



CITY OF
BAINBRIDGE ISLAND

**CITY COUNCIL STUDY SESSION
TUESDAY, APRIL 16, 2019**

BAINBRIDGE ISLAND CITY HALL
280 MADISON AVENUE N.
BAINBRIDGE ISLAND, WASHINGTON

AGENDA

1. **CALL TO ORDER / ROLL CALL - 6:00 PM**
2. **EXECUTIVE SESSION**
 - 2.A Pursuant to RCW 42.30.110(1)(i), to discuss with legal counsel matters relating to litigation or potential litigation to which the city, the governing body, or a member acting in an official capacity is, or is likely to become, a party, when public knowledge regarding the discussion is likely to result in an adverse legal or financial consequence to the agency 15 Minutes
3. **APPROVAL OF AGENDA/ CONFLICT OF INTEREST DISCLOSURE - 6:15 PM**
4. **MAYOR'S REPORT - 6:20 PM**
5. **PRESENTATIONS**
 - 5.A (6:25 PM) Bainbridge Island Land Trust Presentation on Springbrook Creek Watershed Assessment, 30 Minutes
[Springbrook Creek Assessment Executive Summary](#)
[Springbrook Creek Assessment Report Narrative](#)
[Springbrook Overview](#)
6. **UNFINISHED BUSINESS**
 - 6.A (6:55 PM) Water and Sewer Utilities Rate Study Report and Recommendation - Public Works, 30 Minutes
[Water and Sewer Rate Study - Executive Summary v2 - Council 4_16_19.pptx](#)
 - 6.B (7:25 PM) Update on Moratorium - Planning, 10 Minutes
[20190404 Moratorium work program status report.docx](#)
[Ordinance No. 2019-10 Extending the Development Moratorium](#)

- 6.C (7:35 PM) Ordinance No. 2019-03 Relating to Subdivision Update - Planning, 60 Minutes
[20190402 CC Staff Memo Ordinance 2019-03.docx](#)
[BLR_2014 Dwelling Unit Potential.pdf](#)
[Subdivision Potential -- Low Density Residential -- Vacant Parcels.pdf](#)
[Subdivision Potential High Density -- map.docx](#)
[Subdivision Potential High Density -- table.docx](#)
[20190319 CC Staff Memo](#)
[Attachment A -- Ordinance No. 2019-03 Subdivision Update - Draft 031519](#)
[Attachment A -- Ord 2019-03 Exhibit A 20190228 PC Recommendation with Notes.docx](#)
[Attachment A -- Ord 2019-03 Exhibit B 20190228 PC Recommendation.docx](#)
[Attachment A -- Ord 2019-03 Exhibit C 20190228 PC Recommendation.docx](#)
[Attachment B -- Planning Commission Minutes 021319.pdf](#)
[Attachment B -- Planning Commission Minutes DRAFT 022819.docx](#)
[Attachment C -- Subcommittee Comments - Exhibit A.pdf](#)
[Attachment C -- Subcommittee Comments - Exhibit B.pdf](#)
[Attachment C -- Subcommittee Comments - Exhibit C.pdf](#)

7. NEW BUSINESS

- 7.A (8:35 PM) Discuss Work Plan for Review and Assessment of Critical Area Regulations, BIMC
Chapter 16.20 - Planning, 15 Minutes
[20190402 CC Staff Memo.docx](#)

8. FUTURE COUNCIL AGENDAS

- 8.A (8:50 PM) Future Council Agendas, 10 Minutes
[City Council Regular Business Meeting 042319](#)
[Special City Council Meeting 043019](#)
[City Council Study Session 050719](#)
[City Council Regular Business Meeting 051419](#)
[City Council Study Session 052119](#)

9. FOR THE GOOD OF THE ORDER - 9:00 PM

10. ADJOURNMENT - 9:10 PM

GUIDING PRINCIPLES

Guiding Principle #1 - Preserve the special character of the Island, which includes downtown Winslow's small town atmosphere and function, historic buildings, extensive forested areas, meadows, farms, marine views and access, and scenic and winding roads supporting all forms of transportation.

Guiding Principle #2 - Manage the water resources of the Island to protect, restore and maintain their ecological and hydrological functions and to ensure clean and sufficient groundwater for future generations.

Guiding Principle #3 - Foster diversity with a holistic approach to meeting the needs of the Island and the human needs of its residents consistent with the stewardship of our finite environmental resources.

Guiding Principle #4 - Consider the costs and benefits to Island residents and property owners in making land use decisions.

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 Principle #6 - Nurture Bainbridge Island as a sustainable community by meeting the needs of the present without compromising the ability of future generations to meet their own needs.

Guiding Principle #7 - Reduce greenhouse gas emissions and increase the Island's climate resilience.

Guiding Principle #8 - Support the Island's Guiding Principles and Policies through the City's organizational and operating budget decisions.



City Council meetings are wheelchair accessible. Assisted listening devices are available in Council Chambers. If you require additional ADA accommodations, please contact the City Clerk's Office at 206-780-8604 or cityclerk@bainbridgewa.gov by noon on the day preceding the meeting.



CITY OF
BAINBRIDGE ISLAND

City Council Study Session Agenda Bill

MEETING DATE: April 16, 2019

ESTIMATED TIME: 15 Minutes

AGENDA ITEM: Pursuant to RCW 42.30.110(1)(i), to discuss with legal counsel matters relating to litigation or potential litigation to which the city, the governing body, or a member acting in an official capacity is, or is likely to become, a party, when public knowledge regarding the discussion is likely to result in an adverse legal or financial consequence to the agency

STRATEGIC PRIORITY: Good Governance

PRIORITY BASED BUDGETING PROGRAM:

AGENDA CATEGORY: Discussion

PROPOSED BY: Executive

RECOMMENDED MOTION:

Hold Executive Session.

SUMMARY:

Hold Executive Session.

FISCAL IMPACT:

Amount:	
Ongoing Cost:	
One-Time Cost:	
Included in Current Budget?	

BACKGROUND:

ATTACHMENTS:

FISCAL DETAILS:

Fund Name(s):

Coding:



CITY OF
BAINBRIDGE ISLAND

City Council Study Session Agenda Bill

MEETING DATE: April 16, 2019

ESTIMATED TIME: 30 Minutes

AGENDA ITEM: (6:25 PM) Bainbridge Island Land Trust Presentation on Springbrook Creek Watershed Assessment,

STRATEGIC PRIORITY: Green, Well-Planned Community

PRIORITY BASED BUDGETING PROGRAM:

AGENDA CATEGORY: Discussion

PROPOSED BY: Public Works

RECOMMENDED MOTION:

For information only.

SUMMARY:

A joint presentation by the Public Works Department and the Bainbridge Island Land Trust will be presented to the City Council.

FISCAL IMPACT:

Amount:	N/A
Ongoing Cost:	
One-Time Cost:	
Included in Current Budget?	

BACKGROUND:

BACKGROUND:

The Bainbridge Island Land Trust (project lead) in partnership with the City of Bainbridge Island, Wild Fish Conservancy, and others recently concluded an assessment of the Springbrook Creek Watershed. A final report was completed on December 26, 2018, and was published on the websites of the Land Trust and the City. The study identified a number of enhancement projects including two locations at City roadways.

The assessment involved significant community engagement. Findings from the final report were presented at an open house held on February 28, 2019 at the Island Center Community Hall.

Watershed assessments and enhancements support the vision and guiding principles and goals of the environmental, transportation, and utilities elements of the City's Comprehensive Plan.

Guiding Policy 2.3

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

Guiding Policy 2.6

Recognize the importance of our water resources to present and future generations of Bainbridge Islanders, and apply the precautionary principle.

Guiding Policy 2.7

Recognize the water resource needs of farms, home gardens and domestic landscapes and support planning and conservation practices that ensure the sustainable use of our Island's finite groundwater resources.

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.

This study identifies enhancement projects that could be undertaken by the City. The City may be able to procure grant funding or legislative allocations for some enhancement projects. The study can serve as a reference document for long range planning, system planning, and development of the City's Capital improvements Plan (CIP).

See City Project Page:

<http://www.bainbridgewa.gov/868/Springbrook-Creek-Watershed-Study>

ATTACHMENTS:

[Springbrook Creek Assessment Executive Summary](#)

[Springbrook Creek Assessment Report Narrative](#)

[Springbrook Overview](#)

FISCAL DETAILS:

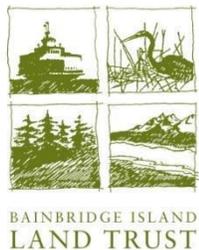
Fund Name(s):

Coding:

Springbrook Creek Watershed Assessment Executive Summary



FINAL REPORT December 26, 2018 SRFB Project #14-1517



Funded by:

Washington Recreation and Conservation Office Salmon Recovery Funding Board
Project #14-1517, Springbrook Creek Evaluation and Feasibility

Significant in-kind support provided by:

Bainbridge Island Land Trust, Bainbridge Island Watershed Council, City of Bainbridge Island, Washington Department of Ecology, Wild Fish Conservancy, and Volunteers

Project Team:

Bainbridge Island Land Trust (Project Sponsor): Gina King, Brenda Padgham and Deborah Rudnick (board member)

Bainbridge Island Watershed Council: Deborah Rudnick

City of Bainbridge Island: Cami Apfelbeck and Christian Berg

Washington Department of Ecology: Stephen Stanley, Colin Hume, Susan Grigsby

Wild Fish Conservancy: Jamie Glasgow, Aaron Jorgenson, Arny Stonkus, Stephen Kropp

Acknowledgements:

In addition to the work of the project team, the Springbrook Creek Watershed Evaluation and Feasibility Project benefited greatly from participation, input and feedback from a large number of technical experts, local landowners, and volunteers:

- Bainbridge Island Land Trust: Projects Committee and Board of Directors
- City of Bainbridge Island: Chris Hammer, Barry Loveless, Rob Grant, Peter Corelis, Marilyn Guthrie, Pam Cienega, Melva Hill (former employee)
- Kitsap Health District: Stuart Whitford, Susan Walter
- Kitsap County Conservation District: Brian Stahl
- Kitsap County: Kathy Peter
- Mid Fisheries Enhancement Group: Troy Fields (former staff)
- Washington Department of Fish and Wildlife: Nam Siu, Christy Rains, Justin Zweifel, Michael Blanton
Suquamish Tribe: Alison O’Sullivan, Steve Todd
- Washington Recreation and Conservation Office Salmon Recovery Funding Board: Amee Bahr (RCO Project Manager)
- West Sound Watersheds Council Citizens and Technical Advisory Committee

