CITY OF
BAINBRIDGE ISLAND

PLANNING COMMISSION
SPECIAL MEETING
THURSDAY, JULY 21, 2016
6:00 – 8:30 PM
COUNCIL CHAMBER
280 MADISON AVE N
BAINBRIDGE ISLAND, WA 98110

AGENDA

6:00 PM CALL TO ORDER FOR REGULAR PLANNING COMMISSION MEETING
Call to Order, Agenda Review, Conflict Disclosure

6:05 PM REVIEW AND APPROVAL OF MINUTES
April 7, 2016 Meeting

6:10 PM PUBLIC COMMENT
Accept public comment on off agenda items

6:15 PM PUBLIC COMMENT ON COMPREHENSIVE PLAN UPDATE

6:25 PM 2016 COMPREHENSIVE PLAN UPDATE
- Discuss 7/5 City Council Study Session on Comprehensive Plan Update
- Proposed *Land Use Element* policy LU 4.3 re: BIMPRD
- Review DRAFT *History* section for *Introduction* from HPC
- Review DRAFT *Visions* for *Transportation* and *Environmental Elements*

8:15 PM PUBLIC COMMENT ON COMPREHENSIVE PLAN UPDATE

8:25 PM NEW/OLD BUSINESS

8:30 PM ADJOURN

TIMES ARE ESTIMATES

Public comment time at meeting may be limited to allow time for Commissioners to deliberate. To provide additional comment to the City outside of this meeting, e-mail us at pcd@bainbridgewa.gov or write us at Planning and Community Development, 280 Madison Avenue, Bainbridge Island, WA 98110

For special accommodations, please contact Jane Rasely, Planning & Community Development 206-780-3758 or at jrasely@bainbridgewa.gov

Planning Commission
Special Meeting Minutes
Thursday, April 7, 2016

CALL TO ORDER – Call to Order, Agenda Review, Conflict Disclosure
REVIEW AND APPROVAL OF MINUTES - January 21, 2016
PUBLIC COMMENT – Accept public comment on off agenda items
GENERAL SHORELINE MASTER PROGRAM LTD AMENDMENT – Study Session
PUBLIC COMMENT ON COMPREHENSIVE PLAN UPDATE
2016 COMPREHENSIVE PLAN UPDATE – Study Session on Water Resources Element
PUBLIC COMMENT ON COMPREHENSIVE PLAN UPDATE
NEW/OLD BUSINESS
ADJOURN

CALL TO ORDER – Call to Order, Agenda Review, Conflict Disclosure
Chair Mack Pearl called the meeting to order at 6:03 PM. Other Commissioners in attendance were Michael Lewars, Maradel Gale, Jon Quitslund, William Chester, Michael Killion and Lisa Macchio. City Staff present were Senior Planners Jennifer Sutton and Christy Carr, Water Resources Specialist Cami Apfelbeck and Administrative Specialist Jane Rasely who monitored recording and prepared minutes. City Consultant Joseph Tovar was also present. The agenda was reviewed with the notation that the public comment period after the General Shoreline Master Program limited amendment was for the Comprehensive Plan update. Mr. Tovar also stated he would like to speak about the Comprehensive Plan schedule during New/Old Business. There were not any conflicts disclosed.

REVIEW AND APPROVAL OF MINUTES - January 21, 2016

> **Motion: I move that the minutes be approved as distributed.**
> **Quitslund/Lewars: Passed unanimously 6-0**

PUBLIC COMMENT – Accept public comment on off agenda items
None.

GENERAL SHORELINE MASTER PROGRAM LTD AMENDMENT – Study Session
Ms. Carr gave an overview of the information brought forward stating she added a "Key" to help clarify. Chair Pearl stated that was very helpful. She went onto review revision 4.1.2 having to do with Environmental Impact Mitigation and fielded questions from the Commissioners.

Commissioner Macchio began the discussion with the difference between buffer reductions and exceptions that may be allowed in the buffer. Chair Peal felt there needed to be clarification of how the Shoreline Master Program (SMP) affects current structures and how and/or what changes can be made to an existing property that invokes the regulations encompassed in the SMP. The Commissioners felt there needed to be a definition of "new" development since that was the trigger for invoking the SMP regulations. The ability to remove and top trees was thoroughly discussed.

Commissioner Gale commended Ms. Carr on the difficult work she was accomplishing to provide clarity in the SMP.

Public Comment

Elise Wright, Citizen – Complimented Ms. Carr on giving the language more clarity. She stated it was clearer and the monitoring standards especially seem clearer and they're given more importance. Ms. Wright went on to say that a couple of the Commissioners that evening had touched on things that also bothered her: 1) 4.1.3.1 paragraph 2, second sentence – "Vegetation standards do not apply retroactively…" There was a phrase in the old wording at the end of that sentence that said, "Do not apply retroactively to existing uses and structures unless changes are proposed." She stated that the committee had tried very hard to make sure people knew that not just conservation but restoration of the habitat was what they were going after. Ms. Wright felt Commissioner Pearl was right to say this did apply to every waterfront property because the vast number of losses seen were changes to properties that had already been developed and then gets re-developed. She used the example at Pleasant Beach of two properties that had been re-developed in the last three years. Whether they followed the rules, she did not know but they were allowed to build within the existing footprint located 25 feet from the water, they were allowed to keep their bulkhead and somehow they were allowed to take out all of the trees that shielded them from the road. She stated there were still significant trees there but it was now possible to see straight through to the water and house, which now filled the view of the water. She felt that ecosystem had been lost, a significant portion of the ability of that land to retain water and filter it was gone. She thought it was important to emphasize that re-vegetation and restoration (or mitigation) were really the heart of the Shoreline Management Act (SMA). She suggested adding that phrase back in unless changes were proposed. The other area she was concerned about was that the lead was buried, that the general vegetation standards on page 15 (4.1.3.10.1), "the shoreline buffer or site-specific management areas shall be maintained in a predominantly natural and undisturbed and vegetated condition." She thought that was really what they were going for and maybe that should be at the top. She also felt there was a lot of talk about shoreline homeowners being confused and she felt that people who purchased a waterfront property to re-develop it should be given a handbook when they sign their deed saying these are your rights and responsibilities because here (Bainbridge Island) we comply with the Shoreline Management Act and we want to conserve the environmental uses.

Dick Haugen, Citizen – In listening to the discussion, Mr. Haugen stated the lack of clarity was something that was part of the Planning Commission and City Council's work as well as City Staff. He stated by law, anything that becomes an ordinance like this had to be clear to the average person. In the last meeting, there was talk of a checklist and he felt by and large, no one could really figure out what was going on. He referenced the healthy discussion that night and Ms. Wright was spot on with her comments. To him, he felt it was a litmus test that if there

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could not be a succinct summary so people could understand it and not have to read through 400 pages to figure it out, he didn't think they (as a City) had done the work they should do. He highly encouraged developing a summary. Mr. Haugen then asked Ms. Carr if there were more amendments coming or if that was the end of the amendments. He then asked if there were more, when they would be coming because it was hard to do this work piecemeal. Ms. Carr replied there were more coming and they had begun the process back in February and that it would be broken down into topic areas because of the complexity of the work.

Charles Schmid, Citizen – Was caught by the phrase, "The Director may approve reductions in the buffer." He suggested the phrase read, "The Director may approve reductions in the buffer with documented reasons for this." He thought it would be a good thing to remind people that they were there. Commissioner Gale confirmed that what he would like is for the "Administrator" to document why/how the buffer was reduced. Mr. Schmid said that covered it.

PUBLIC COMMENT ON COMPREHENSIVE PLAN UPDATE
None.

2016 COMPREHENSIVE PLAN UPDATE – Study Session on Water Resources Element
Consultant Joe Tovar reviewed the future schedule of agendas for the Planning Commission (see attached *Schedule of Planning Commission Agendas*). Chair Pearl canvassed the other Commissioners' availability for the extra meetings.

Ms. Sutton summarized the changes stating they were highlighted in yellow for the Commissioners ease in recognition. Ms. Apfelbeck gave an overview of the edits she made stating they were mostly from the technical memos Aspect Consulting provided which the Commissioners had already seen. She also stated the editing would be completed at the latest by April 14, 2016. Commissioner Quitslund commended Ms. Apfelbeck for retaining the integrity of the policy while making it easier for the lay person to read and understand. Commissioner Killion felt they should make the language regarding well monitoring stronger and there should be a program developed to educate well owners on the work plan. Commissioner Macchio suggested a change in the verbiage of the policy stating the City will "develop" an education program instead of "encourage" well owners.

Aquifer recharge areas were discussed as well as how to categorize the areas. Ms. Apfelbeck suggested following Kitsap County's lead and start by calling public water systems Category A Aquifers. Commissioner Killion questioned the Vision Statement and whether it currently was a vision or an activity. He then volunteered to rewrite the Vision Statement. Commissioner Macchio asked for a new map of intermittent streams. Ms. Apfelbeck stated one would be coming with more updated information.

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PUBLIC COMMENT ON COMPREHENSIVE PLAN UPDATE

Charles Schmid, Citizen – Asked if Ecology still put out their list of contaminated sites with the ranking and status of clean-up. Ms. Sutton said the list was on Ecology's website but it was not distributed by the Department of Ecology. Mr. Schmid stated there used to be 10-12 sites with the Wyckoff facility being the highest and then there were smaller ones like gas stations. He said he was glad they were looking at this because in the past, there were quite a few contaminated sites and these were really important issues.

Ron Peltier, City Council – Was hoping to see a goal or some reference to a water plan or a groundwater management plan. Ms. Apfelbeck and Ms. Sutton both confirmed there was a groundwater plan included in the Comprehensive Plan. He felt they did not really have one and that it would be a collaborative effort with all the stakeholders. He felt that would address all the quality issues about toxic waste sites. Commissioner Pearl pointed out section 2.6 which Mr. Peltier called a meager reference and thought it should be laid out more prominently. He spoke about the Aspect memo and the re-running of the USGS groundwater model. He said it was commonly known and was acknowledged at the last presentation by Aspect Consulting that these models were not accurate beyond 27 years, were somewhat of an art and should be taken with a grain of salt. He was troubled by the reference to a 100 year model when there was absolutely no reason to believe that running the model for 100 years would be accurate. He felt it was misleading to have it in there and that it had been acknowledged by Tim Flynn that running it for 100 years would not be accurate. He was also troubled by the way the presentations were conducted since there were not really any interaction questions and answers. He felt the answers given were oftentimes not complete. Mr. Peltier stated he had asked at the last meeting why the data put in to run the model did not include the drought from last spring and summer. The answer given was it took a long time for the effects on recharge to show up. He went on to say that the Island did not get a lot of recharge in the summer and the relevant issue was not recharge but use. Mr. Peltier thought there was a huge amount of pumping on the aquifers last spring and summer as a result of the freakishly dry spell experienced. He did not find it satisfactory that information was evaded. He felt there were assumptions built into the data used to run the model and one of them was that there was a .6% conservation of water per year. He said it was not obvious to him what that figure was based upon. He stated at an Environmental Technical Advisory Committee (ETAC) meeting, they discussed with someone who had worked at USGS for 18 years that it was just as likely that the Island could experience increased use of the water resource due to people wanting to use more water in the summer when it is a lot drier. Mr. Peltier went on to say that while there might not be a drought like that every year, the predictions were there would be more of them. He used a local vineyard on Day Road as an example of water use since last year was the first time they had every had to water the vines since they had been planted. He was troubled that the study that would inform the Comprehensive Plan did not include data from that drought and did not understand why it wouldn't. That was an answer he was looking for from Ms. Apfelbeck and Aspect Consulting. He wanted to know if the City was willing to accept there would be less water in the streams and wetlands in exchange for more use,

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population and development on the Island. He felt it was really a philosophic policy question and wanted to see a more explicit commitment to long term sustainability which needed to be stated more strongly.

Robert Dashiell, Citizen – He was concerned that the Aspect Report modeled 1480 wells ON the Island and 3537 wells OFF the Island. Mr. Dashiell felt the bottom line was when they did the groundwater modeling pumping, only 15.2% of that was from Bainbridge. 84.8% was from the rest of Kitsap County. He stated he did not pick that up when Aspect gave the report, but it bothered him. He stated his understanding was the only well connection was the deep aquifer from which 30% of the water used on Bainbridge Island was extracted. He did not understand a model that put such a great emphasis on the amount of water in Kitsap County and he did not think they even talked about. Mr. Dashiell also spoke about rainfall and streams, highlighting the University of Washington's (UofW) Climate Change Report, which said there would be more rain in lowland Puget Sound, about 8.5 -10% more. He went on to say a groundwater model is only for water that goes into the ground and their projections were that it would rain harder with more intense storms meaning the water would runoff faster and not go into the groundwater model with the recharge rate going down in the future. He said that did not mean the streams would go down but would in fact have more because there would be more rainfall. He felt the Island would suffer in the summer when there was less rainfall but would not have problems in the winter. He thought they should look at the UofW climate change model to understand the streams would not run dry. Mr. Dashiell mentioned the Utility Advisory Committee (UAC) meeting had a list of all the A and B water systems with 28 Class A and 125 Class B water systems which did not include private wells. He asked Ms. Apfelbeck why the number of wells being monitored went from 46 to 70. She stated they were using the data from the wells Kitsap Public Utility District monitored as well as the two Operations and Maintenance wells.

NEW/OLD BUSINESS
None.

ADJOURN
The meeting was adjourned at 8:30 PM.

Approved by:

_____ _____

J. Mack Pearl, Chair Jane Rasely, Administrative Specialist

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CITY OF
BAINBRIDGE ISLAND

Department of Planning and community development

Memorandum

Date: July 21, 2016

To: Planning Commission

From: Jennifer Sutton, AICP
Senior Planner

Subject: Comprehensive Plan Update

I. July 5th City Council Comprehensive Plan Study Session

The City Council had a briefing on the Comprehensive Plan Update process at their July 5th meeting. The City Council discussed the DRAFT elements, and suggested some changes (see memorandum from planning consultant Joe Tovar).

The City Council also requested that the Commission consider whether or not the Business/Industrial (B/I) land use designation of the properties in/around the Coppertop development should be changed to another designation, such as "General Commercial". The Commission has discussed this issue several times over the last year, noting that "Coppertop" has several conditional use businesses located there, as well as business permitted in the B/I zone, but that are not industrial in nature (e.g. Ballet studio).

The Commission discussed this concept at the July 14th meeting. The Commission suggested that instead of modifying the B/I designation of Coppertop, that the Day/Miller Road B/I designation could be changed to Industrial. That change would result in changes to permitted and conditional uses for that area (BIMC Chapter 18.09), for instance, "Professional services" are a conditional use in the B/I designation would not be permitted at all in a new "Industrial" designation. To consider this suggestion, staff should provide a mailed notice to affected property and business owners and complete the type of analysis that the Planning Commission would need in order to have an informed discussion, scheduling a study session at a date in August.

Staff recommends to the Commission that the land use designation change not be pursued at this time due to the time constraints of finishing the Comprehensive Plan by the end of the year. Instead, staff suggests modifying the B/I polices of the *Land Use Element* to promote reconsideration of the permitted and conditional B/I uses through changes to the BIMC. Additionally, as designated centers, the Day/Miller Road and Sportsman Club Road B/I areas could go through subarea planning in the near future, which would evaluate land uses, transportation and utilities for those areas.

Planning Commission Action: Discuss the suggestions from the City Council and provide direction to staff about which changes should be integrated, and if the Commission wants to further consider changing the land use designation of the Business/Industrial properties around the Coppertop development.

II. Proposed New Land Use Element Policy

On June 9th, the Planning Commission discussed again the Bainbridge Island Metro Park and Recreation District (BIMPRD) request to create a "Park" land use designation. The Commissioners requested that the BIMPRD provide a list of City development code requirements or processes that are regularly problematic in the maintenance or creation of parks. To summarize the discussion, the Commission was trying to ascertain if changes sought by the BIMPRD could be achieved through changes to the municipal code, or if a new "Park" land use designation was truly required. City and BIMPRD staff met after the June 9th Commission meeting and discussed how different planning and building requirements applied to parks. The City suggests adding a new policy to the *Land Use Element* (see below) to ensure future cooperation between the City and BIMPRD on how development regulations are applied to parks.

> **LU 4.3 Include as an early task in the multi-year work program adoption of policies and development regulations for Bainbridge Island Municipal Park and Recreation District facilities.**

Planning Commission Action: Discuss the proposed policy and provide direction to staff if it should be added to the *Land Use Element.* Discuss whether or not to further consider any requests by the BIMPRD to create a "Park" land use designation.

III. Review Drafting Committee Work

The Comprehensive Plan drafting committee (Commissioners Gale and Quitslund) will meet on Wednesday July 20th to review DRAFT *Vision* statements for the *Transportation* and *Environmental Elements*. The drafting committee will also review the *Historical Profile* that has been drafted by the City's Historic Preservation Commission (HPC). That profile was presented to the Planning Commission on June 23rd; the HPC revised the profile and the drafting committee will review that latest draft.

Their suggestions for the *Visions* and *Historical Profile* will be posted to the online packet and emailed to the Commission the morning of July 21st. Hard copies will be provided to the Commission at the meeting on July 21st.

Planning Commission Action: Review and suggest changes to the DRAFT *Vision* statements for the *Transportation* and *Environmental Elements* and the *Historical Profile.*

IV. Next Steps

On July 28, the Commission will continue to review the Utilities Element and begin to review the Capital Facilities and Human Services Elements.

Cultural Element workshop prior to the regular Planning Commission meeting on July28.

Joseph W. Tovar
FAICP

MEMORANDUM

DATE: July 7, 2016

TO: Bainbridge Island Planning Commission

FROM: Joseph W. Tovar, FAICP

RE: City Council feedback regarding Comprehensive Plan Elements

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At their July 5, 2016 Study Meeting we reviewed with the City Council the Planning Commission's latest versions of the Comprehensive Plan Introduction, Land Use Element, Housing Element, Economic Element, Water Resources Element and Glossary. They expressed great appreciation for the tremendous work that the Planning Commission has done on the project and the quality and clarity of the current drafts. Commissioners Gale and Killian were present, so I am hoping they can assist us at your July 14 meeting as we explain the City Council's feedback.

The balance of this memo will point you to the pages on the attached versions where we have noted in red the Council members comments, concerns or requests. In some cases, they have asked the Commission to consider specific additional or revised language, which I have shown in these drafts with yellow highlighting. As we review each item with you at your meeting, we ask that you determine whether or not you wish to incorporate the highlighted language as part of your recommended draft or if you perhaps would prefer some variation.

INTRODUCTION

Page 2, lines 5 & 6. The Council pointed out the awkward sentence structure which seemed to suggest that all white people are well educated. I have drafted language there that I think more correctly makes the point.

Page 7, lines 28-30. Council asked the Commission to review the City-wide Vision Statement after you finish the Vision Statements for all Elements, and offer any revisions you see appropriate. They were very impressed with the Vision Statements for Land Use, Housing, Economic and Water resources.

Page 11, line 12. They agreed that a 100 year term is appropriate when considering natural systems, but not for other things. So they suggested changing "replace" to "augment."

LAND USE ELEMENT

Page 9, lines 6-9. They called out an apparent inconsistency between Policy LU 5.2 and Policy LU 9.1. Because the TDR program is not now functional, and may

not be for several years, they thought LU 5.2 as written would thwart trying to encourage residential and mixed use in designated centers as called for in LU 9.1. The Commission could choose to simply delete LU 5.2 or achieve consistency with LU 9.1 by revising it in some way.

Page 31, line 5. Council members thought it would make sense to add language to Action #3 so that, even if the conservation village idea is pursued, perhaps there would be other "innovative regulations" that might also be considered to achieve these objectives.

Page 31, lines 30-35. Two of the Councilmembers asked the Planning Commission to consider including as a high priority a major review and potential revision of the Land Use Code to achieve consistency with the Comprehensive Plan.

Page 32, lines 22-23. The Council asked that some definition be given to several terms in all these Elements, including one for "Open Space Plan." We have taken a run at a definition in the Glossary, page 14, lines 2-4.

Page 39, lines 29-30. Several Council asked if a higher priority should be given to the task of reviewing and improving the City's TDR/PDR programs to make them functional.

HOUSING ELEMENT

Although we did not do a line-by-line review of all the pages in this Element, we did call the Council's attention to the Planning Commission's recommended strategy of setting numeric housing targets, measuring progress and taking corrective action as needed. I would look to Commissioners Gale and Killion for their perspective, but it appeared to me that Council was in support of that Goal and the policies setting forth targets.

Page 4, line 4. There was a lot of discussion and some disagreement by two of the Council members whether "environmental stewardship" as a value should be considered equal to "the population's needs for housing, health and safety, and access to employment, goods and services." The compromise that was drawn was to suggest deleting the word "equally," which leaves intact the notion that these competing values should still be "balanced."

Page 13, lines 13-15. There was much discussion about whether to refer to developers as the "development community," or name the constituent segments such as builders, realtors, lenders, etc. In the end the Council seemed most comfortable with the language shown with yellow strikethrough. The Commission may wish to agree with that resolution or not. Another option would be to refer to the "development Industry".

Pages 15-19. Note that these pages are deleted from the Housing Element because they have been folded into the larger Glossary in Attachment 7 of this packet.

ECONOMIC ELEMENT

Page 4, lines 2-25. This version of the Vision Statement was crafted by Comissioners Gale and Quitslund working from a draft prepared by Commissioner Killiion. The Council seemed to really like this draft, but since the Commission has not seen it as a whole, I recommend that you all consider if you think it is adequate or needs further revision.

Page 6, lines 19-29. The Council thought that the Element already includes Goals and Policies that recognize the value of social capital and natural capital in addition to the financial capital which most people usually think of when they think of an economy. They asked that you consider using those terms specifically, or variations on those terms, to convey that these are the three components of a sustainable economy. We have included draft definitions for these terms in the Glossary at page 7, lines 11-29.

Page 15, lines 39-45. The Council as a whole really like the implementation actions, particularly naming the importance of both agriculture and the non-profit sector to the Island's economy. They asked the Commission to consider raising the priority for the parking action in view of the fact that the City is now looking at that issue with respect to Winslow, and with an eye toward the importance of parking not just for business, but for other public uses.

WATER RESOURCES ELEMENT

Page 4, line 5. One of the Council members asked if we could clarify just we mean by "all forms of life." I suggest that "flora and fauna" pretty much covers it.

Page 5, lines 33-34. The Council pointed out that the proper words here are "shall" rather than "should". I have some edited language that uses the active verbs "identify and assess" rather than "shall" in the first sentence.

Page 7, line 22. The correct verb here is "shall" since it refers to regulations that are mandatory, not discretionary.

Page 8, line 6. Same as comment above.

GLOSSARY

As noted above, the Council asked that a number of terms be identified. The following new definitions appear in the Glossary.

Page 1. **Adaptive management**

Page 2. **Aquifer Conservation Zone Regulations**

Page 7. **Economic capital** and its three subsets: **Financial capital, Natural**

capital, and Social Capital.

Page 14. **Open Space Plan**

Attachments

Attachment #1 Council feedback re Introduction w/Eight Guiding Principles (V.4)
Attachment #2 Council feedback re Land Use Element (V.5)
Attachment #3 Council feedback re Housing Element (V.5)
Attachment #4 Council feedback re Economic Element (V.5)
Attachment #5 Council feedback re Water Resources Element (V.5)
Attachment #6 Council feedback re Glossary (V.2)

COMPREHENSIVE PLAN INTRODUCTION

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BAINBRIDGE ISLAND –Past, Present and Future

I. BAINBRIDGE ISLAND HISTORY

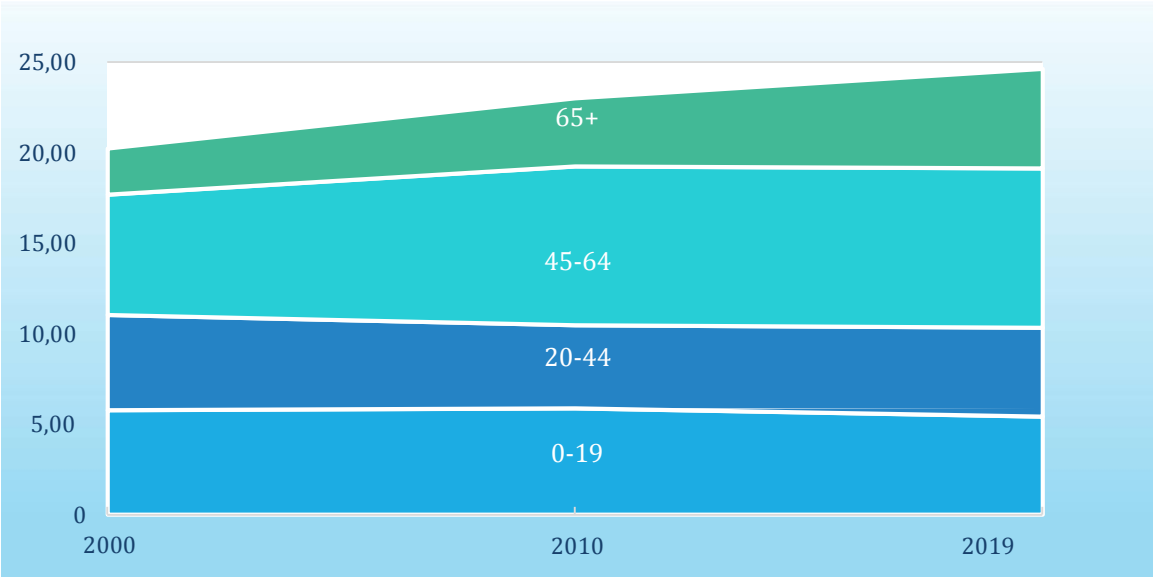
The Historic Preservation Commission has prepared a lengthy historical narrative, which will be considered for adoption as an appendix to the Plan. The HPC has been tasked with preparing a condensed summary for inclusion in this part of the Plan's Introduction. They expect to have that draft ready by mid-July.

II. BAINBRIDGE ISLAND TODAY

People

The population of the Island is relatively well- educated and predominantly white (91%). ~~white and well educated~~. With the majority of the population above 45 years of age, the composition of the Bainbridge Island population is markedly different than that of both Kitsap County and Washington State. The median age for Bainbridge Island is nearly 10 years older than that of Kitsap County and nearly 12 years older than that of Washington State.

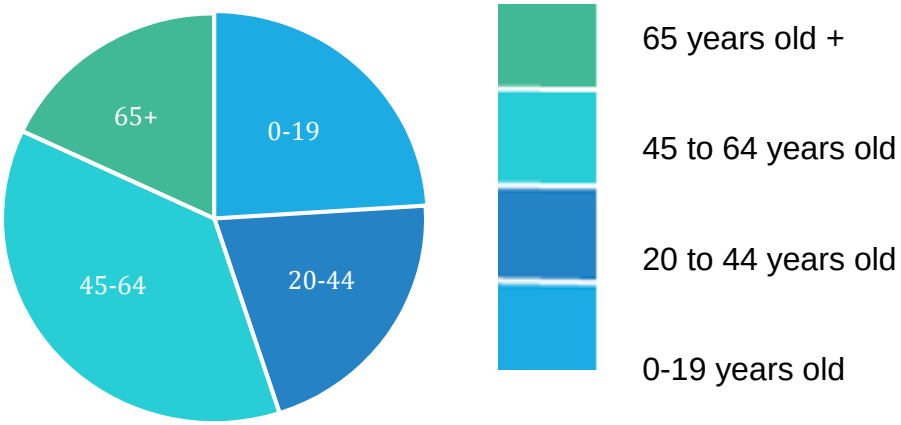
Figure 1 - Population age cohorts 2000 to 2019



Source: 2000-2010 U.S. Census and Experian Census Area Projections & Estimates

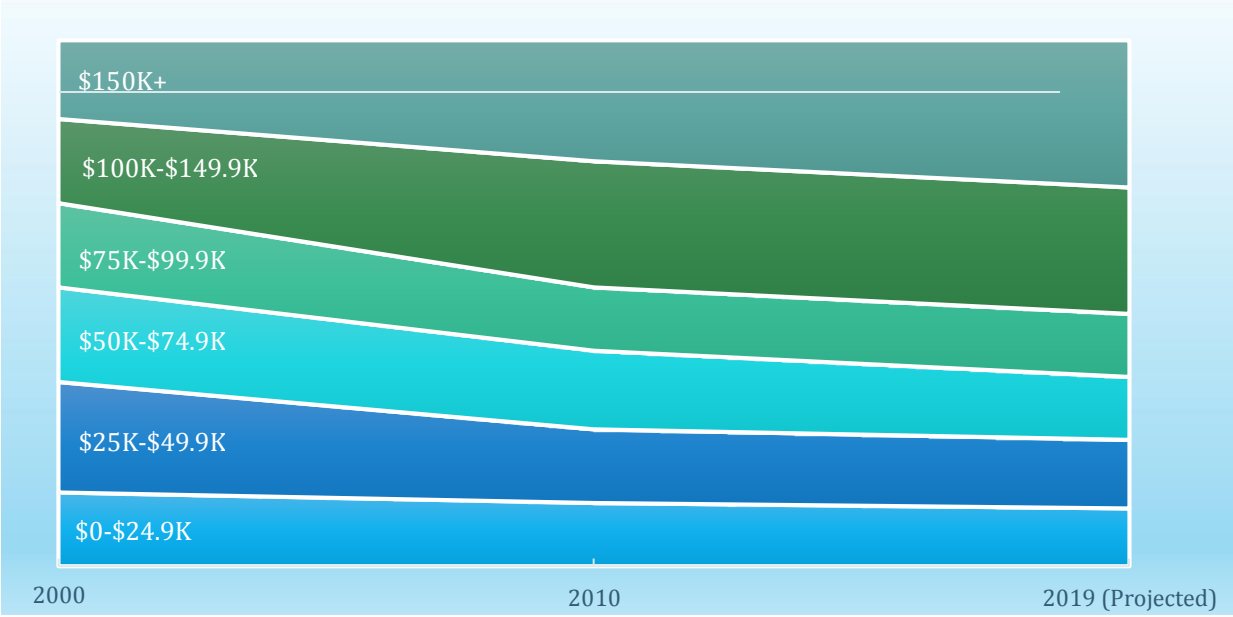
The median age of Bainbridge Islanders in 2016 is 49 years old.

Figure 2 – Population by Age Cohort in 2016



Bainbridge Island's population is relatively affluent. The trend line from the years 2000 through 2019 indicates relative increases in yearly household incomes above $100,000 and corresponding decreases in the percentage of households earning below $100,000.

Figure 3 - Proportion of Bainbridge Island Households by Income Brackets

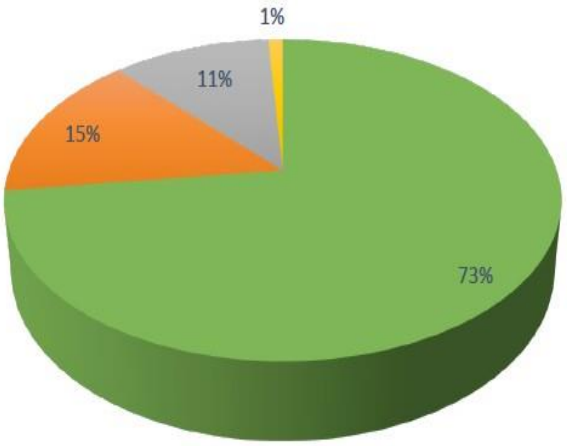


Source: 2000-2010 U.S. Census and Experian Census Area Projections & Estimates

Island-wide Land Profiles

Almost 88% of the twenty-six square miles of the Island's land coverage is either tree cover or grass/scrublands. The developed portions of the Island constitute impervious surface totaling about 11% of its land area.

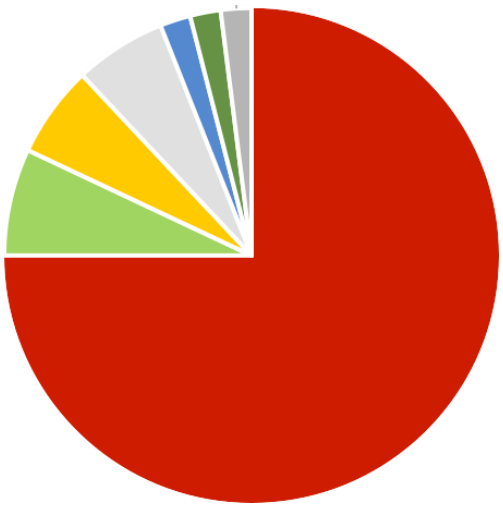
Figure 4 – Land Coverage Types



TREE COVER	**73%**
GRASS/SCRUBLANDS	**15%**
IMPERVIOUS SURFACE	**11%**
OTHER COVERAGE	**1%**

The predominant land use on Bainbridge Island is residential (75%), with forest, agriculture, parks/recreational lands totalling another 15%. The remaining 10% of the Island is transportation (6%), Commercial/Industrial (2%) and Public Facilities (2%).

Figure 5 – Land Use Types



RESIDENTIAL	**75%**
PARKS/RECREATION	**7%**
AGRICULTURE	**6%**
TRANSPORTATION	**6%**
COMMERCIAL/INDUSTRIAL	**2%**
PUBLIC FACILITIES	**2%**
FOREST	**2%**

III. THE BAINBRIDGE ISLAND COMPREHENSIVE PLAN

The authority and requirements for the City of Bainbridge Island to adopt and update its Comprehensive Plan (the **Plan**) is contained in the Growth Management Act (**GMA**) (RCW 36.70A). The GMA requires that the plan be reviewed and updated at least every eight years, which means that the periodic update cycle for Bainbridge Island is 2016, 2024, 2032, and following.

The GMA requires that the Plan have sufficient land capacity and urban services adequate to accommodate at least the next twenty years of growth, although the

City may choose to adopt policies and strategies with an even longer time frame. For example, sustainability goals, policies or strategies may have a multi-decade or even multi-generational perspective.

What a Comprehensive Plan is and isn't

The GMA definition of a Plan is:

> "Comprehensive land use plan," "comprehensive plan," or "plan" means a generalized coordinated land use policy statement of the governing body of a county or city that is adopted pursuant to this chapter."

Thus, the Bainbridge Island Comprehensive Plan is a "policy statement" that provides important direction to a variety of city actions, including, but not limited to, the adoption of its capital budget and its development regulations. However, the Plan is not a "land use control" which means that it is not designed or intended to be applied directly to development permits.

The GMA definition of development regulations is:

> "Development regulations" or "regulation" means the controls placed on development or land use activities by a . . . city, including, but not limited to, zoning ordinances, critical areas ordinances, shoreline master programs, official controls, planned unit development ordinances, subdivision ordinances, and binding site plan ordinances together with any amendments thereto . . ."

The GMA also states:

> "Each county and city that is required or chooses to plan under RCW 36.70A.040 *shall perform its activities* and make capital budget decisions in conformity with its comprehensive plan."

The "shall perform its activities" phrase suggests broader application of comprehensive plan policies than simply codes and capital budgets. On Bainbridge Island, the City maintains a number of functional plans, such as the City's utilities plans as well as programs it funds and administers through its budget. The City also coordinates with other units of local government, e.g., the Bainbridge Island School, Fire, and Parks districts, each of which maintains its own programs and functional or operational plans. These are inventoried in the "Capital Facilities Element."

How is the Comprehensive Plan used?

The Vision, Guiding Principles and Policies in this section of the Comprehensive Plan provide substantive direction to all of the Plan Elements as well as the City's budget and work program priorities. They also provide direction to the City's functional plans such as its parks, storm water and utilities plans.

In addition, the Vision, Guiding Principles and Policies communicate the City's priorities to the other units of government responsible for providing services to the

Island community. This includes the Bainbridge Island Fire, Park and School Districts, and the Washington State Department of Transportation, all of which prepare functional and operating plans to provide their respective services and facilities to Island residents.

Types and degrees of policy direction

The Elements in this Comprehensive Plan consist of Goals and Policies. Goals express the high-rank order values that are most important to the Island community. They are aspirational, frequently describing desired outcomes. The Policies listed under each Goal identify strategies or specific actions to be taken to move the community in the direction of fulfilling the Goal.

