project provides significant multimodal benefits*

3. Washington State Recreation and Conservation Office (RCO) Recreation Projects - Washington Wildlife and Recreation Program (WWRP-REC)

Description: The RCO offers a wide range of grant opportunities that focus on park development and land conservation. The WWRP-REC grant is a large and diverse program that could fund both unpaved trails and greenway construction on Bainbridge Island.

Required Match: 25%

Funding Source: Washington State Legislature

Project Types: There were five competition categories within this grant program in 2020, and three of them apply to Bainbridge: Local Parks, Trails, and Water Access. The Trails category can fund both greenways and unpaved forest trails.

Timeline: This grant will next be available in 2022. The 2020 Trails category timeline had the following dates:

1. February 13th: Application opened and applicant webinar was held
2. March 1st: Comprehensive Recreation or Conservation plan for the city due
3. Early May: Application due (In 2020 this deadline was extended to June 1st)
4. June 22 - June 24: Technical review
5. August 10th: Technical completion deadline
6. September 21st-23rd: Presentations and evaluations
7. November 5th: Board approves preliminary ranked lists
8. July 1st, 2021: Grants awarded
9. 1-3 years: Project duration

Local Impact: In 2020, BIMPRD won a \$750,000 grant for expanding Hidden Cove Park under the Water Access category. In 2018, Bainbridge Parks won \$400,000 in the Local Parks category to develop Sakai Park. Since 2010, no Island project has won funding from this grant in the Trails category, and no project has won funding from the Trails category for a greenway project.

Application Evaluation: The evaluation process for projects involves applicant's in-person oral and graphic presentation to the advisory committee. Below is the criteria for the Trails category, assuming the project involves both land acquisition and development. There are **83 points possible**. In the 2019-2021 cycle, projects that scored from 62 to 73 were awarded funding, projects that scored 59 to 62 points were designated as alternates, and projects that did not receive funding scored 43 to 59 points. The top 8 of 34 scored applications (24%) were funded.

1. *Need (15 points)*

- This category asks the applicant to consider under-served populations, as defined by census tract data compared to statewide averages. To score well, COBI could focus on the proposed trail sections in the Winslow area census tract, which has the lowest median household income and highest % of people of color on the Island. For the Sound to Olympics trail, that would be between High School Rd. and Sportsman Club. COBI could also build new partnerships or leverage existing partnerships with the Suquamish Tribe, and possibly Poulsbo and Seattle, to show that building the Bainbridge section of the regional trail will benefit and connect underserved communities.

2. *Linkages between trails (7.5)*

3. *Linkages between communities (7.5)*

4. *Immediacy of threat (7.5)*
 - Will the land be lost to development without swift action?
5. *Project design (7.5)*
6. *Sustainability (5)*
 - Includes ecological, economic, and social factors
7. *Water access/views (3)*
8. *Scenic values (7)*
9. *Enhancement of wildlife habitat (5)*
10. *Project support (10)*
 - The application should display a concerted effort to engage with and inform the community and evidence that the community supports the project, including media coverage, public meeting attendance, and special events
11. *Cost efficiencies (5)*
 - In-kind and cash donations from the community and other grants
12. *Proximity to people (1.5)*
 - COBI would automatically get these points
13. *County population density (1.5)*
 - COBI would automatically get these points



The Forest to Sky Trail was funded in part by a grant from the RCO's 2010 WWRP-REC Trails program (photo: Don Willott for Kitsap Daily News)

12. Appendix D: Environmental Grant Directory

Below is a directory for the contacts within organizations and government departments that administer grant programs. In some cases where an email is not available, a link to an online form is provided.