- United States Environmental Protection Agency: Provided NEP funding of Puget Sound Watershed Characterization
- Water Monitoring Volunteers: Sandra O'Connor, Sarah Pearl, Gary Peterson, Barry Sacks, Randal Samstag, Omana Taylor, Roger Williams, Sally Wilmeth, Dallas Young
- Salmon Monitoring Volunteers: Tim Bird, Elizabeth Carr, Brian Copp, Wayne Daley, Katrina Godshalk, John Grinter, Dan Groff, Ellen Gunderson, Curtis Hughes, Lisa Lindsay, Sandra O'Connor, Christine Perk, Janelle Perreira, Bob Ross, Deb Rudnick
- Landowners and Interested Parties: Over 50 property owners within the Springbrook Creek Watershed provided historical context, access to their property, and input on proposed actions. With their participation, the level of knowledge gained about the watershed and landscape was greatly enhanced. Special appreciation to the following property owners who invested a number of hours with the project team on this project include: Ross and Sharon Boundy, Jerilyn Brusseau, Janice Cohen, Claire Cramer, Elizabeth Dequine, Barbara Eddy, Friends of the Farms, Fletcher Bay Estates Homeowners Association, Jeff Glanzrock, Emily Grice, Dan and Linda Groff, Dax Hansen, Joe Hendrickson, Wayne Loverich, Michael Loverich, Lisa Martin, James and Hisako Matsudaira, Rob Ferguson and Kia Micaud, William and Catherine Nickum, Olemara Peters, Ken Rekow and Rosalie Frazier, Brad and Helen Waggoner

Executive Summary

The Springbrook Creek Evaluation and Feasibility (Assessment) Project assessed the condition of Springbrook Creek, its tributaries, and the 999 acre Springbrook Creek watershed. The Project identified limiting factors affecting ecosystem functions; reported on those conditions for planning activities within the watershed; conducted a watershed restoration and protection project feasibility analysis using existing and new data/information, including a significant amount of on the ground field work; and identified and prioritized potential protection and restoration projects addressing ecological health and fish passage limitations in the Springbrook Creek Watershed.

Springbrook Creek is situated on the west side of Bainbridge Island and drains into Fletcher Bay. Within the watershed, there are just over seven miles of stream of which approximately 4.7 miles are typed as fish habitat. Springbrook Creek is one of the largest and most productive salmon-bearing streams on Bainbridge Island and contains one of only two stream reaches on Bainbridge Island designated as Critical Habitat for Puget Sound steelhead. The stream currently hosts populations of a number of fish species including cutthroat trout, coho and chum salmon, sculpin, and Western brook lamprey.

The Springbrook Creek Watershed Assessment came about by recognizing the creek as an important fish stream on Bainbridge Island and that certain actions were needed to care for and improve this resource, but a science-based decision-making matrix to guide near and future term actions was lacking. Following the 2013-2014 Wild Fish Conservancy (WFC) stream surveys (SRFB project 13-1143), which was supported by Bainbridge Island Land Trust, a number of willing landowners provided access to their properties and were deeply engaged in discussions about the history of the stream and current conditions and uses. In 2014 the City of Bainbridge Island proposed two culvert repair projects on Springbrook Creek hoping to use Washington State Salmon Recovery Board funds. As a result of that proposal, the West Central Local Integrating Organization (LIO) and the West Sound Watersheds Council (WSWC) recommended that a systematic assessment and evaluation of the watershed be done to guide prioritization of restoration and protection actions. Given the positive energy that had been expressed by landowners during the 2013-2014 WFC survey and the request of the WSWC, a collaboration of the Bainbridge Island Land Trust, Bainbridge Island Watershed Council, City of Bainbridge Island, and Wild Fish Conservancy was formed resulting in grant proposal being submitted for an assessment project.

The grant was funded in 2014 by the SRFB (Project #14-1517). Work took place from 2015 - 2018. The collaboration of entities that applied for the grant formed the project team that oversaw all aspects of the



Figure 1. Context of Springbrook Creek Watershed in Puget Sound, on Bainbridge Island and within the Fletcher Bay Watershed

project: project management, collection of historical data, collection of and securing new field and analytical data, landowner outreach, volunteer coordination, synthesis of analysis, and formulation of watershed priorities and projects. Washington Department of Ecology was added to the project team to complete a watershed characterization. An abundance of assistance from other stakeholders, landowners and volunteers was provided throughout all phases of project.

This project is West Central Local Integrating Organization Near Term Action WC 15, and therefore a priority of the Puget Sound Partnership Action Agenda, which is the State's directive for recovering listed species such as Puget Sound Chinook Salmon and resident orcas, and for addressing pollution of Puget Sound. It is hoped that projects identified in the assessment will result in local, regional and state financial support.

An important element of the project included landowner and community interaction to learn from those living in the watershed about stream function and use, to engage them in caring for stream and watershed resources, and to share information developed during the project. One hundred and twenty three landowners who lived along the stream were contacted about the project. During the project over 54 properties were visited encompassing over 240 acres. By the end of the project, about 65% of the watershed's stream length was field surveyed (about 4.7 miles of 7.2 miles of stream). Landowners were contacted by mail email, or by phone informing them of the project, and many individual meetings took place. Landowners were invited to join us on the land to show us their property so we could learn from them and learn about the history of the land. Communications with landowners were ongoing throughout the project. Those private lands where projects were identified for conceptual designs had landowners that were deeply involved in and committed to the development of restoration or protection projects. While all members of the project team were engaged with landowners Wild Fish Conservancy and the Land Trust took the lead on these endeavors.

A comprehensive inventory of stream and riparian conditions throughout the watershed was achieved through the project, including a comprehensive inventory of fish passage barriers accomplished by Wild Fish Conservancy and Washington Department of Fish and Wildlife. A total of 46 culverts were identified: 8 on city-owned property and 38 on private property. Of the 30 on fish habitat streams, 10 (33%) were full passage barriers, 15 (50%) were partial barriers, and 5 (17%) were completely unknown passability. None of the assessed culverts on fish habitat streams were found to be fully passable, and about 1.8 miles of fish habitat exist upstream of what are considered full barriers. Additionally, fish utilization and fish presence surveys were conducted by Wild Fish Conservancy and BI Watershed Council spawning surveys.

Water quality and quantity monitoring was performed to identify limiting factors such as temperature, sediment, and fecal coliform. A total of 14 sites were selected and monitored for one or more parameters, with the City of Bainbridge Island and a team of volunteers performing monitoring and data collection tasks.

Additionally, a watershed characterization was performed by Washington Department of Ecology using their Puget Sound Watershed Characterization model (See Appendix I of the full report). This work led to the identification of specific Assessment Units within the watershed in order to provide information on conditions within sub areas of the watershed. The results of this work provided information on the functionality or degradation of important watershed conditions or functions such as areas for sediment sources, water flow, surface recharge, surface water storage and water discharge. The result of this work not only helped understand which areas of the watershed provided which important watershed functions, but also what actions (protection or restoration) might need to occur to protect or improve these functions.

As a result of the all the assessment and on the ground work performed, the Springbrook Creek Watershed Assessment Report contains a compilation of watershed resource information, identifies limiting factors, appropriate, feasible, and cost-effective solutions to address limiting factors in the watershed (see Section 4 of the full report). Many areas of the stream and watershed are in poor or compromised condition.

Restoration opportunities such as removing fish passage barriers and enhancing riparian habitats, evaluating the possibility of returning the stream to its historical path, and protecting intact fish habitat through acquisition or conservation easements were identified as proposed action items for the future. Watershed-wide efforts, such as landowner outreach to share tips for caring for streams and associated vegetation, are also recommended. Prioritization of projects considered the number of limiting factors a project would address, landowner agreement and participation, position of the project within the watershed, and likelihood of success of the project protecting or recovering natural watershed processes.

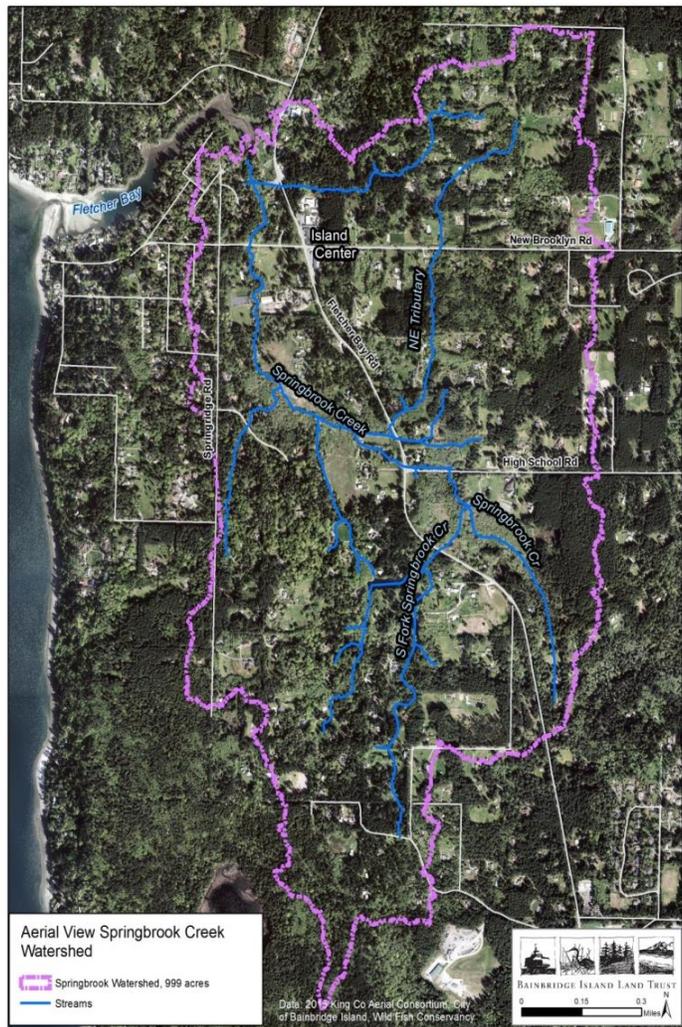


Figure 2. Aerial view of Springbrook Creek Watershed

Conceptual designs for five high-priority projects were created. Project development was a multi-year endeavor and included much on-site consultation with landowners, surveys, development of design options, examining title issues, adjusting designs to meet ecological and landowner concerns, and final drawing and cost estimate compilation. The project design process was led by Wild Fish Conservancy and Bainbridge Island Land Trust and was done in close coordination with landowners, or in the case of the project involved City property, the City of Bainbridge Island. Wild Fish Conservancy and City of Bainbridge Island assisted with on the ground survey work, and when engineered drawings and costs estimates were needed on restoration concepts, Wild Fish Conservancy performed these tasks.