Depending on the issue and the Element, the Goals and Policies may provide direction to the City Council, the Planning Commission, the Hearing Examiner and City staff. Some of the actions will take the form of land use or other regulations; others will be capital projects or programs; and still others may take the form of outreach, education, coordination or partnership with citizens, organizations or other units of government.

The goal and policy statements sometimes use very directive verbs, such as “maintain” or “adopt”. In other cases, less directive verbs are used, such as “consider” or “encourage.” The more directive verbs convey a higher rank order of policy direction. Directive goal or policy language may call for the updating of development regulations, however, that does not convert them into controls or conditions that can be directly applied to a permit decision.

A similar distinction can be made between the auxiliary verbs “should” and “shall.” Both terms are used in the Comprehensive Plan and it is intended that both provide substantive direction. The difference in meaning between “should” and “shall” is one of degree rather than kind. As used in this Plan, the word “shall” imparts a higher order of substantive direction than the word “should.” However, as with the active verbs, the use of “shall” remains substantive policy direction, not a land use control within the GMA meaning and definitions cited above.

How and when may the Comprehensive Plan be amended?

In addition to the eight-year cycle for the periodic review of the Comprehensive Plan, the GMA also includes requirements regarding potential plan amendments in the intervening years. Set forth at RCW 36.70A.130, these include:

- A comprehensive plan may be amended only once in any calendar year.
- All proposed plan amendments, including those initiated by private parties or by the City, should be considered concurrently to determine the cumulative effect of the proposals.
- Procedures must be adopted for any interested person to suggest amendments to either the Comprehensive Plan or development regulations.

- A city must establish a means by which it will "docket" (i.e., compile and maintain a list) of all suggested plan or development regulation amendments and consider whether or not to adopt them during the amendment process.
- Public participation programs must be developed and followed for proposed amendments to the Comprehensive Plan or development regulations.
- Exceptions to the once-a-year limitation on plan amendments include: the initial adoption of a subarea plan; the adoption or amendment of a Shoreline Master Program; the amendment of the capital facilities element that occurs concurrently with the adoption of the city budget; when the city is under a remand order from either the Growth Hearings Board of a court; and when the City declares an emergency.

IV. VISION, GUIDING PRINCIPLES AND POLICIES

This section contains the Island's Vision, an aspirational description of the community's desired future. The values and priorities in the Vision are served and advanced through this Comprehensive Plan and its implementing actions. This section also contains eight guiding principles that connect the Vision to the elements of the Comprehensive Plan. These eight principles affirm, clarify and update the five principles in the 2004 version of the Comprehensive Plan.

The Guiding Principles are at the top of the Plan's hierarchy of substantive and directive policy. Grouped below and serving each Principle are several Guiding Policies. These provide further specific direction to the Goals and Policies in the Plan's Elements.

NOTE: The City Council has asked the PC to revisit the Citywide Vision Statement below and potentially suggest revisions in light of the element-specific Visions that are being prepared.

VISION - Bainbridge Island 2036 and Beyond

Bainbridge Island is notable for its beauty, its maritime climate, its location between Seattle and the Olympic Peninsula, and its support of the arts. The island consists of beaches and harbors, forests and fields, trails and two-lane country roads, homes and businesses surrounded by the waters of Puget Sound. We are defined as much by the water around us as by the ground beneath our feet.

Bainbridge has a rich natural and cultural history including a long presence of indigenous people, followed more recently by European and Asian immigrants who built timber, maritime and agricultural economies. Contemporary Bainbridge Island is home to a diverse mix of people including farmers, artists, students, business professionals, retirees, and is hospitable to visitors.

The people of Bainbridge aspire to accommodate inevitable growth while protecting the wildlife habitat, watersheds, shorelines, open space, and the air and water quality of the island. We welcome innovative ideas, industrious business people, new and traditional cultures, and people of all ages and backgrounds. We strive to provide quality housing, education, health care, and business, recreational, and cultural

opportunities for all of our inhabitants. We embrace local food sources, renewable energy, and paths for biking and walking.

Global warming and the impacts of climate change are major issues for our generation, and will be for the foreseeable future. We recognize that it will be challenging to adapt to the environmental and economic changes that we will face in the decades ahead. The good will, imagination, and pragmatism of our citizens will foster a compassionate environment in which we listen to, learn from, and engage with all the people who live here. There is no word for exclusion in the Lushootseed language of Puget Sound.

The people of Bainbridge Island understand that it will take an active approach to not only maintain, but restore and enhance the condition of the island if we expect to continue enjoying its bounty. Island residents balance personal interests with concern for the community and the environment. As the island's population increases, we will manage our lands and waters thoughtfully, with innovative planning policies.

Bainbridge citizens embrace the challenges of our future. That future calls on residents and visitors alike to actively participate in shaping a joyful, stable, and sustainable community, where its present and future generations are stewards of the land and keepers of its culture.

EIGHT GUIDING PRINCIPLES AND POLICIES

Guiding Principle #1

Preserve the special character of the Island, which includes downtown Winslow's small town atmosphere, historic buildings, extensive forested areas, meadows, farms, marine views, and scenic and scenic and winding roads supporting all forms of transportation.

Guiding Policy 1.1
Adopt an island-wide conservation plan to identify and apply effective strategies to preserve the natural and scenic qualities that make the Island a special place, including better protections for trees, soils, and native plants.

Guiding Policy 1.2
Accommodate new growth in *designated centers* that meet the Island's identified needs for housing, services and jobs-while respecting conservation and environmental protection priorities.

Guiding Policy 1.3
The built environment represents an important element of the Island's special character. Improve the quality of new development through a review process that implements the community vision and supports long-term goals for the preservation of the Island's special character.

Guiding Principle # 2

Protect the water resources of the Island.

Guiding Policy 2.1
Manage water resources for Bainbridge Island for present and future generations, recognizing that the Island's finite groundwater resources [aquifers] are the sole source of our water supply.

Guiding Policy 2.2
As part of long-range land use planning, consider the impacts of future development to the quality and quantity of groundwater that will be available to future Islanders and to the natural environment. To that end, strive for sustainable groundwater withdrawal, conserve aquifer recharge, guard against seawater intrusion, and prevent adverse impacts to ground water quality from surface pollution.

Guiding Policy 2.3
Preserve and protect the ecological functions and values of the Island's aquatic resources.

Guiding Policy 2.4
Sea level rise may reduce the volume of our finite groundwater resources. Anticipate and prepare for the consequences of sea level rise to ensure ample quality and quantity of groundwater for future generations.

Guiding Policy 2.5
Create a Bainbridge Island groundwater management plan for the purpose of maintaining the long-term health of our fresh water aquifers.

Guiding Policy 2.6
Recognizing the importance of our ground water and other water resources to present and future generations of Bainbridge Islanders, apply the precautionary principle to activities that pose a potentially adverse impact upon those resources.

Guiding Policy 2.7
Allow for the reasonable needs of farms, home gardens, and domestic landscapes, when planning for the long-term sustainable use of the Island's finite groundwater resources.

Guiding Principle # 3

Foster diversity with a holistic approach to meeting the needs of the Island'~~s~~ and the human needs of the residents consistent with the stewardship of our finite environmental resources.

Guiding Policy 3.1
Ensure a variety of housing choices to meet the needs of present and future residents in all economic segments and promote plans, projects and proposals to create affordable housing.

Guiding Policy 3.2
Make budget decisions that adequately consider the well being of all Island residents with the goal of providing opportunities to be contributing members of the community.

Guiding Policy 3.3
Support, protect, and enhance the value of the arts and humanities as essential to education, quality of life, economic vitality, the broadening of mind and spirit, and as treasure in trust for our descendants.

Guiding Principle # 4

Consider the costs and benefits to Island residents and property owners in making land use decisions.

Guiding Policy 4.1
Respect private property rights protected by the State and U.S. Constitutions.

Guiding Policy 4.2
Recognize that private property rights are not absolute, but must be balanced with necessary and reasonable regulation to protect the public health, safety and welfare.

Guiding Principle #5

The use of land on the Island should be based on the principle that the Island's environmental resources are finite and must be maintained at a sustainable level.

Guiding Policy 5.1
Regulate all development on the Island consistent with the long-term health and carrying capacity of its natural systems.

Guiding Policy 5.2
Recognize that the sustainable use of the Island's finite land base is a macro component of "green building" practices.

Guiding Policy 5.3
Preserve and enhance the Island's natural systems, natural beauty and environmental quality.

Guiding Policy 5.4
Protect and enhance wildlife, fish resources and natural ecosystems on Bainbridge Island.

Guiding Principle #6

Address the needs of the present without compromising the ability of future generations to meet their own needs.

Guiding Policy 6.1
Within our plan, ~~replace~~ augment the state's mandated 20-year plan horizon with a horizon of one hundred years in order to recognize the longer-term life cycles of natural systems. Tailor green building practices, and public infrastructure investments to be in line with this longer-term perspective.

Guiding Policy 6.2
Advance social equity on the Island by addressing basic human needs, including *affordable housing*, personal health and safety, mobility, and access to human services.

Guiding Policy 6.3
Seek appropriate ways to provide economic opportunities for all community residents within a diversified Island economy.

Guiding Principle #7

Reduce greenhouse gas emissions and increase the Island's climate resilience.

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

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

Guiding Policy 7.3
Evaluate the climate vulnerabilities and implications of city actions and identify policies that alleviate those vulnerabilities. Consider the effects of shifting conditions (e.g., sea level rise, changing rainfall patterns, increasing

temperatures and more extreme weather events) and the effects they cause (e.g., altered vegetation, changing water demands, economic shifts).

Guiding Principle #8

Support the Island's Guiding Principles and Policies through the City's organizational and operating budget decisions.

Guiding Policy 8.1
Promote good governance and an Island culture of citizenship, stewardship and civic engagement.

Guiding Policy 8.2
Update each City department's work program annually, allocate sufficient time and resources and provide needed policy direction to achieve consistency with and implement the Comprehensive Plan in a manner that is transparent and consistent with the community vision.

Guiding Policy 8.3
Grow a diversified and vibrant local economy.

Guiding Policy 8.4
Nurture a healthy and attractive community including a focus on the quality of the built environment through progressive development regulations and reviews.

Guiding Policy 8.5
Build reliable infrastructure and connected mobility that encourages physical activity such as biking and walking while also respecting the Island's scenic qualities.

Guiding Policy 8.6
Grow a green, well-planned, environmentally sustainable community.

Guiding Policy 8.7
Plan for a safe city where citizens, City officials, and Law Enforcement work together in an environment of accountability and trust.

Guiding Policy 8.8
In implementing policies, consider longer-term, indirect or unintended consequences of decisions.

LAND USE ELEMENT

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LAND USE Introduction

The Land Use Element is one of the mandatory elements of the Comprehensive Plan under the Growth Management Act (GMA). It addresses the general location and distribution of land uses within the city and, in combination with other Plan Elements, guides the use of land on Bainbridge Island. These other Elements include:

- The Environment and Water Resources Elements that address the protection and conservation of natural systems, including the Island's sole source aquifer, the quality and quantity of water, habitat, vegetation, and air.
- The Housing Element that identifies strategies to increase the diversity of *housing types* and the supply of *affordable housing* on the Island.
- The Economic Element that encourages programs and policies to support economic vitality and opportunity for Island residents.
- The Transportation Element to provide mobility and safety for all users while respecting neighborhood character and climate resilience.
- The Capital Facilities and Utilities Elements to address the infrastructure needed to serve the planned land uses.

Taken together, these Elements balance the Island's highly held values of environmental stewardship with the needs of its people for housing, health, safety, economic opportunity, and access to goods, services, recreation, and cultural amenities.

All of these Elements are guided by the Eight Guiding Principles set forth in the Introduction Chapter of this Comprehensive Plan. These Principles emphasize the importance of shaping future growth and redevelopment in a way that retains the Island's character and quality of life that its residents so highly value.

Future growth on Bainbridge will be accommodated in a manner that is consistent with the requirements of the *GMA*, yet in several ways this comprehensive plan goes beyond the GMA's minimum requirements. For example, it exceeds the GMA's minimal requirement to address water resources as a component of the Land Use Element by instead devoting an entire additional Element to Water Resources. The GMA requires plans to be based on a twenty-year horizon, but this plan uses a fifty-year/one hundred-year horizon to better account for the implications of Climate Change and the much longer-term cycles of natural systems and public infrastructure investments.

The Island has sufficiently zoned land in 2016 to accommodate the anticipated growth through the year 2036. Therefore, any localized increase in *density* over current *zoning should* further one or more of these ~~a~~ public purposes:

1) Shift *density* from *critical areas* or farmland to Winslow or other *designated centers*.

2) Increase the range and supply of *housing types and affordable housing.*
3) Contribute to public *infrastructure* or public amenities in excess of what is needed to mitigate the impacts of an individual project's development.
4) Reduce *greenhouse gas* emissions while planning for the effects of *climate change*.

Another important component of the Plan's implementation are benchmarks and targets against which to assess progress. For example, the Housing Element sets aspirational targets to increase the diversity of *housing types* and supply of *affordable housing*, establishes benchmarks, a monitoring program and a schedule for progress reports. A monitoring program must be created to track progress in achieving other aspects of the Plan's *vision* and *goals*.

LAND USE VISION

Bainbridge Island 2036

The environment, values and culture of our Island community have been protected, conserved and enhanced by managing growth according to the comprehensive plan's guiding principles, goals and policies.

Most of the preceding two decades of growth has been attracted to the high quality of life in the Island's thriving ***Designated Centers*** where cultural amenities, employment and housing opportunities abound, and public services, utilities and infrastructure are efficiently provided. These designated centers are compact, human-scaled and pedestrian-oriented, promoting a healthy lifestyle, and are linked to each other and the region by a network of trails and transit.

Outside of the centers, almost 90% of the Island is a green and open landscape. The land use pattern in this ***Conservation Area*** minimizes the footprint of the built environment and embodies design principles that protect the Island's aquifers, surface waters, fish and wildlife habitat. This broad landscape of canopied woodlots, parks and saltwater shorelines is dotted with working farms, historic structures, freestanding residences and conservation villages

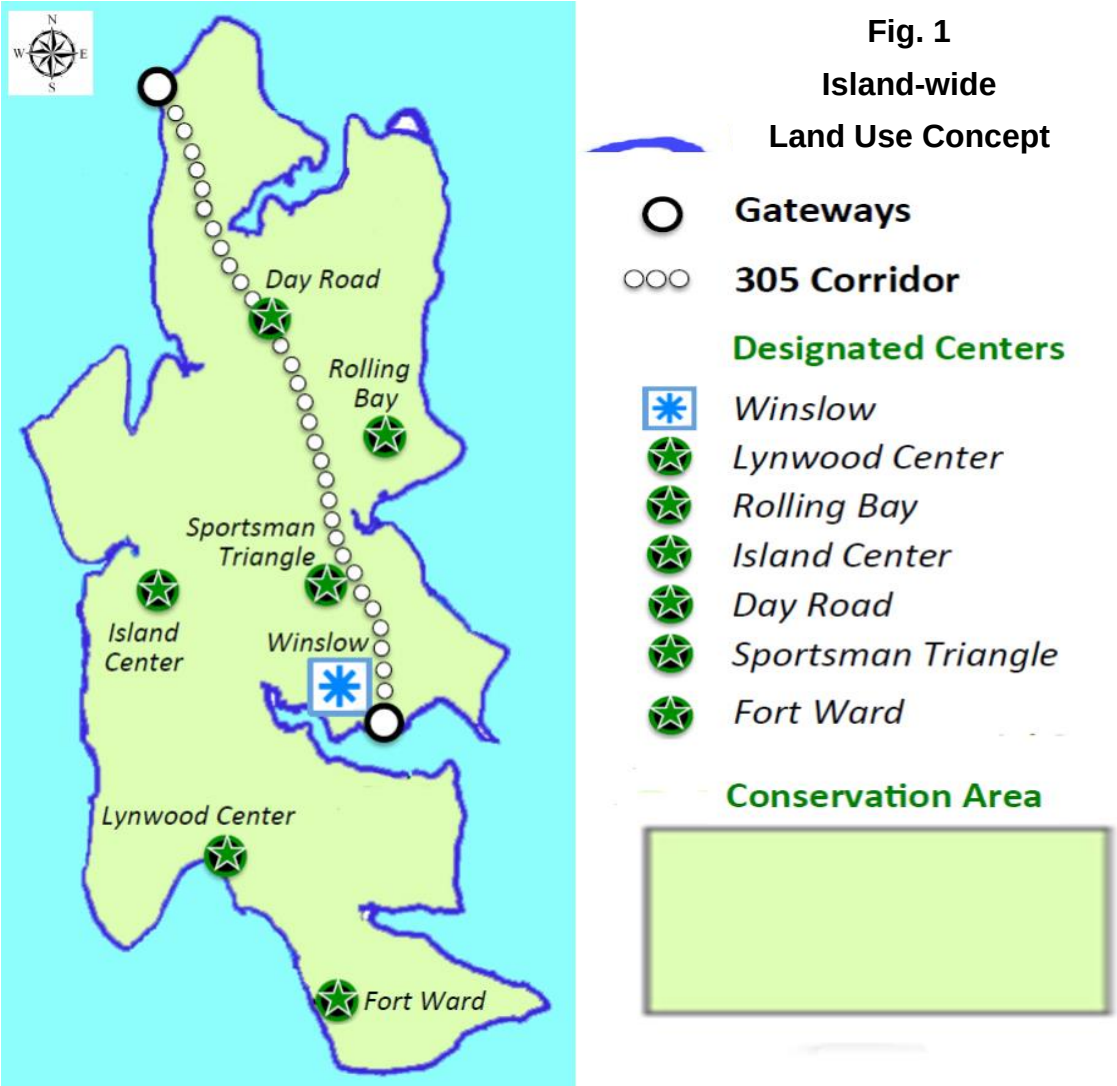


Fig. 1
Island-wide
Land Use Concept

GOALS AND POLICIES

GOAL LU-1

Plan for growth based on the growth targets established by the *Kitsap Regional Coordinating Council*: 5,635 additional residents from 2010-2036 and, at the same time, promote and sustain high standards that will not diminish the quality of life and/or degrade the environment of the Island.

Policy LU 1.1

The City accepts the *Kitsap Regional Coordinating Council* (KRPC) population allocation and will continue to analyze the impacts of these allocations as the *Comprehensive Plan* is implemented. With an allocation of 28,660, the Island must plan for an increase in population of 5,635 persons by the year 2036.

Policy LU 1.2

Outside of Winslow and the *Neighborhood Centers*, the Island has a rural appearance with forested areas, meadows, *farms*, and winding, narrow, and heavily vegetated roadways. These characteristics represent the Island character that is so highly valued by its residents. As important as preserving Island character is to its residents, of equal importance is the protection of the Island's *environmentally sensitive areas*. These outlying areas contain much of the Island's sensitive areas – the major *recharge* areas for the Island's *aquifers*, *wetlands*, and *streams* that serve a variety of important functions. Much of the area serves as *fish and wildlife habitat*. There is strong public support to encourage a pattern of development that preserves and protects this portion of the Island.

GOAL LU-2

This *Comprehensive Plan* recognizes and affirms that, as an Island, the City has natural constraints based on the *carrying capacity* of its natural systems. The Plan strives to establish a development pattern that is consistent with the *goals* of the community and compatible with the Island's natural systems.

Policy LU 2.1

Recognizing that the *carrying capacity* of the Island is not known, the citizens of Bainbridge Island should strive to conserve and protect its natural systems, within the parameters of existing data. Revisions to the Plan *should* be made as new information becomes available.

The *carrying capacity* of Bainbridge Island is determined by many factors, including the supply of limited resources (particularly water), changes in patterns of consumption, and technological advances. This Plan acknowledges that, with current information, the carrying capacity of the Island is not known. During the timeframe of this Plan, additional information on the *carrying capacity* of the Island should be developed.

The Plan seeks to take a balanced and responsible approach to future development. As our understanding of the Island's capacity changes, the recommendations of this Plan should be reconsidered to ensure that they continue to represent a responsible path for the long-range future of the Island.

Policy LU 2.2

A public education program *should* be established to foster the community's understanding of the natural systems on the Island and their *carrying capacity*.

Policy LU 2.3

This Plan recognizes that stewardship of the land is a responsibility of individual citizens and the community as a whole. Through its status as an employer and landowner, the City *should* take advantage of its opportunities to be an example of environmental stewardship so that others will be encouraged to do so.

Policy LU 2.4

The City *should* develop a program that recognizes and rewards stewardship so that others will be encouraged to follow suit.

Policy LU 2.5

Work with EcoAdapt and others to prepare a Bainbridge Island Climate Change and Water Conservation Plan strategy.

GOAL LU-3

Develop a meaningful process for citizen participation that includes participation from all segments of the Island community.

Fig. 2 Strong citizen participation informed the comprehensive plan update.

ISLAND-WIDE CONSERVATION AND DEVELOPMENT STRATEGY

GOAL LU-4

As part of a long-term, Island-wide, Conservation and Development Strategy, focus urban development in *designated centers*, maximize public access to and protect the shoreline, minimize impacts from the SR 305 corridor, and conserve the Island's ecosystems and the green, natural and open character of its landscape.

Policy LU 4.1

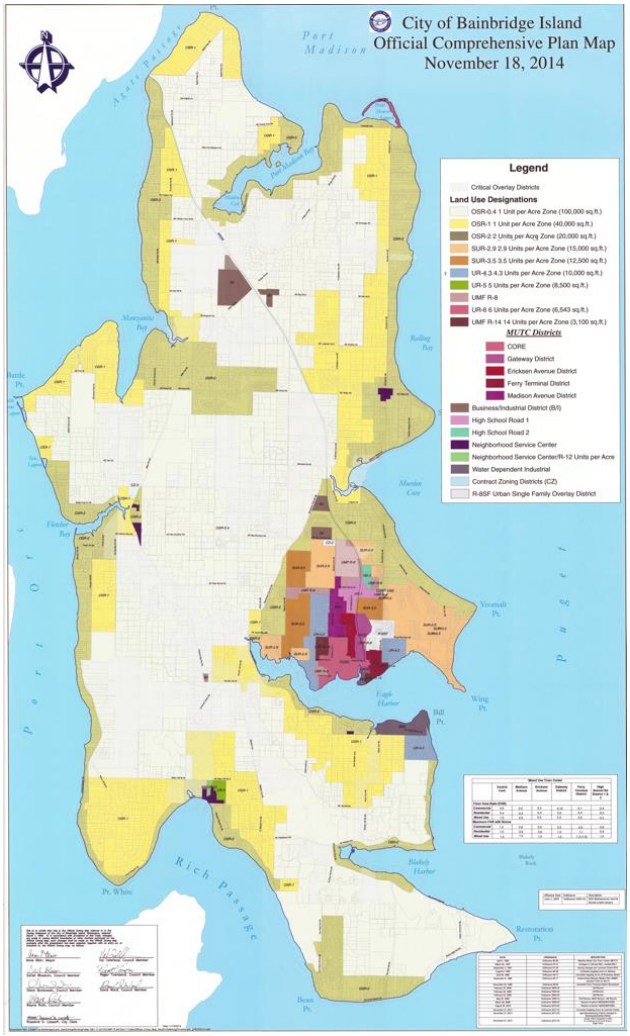
Focus development and redevelopment on the Island over the next fifty years in *designated centers* that have or will have urban levels of services and *infrastructure*.

Policy LU 4.2

Adopt a multi-year work program to undertake the "*Special Planning Area* Process" for the *designated centers* of Winslow, Island Center, Rolling Bay, Sportsman Triangle, Fort Ward and Day Road. The product of the "Special Planning Area Process" will be *Subarea Plans* for each of the *designated centers* that will be adopted as part of the *Comprehensive Plan*.

Policy LU 4.3
Updating the Winslow Master Plan is the City's highest work program priority because the greatest potential for achieving many of the City's priorities is focused there, including increasing the diversity of *housing types* and the supply of *affordable housing* while helping to reduce the development pressures in the Island's conservation areas.

Policy LU 4.4
The *special planning area process* for each *designated center shall* be informed by surface water and aquifer data in the respective watershed and appropriate provision made to limit permitted uses or require specific measures to protect the water resource.



< Fig. 3 Future Land Use Map

Policy LU 4.5
The *special planning area process* for each designated center shall engage residents, landowners, businesses and other stakeholders in envisioning the appropriate extent, scale, use mix, and the desired and required services and *infrastructure* to serve the selected use mix and intensity.

Policy LU 4.6
The Future Land Use Map in Fig. 3 adopted in this Plan establishes the future distribution, extent, and location of generalized *land uses* on the Island.

Policy LU 4.7
Continue to utilize the *goals* and use regulations of the Shoreline Master Program to protect the environmental quality of and public access to the Island's saltwater shoreline.

Policy LU 4.8
The SR 305 corridor, with its gateways at the Washington State Ferry landing in Winslow and the Agate Pass Bridge, is a major regional facility managed by the Washington State Department of Transportation. *See* Fig. 1. The City shall actively work with the State and others to minimize the traffic impacts of SR 305 on mobility, safety, air quality and the visual character of Bainbridge Island, while also serving both the motorized and non-motorized needs of Island residents and businesses.

Fig. 4 The SR 305 corridor is a major part of the Island's functional mobility and visual character

Policy LU 4.9

Lands shown on Fig. 1 as "Conservation Areas" are appropriate for residential, recreational, agricultural, habitat and open space uses. The City will use a variety of conservation tools, including public acquisition of certain properties, regulatory protection of environmentally *critical areas*, and innovative *tools* such as aquifer conservation zoning and conservation villages to minimize the development footprint within these Conservation Areas.

DESIGNATED CENTERS

GOAL LU-5

Focus urban development in *designated centers*

The Plan focuses residential growth in Winslow and other current and future centers with urban services, such as the Neighborhood Centers. Collectively, Winslow and the Neighborhood centers constitute Bainbridge Island's *designated centers*.

This is a change from the 1994 and 2004 Plans, both of which specified a numeric growth strategy as follows: accommodate 50% of the population growth in Winslow through the year 2012, and accommodate 5% of population growth in the Neighborhood Centers. The balance of the growth was to be absorbed throughout the remainder of the Island.

Policy LU 5.1

Winslow is the urban core of the Island, while the Neighborhood Centers are smaller-scale centers. In order to achieve the *goals* of the *GMA* this Plan:

- Encourages development in areas where *public facilities* and services exist or can be provided in an efficient and effective manner.
- Provides a vibrant, pedestrian-oriented core.
- Reduces sprawl.

- Provides choice of housing location and lifestyle.
- Maintains and protects environmentally sensitive and resource lands.
- Encourages the retention of open spaces.
- Maintains and enhances the fish and wildlife habitat.

NOTE: The City Council pointed out that as written Policy LU 5.2 thwarts and is inconsistent with Policy LU 9.1 which calls for mixed-use development in the Neighborhood Centers. The PC should decide whether to delete LU 5.2 entirely, or modify the words "should only occur through" to something less absolute, such as "should be encouraged by".

Policy LU 5.2

Increased density over and above the existing zoning in the NSCs *should* only occur through a shift in *density* from *critical areas* and *farms* through *TDR*s and through the use of *density bonuses* for *affordable housing*.

Policy LU 5.3

Encourage *residential uses* in a variety of forms and *densities* as part of the use mix in *designated centers*.

Policy LU 5.4

Sustainable development and redevelopment will be focused in the *designated centers* through a combination of intergovernmental and public-private partnerships, *affordable housing* programs, "green" capital projects, and *low impact development* standards.

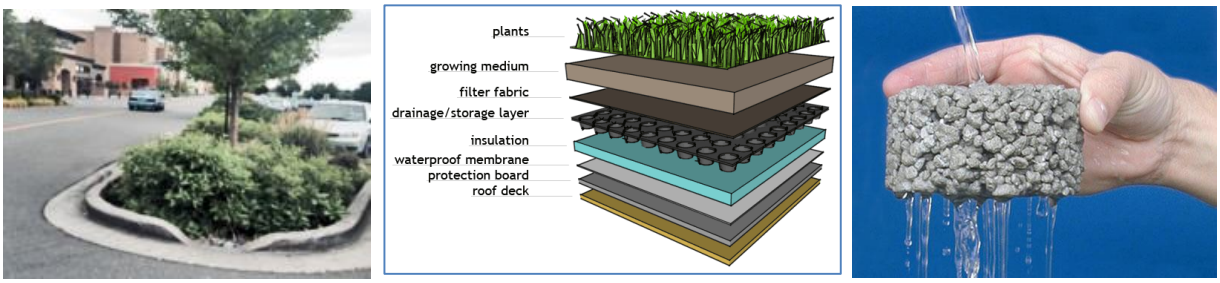


Fig. 5 Low Impact Development methods mimic natural drainage processes

Policy LU 5.5

Implement an optional *green building* code or "green factor" for both commercial and *multifamily* residential projects.

Policy LU 5.6

Address mechanisms for retaining and preserving *open space* in the vicinity of *designated centers.*

Policy LU 5.7

Encourage the design of buildings in *designated centers* for a long life and adaptability over time to successive uses.

Policy LU 5.8

Adopt *development standards* and program public improvements to encourage

walkability within each *designated center* and to the surrounding areas.

Policy LU 5.9
Development *should* be designed and located so as to avoid or minimize potential conflicts with agricultural activities, and right-to-farm ordinances must be recognized by any development located adjacent to agricultural uses.

Policy LU 4.8
Amend the Island-wide Transportation Plan to link *designated centers* and reduce vehicle miles traveled and *greenhouse gas* emissions.

GOAL LU-6

Ensure a development pattern that is true to the *vision* for Bainbridge Island by reducing the inappropriate conversion of undeveloped land into sprawling development.

Policy LU 6.1
Land use designations *should* reflect the priority of Bainbridge Island to remain primarily residential, with nonresidential development concentrated in the *designated centers*.

Policy LU 6.2
Higher intensity residential and commercial development and human activity is encouraged within Winslow, the heart of Bainbridge Island. In order to create a vibrant city center, direct growth where *infrastructure* exists, reduce reliance on the automobile, provide opportunities for *affordable housing*, and absorb growth that would otherwise be scattered in outlying areas.

Policy LU 6.3
Island Center, Rolling Bay, Lynwood Center and Fort Ward offer housing, small-scale, commercial and service activity outside of Winslow. These *designated centers should* be allowed to develop at higher *densities* to reinforce their roles as centers.

Policy LU 6.4
Designation of new centers *should* be considered only after detailed analysis of the economic impact of the new development shows there will be no significant, adverse impact on the existing commercial centers, including Winslow.

Policy LU 6.5
The *designated centers* at Day Road and Sportsman Club are intended to augment the Winslow, Lynwood, and Rolling Bay designated centers and allow a diverse economy with business retention, growth and innovation on the Island. .

Policy LU 6.6
Applications for development approval on Bainbridge Island *should* be processed within the timelines established in the City's land *development regulations* in order to ensure

affordability, fairness, and predictability in the land development process.

Policy LU 6.7

To reflect the policies in the Housing Element to provide for a variety of housing options in areas designated for residential development, including residential open space, *accessory dwelling units* shall be considered allowed uses in all residential zoning districts except R-6.(See Housing Element policy H 3.2)

Policy LU 6.8

Water or wastewater *infrastructure*, which may contribute to system capacity exceeding local need, *shall* not be used to justify development counter to the City-wide *land use* policies.

Winslow

GOAL LU-7

The Winslow mixed use and commercial districts are designed to strengthen the vitality of downtown Winslow as a place for people to live, shop, and work. The Mixed Use Town Center is intended to have a strong, residential component to encourage a lively community during the day and at night.

Fig. 6 Human scale, pedestrian orientation and active uses create character on Winslow Way

The Winslow Master Plan encourages development of a *neighborhood* that contains a strong, vital downtown where people want to live, shop and work. Outside the mixed use, higher *density* center, there would be a variety of housing choices, from higher *density multifamily* areas immediately adjacent to the downtown to single-family residential *neighborhoods*.

Policy LU 7.1

The major center for new commercial development is the Mixed Use Town Center (MUTC) and the other commercial districts in Winslow.

Development within the MUTC and High School Road Districts shall be consistent with the Winslow Master Plan (contained in the Subarea chapter of this Plan). The level of

development is determined using Floor Area Ratio (FAR) rather than *dwelling units* per acre. The use of FAR may result in an increase in the base level of development (*density*) over the existing zoning, but will provide greater flexibility in type and size of housing units that will further the *goals* of this Plan.

Policy LU 7.2

A base level of commercial and residential *density* within the *overlay districts* of the MUTC and the High School Road districts is described in the Winslow Master Plan, with an increase in the FAR allowed through the use of:

- *Affordable housing*.
- *TDRs (transferable development rights*).
- Contributions to public *infrastructure* and public amenities in excess of what is required to mitigate the impacts of development.
- Transfer of *density* within the MUTC and within the High School Road Districts.
- Preservation on-site of historic structures eligible for inclusion on a local, state or federal register of historic places.
- Locating ferry-related parking under building.

Fig. 7 Winslow's residential, commercial and civic uses are inter-connected

Policy LU 7.3

Phasing mechanisms and/or incentives *should* be developed to promote the timely and logical progression of commercial and residential development.

High School Road District

GOAL LU-8

The High School Road District is intended to provide mixed-use and commercial development in a pedestrian-friendly retail area.

Policy LU 8.1

The High School Road District includes a diversity of types of shopping and employment. A variety of *commercial uses* are allowed which offer goods and services for the convenience of Island residents.

Policy LU 8.2

Development in the High School Road District *should* promote *pedestrian-oriented* mixed-use and residential development to offer a variety of housing types and sizes.

Fig. 8 Detail of the High School Road Area

Policy LU 8.3
Auto-oriented uses and drive-through businesses that benefit from access to SR305 shall be limited to the yellow dashed area shown in Fig. 8.

Policy LU 8.4
To visually screen development year-round, properties with frontage along SR 305 *shall* provide a vegetated buffer along the highway that includes the preservation and protection of existing vegetation. Access to these properties *should* not be directly from SR 305.

Policy LU 8.5
The properties designated on the Land Use Map as High School Road District II are each limited to no more than 14,400 square feet of retail use. Retail use between 5,000 and 14,400 square feet requires a conditional use permit.

This portion of High School Road, designated High School Road District II on the Land Use Map, is immediately adjacent to a semi-urban, residential area of 2.9 to 3.5 units per acre and *should* have less intense uses than the remainder of the High School Road district.

Since existing businesses are located in this area and infrastructure is in place, this Plan recommends the area for the High School Road designation, but with a limitation on the size of retail uses.

Fig. 9 Low rise and mid-rise building forms in the High School Road Area

Policy LU 8.6

To ensure visual appeal and pedestrian and bicycle safety, the land *development regulations* include design standards for:

- Building height, bulk, and placement.
- Landscaping, including screening of parking lots, and development of *pedestrian-oriented* streetscape with building and landscaping (including trees) located at the street edge.
- Lot coverage.
- *Open space*.
- Road access and internal circulation including pedestrian connections; developing more pedestrian crossings; and requiring parking in the rear wherever possible.
- Signage.
- Additional *transit* stops on both sides of SR 305.

NEIGHBORHOOD CENTERS

The Neighborhood Centers provide Island-wide commercial and service activity outside Winslow. These areas *should* be developed at higher *densities* to reinforce their roles as community service centers. The service centers will also help reduce traffic congestion by providing an alternative to shopping in Winslow.

GOAL LU-9

Encourage the development of the Neighborhood Centers at Rolling Bay, Lynwood, Day Road, Fort Ward and Island Center, as designated on the Future Land Use Map, as areas with small-scale, commercial, mixed use and residential development outside Winslow.

Policy LU 9.1

The Neighborhood Centers *should* provide Island-wide small-scale commercial and service activity and *mixed-use development* outside Winslow.

Policy LU 9.2

Development *should* be oriented toward the pedestrian. Retail uses *shall* be encouraged on the ground floor to prevent blank walls with little visual interest for the pedestrian. Offices and/or residential uses should be encouraged above ground floor retail.

Policy LU 9.3

Allow development of Neighborhood Centers in areas designated on the Future Land Use Map.

Lynwood Center

Fig. 10 Lynwood is a thriving mixed-use pedestrian neighborhood center

Policy LU 9.4

Any new development or expansion of existing development in Lynwood Center will be required to connect to *public sewer*, when available, or meet other Health District requirements, when appropriate.