- American Hiking Society
 - National Headquarters: info@americanhiking.org, (800) 972-8608
- Commerce, Washington State Department of
 - Main Office: 360-725-4000
 - Hans Berg, Program Supervisor for Clean Energy Fund, Energy Efficiency, and Solar Grants: eeands@commerce.wa.gov, (360) 528-7063
 - Clean Energy Fund: cef@commerce.wa.gov
 - Forrest Watkins, Clean Energy Fund Grants Manager: forrest.watkins@commerce.wa.gov, (360) 522-3390
 - Connie Rivera, Program Director, Washington State Public Works Board: connie.rivera@commerce.wa.org, (360) 725-3088
- Conservation Alliance, The
 - Office: info@conservationalliance.com, (541) 389-2424
- Ecology, Washington Department of
 - Northwest Regional Office: 425-649-7000
 - Heather Kapust, National Coastal Wetlands Conservation Grant Manager: heather.kapust@ecy.wa.gov, (360) 407-0239
 - Maria Sandercock, Shoreline Master Plan Planner and Permit Reviewer for Bainbridge Island: maria.sandercock@ecy.wa.gov, (425) 256-1372
 - Kelsey Dunne, Waste Reduction and Recycling Education (WRRED) Grant Coordinator: kelsey.dunne@ecy.wa.gov, (360) 407-6129
 - Daniel Thompson, Water Quality Combined Funding Cycle Coordinator: daniel.thompson@ecy.wa.gov, (360) 407-6510
 - Annie Sawabini, Streamflow Restoration Grant Program: sfrprjgrants@ecy.wa.gov, (360) 701-4432
 - Vicki Colgan, Local Solid Waste Financial Assistance (Northwest Region): vicki.colgan@ecy.wa.gov, (425) 649-7224
 - Rose Bennett, Watershed planning implementation & flow achievement grants contact: rben461@ecy.wa.gov, (360) 407-6027
 - Lisa Nelson, Floodplains by Design (FbD) Northwest Washington Grant Manager: lisa.nelson@ecy.wa.gov, (425) 649-4253

- Brett Rude, Environmental Planner, Clean Transportation:
brett.rude@ecy.wa.gov, (360) 407-6847
- Ron Stuart, Diesel Program Specialist: ron.stuart@ecy.wa.gov, (306) 407-6870
- Emergency Management Division (EMD), Military Department, Washington State
 - Public Information Officers: (800) 688-8955
 - Washing State Hazard Mitigation Assistance Team: HMA@mil.wa.gov, (253) 512-7082
 - Timothy Cook, State Hazard Mitigation Officer: tim.cook@mil.wa.gov, (253) 512-7072
- Environmental Protection Agency, United States (EPA)
 - Annie Whitley, Wetland Grant Washington Coordinator: whitley.annie@epa.gov, (206) 553-0058
 - Erin McGown, Environmental Information Exchange Network:
mcgown.erin@epa.gov, (202) 564-6381
 - Diesel Emissions Reduction Act (DERA) National Grants Program: dera@epa.gov, (206) 553-1200
- Fish and Wildlife Service, United States (USFWS)
 - Chris Darnell, Coastal Program National Coordinator: chris_darnell@fws.gov, (703) 358-2236
- Kitsap Community Resources (KCR)
 - Office: <https://www.kcr.org/contact-us/>
 - Weatherization Information: weatherization@kcr.org, (360) 473-2045
 - Ian Gould, Weatherization Manager: ianG@kcr.org, (360) 473-2150
- National League of Cities (NLC)
 - Office: info@nlc.org, (877) 827-2385
 - Anna Marandi, Senior Specialist of Climate and Sustainability: marandi@nlc.org
- Natural Resources, Washington State Department of (DNR)
 - Regional Office: northwest.region@dnr.wa.gov, (360) 856-3500
 - Ben Thompson, Urban and Community Forestry Program Manager:
ben.thompson@dnr.wa.gov, (360) 485-8651
- PeopleForBikes
 - Zoe Kircos, Director of Grants and Partnerships: zoe@peopleforbikes.org
- Puget Sound Regional Council (PSRC)
 - Kelly McGourty, Director of Transportation Planning, FHWA grants contact:
kmcgourty@psrc.org, (206) 971-3601
 - Sarah Gutschow, Senior Transportation Planner, FTA grants contact:
sgutschow@psrc.org, (206) 587-4822
- Rails-to-Trails Conservancy