Of the five conceptual designs produced, four involve culvert removal, all five improve riparian conditions, and one project is protection focused. The five conceptual projects are included in Appendix III of the full report, are described below and illustrated on the map below:

Fletcher Bay Culvert and Weir Removal and Stream Restoration Project (Project 1): Removes culvert, weirs and streamside armor and replaces culvert with bridge. Streamside and native vegetation are enhanced for more naturalized stream flow. This project is the lowest in the stream system and addresses the first fish passage barrier in the Springbrook Creek watershed, improving access to over 4.7 miles of stream habitat, while also providing more room for the stream to accommodate high flow events (this culvert receives stream drainage from most of the 999 acre watershed).

Eddy Culvert and Armor Removal, Bridge Replacement, Stream Restoration (Project 2): Removes culvert and streamside armoring with a bridge and enhances the riparian area through invasive plant management and native plant installation. This project addresses the second fish passage barrier fish encounter in the system. This project is just upstream of Project 1 and just downstream of Project 3.

Rekow Stream and Riparian Restoration (Project 3): Removes derelict culvert and improves riparian condition by removing invasive plants and enhancing with more native vegetation. This project is just upstream from Project 2 and downstream from project 4.

Nickum Stream and Riparian Restoration (Project 4): Improves stream and riparian condition through removal and management of invasive vegetation, planting native vegetation and enhancing the stream channel. This project is just upstream of project 3.

Upper Springbrook Protection Project (Project 11 on map): Acquires for protection nearly 23 acres of undisturbed forested wetland, stream and associated riparian habitat in assessment unit 6, which was identified as the area of high priority for protection in the watershed.

A substantial list of other potential actions that would improve stream and watershed conditions in the future were also identified and are included in the report (see Appendix II and Sections 5 and 6 and the map above).

\$61,628.00 of in-kind support was contributed by Bainbridge Island Land Trust, Bainbridge Island Watershed Council, City of Bainbridge Island, Washington Department of Ecology, Wild Fish Conservancy, and many volunteers and was matched with the \$61,625.00 Salmon Recovery Funding Board grant, administered by the Washington State Recreation and Conservation Office.

The Springbrook Creek Watershed Assessment is the first watershed scale assessment conducted on Bainbridge Island. This project may act as a model for future stream and water resource planning efforts on Bainbridge Island.

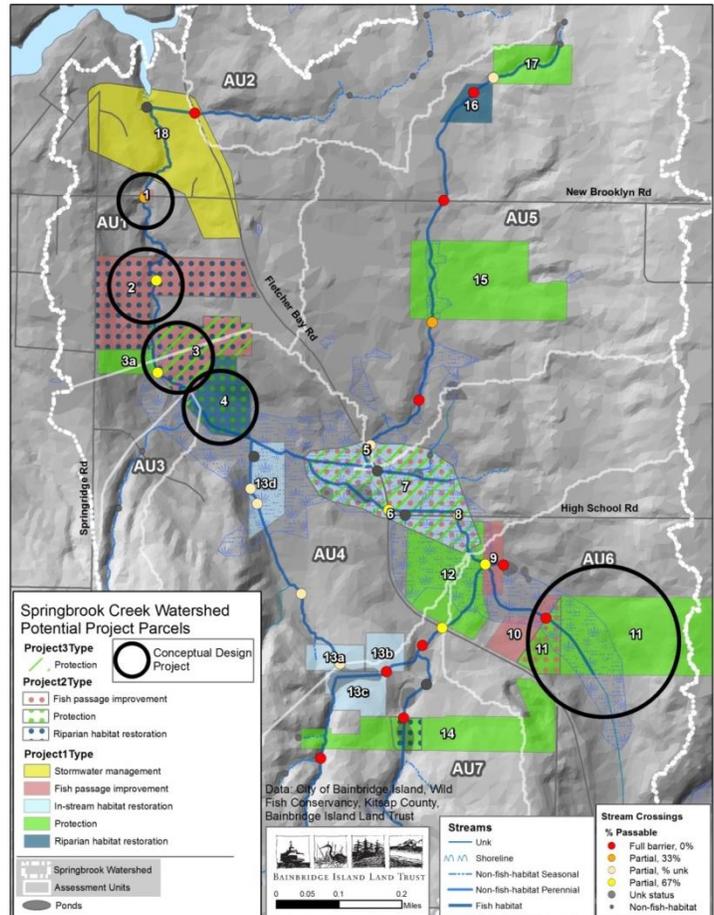


Figure 3 (from the entire report). Location of Conceptual Design Projects

For more information contact:

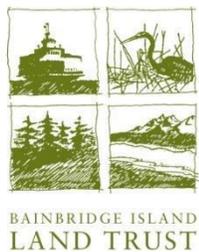
Bainbridge Island Land Trust (206) 842-1216: Gina King (gina@bi-landtrust.org) or Brenda Padgham (brenda@bi-landtrust.org)

Wild Fish Conservancy (425) 788-1167: Jamie Glasgow (jamie@wildfishconservancy.org)

Springbrook Creek Watershed Assessment



FINAL REPORT December 26, 2018 SRFB Project #14-1517



Funded by:

Washington Recreation and Conservation Office Salmon Recovery Funding Board
Project #14-1517, Springbrook Creek Evaluation and Feasibility

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Appendix IV: Potential Project 7: Fletcher Bay Road NE and High School Road Culvert and Stream Improvements

Glossary of Terms

Aquifer: A body of permeable, porous rock, sand, or gravel that holds water underground.

AU (or PAU): Assessment Unit (or Project Assessment Unit)

Benthic macroinvertebrates: Animals without backbones, large enough to be seen with the naked eye, living among the stones and sediments of the stream bed.

Channelization: Alteration of the course of a stream to form straight channels.

Confluence: Where two streams meet.

Culvert: A pipe carrying a stream under a road.

Downstream: In the direction of water flow.

Impervious: Hard surfaces such as pavement that do not allow water to infiltrate.

In situ physiochemistry: Physical and chemical properties of water within the stream, such as pH, dissolved oxygen, and temperature.

Left bank: Left side of the stream when facing downstream.

LIDAR: Light Detection and Ranging. A survey method creating high-definition mapping of elevations using pulsed laser light to measure distances to the ground.

Right bank: Right side of the stream when facing downstream.

Riparian: The interface between land and a stream; the zone along a natural watercourse.

Sediment: Particles of naturally occurring substances that are transported by, and settle out of, streams.

Septic system: A self-contained underground treatment system for household wastewater and sewage.

Stormwater: Surface water generated by precipitation and runoff from impervious surfaces.

Watershed: An area of land draining downslope to the lowest point. May also be referred to as a drainage basin.

Water types (as per Washington Department of Natural Resources guidelines

<https://www.dnr.wa.gov/forest-practices-water-typing>, WAC 222-16-031):

Type "F" - Fish habitat; Streams and waterbodies that are known to be used by fish, or meet the physical criteria to be potentially used by fish. Fish streams may or may not have flowing water all year; they may be perennial or seasonal.

Type "Np"- Non-fish-habitat perennial; Streams that have flow year round and may have spatially intermittent dry reaches downstream of perennial flow. Type Np streams do not contain fish or meet the physical criteria of a Type F stream.

Type "Ns" - Non-fish-habitat seasonal; Streams that do not have surface flow during at least some portion of the year, and do not contain fish or meet the physical criteria of a Type F stream.

Type "S"- Shoreline; Streams and waterbodies that are designated "shorelines of the state" as defined in chapter 90.58.030 RCW.

1. Executive Summary

The Springbrook Creek Evaluation and Feasibility (Assessment) Project (SRFB/RCO Project #14-1517) assessed the condition of Springbrook Creek, its tributaries, and the 999 acre Springbrook Creek watershed. The Project identified limiting factors affecting ecosystem functions; reported on those conditions for planning activities within the watershed; conducted a watershed restoration and protection project feasibility analysis using existing and new data/information, including a significant amount of on the ground field work; and identified and prioritized potential protection and restoration projects addressing ecological health and fish passage limitations in the Springbrook Creek Watershed.

Springbrook Creek is situated on the west side of Bainbridge Island and drains into Fletcher Bay. Within the watershed, there are just over seven miles of stream of which approximately 4.7 miles are typed as fish habitat. Springbrook Creek is one of the largest and most productive salmon-bearing streams on Bainbridge Island and contains one of only two stream reaches on Bainbridge Island designated as Critical Habitat for Puget Sound steelhead. The stream currently hosts populations of a number of fish species including cutthroat trout, coho and chum salmon, sculpin, and Western brook lamprey.

The Springbrook Creek Watershed Assessment came about by recognizing the creek as an important fish stream on Bainbridge Island and that certain actions were needed to care for and improve this resource, but a science-based decision-making matrix to guide near and future term actions was lacking. Following the 2013-2014 Wild Fish Conservancy (WFC) stream surveys (SRFB project 13-1143), which was supported by Bainbridge Island Land Trust, a number of willing landowners provided access to their properties and were deeply engaged in discussions about the history of the stream and current conditions and uses. In 2014 the City of Bainbridge Island proposed two culvert repair projects on Springbrook Creek hoping to use Salmon Recovery Funding Board (SRFB) funds. As a result of that proposal, the West Central Local Integrating Organization (LIO) and the West Sound Watersheds Council (WSWC) recommended that a systematic assessment and evaluation of the watershed be done to guide prioritization of restoration and protection actions. Given the positive energy that had been expressed by landowners during the 2013-2014 WFC survey and the request of the WSWC, a collaboration of the Bainbridge Island Land Trust, Bainbridge Island Watershed Council, City of Bainbridge Island, and Wild Fish Conservancy was formed resulting in grant proposal being submitted for an assessment project.

The grant was funded in 2014 by the SRFB. Work took place from 2015 - 2018. The collaboration of entities that applied for the grant formed the project team that oversaw all aspects of the project: project management, collection of historical data, collection of and securing new field and analytical data, landowner outreach, volunteer coordination, synthesis of analysis, and formulation of watershed priorities and projects. Washington Department of Ecology was added to the project team to complete a watershed characterization. An abundance of assistance from other stakeholders, landowners and volunteers was provided throughout all phases of project.

This project is West Central Local Integrating Organization Near Term Action WC 15, and therefore a priority of the Puget Sound Partnership Action Agenda, which is the State's directive for recovering listed species such as Puget Sound Chinook Salmon and resident orcas, and for addressing pollution of Puget

Sound. It is hoped that projects identified in the assessment will result in local, regional and state financial support.