Lynwood Center is designated as a *Special Planning Area*, and a *subarea plan* was completed in 1997. The "Lynwood Center Report and Final Recommendations" is included in the section of the *Comprehensive Plan* entitled *Subarea Plans*.

Island Center

Policy LU 9.5

Island Center is designated as a *Special Planning Area*. The boundaries for Island

Center are as shown on the Land Use Map. Any changes to the boundaries may be determined during the special planning process.

Contract Zone: Miller Road/Battle Point Drive

Policy LU 9.6

The 16.7-acre site on Miller Road is designated a contract zone to recognize the activities currently occurring on-site under the provisions of an Unclassified Use Permit and to consider some expansion of those activities.

Rolling Bay

Fig. 11 Rolling Bay is a cluster of primarily retail and civic uses

Policy LU 9.7

The Neighborhood Center boundaries are as shown on the Land Use Map. Rolling Bay is designated as a *Special Planning Area*. Any changes to the boundaries may be determined during the special planning process.

Fort Ward

Fig. 12 History and several structures help create unique character and identity at Fort Ward

Policy LU 9.8

Maintain and enhance the unique character of Fort Ward Planning Area (see Figure A) to recognize the history and natural landscape of the area and the sense of community that exists, including an *open space* system made up of *wetlands,* a *neighborhood* park, the historic marching fields, unbuildable slopes and the State Park The Fort Ward Action Plan is adopted as a part of the *Comprehensive Plan.*

Policy LU 9.9

Where possible, create tax incentives and encourage private purchase and renovation of historic structures. Transfer *density* within the Fort Ward Study Area as incentives for the preservation of historic structures.

All Neighborhood Centers

The~~se~~ following standards ensure that development will be designed to fit into the scale and character of the existing centers and the adjacent residential *neighborhoods*. The City developed design prototypes or illustrated design guidelines for each of the three *neighborhood centers* to serve as a visual reference for the future development of the community. These design guidelines can be crafted to recognize the distinct qualities of each designated center.

Policy LU 9.10

The *neighborhood centers* should achieve a mix of neighborhood-scale businesses, public uses, and housing which are compatible with the scale and intensity of the surrounding *residential neighborhood* and which minimize the impact of noise, odor, lighting, fire safety, and transportation on the *neighborhood*.

Policy LU 9.11

Mixed-use development is strongly encouraged.

Policy LU 9.12

Proposed uses must consider the impact on water quality, stormwater *runoff,* and *environmentally sensitive areas* such as *wetlands*, *streams* and high vulnerability *recharge areas*.

Policy LU 9.13

The *development regulations* include design standards for:

- Building height, bulk, massing and articulation to promote a pedestrian scale.
- Parking requirements, including location of parking to the rear or side yards, unless otherwise provided for in a *Special Planning Area* plan. Landscaping, including parking lots and buffer areas between higher and lower intensity uses and consideration of trees that allow solar access.
- Lighting standards that prevent unnecessary glare on neighboring residential properties.
- Location and screening of service areas such as dumpsters.

- *Open space*.
- Pedestrian linkages.

Policy LU 9.14

Encourage *neighborhood* participation in defining the design standards for each *neighborhood center*.

Policy LU 9.15

Establish and implement a street tree plan and planting program for major roadways at the *Neighborhood Centers*.

Policy LU 9.16

Develop a parking plan, if appropriate, for each service center.

Policy LU 9.17

Opportunities for providing a *neighborhood* commons or meeting place should be considered with any proposal for major redevelopment of an existing *Neighborhood Center* or as part of development of a new *Neighborhood Center* to encourage the use of the *Neighborhood Center* by surrounding residents.

Policy LU 9.18

To minimize visual and environmental impacts, encourage parking in the rear or side yards of *multifamily*, commercial, and *mixed use developments*. Parking lots should be *pedestrian-oriented* and provide pedestrian and bicycle routes between the street, parking area, and main entrance, and consideration *should* be given to the use of trees that allow solar access.

Policy LU 9.19

Infill within the boundaries of *Neighborhood Centers* through the *transfer of development rights* from the *Conservation Areas* of the Island (See Fig. 1) or through an *affordable housing density bonus*.

Policy LU 9.20

The base density of residential development in the *Neighborhood Centers* is 2 units per acre. A *density bonus* of 3 units per acre may be obtained in *areas* not served by public water and sewer systems and using *TDRs* or providing *affordable-housing*, provided state and local Health District regulations can be met. Allow up to R-5 with public water and sewer.

Business/Industrial

GOAL 10

The Business/ Industrial Zone (B/I) provides opportunities for new businesses and expansion of existing Island businesses, for diversity of jobs and for low-impact industrial activity that contributes to well-paying jobs, where traffic congestion, visual,

and other impacts on the surrounding *neighborhood* can be minimized.

Policy LU 10.1

The Business/Industrial District is for light manufacturing development as well as other uses that add to the diversity of economic activity on the Island. New uses shall be compatible with established uses and the character of other development in the *neighborhood*.

Policy LU 10.2

New manufacturing businesses that plan to utilize toxic/hazardous substances must list these substances and quantities projected for annual usage; demonstrate compliance with all Federal, State and Kitsap Public Health District requirements for their handling. Development proposals are evaluated using performance standards for the B/I district. Uses of certain toxic/hazardous substances can disqualify the application from approval because of potential environmental impact. However, the City would consider factors such as quantity used, adequacy of storage, containment, spill management, and waste disposal plans in reviewing such a proposal.

Policy 10.3

Coordinate with the Bainbridge Island Fire Department when reviewing development proposals concerning hazardous.

Policy LU 10.4

Applications for development approval within the Business/Industrial District must show that adequate water, wastewater, transportation, fire, and storm drainage services are available to serve the development.

Policy LU 10.5

Ensure the adequate monitoring and enforcement of hazardous material regulations.

Policy LU 10.6

Performance standards for the Business/Industrial District address odor, lighting, noise, vibration, signage, traffic volumes, ingress and egress, parking, delivery and loading areas, and pedestrian and vehicle circulation, to create safe, efficient, compatible conditions among a variety of on-site uses and to protect adjacent residential *neighborhoods*.

Policy LU 10.7

Business/Industrial uses must be visually screened the development year-round from adjacent, non-industrial properties and from adjacent roadways.

This policy establishes a performance standard – Business/Industrial uses must be visually screened from the roadway and from adjacent non-Business/Industrial development. The visual screening could be achieved through a combination of vegetation and building setback that would add depth to the buffer.

GOAL LU-11

Provide appropriate land for Business/Industrial in order to provide opportunities for small manufacturing businesses on the Island to expand, and to provide additional employment opportunities.

Policy LU 11.1
Discourage the inappropriate designation of isolated Business/Industrial Districts.

Policy LU 11.2
Isolated Business/Industrial activities are designated to reflect historical use and the designation *should* not be expanded.

ISLAND-WIDE CONSERVATION AREA

GOAL LU-12

Conserve ecosystems and the Island's green, natural, open character

Policy LU 12.1
Preserve the open space area outside *designated centers* through a *land use* pattern which will enhance the character of the area – forested areas, meadows, *farms*, scenic and winding roads that support all forms of transportation – and the valuable functions the open space area serves on the Island (i.e., *aquifer recharge, fish and wildlife habitat*, recreation).

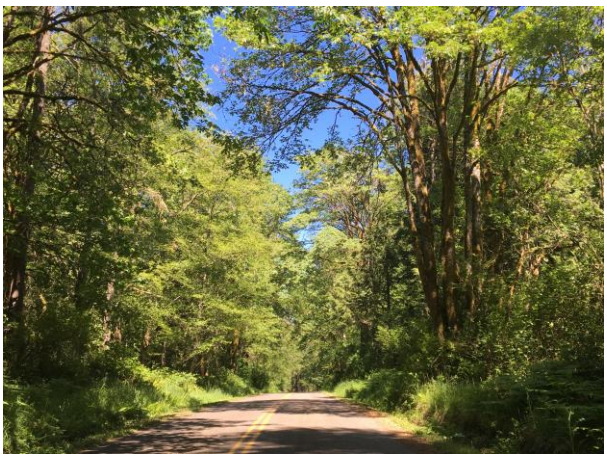


Fig. 13 The view from the road on much of the Island is of green, leafy countryside

Policy LU 12.2
Protect *open space*, *critical areas*, and agricultural uses through public and private initiatives such as open space tax incentives, *cluster development*, *PUDs, transfer* and purchase *of development rights*, public land acquisition, greenways, *conservation*

easements, landowner compacts, or limiting the amount of lot coverage.

Policy LU 12.3
Encourage the aggregation of nonconforming lots of record and undeveloped subdivisions and short plats in order to achieve a development pattern that is consistent with *goals* of the Plan to preserve *open space*, provide greenways through the Island, protect *environmentally sensitive areas*, and protect the water resources.

Policy LU 12.4
Protect aquifer recharge functions throughout the Island, all of which is an *aquifer recharge area*, through the application of critical areas regulations, Shoreline Master Program use regulations, *low impact development* regulations, and the wellhead protection regulations administered by the Kitsap Health District.

Policy LU 12.5
Establish appropriate procedures to monitor the effect of water drawdowns within and between *aquifers*, and adopt programs and regulations to preclude *groundwater* contamination, and to encourage water conservation and enhanced *aquifer recharge.*

Policy LU 12.6
Work with the County Health Department to allow innovative solutions for on-site sewage treatment, including community septic and grey water systems.

Policy LU 12.7
Allow a *density bonus* in exchange for dedicating a portion of property into conservation as *open space,* farmland, or public access. Priority should be given to conserving these lands near more densely developed areas.

GOAL LU-13

Adopt landscape design standards and identify and protect public vantage points, view corridors and scenic vistas to support the Island's sense of place, identity and orientation.

Policy LU 13.1
Existing vegetated buffers *should* be managed to preserve the Island's character and the forested view from the road. Invasive species *should* be removed in order to keep the *native vegetation* healthy.

Policy LU 13.2
New development *should* be designed to respond to the natural landscape and *should* be sited so as to have the least visual and environmental impact on the Island landscape. Features that enhance the Island's character such as barns, fences, fruit or vegetable stands, *should* be retained and encouraged.

Policy LU 13.3
Map tree-covered hillsides and hilltops, particularly the ridgelines so valued by the

community, and adopt regulations and programs to protect them for their visual and aesthetic benefits to the Island as well as their functions as wildlife habitat and erosion and runoff retardation.

Open Space Residential District

GOAL LU-14

Preserve the character of the interior areas of Bainbridge Island through establishment of an Open Space Residential District.

Policy LU 14.1

The Open Space Residential District is designated for less intensive, residential development and a variety of agricultural and forestry uses.

Policy LU 14.2

Residential development *should* be compatible with the preservation of *open space*, forestry, agricultural activities, and natural systems. Accessory *farm* buildings and uses are allowable.

Policy LU 14.3

The overall *density* for *residential use* is a maximum of one unit per 2.5 acres. However, the landscape *should* maintain the natural and scenic qualities of the Island.

Policy LU 14.4

Home occupations provide employment opportunities and *should* be permitted where they are compatible with surrounding neighborhoods and the environment.

Residential Open Space

GOAL LU-15

The Residential-1 (R-1) and Residential-2 (R-2) Districts are intended to recognize an existing development pattern in the Island's Open Space areas.

Policy LU 15.1

The R-1 District is intended to recognize an existing development pattern of one unit per acre.

Policy LU 15.2

The R-2 District is intended to recognize an existing development pattern of two

units per acre.

Policy LU 15.3

Establish *land use policies* and *development standards* through the development of subarea plans tailored to the individual communities. *Neighborhood* participation in development of *subarea plans* should be encouraged.

Local Food Production

GOAL LU-16

Promote food security, local food production, and public health by encouraging locally-based food production, distribution, and choice through urban agriculture, community gardens, farmers markets, and food access initiatives. Establish partnerships and share resources to promote food access and production.

Policy LU 16.1

Allow community gardening and/or agriculture on public land where appropriate

Fig. 14 Agriculture is part of Bainbridge Island's landscape, history, economy and culture

Policy LU 16.2

Encourage the development of neighborhood community gardens.

Policy LU 16.3

Promote interagency and intergovernmental cooperation and resource-sharing to expand community gardening opportunities.

Policy LU 16.4

Promote the dedication of land for community gardens in new housing developments.

Policy LU 16.5

Support the local farmers market and the connection between consumers and farmers.

Transfer of Development Rights Program

GOAL LU- 17

Prioritize program *goals* and establish and maintain planning tools, including a *purchase* and *transfer of development rights* program, to allow transferring development rights from areas intended for conservation, and promoting development in areas suitable for more dense development.

Policy LU 17.1

Maintain and improve the City's *Purchase of Development Rights* (PDR) and *Transfer of Development Rights* (TDR) programs to enable transferring development rights from the Conservation *Areas* of the Island into *Designated Centers*. See Fig. 1.

Policy LU 17.2

Within the Conservation Area of the Island, prioritize those parcels most appropriate as TDR sending sites.

The highest priority sending areas could contain sensitive lands that are not protected by the *critical areas* regulations, priority links in the Wildlife Corridor, priority *open space* lands, or historic resources. Determination of priorities for sending areas should also be coordinated with the development of an Island-wide *open space* plan.

Policy LU 17.3

Adopt an Island-wide open space plan.

Policy LU 17.4

The City recognizes the need to take a proactive role in the *purchase* and *transfer of development rights* and such a program should include:

1) Designating appropriate staff resources to promote the program;
2) Providing for the outright *purchase of development rights* by the City and establishing a fund for banking development rights; and
3) Creating a process that coordinates the *purchase* and *transfer of development rights.*
4) Initiating an outreach program to educate property owners and potential buyers about the use of the *Purchase and Transfer of Development Rights program*.

PROPERTY RIGHTS

GOAL LU-18

Strive to ensure that basic community values and aspirations are reflected in the City's planning program while recognizing the rights of individuals to use and develop private property in a manner that is consistent with City regulations. Private property shall not be taken for public use without just compensation having been made. The property rights of landowners *shall* be protected from arbitrary and discriminatory actions.

INTERGOVERNMENTAL COOPERATION AND COORDINATION

GOAL LU-19

All government entities *should* strive to cooperate and serve their constituents in a fiscally sound manner.

In addition to the City government, there are three special purpose districts and the Kitsap Public Health District and Sewer District #7 which all serve the citizens of Bainbridge Island, as well as a number of state and county agencies. This *goal* addresses the need for cooperation and coordination in order to serve the Island's citizens in the most cost effective manner.

HISTORIC PRESERVATION

GOAL LU-21

Maintain and support a *Historic Preservation* Program– A successful *historic preservation* program requires on-going support of the community, as well as the City government and its designated department.

Policy LU 21.1

Maintain the City's status as a Certified Local Government (CLG), thereby promoting collaboration among City departments, boards and commissions.

Policy LU 21.2

The City and its Historic Preservation Commission (HPC) *should* regularly review the local *historic preservation* ordinance and update where necessary to assure that it achieves the *Comprehensive Plan's goals* and *policies*.

Policy LU 21.3

The City and the HPC *should* develop the City's preferred method of project compliance review and reporting, consistent with state laws and local ordinances.

Policy LU 21.4

The City and HPC *shall* coordinate with tribal communities and other interested stakeholders who have an interest in historic resources on the Island.

GOAL LU-22

Identification and Evaluation of Historic Resources – Historic property inventory and context statements inform planning efforts by identifying areas where resources worthy of preservation exist or are likely to occur.

Policy LU 22.1

The City and HPC *shall* recognize historic resources listed on, or eligible for, the local registry as significant historic properties.

Policy LU 22.2

The City and HPC *shall* continue to inventory historic resources, thereby maintain an up-to-date site database using the latest affordable technologies available.

Policy LU 22.3

The City and HPC *should* continue to support and expand the Local Historic Register program.

Policy LU 22.4

The City and HPC *should* develop protocols for the consistent evaluation of historic resources on the Island.

Policy LU 22.5

The City and HPC *shall* define and identify its "iconic" structures and sites (those intended for permanent preservation), which are deemed essential elements of the community's character, history and identity.

GOAL LU-23

Preservation and Enhancement of Historic Resources – An effective *historic preservation* program provides meaningful practical incentives and policies for property owners and developers to preserve historic resources.

Policy LU 23.1

The City *shall* encourage preservation of existing historic structures and sites as an important tool in building a sustainable and unique community.

Policy LU 23.2

Encourage the preservation, rehabilitation and restoration of existing structures through the adoption and implementation of the International Existing Building Code (IEBC).

Policy LU 23.3

Collaborate with the HPC and Design Review Board to develop design guidelines for projects within or adjacent to significant historic properties and/or *neighborhoods* to ensure compatible development.

Policy LU 23.4

Develop guidelines to ensure review of potential direct and indirect impacts to significant historic properties when planning and/or permitting projects.

Policy LU 23.5

Identify and support practical owner/operator economic incentives and *policies* to encourage the rehabilitation and preservation of significant historic resources.

Policy LU 23.6

Engage in cooperative efforts with owners to encourage the preservation of historic resources.

GOAL LU-24

Public Participation – Establishing a broad base of support from citizens and their city government will strengthen the community's commitment to *historic preservation*.

Policy LU 24.1

Support an on-going education program to increase awareness of the historic resources on the Island.

Policy LU 24.2

Support efforts to publicly recognize preservation efforts within the Island community.

Policy LU 24.3

Collaborate with interested stakeholders to promote historic preservation on the Island.

Policy LU 24.4

Identify and give public access to, an appropriate repository for curating historic preservation records and documentation.

ESSENTIAL PUBLIC FACILITIES

GOAL LU-25

The needs of the community *should* be met by providing *essential public facilities* and services that are equitably distributed throughout the community; that are located and designed to be safe and convenient to the people they serve; that provide flexibility of use and maximum efficiency; and that are compatible with adjacent uses, the environment, and preservation of public health and safety.

The *GMA* requires that all jurisdictions planning under the Act must provide a process for siting *essential public facilities* such as airports, correctional facilities, sewage treatment plants. These *goals* and *policies* are intended to guide the siting process, and therefore, in accordance with RCW 36.70A.200(2), they do not preclude the siting of *essential public facilities*. Site specific consideration of a proposed *essential public facility* would occur during the development application review process.

Policy LU 25.1

The City *should* develop a list of *essential public facilities* of a local nature that may

potentially be sited on Bainbridge Island and coordinate with the *Kitsap Regional Coordinating Council* in the development of a list of state and countywide *public facilities*.

Policy LU 25.2

When an *essential public facility* of a statewide or countywide nature is proposed for Kitsap County, the City *should* appoint representatives as members of the Facility Analysis and Site Evaluation Advisory Committee or any other established siting committee to evaluate proposed *public facility* siting.

Policy LU 25.3

New *essential public facilities shall* not be located in designated resource lands, and *critical areas*.

GOAL LU-26

The process for siting *essential public facilities should* create an environment of cooperation and include adequate and early public review to promote trust between government agencies and the community.

Policy LU 26.1

If an *essential public facility* is proposed for Bainbridge Island that is an "*essential public facility*," as defined in RCW 36.70A.200, the City *should* create a Facility Analysis and Site Evaluation Committee composed of citizens, City staff, elected officials and appropriate technical experts which should consider in determining a recommendation to City Council, at a minimum, the following:

- Analysis of the need for such facility;
- The development of specific siting criteria for the proposed project;
- Identification, analysis, and ranking of potential sites;
- Consistency with the *goals* and *policies* of the City's *Comprehensive Plan*;
- Identification of potential physical impacts including, but not limited to, those relating to land use, the environment, transportation, utilities, noise, odor and public safety;
- Identification of potential cumulative impacts, including the likelihood of a related development locating in proximity to the proposed *essential public facility*;
- Identification of potential fiscal impacts to the local economy; and
- Measures to minimize and/or mitigate such impacts.

Policy LU 26.2

The City or other government agency, if responsible for construction of an *essential public facility, shall* develop a community notification and communications plan that will ensure ongoing contact with the community during the planning and construction phase of a project. The plan *should* include identification of all departments that will

play a role in the planning or construction of an *essential public facility*; identify other governmental regulatory requirements; identify strategies for coordinating interdepartmental and interagency activities and strategies for responding to

LAND USE IMPLEMENTATION

emergency or problem situations; and identify a conflict resolution process.

To implement the goals and policies in this Element, the City must take a number of actions, including adopting or amending regulations, creating partnerships and educational programs, and staffing or other budgetary decisions. Listed following each action are several of the comprehensive plans policies that support that action.

HIGH PRIORITY ACTIONS

<u>Action #1</u>. Update the Winslow Mixed Use Town Center Plan in order to facilitate progress on the Housing Priorities that can best be accommodated in an area with an existing urban character, urban facilities, services and multi-modal transportation options.

GOAL LU-4 As part of a long-term, Island-wide, Conservation and Development Strategy, focus urban development in *designated centers*, maximize public access to and protect the shoreline, minimize impacts from the SR 305 corridor, and conserve the Island's ecosystems and the green, natural and open character of its-landscape.

Policy LU 4.3 Updating the Winslow Master Plan is the City's highest work program priority because the greatest potential for achieving many of the City's priorities is focused there, including increasing the diversity of *housing types* and the supply of *affordable housing* while helping to reduce the development pressures in the Island's conservation areas

GOAL LU-5 Focus urban development in *designated centers.*

Policy LU 5.3 Encourage *residential uses* in a variety of forms and *Densities* as part of the use mix in *designated centers*.

GOAL LU-7 The Winslow mixed use and commercial districts are designed to strengthen the vitality of downtown Winslow as a place for people to live, shop, and work. The Mixed Use Town Center is intended to have a strong, residential component to encourage a lively community during the day and at night.

GOAL LU-8 The High School Road District is intended to provide mixed-use and commercial development in a pedestrian-friendly retail area.

GOAL EC-5 Provide a variety of *affordable housing* choices so that more people who work on Bainbridge Island can live here.

<u>Action #2</u>. Adopt a multi-year planning work program for updating the subarea plans for Island Center, Rolling Bay, Fort Ward, Sportsman Triangle, and Day Road.

GOAL LU-4 As part of a long-term, Island-wide, Conservation and Development Strategy, focus urban development in *designated centers*, maximize public access to and protect the shoreline, minimize impacts from the SR 305 corridor, and conserve the Island's ecosystems and the green, natural and open character of its-landscape.

Policy LU 4.2 Adopt a multi-year work program to undertake the "*Special Planning Area* Process" for the *designated centers* of Winslow, Island Center, Rolling Bay, Sportsman Triangle, Fort Ward and Day Road. The product of the "Special Planning Area Process" will be *Subarea Plans* for each of the *designated centers* that will be adopted as part of the *Comprehensive Plan*.

Policy LU 4.5 The *special planning area process* for each designated center shall engage residents, landowners, businesses and other stakeholders in envisioning the appropriate extent, scale, use mix, and the desired and required services and *infrastructure* to serve the selected use mix and intensity.

GOAL LU-6 Ensure a development pattern that is true to the *vision* for Bainbridge Island by reducing the inappropriate conversion of undeveloped land into sprawling development.

Policy LU 6.3 Island Center, Rolling Bay, Lynwood Center and Fort Ward offer housing, small-scale, commercial and service activity outside of Winslow. These *designated centers should* be allowed to develop at higher *densities* to reinforce their roles as centers.

GOAL LU-9 Encourage the development of the Neighborhood Centers at Rolling Bay, Lynwood, Day Road, Fort Ward and Island Center, as designated on the Future Land Use Map, as areas with small-scale, commercial, mixed use and residential development outside Winslow.

GOAL EC-6 As the city's *designated centers* evolve, balance their functions as

places of commerce and employment with their roles helping to meet housing needs and provide focal points for civic engagement and cultural enrichment.

Action #3. Prepare a new *Conservation Village* or other innovative land use regulations to incentivize creation of a new housing pattern that consolidates and dedicates open space.

Policy LU 4.9 Lands shown on Fig. 1 as "Conservation Areas" are appropriate for residential, recreational, agricultural, habitat and open space uses. The City will use a variety of conservation tools, including public acquisition of certain properties, regulatory protection of environmentally *critical areas*, and innovative *tools* such as aquifer conservation zoning and *conservation villages* to minimize the development footprint within these Conservation Areas.

Policy HO 6.4 Create new *conservation villages* permit process to apply outside of *designated centers* to increase housing choices, including *affordable housing* and requiring *green building* practices, while better conserving *open space*.

Policy HO 3.1 Encourage innovative zoning regulations that increase the variety of *housing types* and choices suitable to a range of household sizes and incomes in a way that is compatible with character of existing neighborhoods. Examples of innovative approaches are *cottage housing* development, *conservation villages*, stacked or common-wall housing, *tiny houses,* and *accessory dwelling units*. See Figure 1 illustrating several different *housing types*

MEDIUM PRIORITY ACTIONS

NOTE: Several City Council members asked the Planning Commission to consider whether to recommend a complete review of the entire development code rather than the more limited revisions named below in Medium Priority Actions #1 and #2 and Other Priority Action #1. Such a code revision process would be a major undertaking and would have to be ranked relative to other action priorities in not just Land Use, but also Housing and other Element priorities.

Action #1. Identify discrete sections of the Land Use Code to amend to eliminate confusion, redundancy and delay in the permit process.

Policy LU 6.6 Applications for development approval on Bainbridge Island *should* be processed within the timelines established in the City's land *development regulations* in order to ensure affordability, fairness, and predictability in the land development process.

Action #2. Create more efficient review processes, including the roles and best

practices and procedures for the Planning Commission, Design Review Board, and Hearing Examiner.

Policy LU 6.6 Applications for development approval on Bainbridge Island *should* be processed within the timelines established in the City's land *development regulations* in order to ensure affordability, fairness, and predictability in the land development process.

Action #3. Prepare benchmarks and a schedule to measure progress on implementing the above named priorities.

GOAL LU-27 Ensure that the community *vision* and *goals* in this plan are realized.

Policy LU 27.1 Develop a series of benchmarks against which to measure the Plan's continued viability and ensure that continued public input is part of the monitoring program.

Policy LU 27.2 The Action Plan to implement the *Comprehensive Plan* should be reviewed yearly to determine the status of actions described in the Action Plan.

NOTE: City Council asked to include a definition in the glossary of the "open space plan" referred to below.

Action #4. Prepare an Island-wide open space plan.

Policy LU 17.3. Adopt an Island-wide open space plan.

OTHER PRIORITY ACTIONS

Action #1. Review and update design standards and guidelines for the neighborhood centers.

Policy LU 5.4 –*Sustainable* development and redevelopment will be focused in the *designated centers* through a combination of intergovernmental and public-private partnerships, *affordable housing* programs, "green" capital projects, and *low impact development* standards.

Policy LU 5.7 Encourage the design of buildings in *designated centers* for a long life and adaptability over time to successive uses.

Policy LU 5.6 Address mechanisms for retaining and preserving *open*

space in the vicinity of *designated centers.*

Policy LU 8.6 To ensure visual appeal and pedestrian and bicycle safety, the land *development regulations* include design standards for:

- Building height, bulk, and placement.
- Landscaping, including screening of parking lots, and development of *pedestrian-oriented* streetscape with building and landscaping (including trees) located at the street edge.
- Lot coverage.
- *Open space*.
- Road access and internal circulation including pedestrian connections; developing more pedestrian crossings; and requiring parking in the rear wherever possible.
- Signage.
- Additional *transit* stops on both sides of SR 305.

Policy LU 9.2 Development *should* be oriented toward the pedestrian. Retail uses *shall* be encouraged on the ground-floor to prevent blank walls with little visual interest for the pedestrian. Offices and/or residential uses should be encouraged above ground floor retail.

Policy LU 9.18 To minimize visual and environmental impacts, encourage parking in the rear or side yards of *multifamily*, commercial, and *mixed-use developments*. Parking lots should be *pedestrian-oriented* and provide pedestrian and bicycle routes between the street, parking area, and main entrance, and consideration *should* be given to the use of trees that allow solar access.

Several Council members asked if the task of improving the PDR and TDR programs should be moved to a higher priority.

<u>Action #2</u>. Evaluate the reasons why the City's PDR and TDR programs have not been successful and explore ways to make them functional to meet City objectives.

Policy LU 17. Maintain and improve the City's *Purchase of Development Rights* (PDR) and *Transfer of Development Rights* (TDR) programs to enable transferring development rights from the Conser*vation Areas* of the Island into *Designated Centers*. See Fig. 1.

HOUSING ELEMENT

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HOUSING ELEMENT - Introduction

Decent and safe housing is a basic human need increasingly unavailable to many Americans, including many Bainbridge Island residents and workers. The Washington State Growth Management Act (GMA) provides direction for cities to address these needs in the Housing Element of the Comprehensive Plan. Many of the Plan's Guiding Principles and Policies carry this direction forward to be addressed in various Elements, including Housing.

The City's Housing Needs Assessment (HNA) issued in December of 2015, documents current housing conditions on the Island, and identifies trends and specific needs. The HNA is adopted as a part of this Element as though fully set forth herein.

The Element follows with goals and policies to address the identified housing needs and concludes with a series of implementation strategies to prioritize action by the City and others.

BAINBRIDGE ISLAND SNAPSHOT: PEOPLE AND HOUSING

Bainbridge Island's 2015 population of 23,390 is predominantly white (91%), well-educated, and relatively affluent. The median household income ($92,558) is 1.5 times the Kitsap County average. Almost 60% of residents have occupations with relatively high incomes. For example, the median wage for financial analysts, lawyers, and marketing managers ranges between $100,457 and $122,618. Another third of Island residents employed in the service sector, such as retail clerks, waiters, bank tellers, have median wages between $27,703 and $30,972.

Over the past decade, the population has experienced shifts in the age cohorts. Between 2000 and 2010 the Island's senior population (60+ years old) increased from 17% to 26%. The "young adult" cohort (between 18 and 34 years old) has declined from 15% of the Island's population in 1990 to less than 10% in 2016.

Bainbridge Island's housing stock is predominantly detached single-family homes (80% of all units) in a very low-density land use pattern that occupies about 90% of the Island's land area. The average single-family home price is just under $700,000.

Multi-family units that constitute 16% of the housing stock are now concentrated in Winslow and Lynwood Center. While the *designated centers* total about 10% of the Island's land area, a significant portion of that area is occupied by commercial uses with no residential component. Rental apartments make up less than 7% of total housing units on the Island. Very few rental units have been built on the Island in the last decade, which partly accounts for a vacancy rate of 1.5%, well below the 5% rate typical of well-functioning rental markets

GMA GOAL AND REQUIREMENTS FOR HOUSING

The *Growth Management Act (GMA*) recognizes the importance of planning for adequate housing by requiring it as an element in Comprehensive Plans. Adequate housing is addressed specifically in one of the 14 major goals:

> "Housing. Encourage the availability of *affordable housing* to all economic segments of the population of this state, promote a variety of densities and *housing types*, and encourage preservation of existing housing stock." RCW 36.70A.020(4)

The requirements for a housing element mandated by the GMA include:

> "A housing element recognizing the vitality and character of established *neighborhoods* that: a) includes an inventory and analysis of existing and projected housing needs; b) includes a statement of goals, policies, and objectives for the preservation, improvement, and development of housing; c) identifies sufficient land for housing, and group homes and foster care facilities; and d) makes adequate provisions for existing and projected needs of all economic segments of the community." RCW 36.70A.070(2)

HOUSING NEEDS

In 2015 the City of Bainbridge Island issued an updated Housing Needs Assessment (**HNA**) for Bainbridge Island, including an inventory of the amount, location and condition of the Island's housing stock and demographic and economic information about its population. It also includes an in-depth analysis of *affordable housing* needs of Bainbridge Island's Housing needs documented in the HNA.

Almost 34% of individuals and families at all income levels who live in owner-occupied housing units are **cost burdened**, meaning that they spend over 30% of their income on housing. Almost 40% of individuals and families at all income levels who live in renter-occupied housing units are cost burdened. The majority (around 28%) of these residents have an annual income between zero and $34,999. This means that as of 2012, 569 renters on the Island that have an income of $34,999 or less are housing cost burdened. This is concerning as lower income cost burdened households are more likely to have to choose between housing costs and other necessities.

The HNA analysis of Workforce Housing Affordability indicates that there is a gap in housing affordable for the Island's workforce in service professions (e.g., restaurant workers, bank tellers, retail clerks, school bus drivers). Many of those workers are obliged therefore to commute from less-expensive off-island housing, which increases their transportation costs, congestion on SR 305 and greenhouse gas emissions.

Bainbridge Island's jobs/housing balance is 0.59 jobs for every housing unit, making it a "bedroom community." The Puget Sound Regional Council suggests that housing-rich

neighborhoods add employment in order to increase economic opportunities for current residents.

Market forces alone will not address the urgent housing needs facing Bainbridge Island. In the face of daunting circumstances, the City aspires to an ambitious Vision of its future and commits to an innovative, aggressive and multi-faceted housing strategy. The City's success in achieving the housing Vision will also depend upon achieving the policy objectives identified in the Land Use, Transportation, Economic and Environmental Elements of this Plan.

HOUSING VISION

Bainbridge Island in the year 2036 provides a broad diversity of housing alternatives to accommodate all economic segments of the population. The Island has balanced the ~~equally~~ important goals of environmental stewardship and the population's needs for housing, health and safety, and access to employment, goods and services.

The broadest variety of *housing types*, including rental homes, exists within the compact, walkable, transit-served, mixed-use *designated centers*. These include small detached homes on small lots, attached and detached *accessory dwelling units*, *cottage housing*, common-wall duplexes, triplexes and rowhouses, and stacked units on the upper floors of mixed-use, mid-rise buildings.

The residential land use pattern outside of *designated centers* remains at much lower densities and constitutes almost 90% of the Island's area. Houses built in the previous twenty years, in the vicinity of designated centers and elsewhere in the Open Space Residential zones, are compact, energy-efficient, and well-integrated in their landscape. Typical *housing types* in these areas include detached houses on lots of various sizes, attached and detached *accessory dwelling units* and *conservation villages.*

GOALS AND POLICIES

In accordance with the definition provided in the *Growth Management Act (WAC 365.195-070(6))*, the term "*affordable housing*" as used in the Housing Element refers to "the adequacy of the housing stocks to fulfill the housing needs of all economic segments of the population." Some combination of appropriately zoned land, regulatory incentives, financial subsidies, and innovative planning techniques will be necessary to make adequate provisions for the needs of all segments of the population, but particularly middle and lower income persons.

GOAL HO-1

Make steady progress toward the following aspirational targets for increasing the diversity of *housing types* and the supply of *affordable housing*.

Policy HO 1.1

Decrease to 20% or less the number of cost burdened families living in rental housing (down from 40%).

Policy HO 1.2

Decrease to 18% or less the number of cost burdened families owning homes (down from 34%).

Policy HO 1.3

Increase the number of rental housing units to at least 11% of total housing units (up from 7%).

Policy HO 1.4

Increase the Island's percentage of *multifamily* homes to 18% or more of all homes (up from 16%).

Policy HO 1.5

Increase the number of *senior housing units* to 600 or more (up from 344.)

Policy HO 1.6

Change today's 89/11% housing split between the Mixed Use Town Center and Neighborhood Centers to 80/20% by 2036.

Policy HO 1.7

Achieve a jobs-housing balance of .8 (up from 0.59).

GOAL HO-2

Beginning in 2019, prepare biennial reports on the status of housing on Bainbridge Island. The report shall describe progress toward achieving the targets set forth in Policies HO 1.1 HO 1.7.

Policy HO 2.1

The Housing report shall address the following aspects of housing:

A. Housing trends in general both regionally and on Bainbridge Island.
B. The number and location of *housing types* constructed or active applications in the permit process in the preceding two years.
C. An evaluation of the effectiveness of the City's measures and identification of additional or revised measures or targets.
D. The vacancy rate for rental apartments.
E. The number of cost burdened and extremely cost burdened households.
F. The status of efforts to address housing needs at the regional level.
G. The condition of the local housing market and the number of new housing units, publicly and privately funded.