- Western Regional Office:
http://support.railstotrails.org/site/Survey?ACTION_REQUIRED=URI_ACTION_USER_REQUESTS&SURVEY_ID=9002, 510.992.4662
- Doppelt Family Trail Development Fund contact: grants@railstotrails.org
- Recreation and Conservation Office, Washington State (RCO)
 - Office: info@rco.wa.gov, (360) 902-3000
 - Kim Sellers, Outdoor Grants Manager for Kitsap, Mason, Department of Fish and Wildlife Conservation Grants: kim.sellers@rco.wa.gov, (360) 228-6467
 - Marguerite Austin, Manager, Recreation and Conservation Grants Section: marguerite.austin@rco.wa.gov, (360) 867-8140
- Rotary Club of Bainbridge Island
 - Marina Cofer-Wildsmith:
<https://www.bainbridgeislandrotary.org/singleemail/contactus>
 - Large grants program contact: largegrants@bainbridgeislandrotary.org
- Transportation, United States Department of (DOT)
 - Office of Program Management, Federal Transit Administration: 202-366-2053
 - Howard Hill, National Transportation Analyst, BUILD program contact: BUILDgrants@dot.gov, (202) 366-0301
 - Steven Taubenkibel, Public Affairs Specialist, Low or No Emission Vehicle Program: steven.taubenkibel@dot.gov, (202) 366-0431
 - Christina Gikakis, Accelerating Innovative Mobility (AIM) Program Manager: christina.gikakis@dot.gov, (202) 366-4052
- Transportation, Washington State Department of (WSDOT)
 - Headquarters: (360) 705-7000
 - Evan Olsen, Grants Specialist: evan.olsen@wsdot.wa.gov, (360) 705-6929
 - Ed Spilker, City Safety and Traffic Programs Manager, Highway Safety Improvement Program (HSIP): ed.spilker@wsdot.wa.gov, (360) 705-7387
 - Charlotte Claybrooke, Active Transportation Programs Manager, Safe Routes to School program: charlotte.claybrooke@wsdot.wa.gov, (360) 705-7302
 - Brian Wood, Active Transportation Program Specialist, Pedestrian and Bicyclist program: woodb@wsdot.wa.gov, (360) 705-7385
 - Ricardo Gotla, Transportation Demand Management Developer, First Mile/Last Mile Connections Grants: ricardo.gotla@wsdot.wa.gov, (206) 716-1114
 - Susan Garber-Yonts, Grants Analyst, Public Transportation Consolidated Grants: susan.garber-yonts@wsdot.wa.gov, (206) 922-3259
 - Allyson Ruppenthal, Transportation Planning Specialist, Regional Mobility Grants: allyson.ruppenthal@wsdot.wa.gov, (360) 791-5613

- Jillian Nordstrom, Grants and Community Partnerships Manager,
Paratransit/Special Needs program: jillian.nordstrom@wsdot.wa.gov, (360) 705-7911
- Zero Emission Vehicle Infrastructure Partnerships: Email to join mailing list: partnerships@wsdot.wa.gov
- Transportation Improvement Board, Washington State (TIB)
 - Main office: (360) 586-1140
 - Chris Langhoff, Project Engineer for Bainbridge Island: ChrisL@TIB.wa.gov, (360) 586-1157
 - Chris Workman, Complete Streets contact: chrisw@tib.wa.gov, (360) 586-1153
- State Conservation Commission, Washington State (SCC)
 - Office: commission@scc.wa.gov, (360) 407-6200
 - Brian Cochrane, Habitat and Monitoring Coordinator, Conservation Reserve Enhancement Program (CREP): bcochrane@scc.wa.gov, (360) 701-5749