An important element of the project included landowner and community interaction to learn from those living in the watershed about stream function and use, to engage them in caring for stream and watershed resources, and to share information developed during the project. One hundred and twenty three landowners who lived along the stream were contacted about the project. During the project over 54 properties were visited encompassing over 240 acres. By the end of the project, about 65% of the watershed's stream length was field surveyed (about 4.7 miles of 7.2 miles of stream). Landowners were contacted by mail email, or by phone informing them of the project, and many individual meetings took place. Landowners were invited to join us on the land to show us their property so we could learn from them and learn about the history of the land. Communications with landowners were ongoing throughout the project. Those private lands where projects were identified for conceptual designs had landowners that were deeply involved in and committed to the development of restoration or protection projects. While all members of the project team were engaged with landowners Wild Fish Conservancy and the Land Trust took the lead on these endeavors.

A comprehensive inventory of stream and riparian conditions throughout the watershed was achieved through the project, including a comprehensive inventory of fish passage barriers accomplished by Wild Fish Conservancy and Washington Department of Fish and Wildlife. A total of 46 culverts were identified: 8 on city-owned property and 38 on private property. Of the 30 on fish habitat streams, 10 (33%) were full passage barriers, 15 (50%) were partial barriers, and 5 (17%) were completely unknown passability. None of the assessed culverts on fish habitat streams were found to be fully passable, and about 1.8 miles of fish habitat exist upstream of what are considered full barriers. Additionally, fish utilization and fish presence surveys were conducted by Wild Fish Conservancy and BI Watershed Council spawning surveys.

Water quality and quantity monitoring was performed to identify limiting factors such as temperature, sediment, and fecal coliform. A total of 14 sites were selected and monitored for one or more parameters, with the City of Bainbridge Island and a team of volunteers performing monitoring and data collection tasks.

Additionally, a watershed characterization was performed by Washington Department of Ecology using their Puget Sound Watershed Characterization model (Appendix I). This work led to the identification of specific Assessment Units within the watershed in order to provide information on conditions within sub areas of the watershed. The results of this work provided information on the functionality or degradation of important watershed conditions or functions such as areas for sediment sources, water flow, surface recharge, surface water storage and water discharge. The result of this work not only helped understand which areas of the watershed provided which important watershed functions, but also what actions (protection or restoration) might need to occur to protect or improve these functions.

As a result of the all the assessment and on the ground work performed, the Springbrook Creek Watershed Assessment Report contains a compilation of watershed resource information, identifies limiting factors, appropriate, feasible, and cost-effective solutions to address limiting factors in the watershed (see Section 4). Many areas of the stream and watershed are in poor or compromised condition.

Restoration opportunities such as removing fish passage barriers and enhancing riparian habitats, evaluating the possibility of returning the stream to its historical path, and protecting intact fish habitat through acquisition or conservation easements were identified as proposed action items for the future. Watershed-wide efforts, such as landowner outreach to share tips for caring for streams and associated vegetation, are also recommended. Prioritization of projects considered the number of limiting factors a project would address, landowner agreement and participation, position of the project within the watershed, and likelihood of success of the project protecting or recovering natural watershed processes.

Conceptual designs for five high-priority projects were created. Project development was a multi-year endeavor and included much on-site consultation with landowners, surveys, development of design options, examining title issues, adjusting designs to meet ecological and landowner concerns, and final drawing and cost estimate compilation. The project design process was led by Wild Fish Conservancy and Bainbridge Island Land Trust and was done in close coordination with landowners, or in the case of the project involved City property, the City of Bainbridge Island. Wild Fish Conservancy and City of Bainbridge Island assisted with on the ground survey work, and when engineered drawings and costs estimates were needed on restoration concepts, Wild Fish Conservancy performed these tasks.

Of the five conceptual designs produced, four involve culvert removal, all five improve riparian conditions, and one project is protection focused. The five conceptual projects included in Appendix III are:

Fletcher Bay Culvert and Weir Removal and Stream Restoration Project (Project 1): Removes culvert, weirs and streamside armor and replaces culvert with bridge. Streamside and native vegetation are enhanced for more naturalized stream flow. This project is the lowest in the stream system and addresses the first fish passage barrier in the Springbrook Creek watershed, improving access to over 4.7 miles of stream habitat, while also providing more room for the stream to accommodate high flow events (this culvert receives stream drainage from most of the 999 acre watershed).

Eddy Culvert and Armor Removal, Bridge Replacement, Stream Restoration (Project 2): Removes culvert and streamside armoring with a bridge and enhances the riparian area through invasive plant management and native plant installation. This project addresses the second fish passage barrier fish encounter in the system. This project is just upstream of Project 1 and just downstream of Project 3.

Rekow Stream and Riparian Restoration (Project 3): Removes derelict culvert and improves riparian condition by removing invasive plants and enhancing with more native vegetation. This project is just upstream from Project 2 and downstream from project 4.

Nickum Stream and Riparian Restoration (Project 4): Improves stream and riparian condition through removal and management of invasive vegetation, planting native vegetation and enhancing the stream channel. This project is just upstream of project 3.

Upper Springbrook Protection Project (Project 11 on map): Acquires for protection nearly 23 acres of undisturbed forested wetland, stream and associated riparian habitat in assessment unit 6, which was identified as the area of high priority for protection in the watershed.

A substantial list of other potential actions that would improve stream and watershed conditions in the future were also identified and are included in the report (see Appendix II and Sections 5 and 6).

\$61,628.00 of in-kind support was contributed by Bainbridge Island Land Trust, Bainbridge Island Watershed Council, City of Bainbridge Island, Washington Department of Ecology, Wild Fish Conservancy, and many volunteers and was matched with the \$61,625.00 Salmon Recovery Funding Board grant, administered by the Washington State Recreation and Conservation Office.

The Springbrook Creek Watershed Assessment is the first watershed scale assessment conducted on Bainbridge Island. This project may act as a model for future stream and water resource planning efforts on Bainbridge Island.

2. Introduction

Folks made their living from the land. The stream was where cows got their water and where dams formed irrigation ponds. They were also: where Maldur Flodin in the 1910's could seasonally spear salmon; where a generation later, his son Lyle saw two salmon, the largest being 28 inches!; where Adelen Narte remembers her father catching a steelhead; and where Wayne Loverich's dog periodically brings home a chum, or dog salmon!

Excerpt from Island Center (Springbrook Creek) section of Gerald Elfendahl's Streams of Bainbridge Island, 1996

992.1 Overview

The Springbrook Creek Watershed is located on Bainbridge Island, in Kitsap County Washington. Bainbridge Island encompasses 18,368 acres, has 12 major watersheds, hosts 53 miles of shoreline and lies within Puget Sound, one of the nation's largest estuaries. Springbrook Creek Watershed (Watershed) encompasses 999 acres (1.56 mi²), and drains to Fletcher Bay. The Watershed lies within the Fletcher Bay Watershed, drains the southern half of the Fletcher Bay Watershed, and comprises approximately 47% of the Fletcher Bay Watershed. Springbrook Creek (also known as Springridge Creek and Fletcher Creek) flows from north of Gazzam Lake through Island Center to Fletcher Bay. It is one of the Island's largest and most productive salmon-bearing streams.



Figure 1. Context of Springbrook Creek Watershed in Puget Sound, on Bainbridge Island and within the Fletcher Bay Watershed

Seven miles of stream exist within the watershed, with approximately 4.7 miles typed as fish habitat. Springbrook Creek contains one of only two stream reaches on Bainbridge Island designated under the Endangered Species Act as Critical Habitat for Endangered Puget Sound steelhead. The stream currently hosts populations of a number of fish species including cutthroat trout, coho and chum salmon, sculpin, Western brook lamprey, and more.

The Island lies within the homelands of the Suquamish people, and a summer village at Fletcher Bay provided a base from which tribal people used the abundant natural resources of the watershed and vicinity. The watershed is now predominantly low-density residential housing in a patchwork of second-growth forest, farmland, open pastures, and lawns. Island Center, one of five service centers on Bainbridge Island, lies in the northern part of the study area and hosts a gas station, restaurant, and a few businesses.

2.2 Project Purpose, Elements and Previous Assessments

Purpose:

The Springbrook Creek Evaluation and Feasibility (Assessment) Project assessed the condition of the stream and watershed using historical and new information to recommend actions that could improve the condition of the function of the stream to support fish populations and improve watershed functions. The project identified limiting factors affecting ecosystem functions, reported on those conditions for planning activities within the watershed, conducted a watershed restoration and protection project feasibility analysis, and identified and prioritized potential protection and restoration projects addressing ecological health and fish passage limitations in the Springbrook Creek Watershed. An important element of the project included landowner and community interaction to learn about their experience with stream function and use, and to engage with them in caring for stream and watershed resources. As a result of the work performed, this report compiles watershed resource information, identifies appropriate, feasible, and cost-effective solutions to limiting factors in the watershed, and presents conceptual designs for five high-priority projects.

The Springbrook Creek Watershed Assessment is the first watershed scale assessment conducted on Bainbridge Island. Previous work on an island-wide basis focused on ground water, water monitoring, shoreline, geologic features, and transportation planning, this project is the first to conduct a comprehensive study of a stream and associated water resources within a specific Island watershed. This project may act as a template for future stream and water resource planning efforts on the Island.

The Springbrook Creek Watershed Assessment recognizes the creek is an important fish stream on Bainbridge Island and to care for this resource a science-based prioritization matrix was needed to guide near and future term actions. Following the 2013-2014 Wild Fish Conservancy (WFC) stream surveys (SRFB project 13-1143), supported by Bainbridge Island Land Trust, a number of willing landowners provided access to their properties and were deeply engaged in discussions about the history of the stream and current conditions and uses. In 2014 the City of Bainbridge Island proposed two culvert repair projects on Springbrook Creek hoping to use Salmon Recovery Funding Board (SRFB) funds. As a result of that proposal, the West Central Local Integrating Organization (LIO) and the West Sound Watersheds Council (WSWC) recommended an assessment and evaluation of the watershed to guide prioritization of restoration and protection actions. Given the positive energy expressed by landowners during the 2013-

2014 WFC survey and the request of the WSWC, a collaboration of the Bainbridge Island Land Trust, Bainbridge Island Watershed Council, City of Bainbridge Island, and Wild Fish Conservancy formed and submitted a grant proposal for an assessment project. The SRFB funded the grant in 2014. This project is West Central Local Integrating Organization Near Term Action WC 15 and therefore a priority of the Puget Sound Partnership Action Agenda, the State's directive for recovering listed species such as Puget Sound Chinook Salmon and resident orcas. Projects identified in the assessment could result in local, regional and state financial support.