H. The use of density bonuses and the number of for-purchase housing units provided in new developments.
I. A description of the various initiatives supporting *affordable housing*, including activities of community non-profit organizations and local and regional public or private entities.
J. Programs of housing repair and renovation that improve accessibility.
K. <u>If insufficient progress is made toward meeting the targets in Policies HO 1.1 through HO 1.7, determine what actions are not working and make appropriate adjustments.</u>

Policy HO 2.2
Make the Biennial Housing Reports available to the public in various ways, such as notice in the local newspaper, on the City's web page, and on local media outlets. This Biennial Housing Report will be part of a comprehensive update of the Housing Needs Assessment in order to inform the next state-mandated update of the Comprehensive Plan in 2024.

GOAL HO-3

Promote and maintain a variety of *housing types* to meet the needs of present and future Bainbridge Island residents at all economic segments in a way that is compatible with the character of the Island, and encourages more socio-economic diversity. Partner with community non-profit organizations and local and regional private and public entities in carrying out the following policies.

Policy HO 3.1
Encourage innovative zoning regulations that increase the variety of *housing types* and choices suitable to a range of household sizes and incomes in a way that is compatible with the character of existing neighborhoods. Examples of innovative approaches are *cottage housing* development, *conservation villages*, stacked or common-wall housing, *tiny houses,* and *accessory dwelling units*. See Figure 1 illustrating several different *housing types*.

Figure 1

Detached Housing

Single-family home

Cottage housing

Accessory dwelling unit

Common Wall Housing

Duplex

Row houses

Zero lot line

Stacked Units Housing

Garden apartment

Mixed use, mid-rise

Micro units

Policy HO 3.2
Recognize–that the City shares a housing and employment market, as well as a transportation network, with the larger region. Therefore, the City should work with the *Kitsap Regional Coordinating Council* to develop ~~an~~ equitable and effective county-wide planning policies and other strategies to locate, finance and build *affordable housing*.

Policy HO 3.3
Designate the appropriate staff effort or organizational entity to assist and advise the community, landowners, and private and public entities about options for *affordable housing*, financing strategies, and funding sources.

Policy HO 3.4
Partner with non-profit housing organizations, churches, the development community, local lending institutions, elected officials, and the community at large to assist in meeting *affordable housing goals* and implementing strategies.

Policy HO 3.5
Support the efforts of community non-profit housing organizations and local and regional public and private entities in developing and managing *affordable housing* on Bainbridge Island.

Policy HO 3.6
Develop standards to encourage development of small to mid-size single-family housing units. These provisions may include a framework to permit small-unit housing development such as *tiny houses, micro units,* and *cottage housing*.

Policy HO 3.7
Expand opportunities for infill in the residential neighborhoods of the Winslow Master Plan study area and the Neighborhood Centers. Allow the creation of small lots (e.g., in the 3,000 square foot range) as well as smaller footprint homes (e.g., under 1,200 square feet).

GOAL HO-4

Increase the supply of permanently affordable *multifamily* housing each year through the year 2036 with goals based on data provided by the Housing Needs Assessment and the City's housing reports.

Policy HO 4.1
Encourage new *multifamily* housing in a variety of sizes and forms in *designated centers.*

Policy HO 4.2
Increase the efficiency of the review process and revise *building envelope* and other development standards for the High School Road and Ferry Terminal districts and other portions of the Winslow Area Master Plan to encourage the transformation of these areas from auto-oriented, low-rise, homogeneous commercial land use districts into walkable, transit-served, mid-rise, mixed-use neighborhoods with *affordable housing.*

Policy HO 4.3
Partner with non-profit or for-profit housing sectors to create new *multifamily* housing in *designated centers*, including a significant percentage of *affordable housing*, through the joint or exclusive use of surplus publicly owned property or air space.

Policy HO 4.4
Partner with the for-profit sector to create *affordable housing* through the targeted use of the *multifamily* property tax exemptions in *designated centers.*

Policy HO 4.5
Remove barriers to the creation of new *multifamily* housing, particularly *affordable housing* through a variety of actions, such as the adoption of regulations that "right-size" parking requirements, reduce certain *impact fees*, and encourage the use of parking management programs to enable the more efficient use of parking.

Policy HO 4.6
Allow *accessory dwelling units* in all residential zones, except at Point Monroe, the Sandspit (R-6). Review and revise as appropriate to create reasonable flexibility regarding development standards including lot coverage, setbacks, parking requirements, and Health District requirements for water and sewage.

Policy HO 4.7
Encourage agencies whose mission is to develop *affordable housing* to create new subsidized *multifamily* rental housing by aggressively pursuing Kitsap County *Community Development Block Grant Funds*, state funds, donations from private

individuals and organizations, public revenue sources and other available funding.

Policy HO 4.8
Evaluate the efficacy of existing regulations in facilitating the provision of assisted and independent living *senior housing*, and take action to amend regulations as needed.

GOAL HO-5

Maintain the existing stock of affordable and rent-assisted housing, in partnership with community non-profit organizations and local and regional public and private entities.

Policy HO 5.1
Develop a continuing strategy to maintain the Rural Development Agency and HUD subsidies on existing rent-assisted housing. The primary strategy shall be to support Housing Kitsap and non-profit organizations such as Housing Resources Bainbridge to purchase the units through the provisions of the 1990 Housing Act.

Policy HO 5.2
In the event of the potential loss of privately-owned subsidized housing, work with the appropriate public agencies and local non-profits to pursue the preservation of the subsidized units, or relocation assistance for the residents.

Policy HO 5.3
Water-based (live-aboards) housing provide a viable component of the present and future housing stock of Bainbridge Island, and shall be subject to applicable environmental protection, seaworthiness, sanitation and safety standards, and authorized moorage.

GOAL HO-6

Facilitate the provision of a diverse *affordable housing* stock in all geographic areas of the community.

Policy HO 6.1
Encourage housing created by agencies such as a community land trust.

Policy HO 6.2
In order to provide for permanently *affordable housing* pursue effective strategies to reduce the land cost component of for-purchase housing, which may include alternative land use zoning, *density bonuses* and other incentives.

Policy HO 6.3
Maintain an innovative housing program and clarify or adopt new flexible permit processes in all *designated centers* to promote an increase in the supply, diversity, and access to housing, including *affordable housing.*

Policy HO 6.4
Create new *conservation villages* permit process to apply outside of *designated centers* to increase ~~i~~ housing choices, including *affordable housing* and requiring *green building* practices, while better conserving *open space*.

Policy HO 6.5
Provide incentives to construct *affordable housing* for farm workers on or near farmlands.

Policy HO 6.6
Consider the merits of programs and regulations pioneered by other communities to discourage the land, energy and natural resource consumptive pattern of large single-family homes. Adopt amendments to City programs and regulations as appropriate.

GOAL HO-7

Promote and facilitate the provision of rental and for-purchase housing that is affordable to *income-qualified* households with a variety of income levels.

Policy HO 7.1
Exempt from City *impact fees* and other administrative development fees housing developments where all units are limited to residents in specified income groups.

Policy HO 7.2
All income-qualified rental housing units created as a result of the policies of this Housing Element shall remain affordable to *income-qualified households* for a period of not less than 50 years from the time of first occupancy and shall be secured by recorded agreement and deed running with the title of the land, binding all the assigns, heirs and successors of the applicant. This policy does not preclude the use of the Multi-Family Property Tax Exemption.

GOAL HO-8

Facilitate the siting and development of housing opportunities for *special needs populations*.

Policy HO 8.1
Support the services of community non-profit organizations and local and regional public or private entities in providing shelter for temporarily homeless singles and families with children, adolescents and victims of domestic violence on Bainbridge Island.

Policy HO 8.2
Support the development of programs to meet the housing needs of the developmentally, physically and emotionally disabled within the community.

Policy HO 8.3
Support programs that provide assistance to low-income, elderly and disabled

persons to repair, rehabilitate or retrofit their homes to be more accessible and safe.

GOAL HO-9

Explore the use of the City's bonding capacity and other resources to support the creation of *affordable housing*.

Policy HO 9.1

The City recognizes the need to provide financing assistance for *affordable housing*. Accordingly, the City will actively pursue public and private funds that may include, but are not limited to, real estate excise tax, grants, and other available resources.

Policy HO 9.2

The City, in partnership with local agencies producing *affordable housing*, may issue a General Obligation Bond to increase the production of housing affordable to *households* at or below 80% of median income for Kitsap County.

Policy HO 9.3

Consider the issuance of Limited Tax General Obligation Bonds (also called councilmanic bonds, or non-voted debt) to support the development of housing affordable to *households* at or below 80% of median income for Kitsap County.

Policy HO 9.4

Increase City support of the Housing Trust Fund and explore new sources of funding for the development and preservation of *affordable housing*.

Policy HO 9.5

Consider the options for making City-owned land or air-space available through long-term leases or other mechanisms for the purpose of creating income-qualified housing, and support other public entities that wish to use publicly-owned land for this purpose. Take into consideration, however, the full range of uses that City-owned properties may serve over the long-term.

HOUSING IMPLEMENTATION

To implement the goals and policies in this Element, the City must take a number of actions, including adopting or amending regulations, creating partnerships and educational programs, and staffing or other budgetary decisions. Listed following each action are several of the comprehensive plans goals and policies that support that action.

HIGH PRIORITY ACTIONS

Action #1. Set targets for increasing the supply of moderately priced and *affordable housing*, measure progress, and if insufficient progress is being made toward meeting the housing targets, determine what actions are not working and make appropriate adjustments.

GOAL HO-1
Make steady progress toward the following aspirational targets for increasing the diversity of *housing types* and the supply of *affordable housing*.

GOAL HO-2
Beginning in 2019, prepare biennial reports on the status of housing on Bainbridge Island. The report shall describe progress toward achieving the targets set forth in Policies HO 1.1 through HO 1.7.

Action #2. Amend the City's development code to facilitate an increase in the diversity of housing types and supply of affordable housing.

Policy HO 3.6
Develop standards to encourage development of small to mid-size single-family housing units. These provisions may include a framework to permit small-unit housing development such as *tiny houses, micro units, and cottage housing*.

Policy HO 4.2
Increase the efficiency of the review process and revise *building envelope* and other development standards for the High School Road and Ferry Terminal districts and other portions of the Winslow Area Master Plan to encourage the transformation of these areas from auto-oriented, low-rise, homogeneous commercial land use districts into walkable, transit-served, mid-rise, mixed-use neighborhood with *affordable housing.*

Policy HO 6.3
Maintain an innovative housing program and clarify or adopt new flexible permit processes in all *designated centers* to promote an increase in the supply, diversity, and access to housing, including *affordable housing.*

Policy HO 6.4
Create new *conservation villages* permit processes to apply outside of *designated centers* to increase housing choices, including *affordable housing* and requiring *green building* practices, while better conserving *open space*.

Action #3. Partner with other jurisdictions, the development community, and non-profit organizations to increase the diversity of housing types and supply of affordable housing.

Policy HO 3.4
Partner with developers and others ~~non-profit housing organizations, churches, the development community, local lending institutions, elected officials, and the community at large~~ to assist in meeting *affordable housing goals* and implementing strategies.

Policy HO 4.3
Partner with non-profit or for-profit housing sector to create new *multifamily* housing in *designated centers*, including a percentage of *affordable housing*, through the joint or exclusive use of surplus publicly owned property or air space.

Policy HO 4.4
Partner with the for-profit sector to create *affordable housing* through the targeted use of the multifamily property tax exemptions in *designated centers.*

Policy HO 9.5
Consider the options for making City- owned land or air-space available through long-term leases or other mechanisms for the purpose of creating income-qualified housing, and support other public entities that wish to use publicly-owned land for this purpose. Take into consideration, however, the full range of uses that City-owned properties may serve over the long-term.

MEDIUM PRIORITY ACTIONS

Action #1. Focus additional city and other financial resources to help increase the supply of affordable housing.

Policy HO 9.4
Increase City support of the Housing Trust Fund and explore new sources of funding for the development and preservation of *affordable housing.*

Policy HO 7.1
Exempt from City *impact fees* and other administrative development fees housing developments where all units are limited to applicants of specified income groups.

Action #2. Look for ways to reduce the cost of multifamily housing, particularly affordable housing.

Policy HO 4.5

Remove barriers to the creation of new *multi-family housing*, particularly *affordable housing* through a variety of actions, such as the adoption of regulations that "right-size" parking requirements, reduce certain impact fees, and the encourage the use of parking management programs to enable the more efficient use of parking.

OTHER PRIORITY ACTIONS

Action #1. Identify ways to achieve local results with and through regional actions.

Policy HO 3.2

Recognize that the City shares a housing and employment market, as well as a transportation network, with the larger region. Therefore, the City should work with the Kitsap Regional Coordinating Council to develop equitable and effective county-wide planning policies and other strategies to locate, finance and build *affordable housing*.

NOTE: ALL THE TERMS BELOW HAVE BEEN ADDED TO THE MASTER GLOSSARY, SO THE GLOSSRY OF HOUSING TERMS WILL BE DELETED.

GLOSSARY OF HOUSING TERMS

~~**Accessory Dwelling Unit**: Separate living quarters contained within or detached from a single-family residence on a single lot.~~

~~**Affordable Housing**: Housing where the occupant pays no more than 30% of gross monthly income for total housing costs, including the cost of taxes and insurance for homeowners and monthly utilities for owners and renters.~~

~~Affordable housing is defined according to the interpretation found in the Growth Management Act - Procedural Criteria [WAC365-195-070(6)]. The term "applies to the adequacy of the housing stocks to fulfill the housing needs of all economic segments of the population. The underlying assumption is that the market place will guarantee adequate housing for those in the upper economic brackets but that some appropriately zoned land, regulatory incentives, financial subsidies, and innovative planning techniques will be necessary to make adequate provisions for the needs of middle and lower income persons."~~

~~The Department of Housing and Urban Development (HUD) sets household income limits for five income categories based on the local median household income that is determined each year. They are as follows:~~

~~Extremely Low Income .....30% or less of median household income~~
~~Very Low Income .....31% - 50% of median household income~~
~~Low Income.....51% - 80% of median household income~~
~~Moderate Income.....81% - 95% of median household income~~
~~Middle Income.....96% - 120% of median household income~~

~~**Assisted Housing**: Multifamily rental housing that receives governmental assistance and is subject to use restrictions~~

~~**Community Land Trust (CLT):** A model of homeownership where a developer (usually an affordable housing agency or nonprofit) sells a home to an income-qualified resident, but retains ownership of the land. The homeowner earns equity in the home, but not the land.~~

~~**Co-housing:** a type of residential community characterized by either attached or detached single-family dwelling units which may or may not be located on separate lots, and includes a common building, which may contain a large dining room, kitchen, lounges, meeting rooms, recreation and laundry facilities, storage, guest rooms, library, workshops, and/or childcare, to serve only the co-housing community.~~

~~**Conservation Villages**: A development form that concentrates housing on a relatively small portion of the total site, with the larger portion of the site left untouched as dedicated conservation area. The housing may take the form of common wall structures and/or detached units placed close by one another, situated to minimize the cost of running roads and serving utilities and maximizing the retention of scenic views, open space, natural contours, and vegetation. The techniques used to concentrate buildings may include reduction in lot sizes, building setback and/or bulk requirements. An increase in density may be considered only if appropriate limitations are placed on building footprint, bulk, shape, location, orientation or other site or building design details. The conservation open space is secured in perpetuity by deed restriction.~~

~~**Context Sensitive Design:** Site, landscaping, architectural, or engineering design that is compatible with a development's setting, the contours of the land and natural systems on-site and immediately off-site, and that is compatible with the character, location and configuration of improvements and uses on adjacent properties.~~

~~**Cottage Housing:** A grouping of small, single family dwelling units clustered around a common area and developed with a coherent plan for the entire site. Cottage units typically have a shared common area and coordinated design and may allow densities that are somewhat higher than typical in single family neighborhoods. Cottage housing offers a degree of privacy and some of the benefits of single family housing combined with the lower cost and maintenance of attached housing. The clustered arrangement can contribute to a sense of community.~~

~~**Density**: The number of dwelling units allowed in a lot area.~~

~~**Density Bonus**: Additional density provided to a developer to achieve certain policy objectives, such as the construction of affordable housing units. (The developer is allowed to build a certain amount {a percentage} above the base density in exchange for the provision of a certain number of affordable units.)~~

~~**Designated Centers**: Those areas of the Island where the majority of the development and redevelopment should be located over the next fifty years. These include Winslow, Lynwood Center, Island Center, Rolling Bay, Sportsman Triangle and Day Road.~~

~~**Development Regulation:** The controls placed on development or land use activities by a county or city, including, but not limited to, zoning ordinances, critical areas ordinances, shoreline master programs, official controls, planned unit development ordinances, subdivision ordinances, and binding site plan ordinances together with any amendments thereto.~~

~~**Dwelling Unit**: A building or portion of a building that provides independent living facilities with provision for sleeping, eating and sanitation. The existence of a food preparation area within a room or rooms is evidence of the existence of a dwelling unit.~~

~~**Flexible Lot Design Subdivision Process**: This process permits development flexibility that will encourage a more creative approach than lot-by-lot development, including lot design, placement of buildings, use of open spaces and circulation, and best addresses the site characteristics of geography, topography, size or shape. This method permits clustering of lots, with a variety of lot sizes, to provide open space and protect the Island's natural systems. The criteria for the layout and design of lots, including a minimum percentage of open space and a minimum lot size for each zone, will be set out in the zoning ordinance.~~

~~**Guiding Principle:** A high-rank order value guiding growth, development, and conservation of resources in the community. Guiding principles are derived from and provide extension of the aspirations and values described in the Vision Statement. Guiding Principles provide policy direction to the Goals and Policies of the Elements in the Comprehensive Plan.~~

~~**Homeless**: Persons whose primary nighttime residence is 1) a public or private place not designed for, or ordinarily used for, sleeping accommodations for human beings, or 2) a residence which is a publicly or privately operated shelter designed to provide temporary living accommodations.~~

~~**Household**: One or more related or unrelated persons occupying a housing unit.~~

~~**Housing types:** This term refers to the physical form, configuration or scale of housing, as opposed to an ownership pattern (i.e., rental vs. owned).~~
~~The list below groups housing types by the category of whether the housing units are detached, common wall, or stacked:~~

- ~~**Detached housing**, includes one and two-story houses, ramblers, split-levels, cottages, cabins, accessory dwelling units, mobile homes, and carriage houses (unit over a garage);~~

- ~~**Common wall housing**, includes duplexes, zero lot line homes, rowhouses and townhouses; and~~

- ~~**Stacked housing**, includes two or three story garden apartments and mid-rise, mixed-use structures with commercial ground floor uses and two or more stories of residences above.~~

~~**Impact Fees**: Charges levied by the City against a new development for its pro-rata share of the capital costs of facilities necessitated by the development. The Growth Management Act authorizes the imposition of impact fees on new development and sets the conditions under which they may be imposed.~~

~~**Income-qualified:** A description for a renter or owner of designated affordable housing unit, meaning that the entity managing the affordability has verified the potential resident's income to fall within the income ranges defined under "Affordable housing".~~

~~**Infill Development**: Development usually consisting of either 1) construction on one or more lots in an area already developed or 2) new construction between two existing structures.~~

~~**Low Impact Development (LID):** A stormwater management strategy that emphasizes conservation and use of existing natural site features integrated with distributed, small-scale stormwater controls to more closely mimic natural hydrologic patterns in residential, commercial, and industrial settings. LID employs principles such as preserving and recreating natural landscape features and minimizing impervious surfaces to create functional and appealing site drainage that treat stormwater as a resource rather than a waste product. Practices that adhere to these LID principles include bio-retention facilities, rain gardens, vegetated rooftops, rainwater harvesting (rain barrels and cisterns) and permeable pavements.~~

~~**Manufactured Housing**: A broad term including mobile homes, modular homes and other "factory built" housing. The main distinction is that manufactured housing is created in one or more parts in a factory and is designed and constructed for transportation to a site for installation on a permanent foundation and occupancy when connected to required utilities.~~

~~**Micro unit:** A small studio apartment; micro unit could include a fully functioning and accessibility compliant kitchen and bathroom or rely upon communal kitchen or bathroom facilities.~~

~~**Mixed-Use Development**: The presence of more than one category of use in a structure, for example, a mixture of residential units and office or retail uses in the same building.~~

~~**Multifamily**: A structure or portion of a structure containing two or more dwelling units.~~

~~**Neighborhood**: A small, predominantly residential area of the Island in which the residents share a common identity which may focus around an elementary school, park, community business center or similar feature.~~

~~**PUD or Planned Unit Development**: A development of land that is under unified control and is planned and developed as a whole in a single development operation or programmed series of development stages. Development through a PUD is a process in addition to the subdivision process, which permits development flexibility that will encourage a more creative approach than lot-by-lot development in design.~~

~~**Residential Use**: Any land use that provides for living space. Examples include single family residence, multi-family residence, special residence mobile home park, boarding house, caretaker's quarters, accessory dwelling.~~

~~**Senior Housing:** Housing specifically designed and operated to assist elderly persons (as defined in the State or Federal program); or intended for, and solely occupied by persons 62 years of age or older.~~

~~**Special Needs Populations**: Individuals or families who require supportive social services in order to live independently for semi-independently.~~

~~**Subarea Plan:** An optional comprehensive plan feature authorized by the Growth Management Act. Subarea plans provide detailed land use policies for a geographic subset of a city.~~

~~**Subdivision**: The division or re-division of land into five or more lots, tracts, parcels, sites or divisions for the purpose of sale, lease or transfer of ownership.~~

~~**Substandard Housing**: A dwelling unit that does not meet the criteria for an acceptable standard of living, through lack of maintenance, age of unit, neglect, lack of plumbing facilities, kitchen facilities, or crowded conditions.~~

~~**Tiny House or Home:** A small dwelling, with a kitchen and bathroom, possibly mounted on wheels.~~

~~**Urban Concentration**: An area within the urban growth boundary of Bainbridge Island in which urban level of development with urban levels of public services and facilities are concentrated.~~

~~**Vision:** A Vision is a narrative description of a preferred future, describing desired long-term qualities and characteristics of the community 20 or more years in the future.~~

~~**Vision 2040:** Vision 2040 constitutes the multi-county planning policies for the region consisting of King, Pierce, Snohomish and Kitsap counties and the cities within those counties.~~

ECONOMIC ELEMENT

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ECONOMIC ELEMENT - Introduction

The future economy of Bainbridge Island is linked to the community's *vision* and strategy for dealing with future needs. A healthy, resilient economy, based on our collective future vision of the Island, is a tool for accomplishing larger community *goals* that will help create a robust future.

> "The *vision* a community has of itself is important to its economy. Each community plays a crucial role in creating for itself an environment that is attractive to and nurturing of new and existing businesses. A vital economy requires adequate *public facilities* (water, sewer, roads, schools, parks, libraries, emergency services and utilities). A community that does all that AND preserves its natural features will have an edge when it comes to improving its economy." (Washington State Department of Commerce).

The *Growth Management Act* (GMA) addresses the concerns of "uncoordinated and unplanned growth that potentially pose a threat to the environment, sustainable economic development, and the health, safety and high quality of life enjoyed by residents." An important part of a healthy economy is the quality of the environment.

The Economic Element of the *Comprehensive Plan* is intended to guide the climate for enterprise and commercial exchange on Bainbridge Island and reinforce the overall vision and values of the *Comprehensive Plan* adopted in 1994, and subsequently updated in 2004 and 2016: to steward a sustainable community; to protect the quality of its environment: the water, air and land; and to encourage traditional resource based activities such as agriculture.

FRAMEWORK

Retain and enhance an economy that reinforces Bainbridge Island's diverse character and capitalizes on its assets, including: history and heritage, high educational attainment, diverse skills, artistic creativity, rural quality, agricultural base, natural resources, preserved *open spaces*, beaches and shorelines, maritime orientation, and proximity to the Seattle metropolitan area and the Kitsap Peninsula.

These critical elements of our community identity and economy are all susceptible to anticipated changes in our climate, population and the subsequent responses we make with regard to that change. By considering these changes explicitly we can work to increase the resilience of our economy and thrive in the face of change.

The intention is to integrate the Economic Element with other parts of the *comprehensive plan* because the economy is intertwined with all aspects of community life. The Economic Element recommends *goals and policies* which recognize the following considerations:

1. The Island's economic future *should* include enterprises that are diverse by type and scale, under local ownership and control; that offer a variety of employment options; and that support a broad range of income and skill levels.

Bainbridge Island residents have high incomes relative to the rest of the state and region. However, the prospect of functioning solely as an exclusive high-income bedroom community is not desirable. The Comprehensive Plan aims to foster diverse residential and business opportunities, as does the Economic Element. Creating a diversity of jobs and affordable housing coupled with provisions for responding to market conditions and encouraging innovative business activity are important economic policy steps for the City's future.

2. Bainbridge Islanders are enterprising and are establishing small scale businesses which create jobs and grow bigger businesses.

Over half of Island-based businesses are home-based. National studies indicate that small businesses provide impetus for new business development and job creation. Existing land use codes and City business tax structure are supportive of home-based and small-scale businesses. This support *should* be continued and expanded into a more complete continuum of opportunities for locating and maintaining Island-grown business.

3. When weighing choices regarding our future economy, the fundamental considerations *should* be the quality of the Island's natural environment and the community's desire to maintain the visual character.

Bainbridge Island's quality of life is associated with forests and fields, waters and harbors, *open space* and abundant natural resources, and a thriving town center. These elements of Bainbridge Island are anticipated to be affected by climate change over the coming decades. Careful stewardship of our land and other resources - the foundation for our invaluable sense of place—will be necessary as we promote and permit new development, both residential and commercial.

The Economic Element incorporates fifteen *goals* and related *policies* as enumerated below. The order of the *goals* and *policies* does not indicate preference or priority.

ECONOMIC VISION

Bainbridge Island has balanced economic development with stewardship of our Island's finite natural resources and the needs of a diverse population. Affordable housing is available for much of the local service sector workforce and improvements in communications infrastructure have enabled more successful local enterprises, including home-based business.

The economy of Bainbridge Island reaps advantages from proximity to the Seattle area and the Kitsap peninsula. The Island is a destination for visitors interested in learning about sustainability and resilient community development. Local employment opportunities are diverse, including small manufacturing, artisanal crafts, high tech, e-commerce, arts, and food. Small retailers are thriving by serving the needs of local residents as well as visitors.

Agriculture is a thriving part of the Island's economy: all City-owned agricultural land is now under cultivation and producing seasonal foods for local consumption. The number of farms on private acreage has increased and is supplementing the local food supply.

Innovative and flexible city programs encourage the real estate market to adapt to trends that favor conservation, efficient use of land and resources, and homes of modest size and price.

Islanders recognize that a sense of community as well as economic value is achieved by neighborly acts. A robust non-profit sector strengthens social capital, provides services and employment opportunities.

GOALS AND POLICIES

DIVERSIFIED ECONOMY

GOAL EC-1

Promote economic vitality, growth and stability.

Bainbridge Island has the opportunity to create a robust, resilient and durable economy by demonstrating early leadership and acknowledging the changes that will affect our economy. Planning for these changes and taking actions that support and encourage a local economy will help reduce community vulnerability to issues such as aging demographics, housing availability, transportation constraints, and climate change.

By providing enterprises that both serve and employ local residents, Bainbridge Island will be better able to withstand fluctuations in the larger regional economy. In addition, people who live and work in their community are available to invest time and money in

their families, organizations, and community life. A key to a healthy, stable and vital economy is to create and undertake business opportunities that anticipate and respond to conditions that affect our community. This would include identifying emerging needs and markets so that Bainbridge Island businesses benefit from being on the leading edge of change.

Policy EC 1.1
Develop and maintain regulations that provide support for our community's business sectors. These will prepare our strong existing business sectors for change, while encouraging the business community to look for emerging sectors that will be part of responses to change on Bainbridge Island and beyond.

Policy EC 1.2
The city *should* embrace diverse and innovative business opportunities compatible with community values and develop programs to make Bainbridge Island an attractive location for those businesses.

Bainbridge Island is affected by regional, national, international and global environmental and economic trends and changes in the physical environment. While we cannot control global economic or environmental conditions we can support the local economy by providing *policy* direction and land use *infrastructure* to allow for and encourage robust economic activities that are prepared for and responsive to change.

Policy EC 1.3
Coordinate with local business groups to track commercial activity, identify trends and assess the economic health of the Island. Adopt an economic vitality strategy to identify creative and appropriate ways for the City to encourage and stimulate business activity.

Policy EC 1.4
Support entrepreneurism by providing adequate *land use* designations in keeping with the character of the Island, while avoiding investment in sectors/activities/*infrastructure* that will not remain viable in the foreseeable future

Policy EC 1.5
In order to provide opportunities for business enterprise, adequate space must be provided for growth that recognizes and protects the Island's valued natural amenities, its limits of land and water and the quality of its residential *neighborhoods*. [

Policy EC 1.6
Establish, maintain and share with interested parties a data base of indicators of the health of the sectors of the Island's economy.

Policy EC 1.7
Partner with the Chamber of Commerce, the Bainbridge Island Downtown Association, and others to monitor the Island's business climate and make appropriate adjustments to the economic vitality strategy

INFRASTRUCTURE

GOAL EC-2

Provide sufficient and resilient infrastructure that is supportive of a healthy economy and environment.

Policy EC 2.1

Identify long-term *infrastructure* needs that support economic sustainability and are designed to withstand future conditions.

Policy EC 2.2

Support *infrastructure* enhancement to accommodate new information technology and changing conditions.

Policy EC 2.3

Implement infrastructure and technology improvements around *designated centers* to provide enhanced service and to retain and attract business.

The Council asked for language to clarify that a sustainable Island economy is founded on three different but related types of economic capital . We have drafted the language below to acknowledge that. Note that the three subsets of "economic capital" , which are "financial capital," "natural capital" and "social capital" are defined on page 7 of the Glossary.

~~SUSTAINABILITY~~ SUSTAINABLE ISLAND ECONOMY

A sustainable economy is one in which the community encourages and grows *financial capital, natural capital* and *social capital*. Goals 3 and 4, and their policies, recognize the importance of all three to a healthy and sustainable Island economy.

GOAL EC-3

Promote business practices that protect the Island's natural beauty and environmental health, and support long-term business success.

Environmental protection is a value expressed in the *guiding principles* that are the foundation of the comprehensive plan. A quality environment promotes and enhances economic vitality of the community.

Policy EC 3.1

Encourage the use of *green building* materials and techniques in all types of construction, as well as design approaches that are responsive to changing conditions.

Policy EC 3.2

Help businesses find markets for surplus materials, by-products and waste.

Policy EC 3.3

Encourage local enterprises to participate in programs, such as the Kitsap County Waste Wise and Green Community Initiative, which recognize and assist business efforts to protect the environment.

Policy EC 3.4

Encourage public sector solid waste reduction, reuse and recycling.

Policy EC 3.5

Encourage existing and new businesses to become part of a linked cooperative whereby the by-products and waste of one enterprise become the raw materials of another.

Policy EC 3.6

Create opportunities to foster green technology and industries, such as energy, waste and information technology, which have the potential to create local, family wage jobs in our community at the same time we are protecting our natural beauty, environmental and economic health.

CIVIC LIFE

GOAL EC-4

Encourage a broad range of civic activities and organizations.

Non-profit organizations are a source of employment and other economic benefits for Islanders and utilize many local commercial and service providers. Volunteers also provide significant contributions to the local economy. Organizations such as Helpline House, Arts and Humanities Bainbridge, Bainbridge Island Museum of Art, Housing Resources Bainbridge, Bainbridge Island Downtown Association, and the Chamber of Commerce rely largely on volunteer efforts and provide irreplaceable human resources to the community.

Policy EC 4.1

Support the non-profit sector of human and social service providers.

Policy EC 4.2

Encourage and recognize individuals, organizations, and businesses that volunteer time and skills to the community.

Policy EC 4.3

Encourage local business groups, educational institutions, and other entities to provide continuing education and skills development.

Policy EC 4.4

Promote Bainbridge Island as a family-friendly community with high quality schools, recreational opportunities and a safe, clean environment.

JOBS/HOUSING BALANCE

GOAL EC-5

Provide a variety of *affordable housing* choices so that more people who work on Bainbridge Island can live here.

The Housing Element of the *comprehensive plan* provides several options for the development of *affordable housing* on the Island.

Policy EC 5.1
Continue to monitor the progress in implementing the Housing Element and evaluate new ways of providing *affordable housing*.

Policy EC 5.2
In concert with the Housing Element's Goals and Policies, pursue a housing strategy that seeks to accommodate a wide variety of housing options, both in design and affordability, to meet the demands of the full range of the population, including service sector employees, retirees, students, artists, farmers and craftspeople.

DEVELOPMENT IN *DESIGNATED CENTERS*

GOAL EC-6

As the city's *designated centers* evolve, balance their functions as places of commerce and employment with their roles helping to meet housing needs and provide focal points for civic engagement and cultural enrichment.

Policy EC 6.1
Create attractive *designated centers* that will help the Island economy prosper and provide a high quality of life, creating ancillary benefits such as decreasing pollution (including *greenhouse gas emissions*), protecting *open space*, and creating local family wage jobs.

Policy EC 6.2
Utilize urban design strategies and approaches to ensure that changes to the built environment are at a locally appropriate scale and enhance the Island's unique attributes, in recognition of the economic value of "sense of place."

Policy EC 6.3
Develop urban design strategies to ensure that the built environment is appropriate for present and future conditions, including the impacts of *climate change.*

Policy EC 6.4
Ensure the efficient flow of people, goods, services, and information in and throughout the Island with infrastructure investments, particularly within and connecting to

designated centers, to anticipate the needs of the Island's businesses.

Policy EC 6.5
Promote emerging business sectors such as artisanal and craft producers, including specialty foods and beverages, as well as low-impact, specialty manufacturing, including software, electronics and green technology.

Policy EC 6.6
Preserve and enhance activities that feature Bainbridge Island's history of maritime, agricultural and artistic enterprises.

Policy EC 6.7
Monitor parking requirements in the *designated centers* and revise them as needed to encourage business development, while reasonably accommodating parking demand. This should be done in concert with efforts to reduce dependence on automobiles and improve our local environment.

PUBLIC/PRIVATE PARTNERSHIPS

GOAL EC-7

Partner with local businesses and business associations on programs and projects to diversify and grow the City's economic make-up, reduce sales leakage, attract spending by visitors, enhance local employment, and increase municipal tax revenues to support local services.

Policy EC 7.1
Leverage technology assets, such as existing fiber connections, to support technology-based businesses and potentially to pursue new revenue streams.

Policy EC 7.2
Focus "buy local" community marketing on consumer spending segments in which there is significant "leakage" and also a strong possibility of recapturing spending.

Policy EC 7.3
Support and enhance social, cultural, artistic, recreational and other learning activities for residents, workers and visitors.

Policy EC 7.4
Integrate programs and activities related to economic prosperity with objectives related to environmental sustainability, social and political equity, climate change adaptation and cultural engagement.

Policy EC 7.5
Continue to support and enhance the arts/culture sector and the visitors that arts and cultural events attract.

Policy EC 7.6
Support and enhance recreational, nature-based, and other outdoor events that attract visitors.

Policy EC 7.7
Support and make Bainbridge Island a model community for *climate change* preparedness and sustainability practices that ensure long-term business viability while attracting and protecting visitors, businesses and residents.

Policy EC 7.8
Support and enhance our waterfront, including docks and maritime services that attract visitors and residents.

Policy EC 7.9
Provide an efficient, timely and predictable regulatory environment within the framework of a strong customer service approach.

Policy EC 7.10
Encourage the private, public, and non- profit sectors to incorporate environmental and social responsibility into their practices.

RETAIL AND SERVICES

GOAL EC-8

Maintain and enhance Winslow as the commercial hub of Bainbridge Island. Position the Neighborhood Centers to provide the opportunities for smaller-scale commercial and service activity.

Policy EC 8.1
Reinforce Winslow as the mixed-use center for commerce and exchange by fully implementing the Winslow Master Plan.

Policy EC 8.2
Neighborhood Centers *should* be developed at higher residential *densities*, as recommended in the Land Use Element, in order to attract a variety of small-scale retail and service providers.

SERVICES SECTOR

GOAL EC-9

Grow a healthy service sector to increase employment opportunities, enhance

local revenues, and meet emerging needs of the Island's changing demographics.

Policy EC 9.1
Increase availability of housing to enable service sector employees to live on the Island.

Policy EC 9.2
Increase access to transportation options that better enable service sector employees who live off- Island to work on-Island.