Project Elements:

While a number of project elements and tasks were a part of this project (see below), the main objective of completing a watershed scale assessment of Springbrook Creek was to identify, prioritize, and sequence) conceptual designs for future habitat improvements and/or protection projects. Projects could include restoration opportunities such as removing anthropogenic fish passage barriers, enhancing riparian habitats, evaluating the possibility of restoring the stream to its historical path, managing and treating stormwater runoff, and permanently protecting intact fish habitat and riparian functions through acquisition or conservation easements. The evaluation of existing watershed and stream data, collection of new stream data, and a geomorphic and hydrologic assessment helped guide project partners in understanding the dynamics of the stream.

Tasks Achieved:

1. Form a Project Team: A project team comprised of experts in water resources, fish ecology, watershed processes, GIS, engineering, and communications was formed. Over the course of the 36 month project, the team met over 15 times as a group, oversaw project tasks, collected new data and information, synthesized information, conducted landowner and community education, developed project selection criteria and project designs. This project did not hire a consultant to oversee and perform project management and relied instead on the project team to help complete project tasks. Members of the project team included:

Bainbridge Island Land Trust (Land Trust): The Land Trust is a non-profit conservation organization with a 29 year history of protecting, restoring, and stewarding conservation lands on Bainbridge. The Land Trust is a member of the West Sound Watershed Council Technical Advisory Committee and is the primary land protection and conservation organization on Bainbridge Island, bringing landowner outreach, landowner negotiation, conservation strategy and Geographic Information Systems (GIS) expertise to this project. As co-project manager of the grant with Wild Fish Conservancy, the Land Trust performed field assessment, facilitated and conducted community and landowner communications, generated GIS analysis and maps, performed data management, and helped develop the conceptual designs and final report.

Wild Fish Conservancy (WFC): WFC is a non-profit organization who works to ensure healthy and protected fish resources through its scientific, restoration and outreach endeavors. WFC is a member of West Sound Watershed Council Technical Advisory Committee and actively engaged on Bainbridge Island since 2014 conducting stream inventory and assessment work. WFC was project co-manager and brought substantial expertise and knowledge of salmonid life histories and habitat assessment practices and conducted

extensive field work, participated in landowner outreach, assisted in project identification, provided engineer services and project designs, and helped produce this report.

Bainbridge Island Watershed Council (BIWC): The BIWC is a citizens' advisory group with knowledge of watershed conditions on the Island and has extensive experience managing volunteers who conduct salmon spawning surveys, collecting and synthesizing survey data, interacting with landowners, and policy makers. BIWC salmon monitoring data were used in this project. BIWC provided assistance with landowner outreach, project evaluation and selection, and report writing. The BIWC's Chair is a member of the West Sound Watershed Council Technical Advisory Committee.

City of Bainbridge Island (COBI): The COBI constructs and manages public works projects and many projects identified in this report will involve COBI design, permitting, and construction involvement. Additionally, COBI's Water Resources division has extensive experience and knowledge of water resource on the Island and in Springbrook Creek through a long-term (since 2000) monitoring program in the watershed. COBI oversaw the extensive water monitoring element of this project, utilizing volunteers and staff resources, managed monitoring data, synthesized the results, and contributed to elements of this report. City engineering/public works and water resources staff spent considerable time in the field assisting with surveys and data collection, and evaluating project proposals. COBI employees contributed over \$26,609 in value of professional services and over \$15,059 in equipment value towards the project. COBI is an active participant in the West Central Local Integrating Organization (LIO).

Washington Department of Ecology (WDOE): The WDOE is the state agency that oversees the management and care of the state's water resources. WDOE created the Puget Sound Characterization Model in 2016 with funding support from the U.S. Environmental Protection Agency National Estuary Program, a non-regulatory program that helps support efforts to improve the waters, habitats and living resources of the nation's estuaries. WDOE was brought into the project team to lend their expertise to the project by performing a watershed characterization of the Springbrook Creek Watershed using their model, with specific emphasis on water supply, water storage, and sediment transport. WDOE performed site reconnaissance, data synthesis, and report writing tasks. Their considerable efforts contributed a large amount of in-kind contributions towards the project. WDOE provided services completely in-kind and contributed over \$31,142 in value for professional services.

2. Develop a Study Design: A number of local watershed assessments previously completed and funded by the Washington Recreation and Conservation Office Salmon Recovery Funding Board (SRFB) program were examined for content and design to inform the Springbrook effort. Due to the fish focus of the project's funding source, a strong emphasis of the study design was to focus gathering information on stream and watershed health issues in order to identify possible solutions to support healthy fish populations. Additionally, specific outcomes as required by the project funder required certain elements of the study to take place. The study design chosen needed to lead the project team towards the goal of identifying protection and restoration actions, and prioritizing those actions. The tasks described in this section reflect the elements of the study design the project team felt were necessary in order to achieve project goals.

3. Engage Landowners, Stakeholders, Volunteers, and the Public: An important element of the project was to engage those that live and work in the watershed. This project element included landowner outreach,

engaging organizations and agencies that work in or have an interest in the watershed, engaging volunteers, and to provide public education about the project.

Landowners: In order to gather information from those living within the watershed to learn the history of stream and land use, understand existing stream conditions and land uses, and to engage the landowners in helping care for the stream and watershed, a robust outreach endeavor took place. Over 123 landowners were contacted by mail, phone and/or email who live adjacent to the main stem or tributaries of Springbrook Creek. Seventy five landowners responded to those inquiries, with 54 of them granting the project team access to their property and the stream in order to



assess the condition of the stream, riparian area and more. All 54 properties where permission was granted were visited, sometimes multiple times, and on many of those visits, landowners participated, or engaged in phone discussions about their property. Through these interactions, 294.2 acres were visited to gather information about the existing features of the stream. This information was used to assess the overall condition of the watershed and project ideas were formulated and discussed. Most communications with landowners was with owners of individual parcels, with some project team group meetings with clustered landowners in certain segments of the watershed. One such example was a meeting hosted by the Land Trust on June 12, 2018 of six property owners who live at the corner of High School Road and Fletcher Bay Road.

Stakeholders (non landowners): Early in the project, efforts were made to learn from those working in the watershed, collect data and information, and to engage those interested in improving watershed conditions. Two stakeholder meetings took place early in the project on April 27, 2015 and May 19, 2015 with the following organizations (and their role) participating:

- BI Watershed Council* - salmon spawning surveys and overall watershed health/management work
- City of Bainbridge Island *+ - long term water monitoring program, management of public roads and infrastructure
- Kitsap Conservation District – technical assistance and cost share program for implementing best management practices on agricultural/farm lands
- Kitsap County Natural Resources - natural resources data, GIS, technical assistance
- Kitsap Health District – water pollution prevention and septic permitting and inspections
- Mid Sound Fisheries Enhancement Group – stream survey work

- Suquamish Tribe *+ - permitting and technical assistance in tribe's usual and accustomed jurisdiction
- Washington Department of Fish and Wildlife*+ - permitting of activities and technical assistance
- Wayne Daley - involved in past restoration efforts
- Wild Fish Conservancy*+ - stream assessment surveys
- Friends of the Farms* - manager of public farm lands in watershed
- Washington Department of Ecology* - oversees 303(d) program



Those entities with an “*” participated in a Walk the Springbrook Watershed day from the headwaters to Fletcher Bay on May 10, 2018 to view existing conditions and provide feedback on proposed restoration actions. Those entities with a “+” also participated in a March 16, 2018 examination of proposed culvert projects at the corner of High School Road/Miller Bay Road and Fletcher Bay Road.

Ongoing interaction with these stakeholders took place throughout the project.

Volunteers: By engaging volunteers in the project, more people were able to gain knowledge about the watershed and become ambassadors of the stream and its resources. This project engaged over 40 individual volunteers (in addition to the above listed stakeholders) who contributed over 240 hours of time (equaling \$3,632 in value) performing water monitoring at specifically identified monitoring sites (see Section 3.6), salmon monitoring, and on-site work with landowners.

Public Outreach: The project included several approaches to make information about the project available to the community and the public at large (in addition to meeting one to one with individuals). Some of the larger outreach endeavors included:

- The Bainbridge Island Land Trust hosted a project webpage: <https://www.bi-landtrust.org/protected-spaces/springbrook-creek/>
- The Bainbridge Island Land Trust featured the project in their Spring 2017 newsletter which reaches 1500 people.
- The City of Bainbridge Island hosted a project webpage: <https://www.bainbridgewa.gov/868/Springbrook-Creek-Watershed-Study> Island Center Sub Area Planning Meeting February 20, 2018 presentation by Cami Apfelbeck, City of Bainbridge Island to talk about the water quality issues in the watershed.
- Island Center Sub Area Planning Meeting June 20, 2018 (attended by the public, sub-area planning members, City staff) A presentation about the project results was provided to the West Sound Watersheds Council August 7, 2018.
- The project team presented several updates to the West Sound Watersheds Council Technical Advisory Group.

4. Examine historical information about the watershed, including past studies

The project team compiled and synthesized existing watershed data and engaged landowners and stakeholders to assist in evaluation of current and historic in-stream riparian, sediment transport, and hydrologic conditions. Existing baseline monitoring and assessment efforts within the watershed included:

- City of Bainbridge Island Water Quality and Flow Monitoring Program's long-term status and trends monitoring in the lower watershed (2010 - present). Parameters include continuous automated flow monitoring and precipitation, grab sampling for bacteria (monthly) and nutrients (semi-annually) with in-situ physiochemistry; annual benthic macroinvertebrate sampling; sediment sampling of substrate; and targeted storm event sampling. The program conducted focused dry-season bacteria source monitoring in the middle and lower watershed in 2011.
- Sinclair and Dyes Inlets Fecal Coliform Bacteria Total Maximum Daily Load TMDL and Water Quality Implementation Plan
- King County Department of Natural Resources and Parks, Water and Land Resources Division, Science and Technical Support Section 2015 Stream Benthos and Hydrologic Evaluation for the City of Bainbridge Island (DeGasperi and Gregersen, 2015). This assessment of the city's status and trends monitoring data compared streamflow characteristics to land use/land cover and benthic macroinvertebrate health to identify land use and flow alteration impacts to the stream benthos community.
- Initiated in 2005, the Bainbridge Island Watershed Council's annual monitoring program tracks juvenile fish use and adult salmon returning to four streams on Bainbridge including Springbrook Creek. Data is collected for observed juvenile fish and resident cutthroat, returning spawning salmon (alive and carcasses) and redds observed annually in the fall from 2005-2014, as well as a stream substrate (sediment) survey. This project uses monitoring data as a baseline for salmon productivity, and continued monitoring by BIWC will enable the project to evaluate changes in salmon productivity moving forward.
- West Sound Water Type Assessment, Phase III 2014-2015. <http://wildfishconservancy.org/> Wild Fish Conservancy, with partner Bainbridge Island Land Trust, completed initial stream typing for the majority of Bainbridge Island streams in 2014. Springbrook Creek was one of the streams assessed. The Washington State Recreation and Conservation Office Salmon Recovery Funding Program funded the project (Project 13-1143) and the West Sounds Watershed Council supported the project. The assessment documented both cutthroat and coho juveniles throughout the Springbrook Creek watershed where fish had access. The identification of 3.71 miles of total additional stream length and 3.12 miles of fish habitat, as well as a more comprehensive inventory of fish passage barriers, resulted from the 2014 assessment. During the 2014 efforts, WFC and BILT received a favorable response of landowner permissions to access the stream through private property, therefore providing initial opportunities to build landowner relations in this watershed and understand the condition of not only the stream, but the associated riparian and uplands.
- Washington State Department of Fish and Wildlife initiated a culvert inventory and assessment for the watershed as a whole in 2014. This work complements Wild Fish Conservancy stream assessment work.

- Fletcher Bay Pollution Identification and Correction Project (PIC) (2013-2015), Kitsap County Health District in collaboration with City of Bainbridge Island Water Resources Program. Project conducted bacteria source tracking along Issei Creek, Springbrook Creek and Fletcher Bay shorelines to identify and address threats to shellfish habitat in and around Fletcher Bay. Landowner outreach to inspect septic systems and communicate information on septic maintenance, pet waste management, and natural yard care was an important component of this project, resulting in a 12.2% increase in septic tank inspection/pumping in Fletcher Bay.

5. Identify information gaps, perform new assessments, or procure needed data.

Based on the examination of landowner information, stakeholder feedback, and historical information, the project team identified the types of information needed in order to complete the watershed assessment and develop projects. A strong emphasis was placed towards performing on the ground assessment and information gathering and landowner outreach. The assessment project accomplished the following actions:

- Gaining more landowner permissions and visiting more properties allowed for stream and riparian condition assessment for nearly all portions of the stream. Field work performed by all project team members, with Wild Fish Conservancy documenting conditions. By the end of the project, about 65% of the watershed’s stream length was field surveyed (about 4.7 miles of 7.2 miles of stream). The project team visited over 294 acres as part of this project.
- A comprehensive inventory of fish passage barriers in the watershed. Performed by WFC in consultation with WDFW.
- Additional water quality and flow information (including storm events) was collected to get a better picture of conditions basin-wide in order to supplement data already collected. Establish monitoring sites and obtain landowner permission. Performed by the City of Bainbridge Island and volunteer monitors.
- Assessment of the overall watershed geomorphological, hydrology, sediment, storage, and condition. This resulted in the hydrologic analysis of the watershed by the Washington Department of Ecology using their Puget Sound Characterization Decision Support Tool (Stanley et. al. 2016).
- Better understanding of ecosystem characteristics and land use. GIS analysis performed by the Land Trust.
- Ongoing and additional landowner and stakeholder outreach to learn more about historical land use, and explore restoration and protection opportunities. Performed by all project team members and some volunteers.
- Utilize spawning surveys performed by BIWC.
- Utilize topographical survey and LIDAR data (watershed-wide and project specific) to inform a number of project elements, including understanding the stream’s historical flow and hydrology.

6. Review and synthesize all data collected: This project brought together historical and new data/information in the form of this report, providing for an opportunity to look at the conditions of the stream and watershed from a multi-faceted perspective.

7. Identify limiting factors: Based on the information gathered, the project team identified “limiting factors” - conditions that limit the ability of the stream or watershed to fully sustain populations of salmon and provide other important functions (such as storm water retention).

8. Develop a rationale for developing and selecting projects (Project Selection Framework).

Guidance outlined in the document “Setting River Restoration Priorities: a Review of Approaches and a General Protocol for identifying and Prioritizing Actions” (Beechie, et. al 2008) provided a basis for identifying, developing and selecting projects in Springbrook Creek. The project adopted both a logical and analytical strategy for prioritizing restoration or protection actions.

9. Identify potential projects and actions to address limiting factors

10. Prioritize five projects and develop final conceptual plans in consultation with landowners

11. Synthesize project data and findings into a report

3. Watershed Characteristics and Assessment Findings

3.1 History, Land Use and Development

Before European settlement, dense old-growth Western red cedar, Douglas-fir, and western hemlock forests dominated the Bainbridge Island landscape, with a few seasonal Suquamish settlements. However, by the late 1800s the Island was home to the world’s highest-producing lumber mill and a thriving shipbuilding industry, and the entire Island had been clearcut by the early 1900s. Much of the cleared land converted to agricultural use. The Springbrook Creek part of the Island became a center of agricultural called Island Center, with two dairies, two greenhouse operations and several farms and small livestock operations. Local farmers (led by farmers of Japanese descent) pioneered rhubarb, raspberry, loganberry, and especially strawberry production in Kitsap County (Elfendahl 1996). Ranchers and farmers used the stream, with cattle and other livestock allowed free access to the stream and numerous dams constructed to create irrigation ponds.

Agricultural lands are now greatly reduced and on the scale of hobby farms than commercial operations, although several irrigation ponds persist in the Springbrook Watershed. The historic Johnson Farm is within the Springbrook Creek and is owned by the City of Bainbridge Island and managed by the non-profit Friends of the Farm. Forest cover has made substantial recovery and now over 70% of the land area is in second-growth trees (Figures 2, 5, Table 1).

Douglas-fir, western red cedar, bigleaf maple, alders, and Pacific madrone are common species. The Island Center service area is predominantly low-density residential housing in a patchwork of forest and open pastures and lawns. Near Fletcher Bay the Island Center “service center” is one of five such commercial centers designated under Bainbridge Island’s Comprehensive Plan, with a gas station, restaurant, auto repair shop, a retail nursery Bainbridge Gardens and a few other small businesses. The service center contains the majority of impervious surface in the Springbrook watershed.

Fletcher Bay Road NE/Miller Road is one of the Island’s main transportation corridors providing north to south access to the west side of the Island. The road runs from its intersection with Highway 305 to the

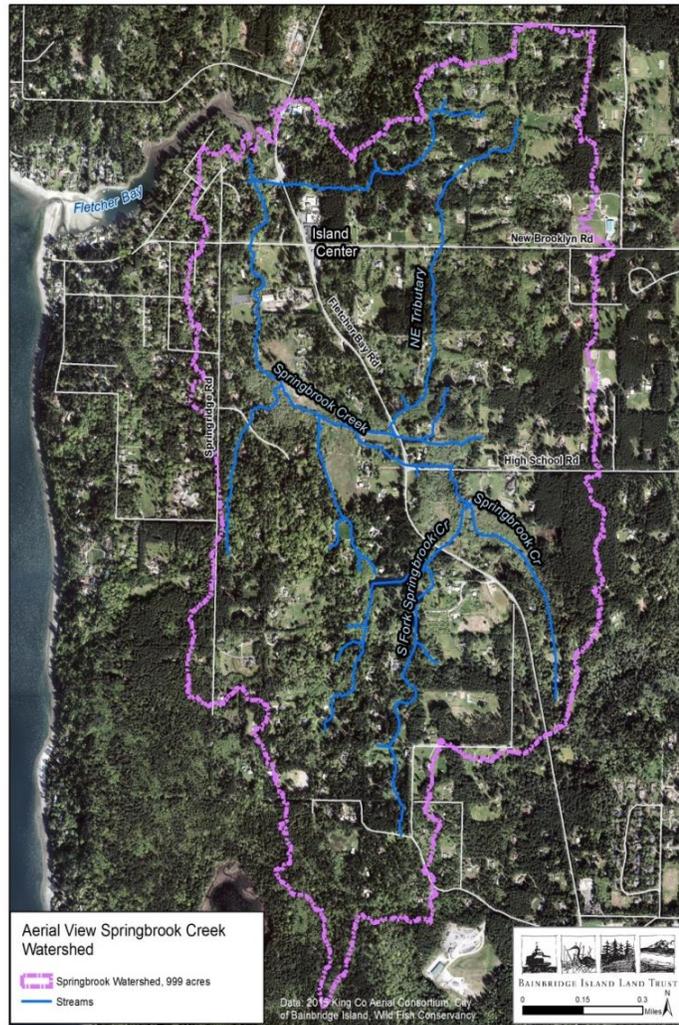


Figure 2. Aerial view of Springbrook Creek Watershed

north, down to its intersection with Lynwood Center road to the south. New Brooklyn and High School Roads are primary east/west roads which feed into Fletcher Bay Road NE. As Highway 305, the main road that connects the Island with the Seattle-Bainbridge Washington State Ferry and the Kitsap Peninsula, becomes more congested, use of Fletcher Bay Road NE as a north south quasi-arterial for vehicular traffic increases. The City of Bainbridge Island 2012 Traffic Study documented that during peak times (4:00 p.m. – 6:00 p.m.) over 300 cars traveled in the proximity of the corner of High School Road and Fletcher Bay Road NE while an average of 400 cars traveled through the intersection of New Brooklyn and Miller Road. Road improvements to address traffic volumes and bike and pedestrian safety are in planning and current implementation stages. Road impacts on stream health, water quality (particularly stormwater run-off), and fish passage where roads cross streams will be of growing concern.

Zoning across the majority of the watershed is R-0.4, allowing one housing unit per 2.5 acres. As further discussed in Section 3.4.2, the watershed was divided into sub-basins called assessment units (AUs). The areas zoned for higher housing density and commercial uses (Neighborhood Service Center) are concentrated near Fletcher Bay in sub-watershed assessment units (AUs) 1 and 2 (Figure 3). There are a total of 154.2 acres in the watershed with some level of protection afforded by Kitsap County property tax designations such as General or Agricultural Open Space, representing 15% of the watershed area. There are 68.4 acres in the watershed owned by the City of Bainbridge Island and/or protected under a Bainbridge Island Land Trust conservation easement that have a high-level of permanence in management as forest lands, parks (including the northern portion of the large Gazzam Lake Preserve overlapping the southern watershed area), and a farm (Figure 7). There are an additional 17.4 privately-owned acres managed under a separate conservation easement which allows for management for agricultural uses. Within the study area, 62% of the parcels have some form of development, while 18% remains undeveloped and unprotected. Closer examination of properties with no buildings and a predominance of natural vegetation finds that these types of undeveloped parcels (regardless of protection status) comprise 22% of the watershed. Based on land use and zoning, increased development within the watershed is possible. The COBI Island Center Subarea Planning effort currently underway is examining a number of items related to supporting and managing activities in that part of the watershed.