Policy EC 9.3
Promote an emerging professional services sector that recognizes the Island's linkage to the Seattle job market for managerial jobs and information-based industries.

Policy EC 9.4
Promote on-Island access to healthcare facilities and medical services, particularly those addressing the needs of the Island's increasing older population.

BUILDING DESIGN AND CONSTRUCTION SECTOR

GOAL EC-10

Support building design and construction industries to increase employment opportunities, enhance local revenues, and help ensure a built environment that responds to and reflects the Island's Vision and Guiding Principles.

The professions and trades involved in design, construction, furnishing, renovation, and marketing of commercial and residential real estate constitute a large and very important sector of the Island's economy. Productivity and profits within that sector are crucial factors in the stability and wellbeing of the entire community. The built environment is no less important than our natural resources in defining Bainbridge Island as a unique and attractive place. Good development, in a community such as ours, must work within limits and be compatible with the goals of environmental conservation.

Policy EC 10.1
Make the City's development permit process ~~more~~ timely, fair and predictable.

Policy EC 10.2
Partner with Island architects, landscape architects, builders and related construction professionals to draft development standards and practices that incorporate green building practices and context-sensitive design.

TOURISM

GOAL EC-11

Tourism is a key sector of the Island's economy and needs to be supported.

Bainbridge Island provides unique opportunities for visitors to experience internationally recognized gardens, cultural centers, parks, and recreational events.

Policy EC 11.1

Improve pedestrian links between the ferry terminal, downtown Winslow, and the harbor. Visitors on foot and bicycle *should* be encouraged. Encourage and support public transit and shuttle services.

Policy EC 11.2

The predominant focus of downtown Winslow *should* be to serve the commercial and social needs of Island residents. A lively, *pedestrian-oriented* town center that provides a mix of commercial and *residential uses* is a potential tourist destination.

Policy EC 11.3

Support the Island as a visitor destination by preserving and enhancing the unique qualities of our community.

Policy EC 11.4

Encourage multiple-day stays and participation in selected Island events and destinations by off-Island visitors.

Policy EC 11.5

Encourage bed and breakfasts and other creative tourist accommodation

ARTS

GOAL EC-12

Continue to promote the arts as a significant component of the Bainbridge Island economy.

Policy EC 12.1

Encourage and support the creative and economic contribution of the arts by implementing the *goals* and *policies* of the Cultural Element.

Policy EC 12.2

Promote the arts community within the northwest region as an economic asset of the Island.

HOME-BASED BUSINESSES

GOAL EC-13

Foster home-based businesses as a key to a present and future vital economy.

Nearly half of all businesses licensed on Bainbridge Island are reported as home-based. Bainbridge Island allows home-based businesses in all zones, and 16.3% of the Island workforce works from home.

Policy EC 13.1

Continue performance standards to harmonize impacts of home-based businesses in residential *neighborhoods*.

Policy EC 13.2

Support home-based businesses through business licensing and other City programs.

AGRICULTURE

GOAL EC-14

Recognize that farming is a part of the Island's heritage and contributes to the island's economy.

The Environmental and Land Use Elements contains several *goals* and *policies* intended to sustain and enhance agriculture.

Policy EC 14.1

Support the market for Island-grown agriculture products by:

- Recognizing and supporting the Bainbridge Island Farmers' Market, including permanently dedicating space for the market and enhancing the market area.
- Allowing and promoting roadside stands that sell Island-grown products.
- Promoting and supporting Community Supported Agriculture (CSA).
- Encouraging the development of value-added processing facilities that can be shared by many farmers.
- Encouraging food crops to be planted on public land.

Policy EC 14.2

Support a program that helps working farms through educational, historic, farmstay and tourist visits.

BUSINESS/INDUSTRIAL

GOAL EC-15

The Business/Industrial (B/I) land use designation should provide space for job creating enterprises. Island based businesses provide the possibility of living and working in the community. It is the purpose of the B/I land use designations to provide opportunities for light industrial and other non-retail activities. The City

should be prepared to respond to a changing marketplace and the business opportunities perceived by its citizens, when those opportunities require pre-existing infrastructure and well-designed accommodations in order to flourish.

Policy EC 15.1

Promote manufacturing and business/industrial employment as an important source of family wage jobs on Bainbridge Island.

Policy EC 15.2

New Business/Industrial (B/I) *land use* designations *shall* be considered based on the following:

- Proximity to existing B/I.
- The total amount of and expected need for B/I-zoned land.
- Compliance with all *policies* in the Land Use Element.
- Reasonable proximity to SR 305.
- Availability of public sewer and water, *or* whether permitted uses might safely use wells and septic systems or other alternative systems that are approved by the Kitsap Public Health District.
- Consideration of pollution and *aquifer recharge* concerns.
- Adjacency to non-*residential land uses*.
- Minimal impact to resi*dential land uses*, *neighborhoods* and *open space*/conservancy and agriculture areas.

Policy EC 15.3

Business/Industrial development *shall* conform to all Business/Industrial performance standards, the requirements of Site Plan and Design Review, and applicable design guidelines.

ECONOMIC IMPLEMENTATION

To implement the goals and policies in this Element, the City must take a number of actions, including adopting or amending regulations, creating partnerships and educational programs, and staffing or other budgetary decisions. Listed following each action are several of the comprehensive plans policies that support that action.

HIGH PRIORITY ACTIONS

Action #1. Adopt and maintain an Economic Development Strategy to coordinate public and private efforts to grow and sustain a healthy economy on the Island.

Policy EC 1.3
Coordinate with local business groups to track commercial activity, identify trends and assess the economic health of the Island. Adopt an economic vitality strategy to identify creative and appropriate ways for the City to encourage and stimulate business activity.

Policy EC 1.7
Partner with the Chamber of Commerce, the Bainbridge Island Downtown Association and others to monitor the Island's business climate and make appropriate adjustments to the economic vitality strategy.

MEDIUM PRIORITY ACTIONS

Action #1. Continue efforts to promote and support agriculture as a component of the Island's economy, landscape and culture.

Policy EC 14.1
Support the market for Island-grown agriculture products by:

- Recognizing and supporting the Bainbridge Island Farmers' Market, including permanently dedicating space for the market and enhancing the market area.
- Allowing and promoting roadside stands that sell Island-grown products.
- Promoting and supporting Community Supported Agriculture (CSA).
- Encouraging the development of value-added processing facilities that can be shared by many farmers.
- Encouraging food crops to be planted on public land.

Action #2. Identify capital projects and streetscape standards to enhance non-motorized mobility within Winslow and connecting to shoreline activities.

Policy EC 11.1
Improve pedestrian links between the ferry terminal, downtown Winslow, and the harbor. Visitors on foot and bicycle *should* be encouraged. Encourage and support public transit and shuttles.

OTHER PRIORITY ACTIONS

The Council asked to have this action moved up to either High Priority or at least Medium Priority status, in recognition of the fact that the City is now working on parking issues in Winslow. In that same vein, they thought that parking is important for non-business use and that the text of this Action should reflect that.

Action #1. Assure that adequate parking is available in *designated centers* to support businesses as well as civic or other public uses.

Policy EC 6.7

Monitor parking requirements in the *designated centers* and revise them as needed to encourage business development, while reasonably accommodating parking demand. This should be done in concert with efforts to increase use of non-motorized transportation and improve our local environment.

WATER RESOURCES ELEMENT

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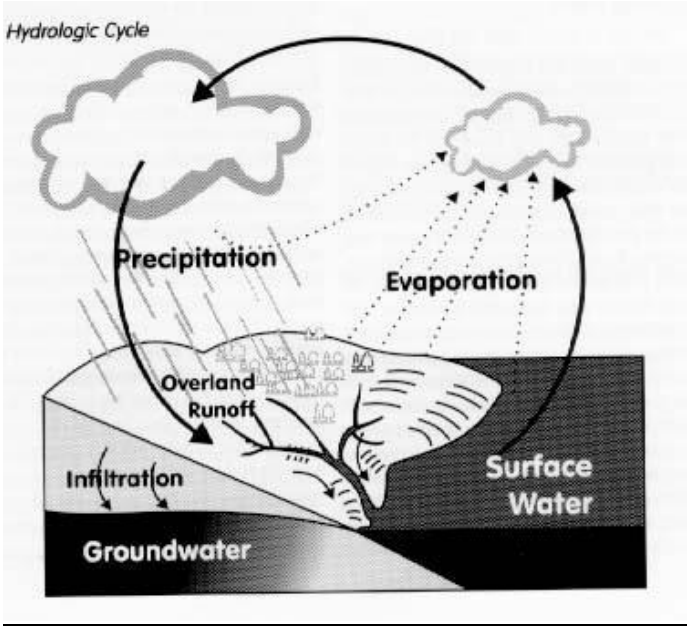
WATER RESOURCES Introduction

Bainbridge Island is a quasi-enclosed environment that requires a holistic perspective to understand the interdependence among the Island's three primary water resources: *groundwater*, surface water, and *stormwater*. Although these waters are typically regulated and managed independently, they are, in nature, intimately connected. In fact, it is all the same water, simply given a different name and managed according to where it resides in the hydrologic cycle at any given time (see Fig.1).

When rain falls, rainwater that is not evaporated or taken up by plants will take one of three paths. It may infiltrate into the ground where it is called *groundwater*. It may drain directly into *streams* and harbors where it is called surface water, or it may be captured by manmade *infrastructure* such as street drains, ditches, or detention/retention ponds where it is called *stormwater*.

Rainwater that infiltrates into the ground (*groundwater*) may be pumped from wells to provide drinking water or irrigation or seep out of the ground into *streams*, springs, and harbors where it is, again, called surface water. Likewise, *stormwater* may discharge into a nearby stream or harbor and become surface water or infiltrate into the ground and become *groundwater*.

Fig. 1. The Hydrologic Cycle



In order to successfully protect and manage any one of these waters, one must protect

and manage all three. To address these interrelationships, a separate Water Resources Element has been developed as follows:

- General water resources management policies
- *Groundwater* protection and management policies
- Surface water protection and management policies
- *Stormwater* protection and management policies
- Residential on-site sewage system policies
- Contaminated sites policies
- Public education and outreach policies

Land Use Connection

In the development of policies related to the management of our Island water resources, it is important to understand the links between water resources quality and quantity and *land use*. Most water quality and habitat integrity impacts are caused by the way land was or is used. Developed land allows for rapid *runoff* and inundation of natural conveyance systems such as *wetland*s and *streams*. Rapid *runoff* can cause damage through flooding, erosion, and water-borne contamination.

In addition, *household*s create sewage which needs disposal either by a wastewater treatment plant or by residential on-site sewage systems. Wastewater treatment plants are reasonably effective at cleaning wastewater, but do not at present provide complete removal of nitrogen nor treat for contaminants of emerging concern which include, but are not limited to, byproducts of medications, recreational drugs, health and beauty products, and caffeine.

Residential on-site sewage systems can fail and cause contaminants to enter the surface water and/or *groundwater*. Even functioning systems, depending upon *density* and proximity to surface water and *groundwater*, can contribute to accumulations of nitrogen and contaminants of emerging concern in these waters.

Use of fertilizers, pesticides, and other chemicals for cropland, lawns and gardens, and vehicle and *household* cleaning and maintenance as well as improper pet and livestock waste management can add significant contamination to surface water, *stormwater* and *groundwater*.

Commercial and industrial uses, past and present, leave behind pollutants in our soils. In particular, historic *land use*s such as large row crop agriculture, lumber, petroleum, and others have left behind legacy pollutants in sediments both on upland properties and in the sediments along the bottoms of our *streams*, harbors, and nearshore areas.

Without proper coordination of the regulations that will implement policy statements, conflicting signals may be given when dealing with water resources issues. For example, a surface water problem may be resolved by efficiently collecting and removing all water from the area, whereas a *groundwater recharge* issue may require

that the water be kept on-site to allow for infiltration.

Another conflict arises when infiltration of *stormwater* competes for space with on-site sewage system drainfields. There are physical limitations to the rates of infiltration and absorption based on soil types, which may make it impossible to have both of those facilities on the same site. Where development occurs in important *aquifer recharge areas*, special consideration is needed to preserve the volume of *recharge* available to the *aquifer* and to protect the *groundwater* from contamination.

A key component of water resources protection and adaptive management is adequate monitoring in order to assess impacts of current land use and the effectiveness of applied management actions.

The overriding theme that runs through all of the policies and *goal*s in this element is the preservation and protection of water quality, water quantity, and ecological and hydrologic function.

Climate change

Climate change projections indicate that over the coming decades, sea level may rise up to four feet in the Puget Sound region, the ocean will become more acidic, and climatic conditions are likely to become warmer. This will result in more intense rain events during the wet season with longer, drier summers, though overall annual volume of rainfall will remain approximately the same.

Ocean acidification will likely impact aquatic species survival and assemblages in our marine areas and sea level rise will likely impact habitat and built *infrastructure* in our nearshore areas including homes, businesses, and public facilities such as roads and sewer facilities.

Wetter conditions during the wintertime will increase water availability, but may cause flooding or diminish water quality. More intense and frequent storms or heavier rainfall events can cause *stormwater* inundation and localized flooding, chronic flooding, non-infiltrated run-off, erosion and landslides. Increased intensity of rainfall may also diminish *aquifer recharge* rates as saturated soils are less able to absorb large amounts of water falling over short periods of time.

Warmer, drier conditions in the summertime will increase evaporation rates and water demand by plants, wildlife and people, and may diminish water quality. Dry conditions decrease water availability, resulting in reduced stream flow and diminished *aquifer recharge*. Warmer and drier conditions can also reduce water quality, both by increasing in-stream temperatures and by concentrating contaminants in smaller volumes of water.

WATER RESOURCES VISION

In the year 2036, Bainbridge Island's water resources (precipitation, on the surface, and in the ground) are climate resilient and demand and quantity are adequate for all forms of ~~life~~ flora and fauna on the Island. *Aquifers* are continuously monitored and maintained above the early warning level. The water quality for most of the consumed water is monitored to ensure quality fully meets the standards for drinking water.

Education on water conservation has resulted in a significant reduction in the average water consumption per *household*. The Bainbridge Island *groundwater* model is regularly updated with new data and results from model runs are used to maintain long-term *sustainability* of the Island's water resources. *Low impact development* techniques are applied to all *land uses* and redevelopment.

GOALS AND POLICIES

GENERAL WATER RESOURCES

GOAL WR-1

Manage the water resources of the Island in ways that restore, enhance, and preserve their ecological and hydrologic function.

- Degradation of water resources is not allowed.
- The long-term *sustainability* of the Island's water resources is maintained, taking into account future climatic conditions and their effects on the water cycle.
- New development and population growth are managed so that water resources remain adequate for the indefinite future.
- *Groundwater*, surface water, and *stormwater* monitoring, data assessment, and reporting are current and available including future projections of availability, quality and need.
- Use current and future technology to maintain and protect water resources.

Policy WR 1.1

Study future climate and demand scenarios to accurately understand future water resource conditions.

Policy WR 1.2

Groundwater, surface water, and *stormwater* are resources that *shall* be protected and managed to preserve water quality and quantity, and to retain natural ecological and hydrologic function to the maximum extent practicable.

Policy WR 1.3

To foster sustainable water resources, planning, protection, management, monitoring and on-going education and outreach *should* be provided by the City in coordination with government agencies at all levels, drinking water purveyors, *watershed* management groups, Tribes, non-profit organizations, local integrating organizations for regional recovery and protection, and other stakeholders.

Policy WR 1.4

Apply the policies in this element in tandem with the protective measures set by the City's Shoreline Management Master Program, *Critical areas* Ordinance, and other environmental or water resources management ordinance established by the City.

Policy WR 1.5

Identify the areas of the Island that are the most vulnerable to pollution from concentrations of fecal coliforms and nitrates (for example, from septic fields, agricultural activities, or fertilizers), and monitor those areas to determine if and when preventative or restorative measures are warranted.

GROUNDWATER PROTECTION AND MANAGEMENT

GOAL WR-2

Protect the quality and quantity of groundwater on the Island

Policy WR 2.1

Recognize that the entire Island functions as an *aquifer recharge area*. *Low impact development* techniques are essential for maintaining *aquifer recharge*.

Low impact uses and less intense development are appropriate for areas with high *aquifer recharge*. Low impact uses include development for buildings, roads or parking that has a reduced area of impact on the land. Low impact uses do not depend on regular applications of fertilizers or pesticides. *Low impact development* is an environmentally-friendly approach to site development and *stormwater* management, emphasizing the integration of site design and planning techniques that conserve and protect the natural systems and hydrologic functions of a site.

Policy WR 2.2

Identify and assess ~~A~~areas of high *aquifer recharge* ~~*should* be identified and assessed~~ as part of a *land use* application. Care ~~*should*~~ shall be taken to minimize the effect of development on these areas.

Policy WR 2.3

To promote efficient use of *groundwater* resources, encourage the expansion of public and private water systems, rather than encouraging *shall*ow or individual residential wells.

Policy WR 2.4
Assess the impacts of proposed activities and development on the flow of springs and *streams* and levels of *wetland*s that are either sustained by *groundwater* discharge or contribute *recharge* to *groundwater*, and require an assessment of anticipated hydrologic impacts. Activities or development may be restricted if the report indicates any adverse impacts.

Policy WR 2.5
In cooperation with the appropriate regulatory agencies (e.g., Washington State Department of Health and the Kitsap Public Health District) institute new wellhead protection procedures.

Policy WR 2.6
Encourage the use of integrated pest management techniques and the reduction of pesticide and herbicide use within the City boundaries.

Policy WR 2.7
Establish a stakeholder group to develop an Island-wide *groundwater* management plan.

Policy WR 2.8
Develop a program to strongly encourage exempt well owners to regularly monitor the quality of their well water and identify leaks using tools such as flow meters. Results *should* be self-reported to the Kitsap Public Health District.

Policy WR 2.9
Recognizing that the Island *aquifer* system is a Sole Source *Aquifer* as designated by EPA, institute an added level of development and re-development permit review to prevent or mitigate potential pollutant-generating activities associated with proposed *land use*.

Policy WR 2.10
Develop seawater intrusion prevention regulations.

Policy WR 2.11
Develop a water conservation program.

Policy WR 2.12
Encourage water re-use and reclamation ~~will be encouraged~~ to serve as a supplementary source for high-water users such as industry, parks, schools, and golf courses, as approved by the Washington State Department of Health.

Policy WR 2.13
Develop a program that encourages homeowners to explore innovative methods for recapturing and reusing surface water *runoff* and grey water, as approved by the Washington State Department of Health and the Kitsap Public Health District.

Policy WR 2.14

Maintain a comprehensive program of *groundwater* data gathering and analysis. The program *shall* include modeling, hydrogeologic and geologic studies, and monitoring of static water levels, water use, water quality, surface water flows, and acquisition of other data as necessary.

GOAL WR-3
Surface Water Protection and Management

Achieve no net loss of ecological functions and processes necessary to sustain *aquatic resources*[1] including loss that may result from cumulative impacts over time.

Over recent decades, awareness has grown of the importance of preserving and protecting *aquatic resources*. *Aquatic resources* have a number of important ecological functions, processes and values. These functions vary, but include providing water quality protection, flood plain control, shoreline stabilization, contributions to *groundwater* and stream flows and wildlife and fisheries habitat. *Aquatic resources* also have values as natural areas providing aesthetic, recreational and educational opportunities that *should* be preserved for future generations.

Policy WR 3.1

Development ~~*should*~~ shall not be approved in regulated aquatic *critical areas* or their associated water quality buffer unless the subject property is encumbered to such an extent that application of *development regulation*s would deny all reasonable use of property.

Policy WR 3.2

Require that vegetated buffers be maintained between proposed development and the aquatic resource in order to protect the functions and values of such systems. Degraded buffers *should* be restored to enhance their function. Allow reductions in vegetated buffers only in areas where such reductions, if consistently applied, would not result in significant cumulative impacts to *aquatic resources* and *fish and wildlife habitat*.

Policy WR 3.3

Require that buffers be retained in their natural condition wherever possible, while allowing for appropriate maintenance. Where buffer disturbance has occurred, require re-vegetation with appropriate species, with a preference for native species, to restore the buffers' protective values.

Vegetated buffers facilitate infiltration and maintenance of stable water temperatures, provide the biological functions of flood storage, water quality protection and *groundwater recharge*, reduce amount and velocity of run-off, and provide for wildlife habitat.

[1] *Aquatic resources* – Marine nearshore, *wetland*s, *streams*, lakes, creeks and associated vegetated areas.

Policy WR 3.4

Ensure that development activities are conducted so that *aquatic resources* and natural drainage systems are maintained and water quality is protected.

Policy WR 3.5

Prior to any clearing, grading, or construction on a site, all *wetland*s, *streams*, and buffer areas ~~*should*~~ shall be specifically identified and accurately located in the field in order to protect these areas during development.

Policy WR 3.6

Herbicides and pesticides *shall* not be used in aquatic resource areas, and buffers, and *should* be discouraged in the areas that drain into them.

Policy WR 3.7

Prohibit access to aquatic *critical areas* by *farm* animals. Agricultural activities within proximity of *aquatic resources should* complete a *farm* management plan addressing water quality and other natural resource protection.

Policy WR 3.8

Require mitigation to compensate for unavoidable impacts to aquatic *critical areas*. Mitigation *should* be designed to achieve no net loss in functions and processes of *aquatic resources*.

Policy WR 3.9

Promote *watershed*-based mitigation to meet federal regulations, improve mitigation success and better address the ecological demands of the island's *watershed*s.

Policy WR 3.10

Work with state and local health departments to evaluate the merits of new technologies such as greywater capture, package treatment plants and composting toilets, as alternatives to septic and sewer systems; and determine which of those systems *should* be allowed and/or encouraged to better protect the quality and capacity of the Island's surface water and nearshore environment.

Policy WR 3.11

Consider the impacts of *climate change*~~,~~ and ocean acidification, when developing regulations or approving capital projects related to *aquatic resources*, including marine nearshore, *wetland*s, *streams*, lakes, creeks, associated vegetated areas and *frequently flooded areas*.

Policy WR 3.12

Allow stream relocation only where relocation would result in improved stream habitat or when a property owner would otherwise be denied all reasonable use of the property.

Policy WR 3.13

Degraded channels and banks *should* be rehabilitated by various methods (e.g., culvert replacement, volunteer efforts, public programs or as offsetting mitigation for new development) to restore the natural function of the riparian habitat for fish and wildlife.

Policy WR 3.14

Resident and migratory fish *streams* and adjacent land *should* be preserved and enhanced to ensure a sustainable fishery.

Policy WR 3.15

Require the construction of public facilities to avoid encroachment into and disturbance~~s~~ of *aquatic resources*.

Policy WR 3.16

Maintain a comprehensive program of surface water inventory, data gathering and analysis. The program *shall* include monitoring and assessment of physical, chemical, and biological health of surface water ecosystems to include *streams*, ephemeral *streams*, lakes, *wetland*s, and marine waters. This may include water, flow, sediment, habitat, submerged aquatic vegetation, fish and shellfish tissue, aquatic species diversity and other ecosystem health indicators.

STORMWATER PROTECTION AND MANAGEMENT

GOAL WR-4

Rather than capture and carry stormwater away as a wastestream, protect it from pollutants and retain it on site to replenish *aquifers* and maintain *wetland* and summer stream flows, preserving or mimicking the natural water cycle to the maximum extent practicable.

Policy WR 4.1

Comply with all requirements of the City's National Pollutant Discharge Elimination System Phase II Municipal *Stormwater* Permit (NPDES Permit).

Policy WR 4.2

Continue to provide ongoing opportunities for the public to participate in the decision-making process involving the development, implementation and update of the City's *Stormwater* Management Program (SWMP) through advisory councils, public hearings, and *watershed* committees.

Policy WR 4.3

Continue to improve and maintain an education and outreach program designed to reduce or eliminate behaviors and practices that cause or contribute to adverse *stormwater* impacts and encourage the public to participate in stewardship activities.

Policy WR 4.4

Continue to identify and eliminate sources of pollutants to the City's *stormwater* drainage system through proactive field screening techniques such as effluent monitoring, system inspections and cleaning, and commercial and industrial business inspection, and through the enforcement of the City's Illicit Discharge Detection and Elimination ordinance.

Policy WR 4.5

Ensure development of, and adherence to, required public and private *stormwater* pollution prevention plans (SWPPPs) for public facilities, construction sites, and commercial and industrial *land use*. Encourage the use of such plans where not specifically required.

Policy WR 4.6

Ensure development of, and adherence to, erosion and sediment control plans on all construction and development sites of any size.

Policy WR 4.7

Develop and actively enforce a strong *Low impact development* (*LID*) ordinance to require any and all methods and practices for new development and redevelopment to the maximum extent practicable and reasonable. *LID* is a *stormwater* and *land use* management strategy that strives to mimic pre-disturbance hydrologic processes of infiltration, filtration, storage, evaporation, and transpiration by emphasizing conservation, use of on-site natural features, site planning, and distributed *stormwater* management practices that are integrated into a project design.

Policy WR 4.8

Prioritize *LID*-based retrofit of public and private *stormwater* drainage systems and built assets through the inventory, management and fiscal planning process.

Policy WR 4.9

Incentivize *LID* retrofit of current built environment.

Policy WR 4.10

Use *watershed* and basin plans as a means to reduce *stormwater* impacts and *non-point source pollution*.

Policy WR 4.11

Comply with all requirements specifically identified by the City's permit for any Total Maximum Daily Load (TMDL) in which the City is a stakeholder.

Policy WR 4.12

Conduct effectiveness monitoring and assessments to continue to adaptively manage *stormwater* to ensure optimal protection.

RESIDENTIAL ON-SITE SEWAGE SYSTEMS

GOAL WR-5

Ensure that sewage is collected, treated, and disposed of properly to prevent public health hazards and pollution of *groundwater*, Island surface water, and the waters of Puget Sound.

Policy WR 5.1

Regulations and procedures of the Washington State Department of Health and the Kitsap Public Health District apply to all on-site disposal systems. The City *shall* work with these agencies to assure regular inspection, maintenance and repair of all *sanitary sewer* and on-site systems located on the Island.

Policy WR 5.2

Request notification of all waivers or variances of Kitsap Public Health District requirements, such as modification of setbacks, vertical separation, minimum lot size, reserve drainfield, etc., prior to issuance and subsequent modifications by the Kitsap Public Health District of an approved Building Site Application.

Policy WR 5.3

Allow alternative systems, such as sand filters, aerobic treatment, composting toilets, and living-systems when approved by the Kitsap Public Health District.

Policy WR 5.4

Regulations *shall* require coordination between the on-site septic and *storm drain*age disposal systems designs to ensure the proper functioning of both systems.

Policy WR 5.5

Assist the Kitsap Public Health District in developing a program to require proper maintenance of all on-site waste disposal systems in order to reduce public health hazards and pollution. This program *shall* include periodic system inspection and pumping when necessary.

Policy WR 5.6

Work with the Kitsap Public Health District on a collaborative program to fund and pursue grants or low-cost loans for low and moderate-income *household*s to repair failed septic systems. Incentivize maintenance, repair and replacement of systems for any income level.

Policy WR 5.7

On-site waste disposal systems serving more than one *household should* be allowed only with assurance of proper design, operation, management and approval from the Kitsap Public Health District.

Policy WR 5.8

The City may provide the service of operation and maintenance management for approved large on-site *sanitary sewer* systems (LOSS) or community *sanitary sewer* systems in coordination with the Kitsap Public Health District.

Policy WR 5.9

The City *should* support the Kitsap Public Health District in maintaining and improving a public education program to foster proper construction, operation, and maintenance of on-site septic systems.

Policy WR 5.10

Support the Kitsap Public Health District in developing and maintaining an ongoing inventory of existing on-site disposal systems to provide needed information for future studies.

CONTAMINATED SITES

GOAL WR-6

Incorporate awareness of known contaminated sites such as former lumber treatment facilities, former fueling stations, and other pollutant-generating *land use* into all water resources management, *land use* planning, and *capital facility* management in order to remediate or clean-up sites as effectively as possible, while preventing further impacts to water resources.

Policy WR 6.1

Assemble and maintain an inventory of contaminated sites on the Island to track site location, contaminant(s) of concern, cleanup status, and potential to impact nearby surface or *groundwater*.

Policy WR 6.2

Collaborate with EPA, Washington State Department of Ecology, and the Kitsap Public Health District to address contaminated site assessment and cleanup efforts within the purview of those agencies to achieve remediation/cleanup as quickly as reasonably possible.

Policy WR 6.3

Consult the contaminated site inventory prior to property acquisition and weigh the cost/benefit of acquiring such a property.

Policy WR 6.4

Make every reasonable attempt to clean-up/remediate city-owned sites that are known to be or discovered to be contaminated.

Policy WR 6.5

Consult the contaminated site inventory as part of development or redevelopment site plan review and take potential impacts into consideration when making *land use* decisions.

Policy WR 6.6

Consult the contaminated site inventory as part of capital *infrastructure* construction or maintenance.

Policy WR 6.7

Consult the contaminated site inventory as part of emergency management preparedness and response.

PUBLIC EDUCATION AND OUTREACH

GOAL WR-7

The City, in concert with federal, state, and local governments; public water purveyors; watershed councils; non-profits; citizens; and other appropriate entities, will continue to improve and implement a comprehensive public education and outreach program to promote protection and management of all water resources.

Policy WR 7.1

Educate and inform the public about the purpose and importance of aquatic environments, their vulnerabilities, and observed status and trends in ecological health and function.

Policy WR 7.2

Educate and inform the public about expected *climate change* impacts and how these will affect the Island's water resources and their beneficial uses.

Policy WR 7.3

Educate the public about the characteristics of the *aquifer* system, the Island's dependency upon it, and its vulnerability to contamination (including seawater intrusion) and depletion.

Policy WR 7.4

Educate the public about EPA's Sole Source Aquifer Designation Program and what this designation means for the Island's *aquifer* system.

Policy WR 7.5

Educate the public about well head protection and the critical importance of restricted chemical use or storage within the protection area around wells.

Policy WR 7.6

Educate the public about critical *aquifer recharge areas* (or other special conservation areas) and the purpose they serve to the *aquifer* system.

Policy WR 7.7

Inform the public about how to report spills or illicit dumping of hazardous waste or other pollutants and how to access information about location and status of contaminated sites.

Policy WR 7.8

Inform the public about how to find information about their well and how to properly maintain it.

Policy WR 7.9

Educate, and provide technical assistance to the public on methods to identify wasted water indoors and outdoors and practices to conserve water such as native landscaping, xeriscaping, and water use reduction or reuse.

Policy WR 7.10

Provide "how to" or "dos and don'ts" resources for *streams*ide and shoreline landowners.

Policy WR 7.11

Provide information and guidance on water resources protection best management practices for commercial, industrial, residential, agricultural, and other *land use*s to prevent or reduce pollution. These practices include, but are not limited to, septic system maintenance; pet and livestock waste management; landscaping and gardening; *farm* plans; appropriate methods for use, storage and disposal of hazardous materials and other chemicals; on-site drainage system maintenance, and automotive care.

Policy WR 7.12

Provide and promote opportunities for citizen stewardship and involvement.

Policy WR 7.13

Provide *LID* technical guidance and workshops to businesses and contractors working on the Island.

WATER RESOURCES IMPLEMENTATION

To implement the goals and policies in this Element, the City must take a number of actions, including adopting or amending regulations, creating outreach and educational programs, and staffing or other budgetary decisions. Listed following each action are several of the comprehensive plans policies that support that action.

HIGH PRIORITY ACTIONS:

Action #1. Adopt aquifer conservation zoning regulations and innovative permit review processes designed to protect the Island's surface and ground waters.

Policy WR 1.4
Apply the policies in this Element in tandem with the protection measures set by the City's Shoreline Master Program, Critical Areas Ordinance, and any other environmental or water resources management ordinance adopted by the City.

Policy WR 2.1
Recognize that the entire Island functions as an *aquifer recharge area*. *Low impact development techniques* are essential for maintaining aquifer recharge.

Policy WR 2.9
Recognizing that the Island *aquifer* system is a Sole Source *Aquifer* as designated by EPA, institute an added level of development and re-development permit review to prevent or mitigate potential pollutant-generating activities associated with proposed *land use*.

Policy WR 4.7
Develop and actively enforce a strong Low Impact Development (LID) ordinance to require any and all methods and practices for new development and redevelopment to the maximum extent practicable and reasonable.

Policy LU 12.4
Protect aquifer recharge functions throughout the Island, all of which is an *aquifer recharge area*, through the application of *critical areas regulations,* Shoreline Master Program use regulations, *low impact development regulations*, and the *wellhead protection regulations* administered by the Kitsap Health District.

Policy LU 4.9
. . . The City will use a variety of conservation tools, including public acquisition of certain properties, regulatory protection of environmentally *critical areas*, and innovative *tools* such as aquifer conservation zoning and *conservation villages* to

minimize the development footprint within these Conservation Areas.

Action #2. Adopt an Island-wide Groundwater Management Plan.

Policy WR 2.7
Establish a stakeholder group to develop an Island-wide groundwater management plan.

Policy LU 2.3
This Plan recognizes that stewardship of the land is a responsibility of individual citizens and the community as a whole. Through its status as an employer and landowner, the City should take advantage of its opportunities to be an example of environmental stewardship so others will be encouraged to do so.

Policy LU 12.5
Establish appropriate procedures to monitor the effect of water drawdowns within and between aquifers, and adopt programs and regulations to preclude groundwater contamination, and to encourage water conservation and enhanced aquifer recharge.

Action #3. Apply *adaptive management* to assure that land use on the Island will continue to be adequately served by the available water resources.

Policy WR 3.16
Maintain a comprehensive program of surface water inventory, data gathering and analysis. The program *shall* include monitoring and assessment of physical, chemical, and biological health of surface water ecosystems to include *streams*, ephemeral *streams*, lakes, *wetland*s, and marine waters. This may include water, flow, sediment, habitat, submerged aquatic vegetation, fish and shellfish tissue, aquatic species diversity and other ecosystem health indicators.

Policy WR 4.12
Conduct effectiveness monitoring and assessments to continue to adaptively manage *stormwater* to ensure optimal protection.

Policy WR 6.1
Assemble and maintain an inventory of contaminated sites on the Island to track site location, contaminant(s) of concern, cleanup status, and potential to impact nearby surface or *groundwater*.

Policy LU 4.4
The *special planning area process* for each designated center shall be informed by surface water and aquifer data in the respective watersheds and appropriate revision made to limit permitted uses or require specific measures to protect the water resource.

MEDIUM PRIORITY ACTIONS:

Action #1. Launch a program of public education about how individual actions can help protect the quality and quantity of the Island's surface and groundwaters.

Policy WR 2.11
Develop a water conservation program.

Policy WR 2.13
Develop a program that encourages homeowners to explore innovative methods for recapturing and reusing surface water runoff and grey water, as approved by the Washington State Department of Health and the Kitsap Public Health District.

Policy WR 3.17
Support a community-wide program to educate Island residents about alternatives to using and disposing of herbicides, pesticides, and other household chemicals, to reduce impacts to marine shoreline areas, wetlands, streams, and other environmentally sensitive areas.

Policy WR 3.18
Promote and support volunteer or community-driven restoration projects.

Policy WR 7.12
Provide and promote opportunities for citizen stewardship and involvement.

Policy LU 2.2
A public education program should be established to foster the community's understanding of the natural systems on the Island and their carrying capacity.

OTHER PRIORITY ACTIONS:

Action #1. Work with other jurisdictions and the environmental and development communities to promote programs and projects to protect the Island's surface and ground waters.

Policy WR 2.5
The City, in cooperation with the appropriate regulatory agencies (e.g., Washington State Department of Health and the Kitsap Public Health District) will institute new wellhead protection measures.

Policy 3.10
Work with state and local health departments to evaluate the merits of new technologies such as greywater capture, package treatment plants and composting toilets, as alternatives to septic and sewer systems; and determine

which of those systems should be allowed and/or encouraged to better protect the quality and capacity of the Island's surface water and near-shore environment.

Policy LU 2.5

Work with EcoAdapt and others to prepare a Bainbridge Island Climate Change and Water Conservation Plan strategy.

EXISTING CONDITIONS & FUTURE NEEDS

The following outlines the present conditions and understanding of the water resources of the Island and the future needs for restoration, enhancement, and protection of these resources.

Groundwater

Groundwater is the sole source of drinking water for Island residents, *farms* and industry on Bainbridge Island. It is found in underground reservoirs called *aquifers*. An *aquifer* is defined as a *permeable* sand and/or gravel formation that is capable of yielding a significant amount of water to a well. Wells on Bainbridge Island penetrate several distinct *aquifers* to allow withdrawal of drinking water by individual homeowners and municipal water purveyors. Most individual *household* wells penetrate to depths of less than 300 feet.

Some residents are still using hand-dug wells less than 40 feet deep, completed in the *permeable* sediments known as the Vashon Recessional Outwash. *Groundwater* found at this level also feeds the base flow (summer flow) for Island *streams*. High capacity wells have been drilled as deep as 1,200 feet to find adequate marketable quantities of water for public and private water purveyors. While few in number, these wells produce a large portion of the Island's potable water. The Blakely Formation, a sedimentary bedrock formation, dominates the geology on the southern end of the Island and limits *groundwater* production in this area.

Our understanding of the Island's water resources has been enhanced through historical studies such as the *City of Bainbridge Island, Level II Assessment*[4] prepared by Kato & Warren and Robinson Noble in 2000 and monitoring and assessments completed in the last ten years by the City's *Groundwater* Management Program. This work includes the development, improvement, and utilization of a *groundwater* model; the development of a well monitoring network; and the implementation of long-term monitoring.

Bainbridge Island has six principal *aquifers* (Kato & Warren and Robinson & Noble, 2000), the extents of which were refined in the *Conceptual Model and Numerical Simulation of the Groundwater-Flow System of Bainbridge Island, Washington* (USGS, 2011). The six *aquifers* delineated below reflect updated understanding based on the United States Geological Survey (USGS) model. Additional details about the *aquifers*, including detailed maps and discussion regarding the extent, thickness, and other characteristics, can be found in the USGS report.

Perched *Aquifer* (PA)—This *aquifer* is comprised predominantly of Vashon Advance glacial outwash (Qva). The top of the *aquifer* ranges from sea level to more than 300 feet above mean sea level [ft MSL], with a thickness of 20 to 200 feet, and is utilized

predominantly by domestic wells. About 4 percent of wells are reported to be completed in this unit.

Semi-Perched *Aquifer* (SPA)—This semi-perched *aquifer* exists within *permeable* interbeds (QClpi) of the upper confining unit (QC1). The top of the *aquifer* ranges from sea level to more than 200 ft MSL, with a thickness of 10 to 50 feet. About 25 percent of wells are reported to be completed in this unit.

Sea Level *Aquifer* (SLA)—The Sea Level *aquifer* (QA1) is extensive, widely used, and mostly confined by QC1. The top of the *aquifer* ranges from -200 to 200 ft MSL, with a typical thickness of 25 to 200 feet. Fifty-three percent (53%) of wells are completed in the SLA.

Glaciomarine *Aquifer* (*GMA*)—This *aquifer* consists of water-bearing units within a thick sequence of fine-grained glaciomarine drift (QA2). The top of the *aquifer* ranges between more than -500 to -300 ft MSL, with a typical thickness of 20 to 300 feet. Several of the Bainbridge Island's production wells and at least 4 domestic wells are completed in this *aquifer*, representing about 2 percent of wells.

Fletcher Bay *Aquifer* (FBA)—The FBA (QA3) is the deepest identified *aquifer* on Bainbridge Island. Several large production wells are completed in this *aquifer* including the Fletcher Bay Well. The top of the *aquifer* ranges between more than -900 to slightly less than 600 ft MSL, with a typical thickness of 50 to 300 feet. While representing only about 1 percent of wells on Bainbridge Island, the metered KPUD and COBI FBA wells provide approximately 30 percent of the estimated total Island *groundwater* production.

Bedrock *Aquifer*—Less than 1 percent of the wells are completed in the sedimentary Blakely Harbor and Blakeley formations on the south end of Bainbridge Island.

Other wells on Bainbridge Island are either completed in water bearing zones within confining units or have an indeterminate *aquifer* completion zone.

COBI's monitoring well network is distributed across the six Bainbridge Island *aquifers* as follows: 16 in the Perched *Aquifer*, 7 in the Semi-Perched *Aquifer*, 32 in the Sea Level *Aquifer*, 5 in the Glaciomarine *Aquifer*, 9 in the Fletcher Bay *Aquifer*, and 1 in the Bedrock *Aquifer*. Aspect has updated the USGS *groundwater* model to include one new public supply well (KPUD North Bainbridge Well #10), for a total of 1,470 Group A and B public wells and exempt wells estimated to be active on Bainbridge Island.

Aquifer Concerns and Observed Conditions

There are two primary concerns in protecting an *aquifer* system. These are quality and quantity.

Water Quality

Seawater Intrusion

One of the most common *groundwater* quality concerns for Islands or other saltwater shorelines is saltwater intrusion, which is the movement of saltwater into a freshwater *aquifer*. Where the source of saltwater is marine water such as Puget Sound, this process is known as seawater intrusion. Seawater intrusion occurs when the saltwater/freshwater interface moves inland from offshore. Freshwater is less dense than saltwater and so freshwater will float above

saltwater. It is the pressure of the overlying freshwater that keeps the interface offshore. Excessive pumping or overuse of the overlying freshwater will pull the interface toward the shoreline and possibly inland.

Some of our *aquifers* such as the *shall*ow Perched and Semi-Perched *aquifers* are, generally, not in contact with saltwater and, therefore, generally not susceptible to seawater intrusion (an exception being where these *aquifers* are present near the shoreline).

The Sea Level *Aquifer* and our deeper *aquifers* can be susceptible. How susceptible can vary from *aquifer* to *aquifer* and, even within the same *aquifer*, depending upon local conditions.

In order to monitor for potential seawater intrusion, the most common practice is to measure chloride concentration and specific conductivity in *groundwater*. The City's *Groundwater* Management Program conducts annual chloride sampling in *aquifers* or wells susceptible to seawater intrusion. The established Early Warning Level, or EWL, is a chloride concentration >100 mg/L or any 4 consecutive samples showing an increasing trend. To date, no wells in the City's monitoring network (including Kitsap Public Utility District and the City's Water Utility wells) exceeded the EWL, and no trends in chloride results were noted.

Chloride concentrations typically varied between 2 mg/L and 15 mg/L. Results in 2013 and 2014 in the Fletcher Bay *Aquifer* indicate slightly elevated chloride above historic baseline concentration, but not upward trending results. However, these *should* be monitored for continued changes.

Additionally, the City's *groundwater* model was run by USGS in 2010 and updated, recalibrated and run again by Aspect Consulting in 2016 to examine the potential for seawater intrusion under different water production (e.g., growth) scenarios. Model projections indicated no seawater intrusion. It *should* be noted that the model is designed to observe regional scale conditions, but the scale is not fine enough to assess very localized conditions such as one or two wells along the shoreline. Therefore, it is important to continue to monitor in vulnerable areas to catch potentially developing local conditions.

One example is an elevated chloride level measured in one well in the Seabold area in 2006 prior to the development of the City's *Groundwater* Management Program. As there was no established program in place at the time, there was no immediate follow up sampling/study to confirm seawater intrusion rather than a source other than seawater intrusion. Other common sources of chloride in *groundwater* include connate, or very-old, *groundwater*, septic system effluent, very hard *groundwater*, windblown sea spray, and *recharge* from irrigation, agricultural practices, and well disinfection.

Chloride from any of these sources can result in elevated levels of chloride in an *aquifer* or well. Erroneously interpreting chloride concentration data without more detailed study may result in what is called a "false positive," where a test identifies a

problem that does not in fact exist. That is why follow up investigation using site-specific assessments, is necessary before seawater intrusion can be confirmed. The City, the Kitsap Public Health District, and the Kitsap Public Utility District have teamed up to scope a localized, focused study in the Seabold area for potential funding in 2017.

Nitrate

According to USGS research, nitrate is the most commonly found pollutant in *groundwater* nationwide, particularly in rural areas. Nitrate levels in drinking water above EPA's Maximum Contaminant Level (or MCL) of 10 mg/L can have serious health effects primarily for infants, but also pregnant women and individuals undergoing treatment with antioxidant medications. Nitrate converts to nitrite in the digestive track which causes a condition call methemoglobinemia which lowers the oxygen in the blood stream. In infants this is called "Blue Baby Syndrome." Brain damage, even death, can occur.

High nitrate levels in *groundwater* can also indicate the possibility that other contaminants may be present in the water such as bacteria or pesticides.

The typical sources of nitrate in *groundwater* include the application of fertilizers and pesticides, mostly from agricultural row crop farming, but commercial and *residential use* can be significant sources as well (such as lawns, parks, golf courses, ballfields, nurseries, and extensive gardens). Other sources include industrial processes and wastewaters, the land application of wastewater treatment plant sludge or biosolids, and on-site septic system returns.

Although the *Groundwater* Management Program does not, at present, routinely monitor nitrate in *groundwater*, the City's consultant examined nitrate data from the Kitsap Public Health District (KPHD) as part of the 2015-2016 assessment. Nitrate data were not found to exceed EPA's MCL of 10 mg/L. Nitrate data for Group A and B public wells and exempt wells did not indicate any trends. Data submitted to KPHD for exempt wells are typically single results and are insufficient to calculate any trends. However, the maximum result during the last 15 years (2000–2014) was 5.17 mg/L in 2007. There are no apparent trends over time or geographically across the island.

Other Water Quality Concerns

Generally, *groundwater* quality on the Island is very good. However, moderate levels of iron and manganese are naturally-occurring and common. Although neither of these minerals normally exceed EPA's standards for drinking water, they can influence odor and taste and stain fixtures. Many *public water system*s and some private systems use filtration devices to remove or reduce these minerals.

Sole Source *Aquifer* Designation

In 2013, the Bainbridge Island *Aquifer* System was designated a Sole Source *Aquifer*. Sole Source *Aquifer* Designation can apply to one *aquifer* or a system of multiple *aquifers* as is the case with Bainbridge Island.

The Sole Source *Aquifer* Designation Program is an EPA program authorized under the Safe Drinking Water Act of 1974. Section 1424(e) defines a sole source *aquifer* as "the sole or principal drinking water source for the area and which, if contaminated, would create a significant hazard to public health."

The EPA more specifically defines a sole or principal source *aquifer* as one which supplies at least 50 percent of the drinking water consumed in the area overlying the *aquifer*, and that these areas have no alternative drinking water source(s) which could physically, legally, and economically supply all those who depend upon the *aquifer* for drinking water.

The program and designation are specifically designed to protect the quality of drinking water by helping to prevent contamination of the *aquifer* system. It provides this protection by raising the level of awareness of the vulnerability of the *aquifer* system to contamination and our dependence upon the system as a drinking water supply.

Further, it requires additional EPA scrutiny of federally-funded projects. EPA inspects proposed projects for potential to contaminate the underlying *aquifer*, and, where appropriate, requires modifications and mitigations to prevent contamination.

However, this additional scrutiny applies to federally-funded projects only, and some projects such as highways and agriculture may be exempt if they meet criteria laid out in pre-established memorandums of understanding between the EPA, the Department of Transportation, the Department of Agriculture, or other agencies.

Water Quantity

Water Levels

The City's *Groundwater* Management Program currently monitors water levels in public and domestic wells Island-wide and in all six *aquifers*. Water level is an indicator for water quantity, and water level data are assessed against the program's early warning level, or EWL, for safe yield. The EWL for safe yield is a declining water level equal to or greater than ½ foot or more per year over a 10-year period that cannot be attributed to below average rainfall.

Individual well levels were reviewed for trends and compared against the EWL for safe yield. All wells were found to be below the EWL. Water levels in the *aquifers* did not indicate any *aquifer*-wide trends, and only two individual wells were noted for further review.

An exempt well (25N/02E-21P03) in the Sea Level *Aquifer* showed an apparent average decline of approximately 0.56 feet/year over the 8-year period of record.

However, further review of the water level measurement method history showed that it

changed twice over the period of record from a steel tape to a sonic water level meter and, then, back to steel tape. The results collected via sonic water level meter appeared to be inconsistent compared to the results before and after using the steel tape, a more rudimentary but more reliable measurement method. Therefore, the sonic level readings were removed from the analysis. Once removed, the remaining data were below the EWL. Water-use data were not available for the well. However, the well owner indicated to COBI that no known change in water use occurred over the period of record. Continued long-term monitoring of this well using the steel tape method, as planned by COBI, will determine if there is a significant trend in water level decline over time.

Group A system well 'Island Utility Well #1' (25N/02E-34F07) in the Fletcher Bay *Aquifer* has shown an average decline of approximately 0.49 feet/year from 2004-2014. Although this does not yet exceed the EWL, it is very close to approaching it. Therefore, further monitoring and assessment are warranted. The well is situated next to two other Fletcher Bay *Aquifer* production wells (Island Utility Well #2, Island Utility Well #4) within the same water system. Production data have not been available for these wells, which makes it unclear if declines are related to changes in water use over the period. This system has just transitioned to operation by KPUD in mid-2015, and they are now reviewing available information to understand the current conditions within that water system.

Additional data review will continue as the system *infrastructure* is updated to see if additional water use, system loss, or some other factor contributed to the historical decline. No other Fletcher Bay *Aquifer* wells monitored exhibited a similar declining trend, so it appears that this issue is specific to this well and not an *aquifer*-wide concern.

Aquifer* System *Carrying Capacity

The City, as a community, has yet to fully-define or characterize a sustainable *aquifer* system. Some initial characteristics are keeping the saltwater/freshwater interface offshore and saltwater out of the freshwater supply, and maintaining a balanced water budget for the *aquifer* system in order to prevent depletion.

To help provide some baseline information about these initial characteristics and expected impacts to the system due to *climate change*, Aspect Consulting conducted a system *carrying capacity* model assessment. The *aquifer* system *carrying capacity* assessment was based on those safe-yield indicators with EWLs described above using *aquifer* water levels and chloride concentration. The on-Island *groundwater* balance for the entire *aquifer* system (water budget) was also evaluated. The *groundwater* balance components do not have EWLs, but were evaluated to provide additional context on the predicted changes in *groundwater* conditions.

Water Level Changes: The following rates of *groundwater* level change were based on comparing current and predicted *groundwater* levels in 100 years:

- The Perched *Aquifer* system showed an average 0.10 foot per year of water level decrease at 25 locations simulated across the Island;

- The Semi-Perched *Aquifer* system showed an average 0.13 foot per year of water level decrease at 12 locations simulated across the Island;
- The Sea Level *Aquifer* system showed an average 0.09 foot per year of water level decrease at 49 locations simulated across the Island;
- The Glaciomarine *Aquifer* showed an average 0.02 foot per year of water level decrease at 6 locations simulated across the Island; and
- The Fletcher Bay *Aquifer* showed an average 0.15 foot per year of water level decrease at 9 locations simulated across the Island.

The predicted *groundwater* level changes over a 100-year timeframe were less than the COBI EWLs.

Saltwater/freshwater Interface: The predictive model results indicated that, despite these slow declines, *groundwater* from the Bainbridge Island *aquifer* system flows to Puget Sound and keeps the freshwater/seawater interface at a distance from the Bainbridge Island shoreline. All wells within the Bainbridge Island shoreline maintained chloride concentrations less than 100 mg/L, and no trend in concentrations was observed based on predictive model results.

Water Budget: Though the predicted *groundwater* level declines did not appear to induce seawater intrusion, they can have impacts on other components in the system such as discharge to *streams* to help maintain summertime flows. Therefore, it is important to examine the components of the system's water budget.

Similar to a financial budget, a water budget represents a balance of inputs and outputs. If one component goes up or down, some other component(s) must go up or down to compensate. *Groundwater* balance components are typically difficult to measure directly (such as *recharge* and *groundwater* underflow). Thus, this *groundwater* balance assessment relies on modeling results without actual field measurements.

Based on the 2011 USGS Report, the relationship between *groundwater* balance inputs and outputs for the Bainbridge Island *aquifer* system is shown in the following equation:

$$R_{ppt} = W_{ppg} + D_{sw} + (GW_{ps} - GW_{kp})$$

Where:

Inputs include:

R_{ppt} is precipitation *recharge*.

Outputs include:

W_{ppg} is *groundwater* withdrawals;
D_{sw} is *groundwater* drainage to surface water (such as seeps to bluffs, creeks, *streams*, etc.); and
(GW_{ps} - GW_{kp}) is the net lateral *groundwater* underflow (*groundwater* flow toward Puget Sound submarine seeps (GW_{ps}) and *groundwater* flowing from the Kitsap peninsula in deeper *aquifers* (GW_{kp})).

To balance the modelled 50-percent increase in *groundwater* withdrawals and the 20-percent decrease in *recharge* due to *climate change*, the model showed projected changes in *groundwater* drainage to surface water (approximately 40-percent decrease) and lateral *groundwater* flow (approximately 24-percent decrease). Figure 6, excerpted from Aspect's technical memorandum (*Bainbridge Island Groundwater Model: Aquifer System Carrying capacity Assessment (Task 3 Scenario*), 2016) compares the water balance components under current and projected conditions, based on model results.

The Bainbridge Island *groundwater* model results showed *aquifer* storage will be reduced by approximately 11,000 million gallons between current and projected conditions, reflecting the water level decreases described above. These *groundwater* balance results *should* be carefully interpreted, considering that the limited grid resolution may not be sufficient to accurately simulate *groundwater* discharge to surface water, and that the model has not been calibrated to observed flows.

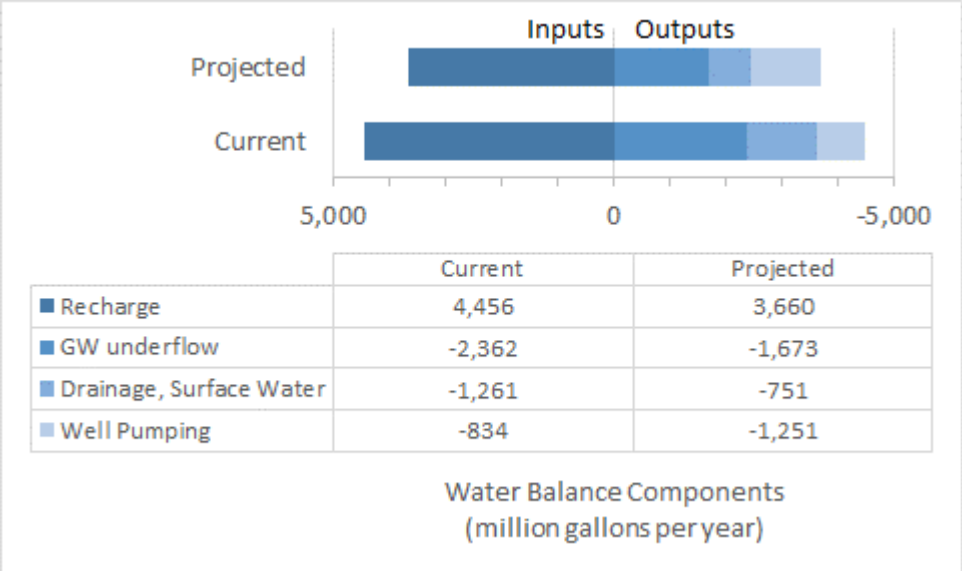


Figure 2. Current and Projected *Groundwater* Balance Components.

As shown in Fig. 2, well pumping (also called production) is the amount of water taken out of the system through wells (water use). The 50% increase in this component represents the expected increase in water use due to population growth.

Drainage to surface water is *groundwater* contribution to surface water features such as *wetland*s, lakes, and *streams*. The 40% reduction shown here may have an impact on maintaining summer baseflows and water temperatures. It is cautioned that the model as it is currently constructed is not specifically designed to provide an estimate as to how much stream flow will be impacted, but it could be modified to answer specific questions around this topic in future model runs.

Groundwater underflow is the amount of *groundwater* that seeps or discharges into Puget Sound at the shoreline. This value is influenced by the water levels in the

aquifers, and the reduction shown here represents the impact from project water level decreases. The key importance to this component is that there has to be enough underflow to provide the pressure to keep the saltwater/freshwater interface offshore and prevent seawater intrusion.

Recharge is the portion of precipitation or rainfall that infiltrates the ground and reaches the *aquifer*. The estimated 20% reduction shown in the water balance accounts for *climate change* impacts.

The amount of *groundwater* underflow and discharge to *streams* is driven by the geological makeup of the *aquifer* system. Therefore, we have no direct ability to control these budget components. Rather it is the components of well pumping and *recharge* that we have more ability to directly control. We can reduce well pumping by reducing our water use through aggressive water conservation measures.

Though we cannot control precipitation patterns, we can take measures to enhance *recharge* through creative water capture and return measures (from the rain barrel scale to large scale *infrastructure*) and through protective *land use* measures such as *low impact development* and protection of *aquifer recharge areas* and other *aquifer* conservation areas.

Aquifer Recharge Areas

Understanding the Island's *aquifer recharge* system is important for both *groundwater* quantity and quality. The identification and protection of high *aquifer recharge areas* is important both from the standpoint of *groundwater* quantity and quality. *Aquifer recharge areas* have geologic and soil conditions which allow high rates of surface water infiltration, which also means they are particularly susceptible to contamination. Increasing *impervious surface*s through development reduces the amount of *recharge* available to the Island's *aquifers*. At the same time, *runoff* from *impervious surface*s in developed areas contains increased contaminants. Efforts to protect and preserve the Island's natural water supply are warranted, as the resources that would be required to clean up after contamination or to secure a new source would be prohibitive.

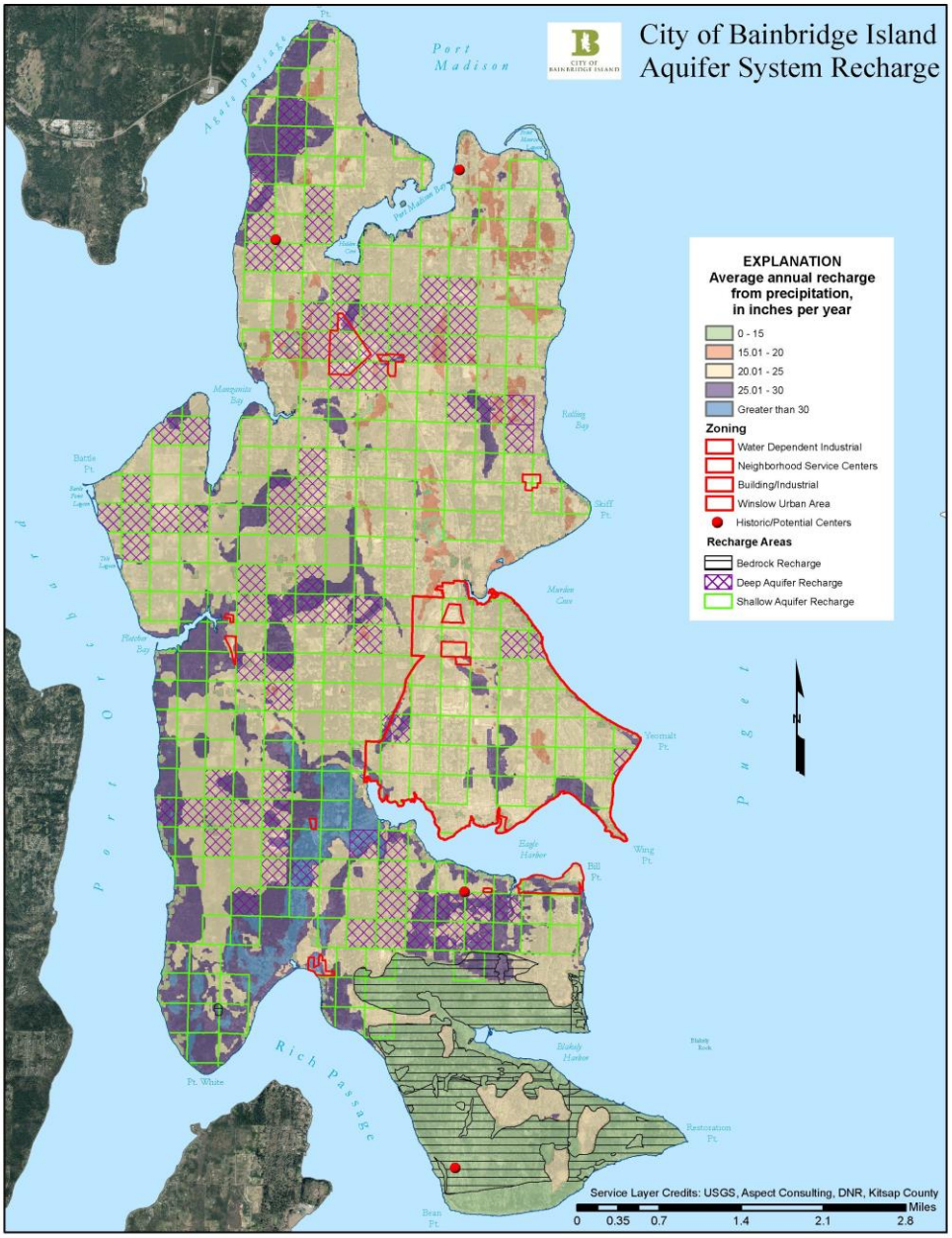
Where development overlays *aquifer recharge areas*, special considerations need to be made to preserve the volume of *recharge* available to the *aquifer* and to protect the *groundwater* from contaminates such as nitrates, biocides and heavy metals found in septic systems and *stormwater runoff*. The most extensively used *aquifer* underlies 85% of the Island and occurs under all zoning classifications.

To help the City assess *recharge* areas for special protection or designation, the model was run to determine *recharge* areas on the Island.

The Bainbridge Island model results indicate that areas across much of the Bainbridge Island area may have a critical recharging effect on *aquifers* that are sources of drinking water. Primary findings include:

- Wells in *shallow aquifers* (including the Sea Level *Aquifer* and above) may withdraw water that originates as *recharge* relatively close to the well head and is younger than 100 years old. See figure below which shows the *recharge* areas for *shallow aquifers* (green squares).

Fig. 3 – Aquifer System Recharge



- Not all *groundwater* on Bainbridge Island comes from *recharge* on Bainbridge Island. Model results indicate several wells tapping the deeper *aquifers* withdraw water that originates as *recharge* from areas on the Kitsap Peninsula and is greater than 1,000 years old.

- Wells in deep *aquifers* (including the Glacio-Marine *Aquifer* and the Fletcher Bay *Aquifer*) may withdraw water that originates as *recharge* relatively distant from the

wellhead and is greater than 100 years old. See Figure 3 above that shows the *recharge* areas for deep *aquifers* (cross-hatched area).

Wells in bedrock were not simulated in the Bainbridge Island model as the method of water particle tracking was not appropriate for fractured bedrock. However, the bedrock is also considered a CARA, because water supply wells have been installed at various depths in bedrock, and potable water supply is from *recharge*. Bedrock *recharge* area is shown at hatched area.

Surface Water

The surface waters of Bainbridge Island provide aesthetic, recreational, economic, and ecological benefits to Island citizens. Boating, fishing, and shellfish harvest are important recreational and economic activities, and the Island's *streams*, lake, harbors, shorelines, and *wetland*s provide habitat for a diversity of fish and wildlife species.

The harbors and numerous coves around the Island host anchorage, moorage, marinas, boat launches, waterfront access, and swimming beaches. Eagle Harbor, specifically, hosts marinas which provide permanent moorage for live-aboards and an open water mooring and anchoring area for the Island's live-aboard community.

In addition to providing forage and habitat for salmon, otter, sea lions, and waterfowl and swimming, boating, and fishing areas for people, the majority of the Island's shorelines and adjacent nearshore areas are designated commercial shellfish growing and harvest areas. Many shoreline residents recreationally harvest shellfish such as clam and geoduck as well.

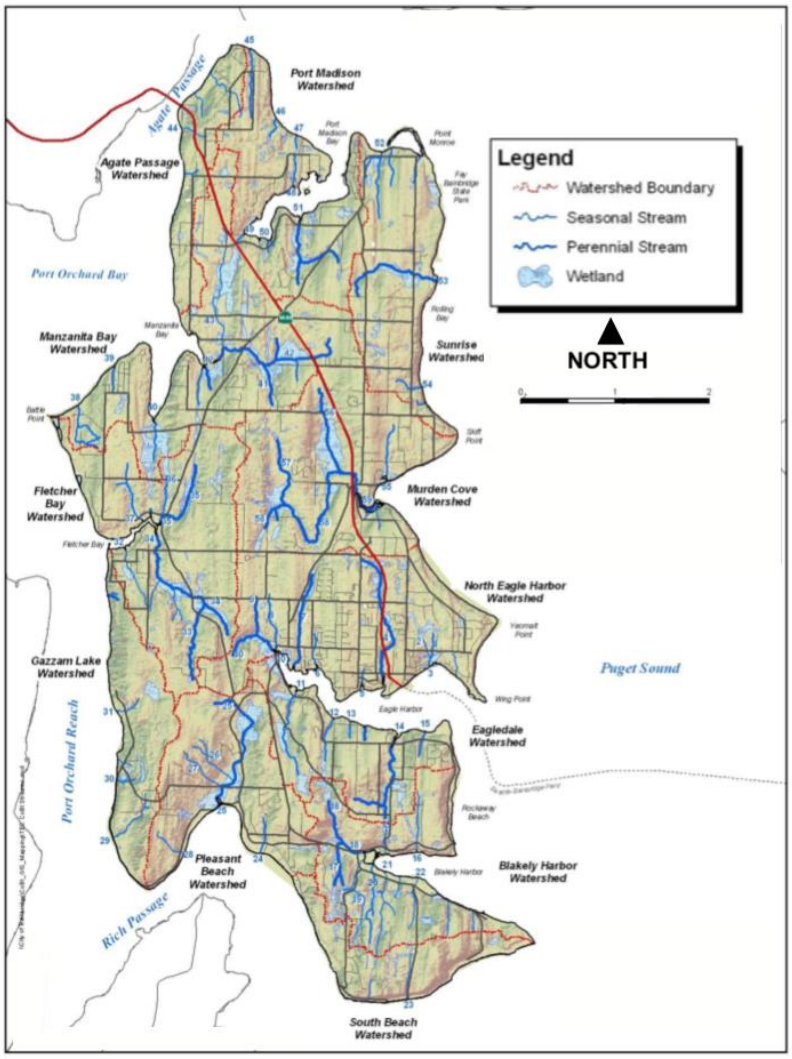
Watersheds

Surface water flows from high geographic points to lower elevations collecting in *streams* and *wetland* systems within the *watershed*s of the Island. *Watershed* boundaries are determined by Island topography where ridgelines define the boundaries.

Bainbridge Island contains twelve distinct *watershed*s with 59 seasonal and perennial *streams* that contribute fresh water to Puget Sound (see Figure 4 excerpted from the Water Quality and Flow Monitoring Program Final Monitoring Plan, 2008). Five harbors, twelve estuarine *wetland*s, one lake, 1,242 acres of *wetland*, 965 acres of tidelands (between mean high and mean low tide), and 53 miles of shoreline comprise the remainder of the surface water system.

Each surface water feature serves a critical function in preserving hydrologic connectivity within the *watershed*. Recent research is finding that even those features that are seasonal such as ephemeral or intermittent *streams* and seasonally-flooded *wetland*s are critical faunal and floral habitat providers, biogeochemical processors, and connectivity corridors.

Fig. 4 – Watershed and Stream names



Stormwater

Stormwater is generated when the ground becomes saturated and rainwater drains overland to the nearest surface water body or rainfall encounters hard or *impervious surface*s and drains into manmade drainage ditches, catch basins, and pipes.

There is no question that *stormwater runoff* is the leading transport pathway of pollution into Puget Sound and its associated *wetland*s, creeks, *streams* and rivers. Not only does it carry pollutants such as trash; gas, oil, and metal-laden sediment from road surfaces and parking lots; pesticides, fertilizers, and other chemicals used in lawn care; pet waste and animal waste in agricultural areas, but the volume of *stormwater* generated by *impervious surface*s has tremendous force and can cause erosion and damage to in-stream and *wetland* habitat.

Peak flows that follow immediately after a storm can be much greater than existed when the land was in a natural state with vegetative cover, causing *streams* to expand and overflow and creating flooding conditions on adjacent lands.

Therefore, *stormwater* has long been considered, at best, a nuisance and flooding hazard to be collected and delivered downstream as quickly and efficiently as possible and, at worst, a waste stream to be collected and removed from the *watershed*. Existing land development methods and *stormwater* drainage system *infrastructure* are designed to do just that.

However, as early as the year 2000, water-starved areas of the country started to view *stormwater* as a vital resource rather than a waste stream, first by limiting its generation by reducing *impervious surface*; then, retaining and infiltrating it on site where feasible; and, lastly, protecting it from pollution, capturing it, and reusing it to the maximum extent possible. On June 16, 2015, the California State Water Resources Control Board adopted an order that provides a framework to promote integrated *stormwater* capture and reuse to improve water quality, protect local beaches, and supplement water supplies. The new [*stormwater* discharge] permit focuses on using *stormwater* as a resource and encourages *green infrastructure* and *groundwater recharge* (*Stormwater Report, Water Environment Federation, June 2015*).

The Pacific Northwest is not considered water-starved and local conditions are not nearly so dire as in California. However, *climate change* predictions suggest that local water supplies likely will see some reduction in *recharge*; rainfall patterns will further tax existing, ailing, and undersized drainage *infrastructure* and possibly diminish summertime stream flows and water quality; and warming temperatures will increase summertime stream temperatures. Therefore, local municipalities are, also, rethinking their view of *stormwater* and many have already started evaluating and planning for *climate change*, especially in *stormwater* drainage system maintenance and retrofit. In 2009, Kitsap County adopted resolution 109-2009, *Creating Kitsap County "Water as a Resource" Policy*, in which the county resolved to treat all of its waters, including *stormwater*, as a vital resource, incorporating *low impact development* and water capture and reuse into all of its *land use* and utility management planning.

Observed Surface and Stormwater Conditions

Department of Ecology Surface Water Quality Assessment

Every two years the State Department of Ecology (Ecology) identifies polluted water bodies and submits a list of impaired water bodies, called a 303(d) list, to the Environmental Protection Agency (EPA) for approval in accordance with the federal Clean Water Act. This assessment is based on the assumption that each water body *should* support certain designated uses. Some of these uses are swimming and boating, fish and shellfish rearing and harvest, and wildlife habitat.

Ecology designates water bodies that frequently or consistently fail to meet standards or criteria as *Impaired*. Water bodies that only infrequently fail to meet standards are classified as *Waters of Concern* or *Sediments of Concern* if the sampled matrix was

sediment. These assessments use water, fish/shellfish tissue, habitat, and sediment data.

Ecology's *2012 Water Quality Assessment* determined that one stream, one harbor, two coves, one lagoon, and three Island-adjacent nearshore marine areas on Bainbridge Island were *Impaired* by one or more pollutants and were not able to provide the full recreational, habitat, and aesthetic benefits they once offered. An additional one bay, one harbor, and 28 other Island-adjacent nearshore marine areas were identified as *Waters of Concern* and/or *Sediments of Concern* for periodic excursions beyond the allowable standard or criteria for one or more pollutants.

Ecology's proposed *2014 Water Quality Assessment* (under review by the EPA at the time of this printing), designated an additional two *streams* as *Impaired* by at least one pollutant. Tables 2-5 on the following pages detail those water bodies classified as *Impaired* or *of Concern* according to the analyzed matrix (water, tissue, habitat, and sediment, respectively).

It *should* be noted that much of the sediment data were collected prior to 2003, some as early as the 1990's. These may not be representative of current conditions. Further, many of the identified pollutants are legacy pollutants resulting from historic *land use* such as large-scale, row-crop *farm*ing and the active lumber industry at the turn of twentieth century. The City's sediment sampling data collected in 2008 and 2013 may be more representative of current inputs to these water bodies. These data are summarized in the next section, *City Surface Water Quality Assessment*.

One example of legacy pollution is the former Wyckoff Creosote Facility located at the mouth of Eagle Harbor. Sites where sediments are contaminated by hazardous waste are regulated and managed through the Model Toxics Control Act (MTCA). Sites such as the former Wyckoff Creosote Facility, due to the complexity and size, are normally addressed through EPA's Superfund program.