The City of Bainbridge Island 's 2017 Critical Areas Ordinances (CAOs) protects wetlands and riparian areas, with buffers generally 75-125 feet wide on wetlands in this watershed and 200-foot buffers on fish-habitat streams. A 2018 Native Vegetation Protection Area ordinance applies to R-0.4, R-1 and R-2 zones, (nearly all of Springbrook Watershed), with the intention of protecting groundwater resources by requiring retention of up to 65% of native vegetation when development or redevelopment results in greater than 800 square feet of hard surfaces or greater than 7,000 square feet of land disturbing activity (City of Bainbridge Island 2018).

Aquifers provide all of Bainbridge Island's drinking water. The entire Springbrook Creek Watershed is mapped by Kitsap County as a Category 2 Critical Aquifer Recharge Area (vulnerable to contamination by some land use activities). Category 1 Critical Aquifer Recharge Areas occur in the northwest and southeast portions of the watershed (indicating that potential for certain land use activities to effect groundwater is high). The City of Bainbridge Islands (COBI), Winslow Water Service Area (WSA), and private wells provide water used for residential and commercial use (drinking water) in the Island Center area. The existing WSA lies primarily west of Fletcher Bay Road NE and north of NE High School Road and supplies about 90

households in the Springbrook Watershed study area. According to the COBI's 2017 Water System Plan, there is a goal within the next 20 years to expand water delivery to all residences within expanded Retail Water Service Areas. According to the plan, the water system has sufficient water rights to last well into the future, and Island groundwater resources will benefit from expanding public and private water systems in preference to shallow or individual residential wells. Kitsap County GIS data show 88 individual wells in the watershed, which is likely an underestimate given that private wells supply roughly 240 households (> 70% of the total number of households) within the study area. There is no sewer district serving the watershed, with site specific septic drain fields serving residential and commercial purposes. Power, telephone, cable and cell services are all available within the watershed.

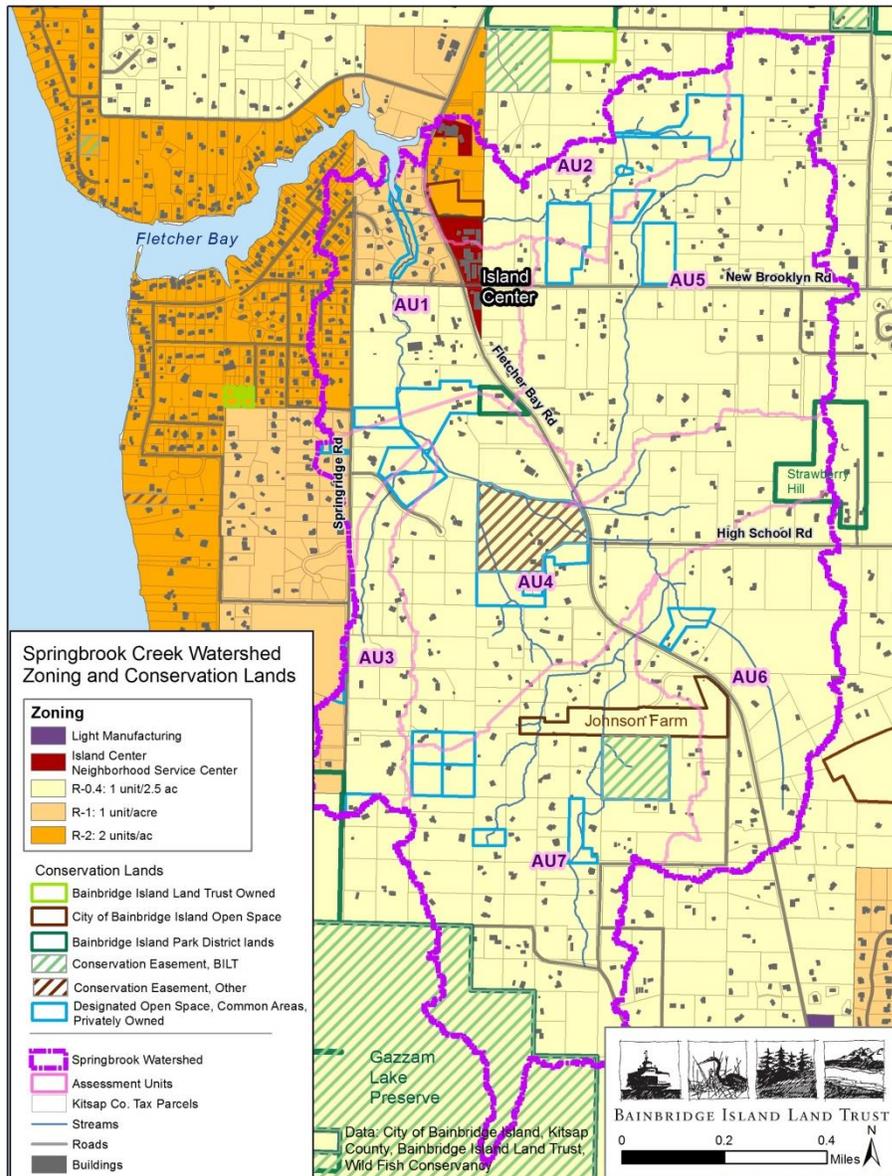


Figure 3. Zoning, conservation lands, buildings, and parcels in Springbrook Creek Watershed.

In an effort to understand recent trends in land use within the watershed, we obtained land cover data from 1999 and 2015 to quantify changes that had occurred in that time. Unfortunately, it proved difficult to

make valid comparisons even of what seem to be comparable land cover types, due to differences in the methods and quality of data utilized: classification from 25m² pixel satellite imagery in 1999, versus 1m² LIDAR (the more precise laser-based Light Detection and Ranging) in 2015. In particular, considerable misclassification occurred between the bare ground, low ground cover, and impervious surfaces categories in 1999. We did find that both years show about 17-18% of the watershed in combined bare ground or low ground cover, which examination of aerial photos from the same time frames suggests may be fairly accurate. However the comparison shows a decline in impervious surfaces in the watershed, from 7.9% in 1999 to 6.5% in 2015. Closer examination of aerial photos reveals that the 1999 classification erroneously assigned areas of bare ground or low vegetation as impervious. Given the building of homes and infrastructure rather than removal in this time span, we believe a slight increase in impervious surfaces has more likely occurred. The land cover classifications presented by Assessment Unit in Figure 6 illustrate differences within subareas of the watershed as will be further discussed in Section 3.4.2.

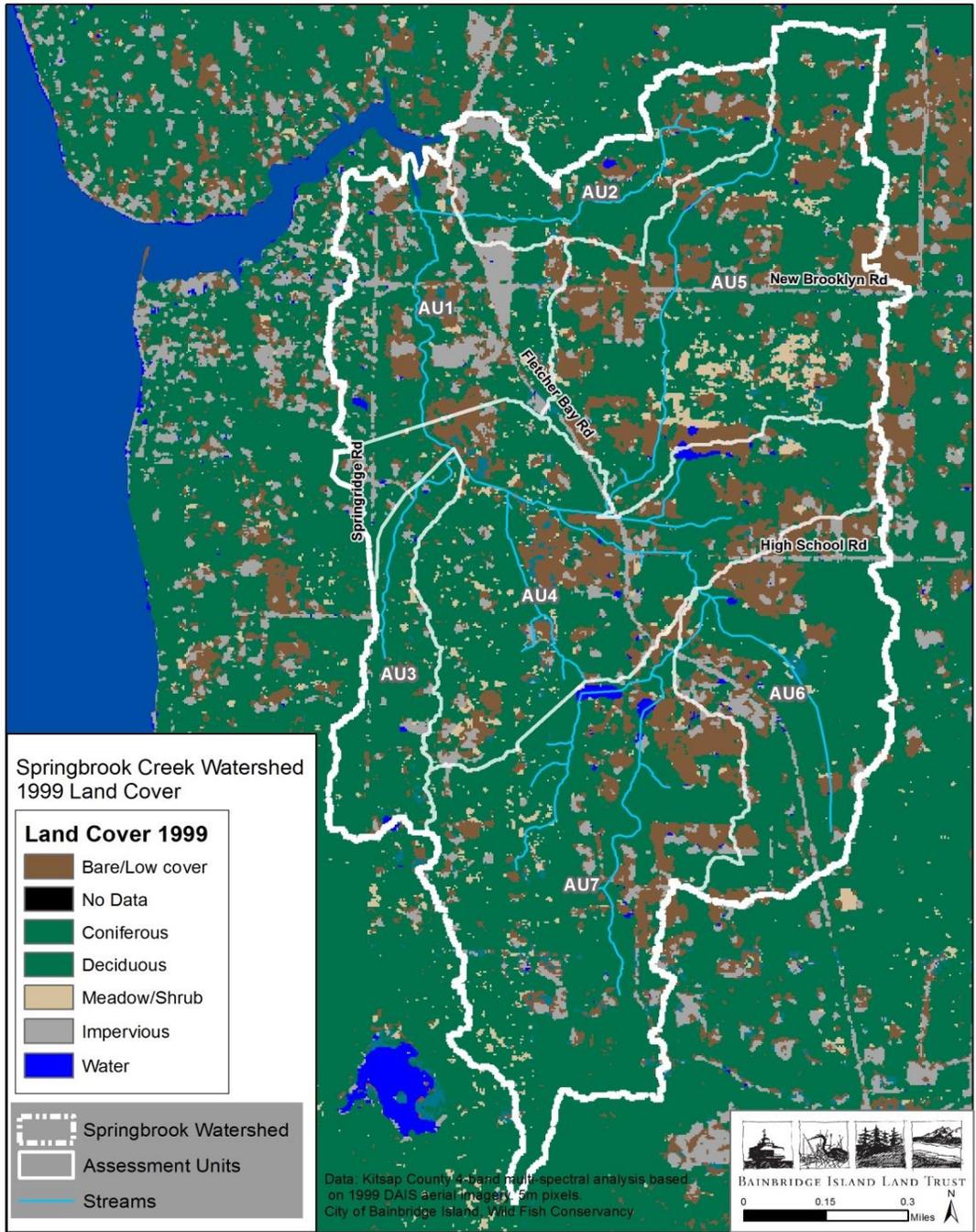


Figure 4. 1999 Land Cover from satellite imagery (25m² pixels).