However, water bodies listed on the 303(d) list require TMDLs (Total Maximum Daily Loads) where identified sources of the pollutant of concern are allocated a pollutant load reduction in order for that water body to meet criteria. Currently, the City is a stakeholder in the *Sinclair and Dyes Inlets Fecal Coliform Bacteria Total Maximum Daily Load (TMDL)*. Four of the Island's *watershed*s are captured within the TMDL drainage basin boundaries (Fletcher Bay, Gazzam Lake, Pleasant Beach, and South Beach *Watershed*s).

Fig. 5 – Four tables from the Ecology Approved 2012 Water Quality Assessment

Table 2. Ecology Approved 2012 and Proposed 2014 Water Quality Assessment - Water

Waterbody	Parameter or Pollutant	2012	2014 (Proposed)
Eagle Harbor (Middle)	Bacteria	Impaired	Impaired
	Copper	Waters of Concern	Waters of Concern
Eagle Harbor (Inner)	Dissolved Oxygen	Waters of Concern	Waters of Concern
	Temperature		
Agate Passage - Bridge	Dissolved Oxygen	Waters of Concern	Waters of Concern
Agate Passage - Agate Point	Dissolved Oxygen	Waters of Concern	Waters of Concern
	Temperature		
Rich Passage - Pleasant Beach Cove/Pleasant Beach	Bacteria	Impaired	Impaired
	Dissolved Oxygen		
	pH	Waters of Concern	Waters of Concern
Rich Passage - Point White	Dissolved Oxygen	Waters of Concern	Waters of Concern
Rich Passage - Fort Ward	Bacteria	Waters of Concern	Waters of Concern
	Dissolved Oxygen		
	pH		
Port Orchard Passage - Lower Crystal Springs	Dissolved Oxygen	Impaired	Impaired
	Bacteria		
	Temperature	Waters of Concern	Waters of Concern
Port Orchard Passage - Upper Crystal Springs	Bacteria	Waters of Concern	Waters of Concern
Port Orchard Passage - Fletcher Bay	Bacteria	Waters of Concern	Waters of Concern
Port Orchard Passage - Battle Point	Bacteria	Waters of Concern	Waters of Concern
Port Orchard Passage - South of Rolston	Bacteria	Waters of Concern	Waters of Concern
Puget Sound (Central) - Blakely Harbor (Mouth)	Bacteria	Waters of Concern	Waters of Concern
Puget Sound (Central) - Blakely Harbor (Middle)	Bacteria	Waters of Concern	Waters of Concern
Puget Sound (Central) - Blakely Harbor (Inner)	Bacteria	Waters of Concern	Waters of Concern
Puget Sound (Central) - Murden Cove	Bacteria	Impaired	Impaired
Puget Sound (Central) - Rolling Bay	Bacteria	Waters of Concern	Waters of Concern
Port Madison Bay - Point Monroe	Bacteria	Waters of Concern	Waters of Concern
Port Madison Bay - Mouth	Bacteria	Waters of Concern	Waters of Concern
Springbrook Creek	Bacteria	Impaired	Impaired
Ravine Creek	Bacteria	---	Impaired
Murden Creek	Bacteria	---	Impaired

Table 3. Ecology Approved 2012 and Proposed 2014 Water Quality Assessment - Tissue

Waterbody	Parameter or Pollutant	2012	2014 (Proposed)
Eagle Harbor (Outer)	Benzo(a)pyrene	Impaired	Impaired
	Benzo(a)anthracene		
	Benzo[b]fluoranthene		
	Benzo[k]fluoranthene		
	Chrysene		
	Dibenzo[a,h]anthracene		
	Indeno(1,2,3-cd)pyrene		
	PCB		
Puget Sound (Central) - Rockaway	Chrysene	Impaired	Impaired

Table 4. Ecology Approved 2012 and Proposed 2014 Water Quality Assessment - Habitat

Waterbody	Parameter or Pollutant	2012	2014 (Proposed)
Puget Sound (Central) - Murden Cove	Habitat	Impaired	Impaired
Port Madison - Point Monroe Lagoon	Habitat	Impaired	Impaired

Table 5. Ecology Approved 2012 and Proposed 2014 Water Quality Assessment - Sediment

Waterbody	Parameter or Pollutant	2012	2014 (Proposed)
Eagle Harbor (Outer)	1,2,4-Trichlorobenzene	Impaired	Impaired
	1,2-Dichlorobenzene		
	1,4-Dichlorobenzene		
	2,4-Dimethylphenol		
	2-Methylnaphthalene		
	2-Methylphenol		
	4-Methylphenol		
	Acenaphthene		
	Acenaphthylene		
	Anthracene		
	Arsenic		
	Benzo(a)anthracene		
	Benzo(a)pyrene		
	Benzo(g,h,i)perylene		
	Benzofluoranthenes (b+k+j), Total		
	Benzoic Acid		
	Benzyl Alcohol		
	Bis (2-Ethylhexyl) Phthalate		
	Bioassay		
	Butyl Benzl Phthalate		
	Cadmium		
	Chromium		
	Chrysene		
	Copper		
	Dibenzo(a,h)anthracene		
	Dibenzofuran		
	Diethyl Phthalate		
	Dimethyl Phthalate		
	Di-n-butyl Phthalate		
	Di-n-octyl Phthalate		
	Fluoranthene		
	Fluorene		
	Hexachlorobenzene		
	Hexachlorobutadiene		
	HPAH		
	Indeno(1,2,3-c,d) Pyrene		
	Lead		
	LPAH		
	Mercury		
	Naphthalene		
	N-Nitrosodiphenylamine		
	PCB		
	Pentachlorophenol		
	Phenanthrene		
	Phenol		
	Pyrene		
	Silver		
	Zinc		
Rich Passage - Pleasant Beach	Benzoic Acid	Sediments of Concern	Sediments of Concern
Rich Passage - Pleasant Beach Cove	Benzoic Acid	Sediments of Concern	Sediments of Concern
Port Orchard Passage - Upper Crystal Springs	Benzoic Acid	Sediments of Concern	Sediments of Concern
Port Orchard Passage - South of Rolston	1,2,4-Trichlorobenzene	Sediments of Concern	Sediments of Concern
	1,2-Dichlorobenzene		
	Benzyl Alcohol		
Port Orchard Passage - Manzanita Bay	1,2,4-Trichlorobenzene	Sediments of Concern	Sediments of Concern
	1,2-Dichlorobenzene		
Puget Sound (Central) - Wing Point	1,2-Dichlorobenzene	Sediments of Concern	Sediments of Concern
	1,2,4-Trichlorobenzene		
	1,4-Dichlorobenzene		
	2,4-Dimethylphenol		
	Hexachlorobenzene		
	Pentachlorophenol		
Puget Sound (Central) - Rockaway	1,2-Dichlorobenzene	Sediments of Concern	Sediments of Concern
	1,2,4-Trichlorobenzene		
	1,4-Dichlorobenzene		
	2,4-Dimethylphenol		
	Hexachlorobenzene		
	Hexachlorobutadiene		
	Naphthalene		
	N-Nitrosodiphenylamine		
Puget Sound (Central) - Blakely Harbor (Middle)	1,2-Dichlorobenzene	Sediments of Concern	Sediments of Concern
	1,2,4-Trichlorobenzene		
	1,4-Dichlorobenzene		
	2,4-Dimethylphenol		
	Dibenzo(a,h) anthracene		
	Hexachlorobenzene		
	Hexachlorobutadiene		
	N-Nitrosodiphenylamine		
	Pentachlorophenol		

Commercial Shellfish Growing Area and Recreational Harvest Area Assessment

Department of Health (DOH) routine bacterial and biotoxin assessments of recreational shellfish harvest areas and commercial shellfish growing and harvest areas demonstrate a significant loss of designated uses. The entire east, north, and west shorelines are closed to recreational butter and varnish clam harvest, and the southern shoreline is closed to recreational varnish clam harvest. Only one small area around Point White is open to recreational harvest.

Most commercial shellfish growing area around the Island is open to harvest. However, two segments of commercial shellfish growing areas along Agate Passage and Crystal Springs are currently closed due to bacterial contamination in shoreline drainages to include private drains, *stormwater* outfalls, and *streams*. Point Monroe Lagoon is restricted for commercial harvest, requiring that shellfish be transplanted to approved growing area waters for a specified amount of time in order to naturally cleanse themselves of contaminates before they are harvested for market. Commercial Geoduck Tract 07850 at Restoration Point was closed four times in 2012-2013 for biotoxin. Commercial Geoduck Tract 07000 at the mouth of Manzanita Bay has been closed 14 times in the last five years for biotoxin, and is currently closed at the time of this printing.

In addition to annual commercial growing area reports, DOH publishes an annual threatened areas report to bring attention to monitoring sites where bacteria concentrations are close to exceeding the criteria. The 2015 report (based upon 2014 data) identified one monitoring site (#457) immediate outside of the north side of the mouth of Fletcher Bay as a threatened site and one site (#418) along the southern shore of Blakely Harbor as a site of concern.

Swimming Beach Assessment

The Departments of Ecology and Health's BEACH Program conducts swimming beach monitoring for bacteria during the swimming season (Memorial Day through Labor Day). Typically, bacteria levels in marine waters tends to be fairly low in the summertime. In fact, most beach closures on the Island have been associated with *sanitary sewer* spills such as the Kitsap Sewer District #7 Fort Ward spill in 2012, and the City's sewer main breaks along the north side of Eagle Harbor in 2014.

In 2015, three of the Island's swimming beaches (Fay Bainbridge Park, Joel Pritchard Park, and Eagle Harbor Waterfront Park) were monitored. Bacterial concentrations in 2015 were acceptable, and there were no beach closures in 2015.

City Surface Water Quality Assessment

In 2007, the City received a Centennial Clean Water Fund Grant from Ecology to design and implement a long-term monitoring program to assess the ecological

health of the Island's freshwater (*streams* and lakes), marine water (harbors, bays, and nearshore areas), and *stormwater* discharge.

The Water Quality and Flow Monitoring Program (WQFMP) was pilot-tested in 2007-2008 and expanded to Island wide long-term status and trends monitoring in 2010. The program currently conducts routine monitoring for stream and *stormwater* chemistry, stream and nearshore sediment chemistry, rainfall, stream and *stormwater* flow, and stream biodiversity (benthic macroinvertebrates). Every five years, the program also conducts targeted storm event monitoring to assess *stormwater runoff* impacts in *streams* and nearshore marine waters.

Although the program's Final Monitoring Plan is comprehensive, staffing and funding are limited. Current monitoring gaps are *stormwater* best management practice effectiveness monitoring, lake monitoring, marine biological assessments (fish, aquatic macrophytes, phytoplankton, and benthic invertebrates), routine marine water chemistry, and freshwater and marine habitat assessments.

The program released its first edition *State of the Island's Waters* report in 2012 which summarized findings from data collected through Water Year 2011 (September 2011). Program staff are currently assessing data collected through Water Year 2015 (September 2015) and working on a second edition of the report. The following summary reflects assessments completed at the time of this printing.

Bacteria

All of the seven nearshore marine waters monitored during WY2014 targeted storm event monitoring failed to meet the state criteria for fecal coliform bacteria, while 13 (86%) of the 15 *streams* monitored on a monthly basis failed to meet the state criteria in WY2015. Given these results and the number of state listings for bacterial impairment (see Table 2 above), bacteria has proven to be the most prevalent pollutant in freshwater and marine water resources Island wide.

As described above in *Commercial Shellfish Growing Area and Recreational Shellfish Harvest Area Assessment*, commercial shellfish harvest areas along approximately twelve miles of shoreline are currently closed due to elevated bacteria in shoreline drainages, and nearly the entire Island is closed to recreational harvest of varnish and butter clams due to the biotoxins usually associated with bacteria.

Bacterial contamination is common to every season and every *watershed*, urban or rural, and its sources are as varied as the landscape itself. In rural *watershed*s, the most common sources of bacteria are failing septic systems, improperly-managed pet and livestock wastes, and wildlife. In urban *watershed*s, the most common sources are improperly-managed pet waste, improper food handling, poorly-maintained food waste receptacles, failing septic systems, poorly-maintained or failing *stormwater* drainage *infrastructure* (private and public), failing *sanitary sewer infrastructure*, and

illicit cross-connections between the *sanitary sewer* and the *stormwater* drainage systems.

In marine environments, common sources of bacteria aside from discharges from upland sources are improper boat waste disposal, failing *sanitary sewer infrastructure*, and wildlife.

Nutrients

Although they are essential to all plant, human, and aquatic life, phosphorus and nitrogen concentrations, if excessive, can overstimulate growth of aquatic vegetation and algal blooms. Applying Ecology's Water Quality Index using the ratio of total nitrogen to total phosphorus, Island *streams* generally rate of low to moderate concern during the wet season and moderate to high concern during the dry season relative to other Puget Lowland *streams*. In 2013, a year of below average rainfall, most *streams* rated of moderate concern even in the wet season, and 3 *streams* reached a high level of concern. During the extreme dry period in the summer of 2015, 7 *streams* climbed to a level of high concern.

Nuisance algal blooms have increased along eastern shorelines and harbors (see Ecology's Eyes Over Puget Sound). These blooms are not only aesthetically unpleasant, but dying and decomposing algae use up aquatic life-sustaining oxygen and render aquatic habitat unusable such as in Murden Cove and Point Monroe Lagoon which are covered year-round with ulvoid macroalgae (see Table 4 above).

Though more study is needed to establish natural background levels for Island *streams* and it is well-understood that a significant amount of nitrogen-loading in Puget Sound comes from the ocean through the Strait of Juan de Fuca via tidal action, ecosystems with naturally high background levels are particularly sensitive to any additional loading from human sources.

Aside from the natural sources of nutrients from forests and *wetland*s, human inputs include agricultural and residential fertilizers, phosphate-based laundry detergents and commercial washing agents, yard waste such as grass clippings and other vegetation dumped along shorelines and *streams*, failing residential septic systems (in some cases even functioning systems), failing municipal sewer *infrastructure*, and improperly handled pet and livestock waste.

Ammonia

Ammonia is considered a priority pollutant by the EPA, since it is toxic to both humans and aquatic life. Therefore, there are established acute and chronic criteria for ammonia in surface waters. Acute criterion is the concentration of a substance at which injury or death to an organism can occur as a result of short-term exposure. Chronic criterion is the concentration of a substance at which injury or death to an organism can occur as a result of repeated or constant exposure.

Out of the 11 fish-bearing *streams* monitored on a routine basis, 8 (73%) consistently exceeded the chronic criteria, while the remaining 3 had seasonal exceedances only. During WY2014 targeted storm event monitoring, all 7 *streams* and corresponding nearshore areas monitored exceeded the chronic criteria. Murden Cove frequently exceeded the acute criteria. The cove exceeded acute criteria 14 times during the 3-year Murden Cove *Watershed* Nutrient and Bacteria Reduction Project (2013-2015).

Sediment and Metals

During rain events, sediment-laden *stormwater runoff* is a prominent pollutant on the Island. Not only does sediment cause excessive scouring and erosion, de-stabilizing *slope*s and stream banks and threatening property, but subsequent downstream deposition clogs stream bottoms, smothers fish eggs, and increases siltation rates in the Island's harbors and bays. Sediment also reduces fish's ability to find food and damages their gills as well.

Though ambient or background levels of suspended sediment in *streams* and nearshore areas are generally quite low, monitoring results show significant increases in suspended sediment in *streams*, nearshore marine waters, and *stormwater* outfall discharge during intense rain events.

Sediment-intolerant macroinvertebrate species (an important food source for fish) have diminished, some entirely, from half of the Island *streams* monitored, especially Ravine and Murden Creeks. In a recent King County assessment of the City's stream macroinvertebrate sampling data, it was observed that all of the City's sites typically had lower Fine Sediment Sensitivity Index scores than unimpacted reference sites, indicating that fine sediment may be a source of impairment to stream biological health.

Grain size analysis of stream substrate sampled in 2008 and 2013 demonstrates a significant shift in grain size in three streams. Ravine Creek's stream bottom shifted from 41.53% gravel, 56.79% sand, and 1.66% silt and clay in 2008 to 9.62% gravel, 85.34% sand, and 6.42% silt and clay in 2013. Schel Chelb Creek's stream bottom shifted from 82.66% gravel, 16.6% sand, and 0.29% silt and clay to 11.59% gravel, 82.94% sand, and 5.47% silt and clay. Only Springbrook Creek substrate showed a "coarsening" shift from 30.26% gravel, 65.66% sand, and 4.08% silt and clay to 40.7% gravel, 57.09% sand, and 2.21% silt and clay.

Equally concerning are the pollutants that sediment carries with it such as heavy metals. In King County's stream macroinvertebrate assessment, it was observed that Ravine Creek had the highest Metals Tolerance Index score, indicating that metal pollution may be a source of impairment to stream biological health in that stream.

Ambient heavy metal concentrations generally meet criteria. However, targeted storm event sampling in 2014 and 2015 revealed elevated metals concentrations in

stormwater runoff and exceedances in some streams and nearshore areas during heavy rain events. Stormwater, Springbrook Creek, and Issei Creek all exceeded acute aluminum criteria. Stormwater also exceeded acute criteria for zinc and chronic criteria for copper. Ravine Creek, Manzanita Creek, Springbrook Creek, and Issei Creek exceeded the chronic criteria for copper, and Springbrook Creek, Ravine Creek and Schel Chelb Creek exceeded chronic criteria for lead. More concerning, Schel Chelb Creek exceeded acute criteria for zinc and cadmium.

Out of the seven harbors and bays sampled, only Eagle Harbor nearshore areas near the mouth of Ravine Creek/WSDOT Ferry Maintenance Facility and stormwater exceeded the chronic criteria, and for copper only.

Anywhere soil is exposed to rain there is a risk of sediment-laden *runoff*. Construction sites, croplands, sand and gravel pits or accumulations, and any other cleared or grubbed land surfaces are all potential sources of sediment. Likewise, poorly-maintained parking lots, *stormwater* drainage systems, and roadways become significant sources of sediment, particularly sediment laden with heavy metals. Metals are also carried to *streams* from uncontrolled discharges from auto washing washwater and industrial discharges.

Climate change may lead to an increase in landslide risk, erosion and sediment transport in the fall, winter, and spring seasons, while reducing the rates of these processes in the summer. Quantitative projections are limited, because of the challenge in distinguishing *climate change* impacts from factors such as development patterns and forest management.

Sediments that line the bottoms of water bodies are considered the long-term “record-keepers” of pollutants that move through the water body as many of the pollutants settle to the bottom and remain in the sediment for some time. Stream and marine nearshore bottom sediments collected in 2008 and 2013 were analyzed for contaminant chemistry to include gasoline, diesel, semivolatiles, polyaromatic hydrocarbons (PAHs), and metals. None of the detected contaminants that have state or federally-established criteria exceeded marine or freshwater sediment criteria.

Relatively few contaminants were detected in stream sediments. The most common were diesel range organics (specifically motor oil or lube oil) and Butyl Benzyl Phthalate. Motor oil or lube oil was detected in all 6 steams monitored in 2008 and 6 of the 9 streams monitored in 2013. Sediments from one stream (Murden Creek) contained gasoline range organics as well, though at very low levels.

Butyl Benzyl Phthalate (BBzP) is mostly used as a plasticizer for polyvinylchloride (PVC). However, it is commonly used as a plasticizer for vinyl foams, which are often used as floor tiles, and other uses such as traffic cones, food conveyor belts, and artificial leather. BBzP was not detected in any of the stream sediments analyzed

in 2008, but appeared as new detections in 8 of the 9 streams monitored in 2013 though at very low levels.

Additional contaminants were detected in two streams. In 2008 4-Methylphenol (antimicrobial agent) was detected in Schel Chelb Creek sediments, but at a level barely above detection limits. It was not detected in the 2013 sample. Dibutyl Phthalate was detected in the 2013 sample, but, again, barely above the detection limit.

Though not detected in the 2008 sample, Ravine Creek's 2013 sediment sample contained low levels of PAHs (Benzo(a)anthracene, Chrysene, Fluoranthene, Phenanthrene, and Pyrene) and Bis (2-Ethylhexyl) Phthalate. PAH's come from burning carbon-containing compounds. PAHs in air are produced by burning wood and fuel for homes. They are also contained in gasoline and diesel exhaust, soot, coke, and cigar and cigarette smoke. Foods that contain small amounts of PAHs include smoked, barbecued, or charcoal-broiled foods, roasted coffees, and sausages.

Due to its suitable properties and the low cost, Bis (2-Ethylhexyl) Phthalate (DEHP) is widely used as a plasticizer in manufacturing of articles made of PVC, particularly in medical supplies. Plastics may contain 1% to 40% DEHP. It is also used as a hydraulic fluid and as a dielectric fluid in capacitors. DEHP is also used as a solvent in glowsticks.

Significantly more contaminants were detected in marine nearshore sediments, especially PAH's. Eagle Harbor, Blakely Harbor, and Murden Cove had the highest number of detections, while Manzanita Bay, Fletcher Bay, Hidden Cove, and Pleasant Beach Cove had fewer detections. However, nearly all of the detected PAH's decreased in concentration or fell below detection limits between 2008 and 2013 in all of the nearshore areas sampled.

Similar to stream sediments, motor oil or lube oil was detected in all of the nearshore areas sampled. Additionally, gasoline range hydrocarbons were detected in the nearshore area adjacent to the monitored stormwater outfall (OFL169), though barely above the detection limit.

Also similar to stream sediments, plasticizers DEHP and/or BBzP were newly detected or detected at increasing concentrations in all 9 nearshore areas sampled in 2013.

Although none of the contaminants exceeded sediment criteria where such criteria exists, it is prudent to continue to monitor over time for either new occurrences of a contaminant or an increase in a contaminant level, indicating potential developing or ongoing contaminant input.

In-situ Physical Chemistry

Several Island *streams* and nearshore areas experience periodic excursions in pH, temperature, and dissolved oxygen. Excursions in pH are fairly rare. However, Hawley (East and West Forks), Murden, Schel Chelb, Manzanita, Springbrook, Issei, and Mac's Dam Creeks and Murden Cove suffer chronically low levels of dissolved oxygen. While most only exceed standards in the summertime, Murden and Schel Chelb Creeks exceed standards year-round.

Several *streams* that had historically maintained acceptable water temperatures year-round, have started to exceed temperature criteria during the summertime since 2012 with excursions occurring more frequently over time. These *streams* are Hawley (East and West Forks) Sprinbrook, Schel Chelb, Linquist, Gazzam Lake, and Mac's Dam Creeks. Two nearshore areas (Eagle Harbor at Ravine Creek, and Murden Cove) frequently exceed temperature criteria as well.

Continuous temperature and dissolved oxygen sensors were deployed in three separate reaches of Murden Creek as part of the 2013-2015 Murden Cove *Watershed* Nutrient and Bacteria Reduction Project. Summertime daily maximum temperatures at all three locations exceeded the criteria with temperatures increasing and exceeding criteria more often in the downstream reach. Similarly, summertime daily minimum dissolved oxygen levels exceeded criteria at all three sites. However, upstream reaches only infrequently exceeded criteria during the summertime, while oxygen levels were significantly lower in the downstream reach and exceeded criteria year-round.

Despite observed improvements in some water quality parameters such as phosphorus and bacteria over the project period, in-stream chemistry stayed the same or worsened. This indicates that the impact is most likely habitat driven (lack of canopy cover, reduced or absent buffers, lower summertime stream flows) rather than an illicit discharge of polluted water.

These excursions in physical chemistry, especially temperature and dissolved oxygen, significantly impair these waters' ability to support aquatic life.

Flow and Land use Impacts on the Biological Community

Hydrology is perhaps the most fundamental driver of physical, chemical, and biological processes in streams and is often considered a "master variable" controlling geomorphology, substrate stability, faunal and floral habitat suitability, thermal regulation, metabolism, biogeochemical cycling, and the downstream flux of energy, matter, and biota [Power et al. 1988; Resh et al. 1988; Poff and Ward 1989; Poff 1996; Poff et al. 1997; Dodds et al. 2004](McDonough, Hosen and Palmer, 2011).

In 2015, the City contracted with King County Department of Natural Resources and Parks, Water and Land Resources Division to conduct a stream benthos and hydrologic evaluation of the City's stream benthic macroinvertebrate data and continuous flow gauging data.

Flow data analysis showed that stream flows increase more quickly following rain events and generally have higher peaks than would be expected under forested conditions. These results were generally consistent with increasing levels of urbanization upstream of each gauge and consistent with other data collected in other Puget Sound *watershed*s.

The average Benthic Index of Biotic Integrity (B-IBI) scores spanning all years of data were very poor for Ravine Creek; poor for Issei, Murden, and Whiskey Creeks; and fair for Cooper, Manzanita, Springbrook, and Woodward Creeks. None of the eight sites investigated had average scores that showed good or excellent stream benthic communities, although two sites (Cooper and Springbrook) did have individual sampling years that had good scores. Again, these data were generally consistent with the level of development in the study *watershed*s and with data collected in other Puget Sound *watershed*s.

Five statistically significant upward or downward B-IBI component metric trends were identified at four creek sites. Two Murden Creek site metrics showed a worsening trend in species diversity and percentage of pollution tolerant species versus intolerant species. Manzanita Creek showed an improving trend in species richness and both Cooper and Issei Creek showed an improving trend in percentage of pollution intolerant species versus tolerant species.

King County also examined three additional benthic macroinvertebrate diagnostic metrics for organic pollution (i.e., animal waste including human waste), fine sediment, and metals. The Fine Sediment Sensitivity Index was generally lower at all Bainbridge sites relative to reference sites, suggesting that fine sediment inputs may be a factor in benthic impairment in these *streams*. If confirmed through evaluation of sediment conditions at these sites, the cause is unlikely related exclusively to development as some of the stream basins are relatively undeveloped. It is possible that at least in some instances, past *land use* (e.g., historical logging and *farm*ing activities) is a factor in causing excess sediment to be (or to have been) delivered to these *streams*. Any development within these basins may also be a contributing factor as well; potentially delivering fine sediment through construction and land clearing activities and through stream bank erosion resulting from increased peak flows.

All three diagnostic metrics and the flashiness hydrologic metrics indicate that Ravine Creek is suffering from multiple stressors that potentially include organic and metal pollution, geomorphic alteration, and flashier flows, all typical of an urban stream.

There was only one statistically significant upward or downward trend in these three additional metrics – an improving trend in metals-intolerant species in Issei Creek.

Habitat

As stated above in *City Surface Water Quality Assessment*, limited resources prevent the City's monitoring program from actively monitoring for freshwater and marine water habitat assessment aside from limited sediment sampling in select stream and adjacent nearshore areas (addressed above in Water and Sediment). Most of what we know about our nearshore marineabitat and freshwater habitat is based upon work by non-profit entities such as the Bainbridge Island Land Trust, the Puget Sound Restoration Fund and the Bainbridge Island *Watershed* Council and outside agencies such as Washington State Department of Fish and Wildlife (WDFW), Washington State Department of Natural Resources (DNR), Ecology, Wild Fish Conservancy, and the Suquamish Tribe. Limited *land use*/land cover information is available through aerial photography and light detection and radar (*LID*AR) technology, as well.

Land cover

Bainbridge Island encompasses an area of 17,471 acres, or approximately 28 square miles. The primary land cover is tree-cover at 73%, or 12,760 acres. Grass/scrub lands, developed areas with *impervious surface*s and other coverages comprise 15%, 11% and 1%, respectively, with combined coverage of 4,712 acres (Table 1 next page).

Land use type does not vary widely by any great degree across the island due to a low percentage of industrial or commercial land development and the lack of available or developed *farm*/range land. The island's *land use* is consequently dominated by *residential use*s (75%). Other *land use*s such as recreation land (7%), agricultural (6%), transportation corridors (6%), commercial/light manufacturing (2%), *forest land*-use (2%) and public facilities (2%), make up the remainder of the *land use* as a percentage of the total acreage on the island. With a total overall population of 23,630 the greatest population *density* occurs at the towns of Winslow, Island Center, Lynwood Center and around the coastline of the island. Outside of urbanized areas, the Island is generally characterized by scattered, small communities, homes on acreage, and large parcels of undeveloped land.

Stream type

In 2014, the Wild Fish Conservancy (WFC) completed stream typing for Bainbridge Island as part of the West Sound *Watershed*s, Kitsap Peninsula (WRIA 15) Stream Typing Project.

WFC's website states, "Water typing is the state-sanctioned process of mapping the distribution of fish and fish habitat. Regulatory water type maps are used to regulate *land use* decisions adjacent to *streams*, ponds, and *wetland*s. Because existing (modeled) regulatory maps often significantly misrepresent the presence, location,

and extent of fish habitat, the effectiveness of state and local government fish habitat protection regulations is compromised. More information about the water typing process and its significance is available at: http://wildfishconservancy.org/resources/maps/what-is-water-typing."

WFC classified fish and fish habitat in Island *streams* and ground-truthed regulatory maps of stream presence and location, identifying an additional 25 previously unknown/unmapped miles of stream with 698 acres of previously unprotected habitat buffer on Bainbridge Island. The City is currently using WFC's updated stream data.

Figure 6. City of Bainbridge Island *Watershed* Land Cover Statistics

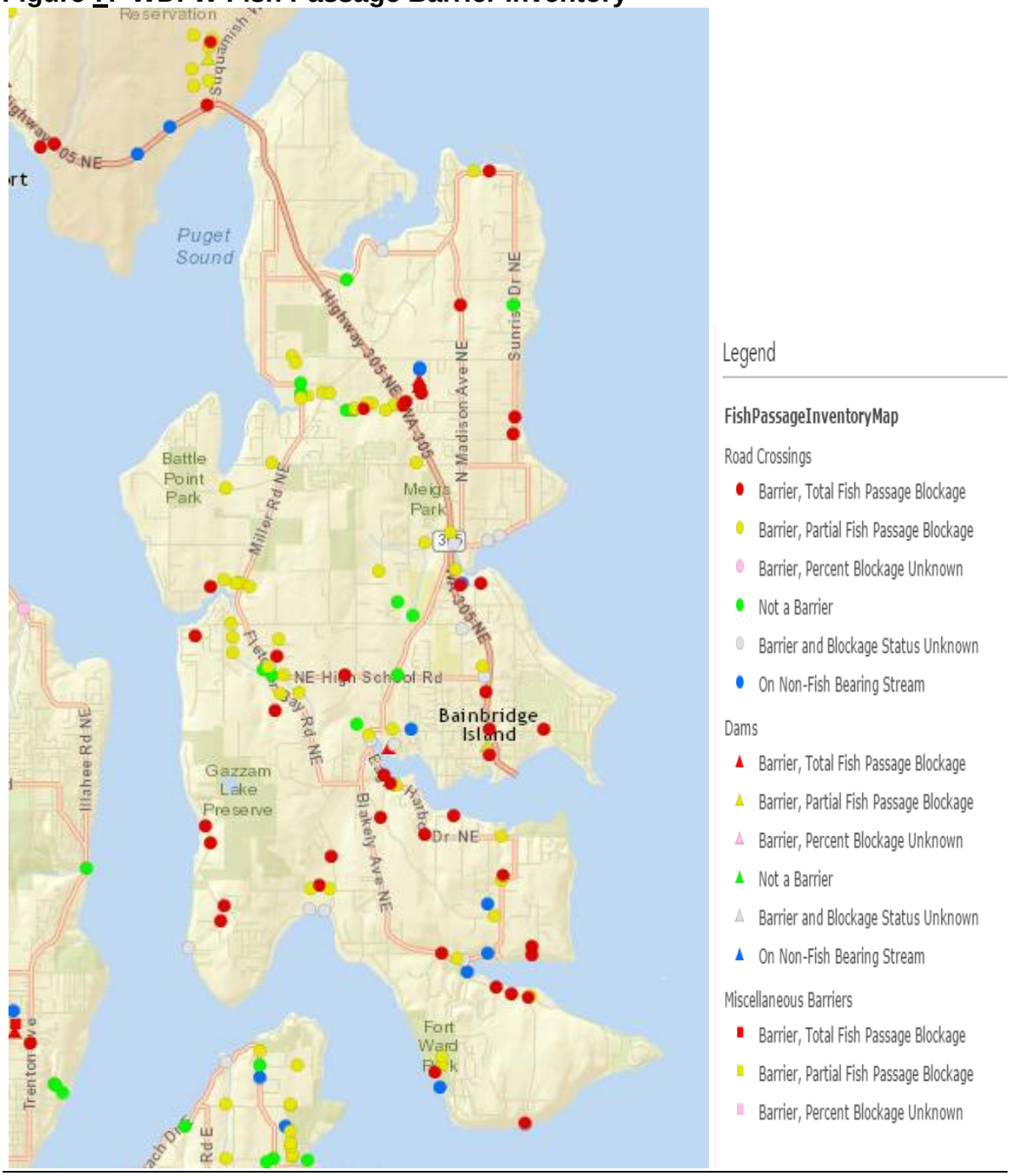
***Watershed* Name /Code**	***Watershed* Area (Acres)**	***Watershed* Size Ranking**	**Breakdown of Total *Watershed* Landcover (% of Total Area)**								
			Forest	*Wetlands*	**Natural**	Grass & Turf	Bare Ground	% Total Impervious Area	**Developed**	**Surface Water**	**Other**
Agate Passage / AGPS	599.96	12	79.52	2.75	**82.28**	4.25	3.08	9.17	**16.51**	**0.17**	1.04
Blakely Harbor / BLKH	1,369.73	7	87.04	1.08	**88.13**	2.25	3.62	5.75	**11.62**	**0.22**	0.04
Eagledale / EGDL	1,094.12	9	65.10	2.95	**68.04**	8.83	4.36	18.45	**31.63**	**0.33**	0.00
Fletcher Bay / FLBY	2,114.01	3	75.83	1.09	**76.92**	8.60	6.04	7.89	**22.52**	**0.56**	0.00
Gazzam Lake / GZLK	886.45	10	83.96	0.79	**84.74**	3.96	1.86	7.82	**13.64**	**1.62**	0.00
Manzanita Bay / MZBY	2,296.34	1	72.25	1.92	**74.18**	9.76	6.76	8.85	**25.37**	**0.46**	0.00
Murden Cove / MDCV	2,046.36	4	73.65	2.34	**75.99**	7.65	6.46	9.48	**23.58**	**0.43**	0.00
North Eagle Harbor / NEGH	2,184.91	2	50.64	2.46	**53.11**	8.30	10.57	26.95	**45.82**	**0.44**	0.63
Pleasant Beach / PLBH	1,437.63	5	70.66	3.00	**73.66**	6.01	6.64	13.56	**26.21**	**0.13**	0.00
Port Madison / PTMD	1,388.31	6	81.85	1.18	**83.03**	6.26	3.75	6.36	**16.37**	**0.30**	0.31
South Beach / SHBH	711.89	11	76.59	1.20	**77.79**	4.16	10.88	6.54	**21.58**	**0.63**	0.00
Sunrise / SNRS	1,342.24	8	79.08	1.92	**81.00**	4.49	6.41	7.97	**18.87**	**0.13**	0.00
TOTAL ACREAGE	**17,471.95**	-	12,760.44	333.49	**13,093.92**	1,194.76	1,089.27	1,994.28	**4,278.31**	**74.84**	**24.88**

Notes:
** Statistical sources include: Battelle GIS database, CoBI GIS data, and CoBI Level II Assessment (Kato & Warren, 2000)
(Water Quality and Flow Monitoring Program – Final Monitoring Plan, COBI, 2008)

Fish Passage Barrier Inventory

In 2014 the Washington Department of Fish and Wildlife (WDFW) completed fish passage assessments on Bainbridge Island *streams*. As part of this assessment, WDFW identified 43 total passage barriers (40 road crossings and 3 dams) and 45 partial passage barriers (43 road crossings, 1 dam, and 1 miscellaneous) (see Figure 7).

Figure 7. WDFW Fish Passage Barrier Inventory



(http://wdfw.maps.arcgis.com/home/webmap/viewer.htm

GLOSSARY

Accessory Dwelling Unit: Separate living quarters contained within or detached from a single-family residence on a single lot.

Adaptive management: A structured, iterative process of robust decision making in the face of uncertainty, with an aim to reducing uncertainty over time via system monitoring. In this way, decision making simultaneously meets one or more resource management objectives and accrues information needed to improve future management.

Affordable Housing: Housing where the occupant pays no more than 30% of gross monthly income for total housing costs, including the cost of taxes and insurance for homeowners and monthly utilities for owners and renters.

Affordable housing is defined according to the interpretation found in the Growth Management Act - Procedural Criteria [WAC365-195-070(6)]. The term "applies to the adequacy of the housing stocks to fulfill the housing needs of all economic segments of the population. The underlying assumption is that the market place will guarantee adequate housing for those in the upper economic brackets but that some appropriately zoned land, regulatory incentives, financial subsidies, and innovative planning techniques will be necessary to make adequate provisions for the needs of middle and lower income persons."

The Department of Housing and Urban Development (HUD) sets household income limits for five income categories based on the local median household income which is determined each year. They are as follows:

Extremely Low Income .....30% or less of median household income
Very Low Income .....31% - 50% of median household income
Low Income.....51% - 80% of median household income
Moderate Income.....81% - 95% of median household income
Middle Income.....96% - 120% of median household income

Agricultural Land: Land primarily devoted to the commercial production of horticultural, viticultural, floricultural, dairy, apiary, vegetable, or animal products or of berries, grain, hay, straw, turf, seed, Christmas trees, or livestock, and that has long-term (6 years or longer) commercial significance for agricultural production or which has significance for Bainbridge Island.

Agricultural Operation: Any condition, facility, or activity for the production or intent of production for commercial or family use purposes of dairy, apiary, livestock, vegetable or animal products, and crop products including, but not limited to ornamental crops.

Aquatic Resources: Marine nearshore, wetlands, streams, lakes, creeks and associated vegetated areas.

Aquifer: A body of soil or rock that contains sufficient saturated material to conduct groundwater and yield usable quantities of groundwater to springs and wells.

Aquifer Conservation Zone Regulations: land use controls designed to protect the functions and values of Bainbridge Island's aquifers. These regulations may include the City's critical area regulations, the use regulations and standards of the City's Shoreline Master Program, the well-head protection requirements of Class A and B water systems, and the requirements or best management practices of future City enactments such as low impact development regulations or the standards and best management practices required by a Groundwater Management Plan.

Aquifer Recharge Area: The geological formations in which an aquifer is replenished by the downward percolation of water. Critical recharging areas have the potential to effect potable water where an essential source of drinking water is vulnerable to contamination.

Arterial: A major thoroughfare used mainly for through traffic rather than access to nearby property. Arterials generally have greater traffic carrying capacity than collector or local streets and are designed for continuously moving traffic.

Assisted Housing: Multifamily rental housing that receives governmental assistance and is subject to use restrictions

Average Daily Traffic (ADT): The average number of vehicles passing a point during a 24-hour period.

Base Density: The maximum number of units within an area that can be built under the existing zoning without the use of Transferable Development Rights (TDRs) or a density bonus.

Best Available Science: Current scientific information used in the process to designate, protect, or restore critical areas that is derived from a valid scientific process.

Bicycle Access: An improvement designed to facilitate the use of bicycles, including bicycle trails, bicycle lanes and pedestrian/bicycle trails or pathways.

Bicycle Lane: This facility provides a separate lane for bicycle use. The lane is clearly marked lane of travel on the side of a street or roadway, separated from the automobile by painted strips, curbs or buttons.

Bond and Levy Financing: Local governments can raise revenues by selling tax-exempt municipal bonds or by increasing property taxes through property tax levies.

Bonds require a 60 percent voter approval; levies require a simple majority. The City can issue a limited amount of debt without voter approval. This is called limited general obligation or councilmanic debt. Voter approved bonds are retired with property tax revenues.

Capital Facilities Program: A collection of planning and budget policies and documents working in concert to ensure capital projects are identified and prioritized in a manner that meets the needs of a growing population and promotes a safe and healthy community.

Capital Facility: A structure, improvement, piece of equipment or other major asset, including land that has a useful life of at least 10 years. Capital facilities are provided by, and for public purposes and services. For the purposes of the *Capital Facilities Element*, capital facilities are government offices and facilities; fire and emergency medical services, parks, sewer, water, and storm water utilities, library, and schools.

Capital Improvement: A project to create, expand, or modify a capital facility. The project may include design, permitting, environmental analysis, land acquisition, construction, landscaping, site improvements, initial furnishings and equipment. The project cost must exceed $25,000 and have a useful life of at least 5 years.

Capital Improvement Program (CIP): A six-year plan for future capital expenditures that identifies capital projects packaging, timelines, and funding. The CIP is updated and adopted annually or biennially, along with the City's operating budget.

Carbon sequestration: a term used to describe both natural and deliberate processes by which CO_2 is either removed from the atmosphere or diverted from emission sources and stored in the ocean, terrestrial environments (vegetation, soils, and sediment), and geologic formations.

Carrying Capacity: The level of land use or human activity that can be permanently accommodated without an irreversible change in the quality of air, water, land, or plant and animal habitats. In human settlements, this term also refers to the upper limits beyond which the quality of life, community character, or human health, welfare, and safety will be impaired.

Climate resilience: the capacity for a socio-ecological system to absorb stresses and maintain function in the face of external stresses imposed upon it by climate change.

Climate Change: – Changes in average weather conditions that persist over multiple decades or longer. Climate change encompasses both increases and decreases in temperature, as well as shifts in precipitation, changing risk of certain types of severe weather events, and changes to other features of the climate system. (See www.climate.gov)

Cluster Development: A development design technique that concentrates buildings in specific areas on a site to allow the remaining land to be used for recreation, common open space, and preservation of environmentally sensitive areas. Cluster development allows the reduction of lot sizes below the zoning ordinance's minimum requirements if the remaining land is preserved as permanent open space.

Co-housing: a type of residential community characterized by either attached or detached single-family dwelling units which may or may not be located on separate lots, and includes a common building, which may contain a large dining room, kitchen, lounges, meeting rooms, recreation and laundry facilities, storage, guest rooms, library, workshops, and/or childcare, to serve only the co-housing community.

Collector: Roads which collect traffic from local access streets and convey it onto the arterial system.

Commercial Use: An occupation, employment or other enterprise that provides goods or services for compensation.

Community Development Block Grant (CDBG) Program: A federal funding program which provides annual funding for eligible local governments for housing and community development programs targeted primarily to low-income persons and neighborhoods.

Community Land Trust (CLT): A model of homeownership where a developer (usually an affordable housing agency or nonprofit) sells a home to an income-qualified resident, but retains ownership of the land. The homeowner earns equity in the home, but not the land.

Commute Trip Reduction (CTR): Washington State legislation passed in 1992 requiring specified large employers in certain counties to reduce vehicle occupancy according to a specified time frame.

Comprehensive Housing Affordability Strategy (CHAS): A document which is prepared annually to lay out housing affordability strategies that address the needs of homeless, low and moderate income people in ways that promote community and individual stability.

Comprehensive Plan: A generalized coordinated land use policy statement of the governing body of a county or city that is adopted pursuant to this chapter (RCW 36.70A).

Concurrency Requirement: A program to ensure that those public facilities and services necessary to support development shall be adequate to serve the development at the time the development is available for occupancy and use without decreasing current service levels below locally established minimum standards. (Under the GMA, only transportation facilities and services must satisfy the concurrency requirement.)

Conservation Easement: A legal agreement that the property owner enters into to restrict uses of the land for purposes of natural resources conservation. The easement is recorded on a property deed, runs with the land, and is legally binding on all present and future owners of the property. ~~An easement granting a right or interest in real property that is appropriate to retaining land or water areas predominantly in their natural, scenic, open, or wooded condition; retaining such areas as suitable habitat for fish, plants or wildlife; or maintaining existing land uses. A tool for acquiring open space with less than full-fee purchase; the public agency buys only certain specific rights from the owner. These may be positive rights, giving the public rights to access to the land, or they may be restricted rights, limiting the uses to which the owner may put the land in the future. Scenic easements allow the public agency to use the owner's land for scenic enhancement such as roadside landscaping and vista point preservation.~~

Conservation Villages: A development form that concentrates housing on a relatively small portion of the total site, with the larger portion of the site left untouched as dedicated conservation area. The housing may take the form of common wall structures and/or detached units placed close by one another, situated to minimize the cost of running roads and serving utilities and maximizing the retention of scenic views, open space, natural contours, and vegetation. The techniques used to concentrate buildings may include reduction in lot sizes, building setback and/or bulk requirements. An increase in density may be considered only if appropriate limitations are placed on building footprint, bulk, shape, location, orientation or other site or building design details. The conservation open space is secured in perpetuity by deed restriction.

Context Sensitive Design: Site, landscaping, architectural, or engineering design that is compatible with a development's setting, the contours of the land and natural systems on-site and immediately off-site, and that is compatible with the character, location and configuration of improvements and uses on adjacent properties.

Contract Rezone District: A Contract Zoning District is a distinct area for which a special zoning designation is developed which reflects uses and/or conditions that are unique to that area, and which would affect future development of the land.

Core Area of Winslow: The area within the Mixed Use Town Center District.

Cottage Housing: A grouping of small, single family dwelling units clustered around a common area and developed with a coherent plan for the entire site. Cottage units typically have a shared common area and coordinated design and may allow densities that are somewhat higher than typical in single family neighborhoods. Cottage housing offers a degree of privacy and some of the benefits of single family housing combined with the lower cost and maintenance of attached housing. The clustered arrangement can contribute to a sense of community.

Cottage Industry: An activity undertaken for gain or profit and carried on in a dwelling or building accessory to the dwelling. See Home Occupation.

Countywide Planning Policies: A series of policies intended to guide the development of city and county comprehensive plans, including, but not limited to, the allocation of population and employment targets to cities. The GMA gives counties the authority to adopt County-wide Planning Policies.

Critical Areas: Aquifer recharge areas, fish and wildlife habitats, frequently flooded areas, geologically hazardous areas, wetlands and streams.

Critical Habitat: Identified by Washington State Department of Wildlife, Ecology and Fisheries or other source recognized by the City as habitat necessary for survival of endangered, threatened, rare, sensitive, monitor species or identified by Bainbridge Island as species of local significance.

Density: The number of dwelling units allowed in a lot area.

Density Bonus: Additional density provided to a developer to achieve certain policy objectives, such as the construction of affordable housing units. (The developer is allowed to build a certain amount {a percentage} above the base density in exchange for the provision of a certain number of affordable units.)

Designated Centers: Those areas of the Island where the majority of the development and redevelopment should be located over the next fifty years. These include Winslow, Lynwood Center, Island Center, Rolling Bay, Sportsman Triangle and Day Road. See Fig. LU-1 Land Use Concept.

Development Regulation: The controls placed on development or land use activities by a county or city, including, but not limited to, zoning ordinances, critical areas ordinances, shoreline master programs, official controls, planned unit development ordinances, subdivision ordinances, and binding site plan ordinances together with any amendments thereto.

Development Standards: Requirements or standards imposed on development by regulation or ordinance under land use and environmental planning legislation.

Downzoning: A change in the zoning classification of land to a classification which requires less intensive development, such as a change from multifamily to single family or from commercial to residential. A change which allows more intensive development is upzoning.

Dwelling Unit: A building or portion of a building that provides independent living facilities with provision for sleeping, eating and sanitation. The existence of a food preparation area within a room or rooms is evidence of the existence of a dwelling unit.

Economic capital:

Financial capital is any economic resource measured in terms of money used by entrepreneurs and businesses to buy what they need to make their products or to provide their services to the sector of the economy upon which their operation is based, i.e., retail, corporate, investment banking, etc.

Natural capital consists of indispensable resources and benefits, essential for human survival and economic activity, provided by the ecosystem. Natural capital is commonly divided into (1) renewable resources (agricultural crops, vegetation, wildlife) and (2) non-renewable resources (fossil fuels and mineral deposits.)

Social capital is a form of economic capital in which social networks are central, transactions are marked by reciprocity, trust and cooperation, and market agents produce goods and services not only for themselves, but for a common good. The term generally refers to (1) resources, and the value of those resources, both tangible (public spaces, private property) and the intangible (people), (2) the relationships among these resources, and (3) the impact that these relationships have on the resources in each relationship, and on larger groups.

Endangered Species: A species or subspecies of bird, mammal, fish, amphibian, reptile or invertebrate for which the prospects of survival and reproduction are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, over-exploitation, predation, competition or disease.

Environmentally Sensitive Areas or ESAs: Critical areas and their protective buffers and natural resource lands.

Erosion Hazard Area: A landform or soil type subject to being worn away by the action of water, wind, freeze-thaw or ice and classified in accordance with the U.S.D.A. Soil Conservation Service, U.S. Geological Survey or Department of Ecology Coastal Zone Atlas.

Essential Public Facility: Any facility meeting the definition of Essential Public Facility set forth in RCW 36.70A.200(1), now or as hereafter amended, any facility identified on the statewide list maintained by the Office of Financial Management.

Fair Share Housing: A quantification of each jurisdiction's "share" of middle and low-income housing needs in a region or county, and a plan for how each jurisdiction will satisfy its obligation to provide for its share of the need.

Farm: See Agricultural Land

Fish and Wildlife Habitat: A seasonal range or habitat element with which a given species has a primary association, and which, if altered, may reduce the likelihood that the species will maintain and reproduce over the long-term. These include areas of relative density or species richness, breeding habitat, winter range, and movement corridors. These also include habitats of limited availability or high vulnerability to alteration, such as cliffs, streams and wetlands.

Flexible Lot Design Subdivision Process: This process permits development flexibility that will encourage a more creative approach than lot-by-lot development, including lot design, placement of buildings, use of open spaces and circulation, and best addresses the site characteristics of geography, topography, size or shape. This method permits clustering of lots, with a variety of lot sizes, to provide open space and protect the Island's natural systems. The criteria for the layout and design of lots, including a minimum percentage of open space and a minimum lot size for each zone, will be set out in the zoning ordinance.

Forest Land: Land used for growing trees, not including Christmas trees, for commercial purposes (as shown by record of income) that has long-term commercial significance; or unharvested forest land preserved in open space for the environmental benefits and maintenance of rural character.

Frequently Flooded Areas: Lands subject to a one percent or greater chance of flooding in any given year. These areas include, but are not limited to, floodplains adjacent to streams, lakes, coastal areas, and wetlands.

Functional Classification: A technique for assigning categories to transportation facilities based on a facility's role in the overall transportation system.

Functional Plan: Detailed assessments of existing conditions, current and future facility needs, service targets, and projected funding. Such plans adopted by City Council are incorporated by reference into the Comprehensive Plan's Capital Facilities Element. Other local jurisdictions, such as the Bainbridge Island School District, Bainbridge Island Fire District, and Bainbridge Park District also prepare functional plans.

General Obligation Debt: Local governments can raise revenues by selling tax-exempt municipal bonds and incurring debt. General obligation debt carries an unconditional promise by the local government to levy the taxes necessary to make the interest and principal payments required to retire the debt. General obligation debt is distinguished from limited obligation debt (also known as councilmanic

bonds), which does not require a vote of the people and is paid from general operating revenues.

Geologically Hazardous Areas: Areas susceptible to erosion, sliding or other geological events and pose a threat to the health and safety of citizens when used as sites for incompatible commercial, residential or industrial development. Geologically hazardous areas include erosion hazard areas, landslide hazard areas, slopes and seismic hazard areas.

Goal: An expression of a general, ultimate ideal to be sought. It reflects basic community values and establishes the basis for formulating policies.

Green Building: A structure and use process that is environmentally responsible and resource efficient throughout a building's life cycle: from siting to design, construction, operation, maintenance, renovation, and demolition. Green buildings are designed to reduce the overall impact of the built environment on human health and the natural environment by efficiently using energy, water, and other resources; protecting occupant health and improving employee productivity; and reducing waste, pollution, and environmental degradation.

Greenhouse Gas (GHG): A gas is an atmosphere that absorbs and emits radiation within the thermal infrared range and affects the temperature of the earth. Primary greenhouse gases in the earth's atmosphere are water vapor, carbon dioxide, methane, nitrous oxide, and ozone. At present, the two primary sources of carbon dioxide emissions are from burning coal used for electricity generation and petroleum used for motor transport.

Green infrastructure: Natural vegetation, landscape design, and engineered techniques that retain, absorb, and often cleanse stormwater runoff. By including such features throughout a community, stormwater and other runoff from wet weather or spring thaws is retained, absorbed, and often naturally filtered. Green infrastructure prevents or reduces the amount of runoff from flowing directly into storm drains where it can overwhelm the sewer system and end up contaminating local waterways.

Groundwater: Subsurface or underground water resource.

Growth Management Act (GMA): A Washington State law requiring urban counties and their cities to adopt comprehensive plans and to adopt development regulations and capital budgets to implement comprehensive plans. ~~Legislation passed in 1990, amended in 1991, requiring counties of a certain size (and cities within them) to develop, among other items, urban growth boundaries, comprehensive plans, and concurrent funding plans.~~

Guiding Principle: A high-rank order value guiding growth, development, and conservation of resources in the community. Guiding principles are derived from and provide extension of the aspirations and values described in the Vision Statement.

Guiding Principles provide policy direction to the Goals and Policies of the Elements in the Comprehensive Plan.

High Occupancy Vehicle (HOV): Public transportation vehicles and private vehicles carrying no less than a specified number of passengers (usually set at 2 or 3).

High Occupancy Vehicle Improvement: Facilities or priority treatments, such as preferential signalization or queue bypasses, designed to encourage HOV usage.

High Occupancy Vehicle Lane (HOV Lane): A lane of traffic designated for use by public transit vehicles and high occupancy private vehicles.

Historic Preservation: Includes the protection, rehabilitation, restoration, identification, scientific excavation, and reconstruction of districts, sites, buildings, structures and objects significant in American and Washington state history, architecture, archaeology, or culture. (RCW 27.26.901)

Home Occupation: An activity for gainful employment involving the manufacture, provision, or sale of goods and/or services as an accessory use. The home occupation is carried on in the dwelling unit or building accessory to the dwelling unit.

Homeless: Persons whose primary nighttime residence is 1) a public or private place not designed for, or ordinarily used for, sleeping accommodations for human beings, or 2) a residence which is a publicly or privately operated shelter designed to provide temporary living accommodations.

Household: One or more related or unrelated persons occupying a housing unit.

Housing and Urban Development, Department of HUD: The federal Department of Housing and Urban Development which administers most federally sponsored housing and community development programs.

Housing types: This term refers to the physical form, configuration or scale of housing, as opposed to an ownership pattern (i.e., rental vs. owned).
The list below groups housing types by the category of whether the housing units are detached, common wall, or stacked:

- **Detached housing**, includes one and two-story houses, ramblers, split-levels, cottages, cabins, accessory dwelling units, mobile homes, and carriage houses (unit over a garage);

- **Common wall housing**, includes duplexes, zero lot line homes, rowhouses and townhouses; and

- **Stacked housing**, includes two or three story garden apartments and mid-

rise, mixed-use structures with commercial ground floor uses and two or more stories of residences above.

Impact Fees: Charges levied by the City against a new development for its pro-rata share of the capital costs of facilities necessitated by the development. The Growth Management Act authorizes the imposition of impact fees on new development and sets the conditions under which they may be imposed.

Impervious Surface: Any material that substantially reduces or prevents the infiltration of water into previously undeveloped land. It includes surfaces such as compacted sand, limerock, or clay, as well as most conventionally surfaced streets, roofs, sidewalks, parking lots, and other similar surfaces or structures.

Income-qualified: A description for a renter or owner of designated affordable housing unit, meaning that the entity managing the affordability has verified the potential resident's income to fall within the income ranges defined under "Affordable housing".

Infill Development: Development usually consisting of either 1) construction on one or more lots in an area already developed or 2) new construction between two existing structures.

Infrastructure: A term connoting the physical underpinnings of the built environment including, but not limited to, roads, bridges, transit, waste system, public buildings, and communications networks.

Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA): Legislative initiative by the U.S. Congress restructuring funding for highway and transit programs. ISTEA authorized increased levels of highway and transportation funding and an enlarged role for regional planning commissions/MPOs in funding decisions. The Act also requires comprehensive regional long-range transportation plans extending to the horizon year of 2015.

Island Charter: For purposes of the Bainbridge Island Comprehensive Plan the term is used to describe the special character of the Island - winding, narrow and vegetated roadways and forested areas, meadows, farms, and which contain much of the Island's wetlands and streams, aquifer recharge areas and fish and wildlife habitat.

Kitsap Regional Coordinating Council (KRCC), formerly known as Kitsap Regional Planning Council (KRPC): A Council formed in 1990 by agreement between Kitsap County and the cities of Bainbridge Island, Bremerton, Port Orchard and Poulsbo. The purposes of the council are 1) to provide a forum for cooperative decision making by the region's elected officials in order to bring about a continuous and comprehensive planning process, 2) to foster cooperation and mediate differences among governments throughout the region and 3) to maintain an ongoing planning program and coordinate actions to make the best use of the

region's resources and overcome problems of waste and pollution. In 1991, the Port Gamble S'Klallam Tribe and the Suquamish Tribe became members.

Land Use: A term used to indicate the utilization of any piece of land. The way in which land is being used or may be used.

Land Owner Compacts: Adjacent property owners collectively, aggregate and develop their properties under a unified development plan.

Landslide Hazard Areas: Areas which are potentially subject to risk of mass movement due to a combination of factors, including historic failures, geologic, topographic and hydrologic features as identified in the Department of Ecology Coastal Zone Atlas.

Level-of-Service (LOS): A rating of how well some unit of transportation supply or other facility (e.g., street, intersection, sidewalk, bikeway, transit route, water and sewer, park facilities) serves its current or projected demand.

LIHPRHA: The Low-Income Housing Preservation and Resident Home Ownership Act of 1990, or LIHPRHA, is designed to preserve existing assisted housing for permanent low-income use. It provides incentives for current owners of assisted-housing projects to retain ownership for low-income use or to sell them to new owners who will agree to maintain the housing for low-income occupants for the remainder of its useful life.

Low Impact Development (LID): A stormwater management strategy that emphasizes conservation and use of existing natural site features integrated with distributed, small-scale stormwater controls to more closely mimic natural hydrologic patterns in residential, commercial, and industrial settings. LID employs principles such as preserving and recreating natural landscape features and minimizing impervious surfaces to create functional and appealing site drainage that treat stormwater as a resource rather than a waste product. Practices that adhere to these LID principles include bio-retention facilities, rain gardens, vegetated rooftops, rainwater harvesting (rain barrels and cisterns) and permeable pavements.

Manufactured Housing: A broad term including mobile homes, modular homes and other "factory built" housing. The main distinction is that manufactured housing is created in one or more parts in a factory and is designed and constructed for transportation to a site for installation on a permanent foundation and occupancy when connected to required utilities.

Master Plan: A tool to implement the Comprehensive Plan which details land use and circulation plans for a particular area or particular site using the goals and policies contained in the adopted Comprehensive Plan.

Micro unit: A small studio apartment; micro unit could include a fully functioning and accessibility compliant kitchen and bathroom or rely upon communal kitchen or

bathroom facilities.

Mineral Resource Lands: Land which is primarily devoted to the extraction of gravel, sand, or valuable metallic substances.

Mixed Use Development: The presence of more than one category of use in a structure, for example, a mixture of residential units and office or retail uses in the same building.

Mode Split: The statistical breakdown of travel by alternate modes, usually expressed as a percentage of travel by auto, transit, etc. Mode split is frequently used to describe the percentage of people using private automobiles versus bus transit or other modes.

Multifamily: A structure or portion of a structure containing two or more dwelling units.

Multi-modal Transportation System: A system in which there is accessibility by a variety of travel modes, typically: pedestrian, bicycle, transit and automobile (Single Occupancy Vehicle and High Occupancy Vehicle - carpool/vanpool) and may include water and air transport as well.

Native Vegetation: Plant species which are indigenous to the Puget Sound region.

Natural Resource Lands: Agricultural, forest and mineral resource lands as defined in this section.

Neighborhood: A small, predominantly residential area of the Island in which the residents share a common identity which may focus around an elementary school, park, community business center or similar feature.

Non-point Source Pollution: Pollution that enters water from dispersed and uncontrolled sources (such as surface runoff) rather than through pipes.

Open Space: Any area of land that provides physical or visual relief from the developed environment. Open space may be essentially unimproved and set aside, designated or reserved for public use or enjoyment, or for the private use and enjoyment of adjacent property owners. Open space may also consist of undeveloped areas, such as pastures, woodlands, greenbelts, wetlands, pedestrian corridors and other natural areas that provide visual relief from developed areas.

Preservation of open space would 1) conserve and enhance natural or scenic resources, 2) protect streams or water supply, 3) promote conservation of soils, wetlands, beaches or tidal marshes, 4) enhance the value to the public of abutting or neighboring parks, forests, wild preserves, nature reservations or sanctuaries or other open space, 5) enhance recreation opportunities, 6) preserve historic sites, or 7) preserve visual quality along highway, road and street corridors or scenic vistas.

Open Space Plan: an adopted map that identifies those portions of Bainbridge Island which have the attributes and values of open space and which are candidate areas for protection and/or acquisition through city programs or regulations.

Overlay District: A set of zoning requirements that are described in the ordinance text, are mapped, and subsequently imposed in addition to those of the underlying zone. Development within an overlay zone must conform to the requirements of both zones.

Park-and-Ride: A system in which commuters drive to a common location, park their vehicles, and continue travel to their final destination via public transit or carpooling/vanpooling.

Peak Hour: The hour during which the maximum amount of travel takes place.

Peak Period: The period during which the maximum amount of travel occurs. Usually about 7 to 9 a.m. and 4 to 6 p.m.

Pedestrian-orientation: An area where the location and access to buildings, types of uses permitted on the street level and storefront design are based on the needs of the walking customers and residents. Reduces auto dependence and encourages the use of public transportation.

Peninsula Regional Transportation Planning Organization (PRTPO): The Regional Transportation Planning Organization for Kitsap, Mason, Clallam, and Jefferson Counties. The PRTPO serves as a mechanism for coordinating transportation planning in and among those counties and as a conduit for federal and state transportation funds.

Performance Standards: Regulations which establish standards of performance that are required of any use permitted in a given zoning district. For example, control over the type of a particular development in a particular zone may be accomplished by the establishment of standards which impose maximum levels of smoke, dust, noise, glare, traffic generation or other development impacts which must not be exceeded.

Permeability: The rate at which water moves through undisturbed soil. It depends largely on the texture, structure, porosity and density of the soil.

Policy: An agreed course of action adopted and pursued by decision makers for achieving one or several goals and objectives and which are used to guide the formulation of regulations and programs.

Precautionary principle: An approach to risk management, stating that if an activity carries a threat of causing serious harm to the public or to the environment, the

burden of proof that it should not be limited or prohibited falls on proponents of the activity.

Primary Treatment: A wastewater treatment method that uses settling, skimming and usually chlorination to remove solids, floating materials and pathogens from wastewater.

Public Facilities: Use of land which includes streets, roads, highways, sidewalks, street and road lighting systems, traffic signals, domestic water systems, storm and sanitary sewer systems, parks and recreational facilities, and schools.

Public Sewer System: Any system which is owned or operated by the City, political subdivision of the state, or other approved ownership consistent of a collection system and necessary trunks, pumping facilities and a means of final treatment and disposal and under permit from the Department of Ecology.

Public Services: Include fire protection and suppression, law enforcement, public health, education, recreation, environmental protection, and other governmental services.

Public Water System: Any system or water supply intended or used for human consumption or other domestic uses where water is furnished to two or more hookups.

PUD (Planned Unit Development): A development of land that is under unified control and is planned and developed as a whole in a single development operation or programmed series of development stages. Development through a PUD is a process in addition to the subdivision process, which permits development flexibility that will encourage a more creative approach than lot-by-lot development in design, placement of buildings, use of open spaces, circulation, and best addresses the site characteristics of geography, topography, size or shape.

Puget Sound Council of Governments (PSCOG): Predecessor to the Puget Sound Regional Council. The former area-wide metropolitan planning organization (MPO) responsible for regional planning in the Puget Sound area. (See Puget Sound Regional Council.)

Puget Sound Regional Council (PSRC): Current MPO for the Puget Sound region, including Snohomish, King, Pierce, and Kitsap Counties. The PSRC coordinates transportation planning in those four counties and allocates federal and state transportation funds. The PSRC is also responsible for coordinating transportation planning with air quality emissions requirements.

Pump Station: A facility housing the equipment to pump water from or to a destination to counter gravitational forces. Pumping facilities are also employed to increase the pressure of the water as it travels through the system.

Pumping Station: Used to convey sanitary, wastewater to locations which cannot be reached in a normal downhill gravity collection system.

Purchase of Development Rights (PDRs): A program which would permit an owner of property designated as a TDR "sending area" to sell the right to develop all or the unused zoned capacity of the property to a public entity or non-commercial entity, such as a land trust. In exchange, the seller of the PDR would extinguish the development right on the "sending area" by means of an easement.

Queue Bypass: Route designed to provide a path for transit around traffic queues (or waiting lines), allowing transit to move to the head of traffic flow.

Recharge: The process involved in the absorption and addition of water from the unsaturated zone to groundwater.

Residential Use: Any land use that provides for living space. Examples include single family residence, multi-family residence, special residence mobile home park, boarding house, caretaker's quarters, accessory dwelling.

Right-of-way: Land in which the state, county, city or other governmental entity owns the fee simple title or has an easement dedicated or required for a transportation or utility use. The right-of-way is the right to pass over the property of another. It refers to a strip of land legally established for the use of pedestrians, vehicles or utilities.

Runoff: That portion of precipitation which flows over land surface and enters the storm drainage system during and immediately following a storm. The rapidity of runoff and the amount of water removed are affected by slope, texture (that is the structure and porosity of the soil surface) vegetation and prevailing climate.

Sanitary Sewer: A facility that carries waterborne wastes of household, industrial and commercial users from the point of origin to treatment plant(s) for treatment and disposal.

Secondary Arterial: Roads which link activity centers and convey traffic onto major arterials. Secondary arterials provide both mobility and access.

Secondary Treatment: A wastewater treatment method that usually involves the addition of biological treatment to the settling, skimming and disinfection provided by primary treatment.

Seismic Hazard Areas: Includes areas subject to severe risk of damage as a result of seismic induced ground shaking, slope failure, settlement, slope failure, soil liquefaction or surface faulting. Ground shaking is a primary risk, followed by some unstable slopes causing damage below them. The muck soils of the Island pose a specific risk of settlement and soil liquefaction. These conditions occur in areas where muck soils and other organic deposits are unsuitable for foundations, generally underlain by cohesion-less soils or poorly consolidated sediments usually in association with a shallow groundwater table.

Senior Housing: Housing specifically designed and operated to assist elderly persons (as defined in the State or Federal program); or intended for, and solely occupied by persons 62 years of age or older.

Shoreline Management Act: The Shoreline Management Act of 1971, Chapter 90.58 RCW, as amended.

~~**Shall**: Indicates an unequivocal directive.~~

Shall: The use of the terms “shall” and “should,” determines the level of discretion the City can exercise in making future land use policy, budget, and development regulation decisions. “Shall” means that it is mandatory for the City to carry out the policy, even if a timeframe is not included. The use of “shall” in a policy statement does not convert it into a regulation.

Should: Signifies a slightly less rigid directive than "shall" to be honored in the absence of compelling considerations that require another course of action.

Single Occupant Vehicle (SOV): A vehicle carrying only the driver and no passengers.

Slope: An inclined ground surface, the inclination of which is expressed as a ratio (percentage) of vertical distance to horizontal distance.

Special Needs Populations: Individuals or families who require supportive social services in order to live independently for semi-independently.

Special Planning Area: A Special Planning Area is an area which reflects uses and/or conditions which are unique to that area and would benefit from a local and/or neighborhood planning process. The Special Planning Area Process would address such issues as current use, future mix and location of uses and densities, transportation, public facilities, and services and amenities and protection of natural systems.

Storm Drain: A system of gutters, pipes or ditches used to carry storm water from surrounding lands to streams, lakes or Puget Sound.

Storm Water: Water that is generated by rainfall and is often routed into drainage systems in order to prevent flooding.

Stream: Surface waters, which flow into or become connected with other surface waters generally at least once per year. Streams are classified in accordance with classification system established by the Washington State Department of Natural Resources, as modified by Bainbridge Island.

Subarea Plan: An optional comprehensive plan feature authorized by the Growth Management Act. Subarea plans provide detailed land use policies for a geographic subset of a city.

Subdivision: The division or redivision of land into five or more lots, tracts, parcels, sites or divisions for the purpose of sale, lease or transfer of ownership.

Substandard Housing: A dwelling unit that does not meet the criteria for an acceptable standard of living, through lack of maintenance, age of unit, neglect, lack of plumbing facilities, kitchen facilities, or crowded conditions.

Sustainability: Meeting the needs of the present without compromising the ability of future generations to meet their own needs.

Tiny House or Home: A small dwelling, with a kitchen and bathroom, possibly mounted on wheels.

Transfer of Development Rights Program (TDRs): A program which would permit an owner of property designated as a TDR "sending area" to sell the right to develop all or the unused zoned capacity of the property to the developer of a TDR "receiving area" who is allowed to add the capacity to the zoned capacity of the site. In exchange, the seller of the TDR would extinguish the development right on the "sending area" by means of an easement.

Transit: Refers to a multiple-occupant vehicle operated on a for-hire, shared-ride basis, including bus, ferry, taxi, shuttle bus, carpool, or vanpool.

Transportation Demand Management (TDM): Policies and programs to motivate people to use public transportation, such as bus pass subsidies, flex-time programs, and limiting free parking.

Transportation System Management (TSM): An array of strategies intended to lead to a reduction in the number of vehicles using the road system while simultaneously serving the same number of travelers.

Threatened Species: Any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

Trip: A one-way movement of a person or vehicle between two points for a specific purpose, sometimes called a one-way trip to distinguish it from a round trip.

Trip Assignment: The process of determining route or routes of travel and allocating the zone-to-zone trips to these routes.

Trip Distribution: The process by which the movement of trips between zones is estimated. The data for each distribution may be measured or be estimated by a growth factor process or by synthetic model.

Undeveloped Rights-Of-Way: Any undeveloped portion of a right-of-way legally established for the use of pedestrians, vehicles or utilities.

Universal Design: The designing of products and environments to be usable by all people, to the greatest extent possible, regardless of age, size, or abilities.

Upzoning: A change in the zoning classification of land to a classification allowing more intensive development, such as a change from single-family to multifamily or from residential to commercial.

Urban Concentration: An area within the urban growth boundary of Bainbridge Island in which urban level of development with urban levels of public services and facilities are concentrated.

Vehicle Miles Traveled (VMT): A measurement of forecasting travel demand; equivalent to one car, bus or truck traveling one mile. VMT is the sum of an individual's vehicle trip lengths - in miles - made over a set period, divided by the number of affected individuals driving that period within the household, study area, zone or facility.

Vision: A Vision is a narrative description of a preferred future, describing desired long-term qualities and characteristics of the community 20 or more years in the future.

Vision 2040: Vision 2040 constitutes the multi-county planning policies for the region consisting of King, Pierce, Snohomish and Kitsap counties and the cities within those counties.

~~**Vision 2020**: The regional comprehensive vision for the central Puget Sound area (King, Kitsap, Pierce and Snohomish Counties) adopted in 1990 by Puget Sound Regional Council (PSRC). Vision 2020 describes linking high-density residential and employment centers throughout the region by high capacity transit, promoting a multimodal transportation system.~~

Watercourse: The areas to which surface and subsurface waters naturally flow and which form a continuous channel through which water descends to natural outlets.

A water course includes: a permanent stream; intermittent stream; river, brook, creek, channel or ditch for water, whether natural or man-made.

Water Re-use: Using treated wastewater in place of drinking water for commercial irrigation and industrial processes. Also called wastewater reclamation.

Watershed: The geographic region within which water drains into a particular river, stream or body of water. A watershed includes hills, lowlands and the body of water into which the land drains.

Wetland: Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

~~**Priority wetlands** are those identified in the City of Bainbridge Island Wetland Inventory Phase II, Wetland Protection Strategies, March 22, 1993, prepared by Sheldon & Associates.~~