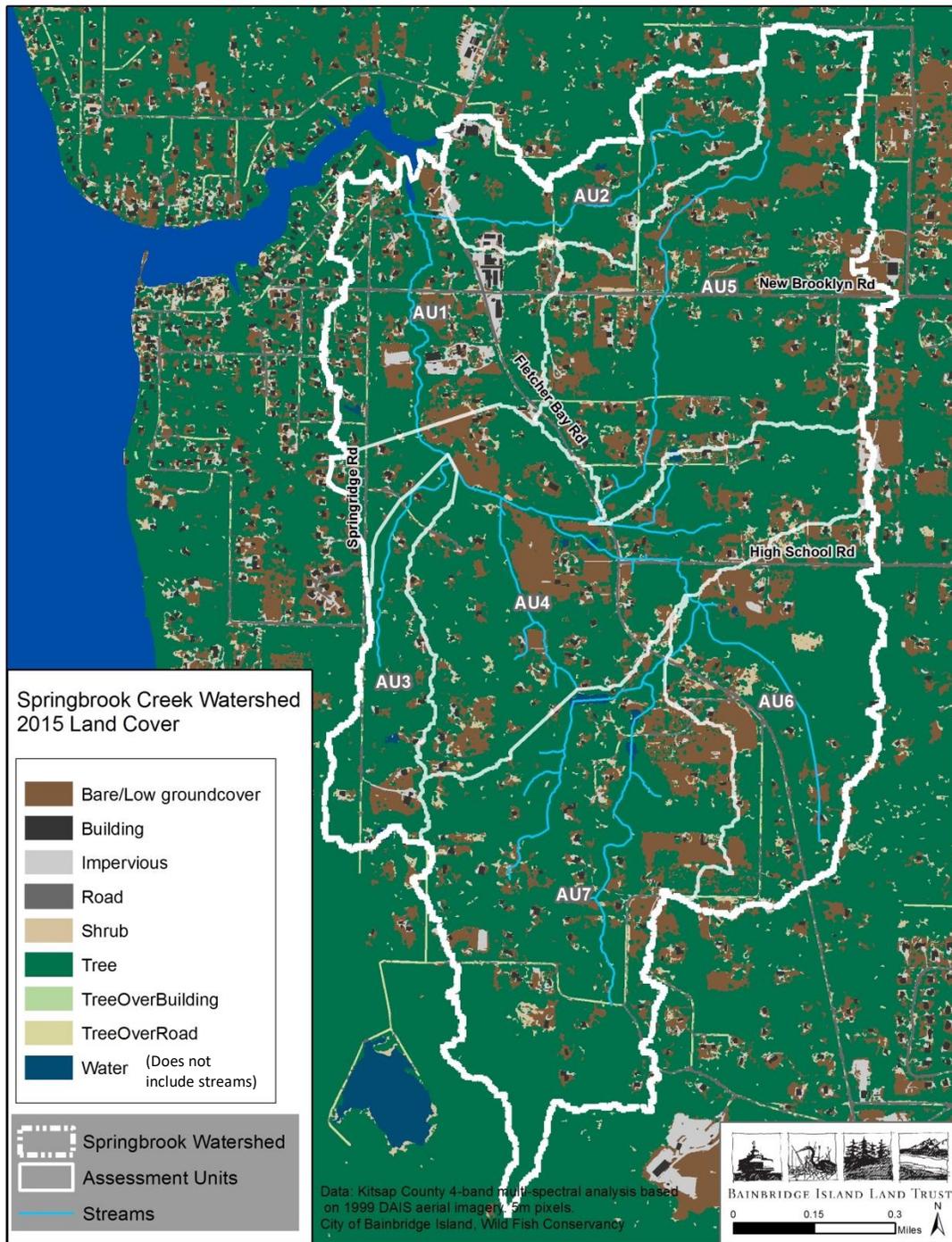


Figure 5. 2015 Land Cover from LIDAR (1m² pixels).

Table 1, Chart 1. Changes in watershed land cover 1990-2015.

Categories combined to reflect inaccurate distinctions between bare ground and ground cover in 1990. Note that neither mapping accurately maps emergent vegetation or wetlands.

Cover type	1999	2015
Buildings, impervious, trees over impervious	7.9%	6.5%
Bare ground/low groundcover	17.9%	17.5%
Shrub	3.5%	3.2%
Trees	68.9%	72.5%
Water categories	0.6%	0.3%

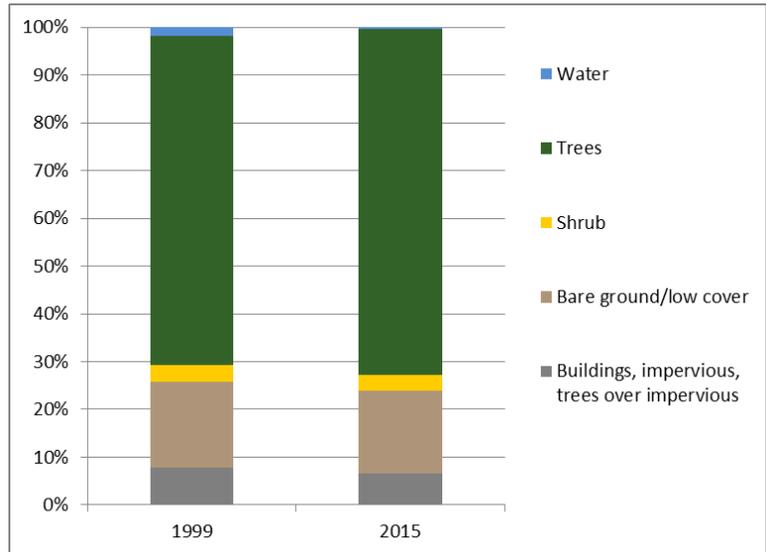


Table 2. 2015 land cover by Assessment Unit.

Cover type	AU1	AU2	AU3	AU4	AU5	AU6	AU7
Buildings, impervious, trees over impervious	15.9%	8.5%	5.3%	5.0%	6.0%	5.6%	4.1%
Bare ground	0.5%	0.2%	0.3%	0.1%	0.1%	0.1%	0.2%
Low ground cover	17.7%	12.4%	10.0%	19.8%	20.4%	17.9%	14.8%
Shrub	4.0%	2.5%	1.6%	2.9%	3.4%	4.4%	2.9%
Trees	61.6%	76.2%	82.1%	71.9%	70.0%	71.8%	77.3%
Water, emergent veg	0.3%	0.2%	0.7%	0.3%	0.1%	0.1%	0.7%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

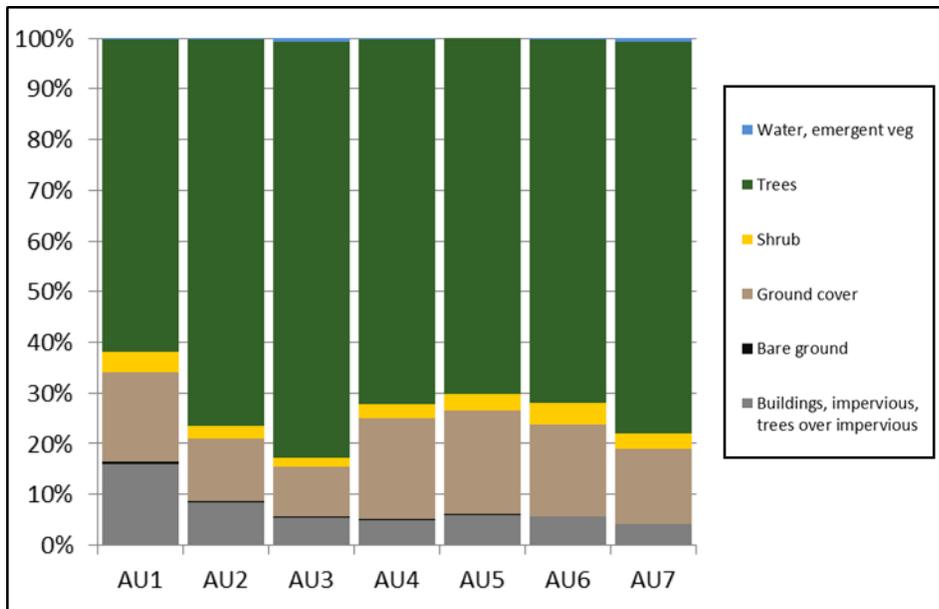


Figure 6. Land Cover by Assessment Unit

Knowledge of wetlands within the overall watershed and subareas is important to understand watershed functioning, but the 1999 classification did not accurately map wetlands and they were not a category in 2015. These were therefore calculated by Assessment Unit only for 2015 (Figure 7). GIS data by COBI and the Land Trust map wetlands based on rough delineations from aerial surveys combined with some ground delineations, shown as mapped wetlands throughout this report. As ground verification occurred on only portions of the Island, this mapping suffers from some omissions and boundary errors and is constantly being updated. For instance, the reach description for SB01A below describes wetlands observed along the stream in Assessment Unit 2, although the GIS mapping shows no wetlands in this area. The mapped wetland areas do show significant variation between subareas of the watershed in wetland percentage (Figure 7). Freshwater Wetlands, designated as Priority Habitat by the WDFW, cover 7.8% of the overall watershed.

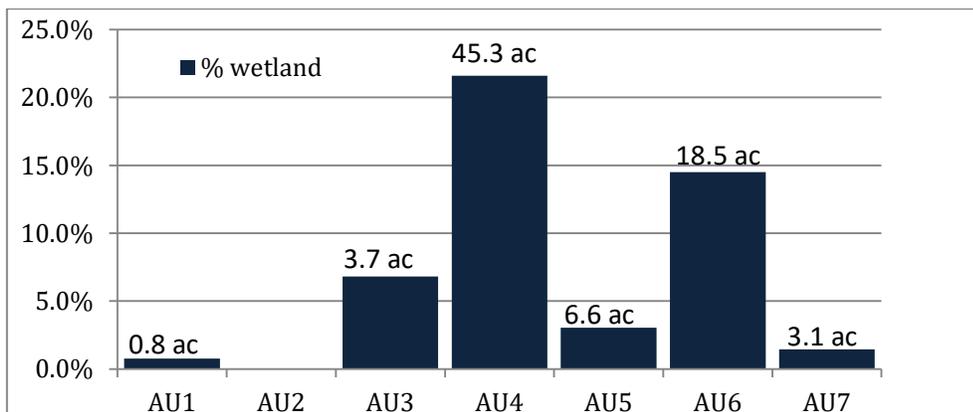


Figure 7. Percentage and acres of each Assessment Unit in wetlands.

Road densities are highly impactful on watershed functioning as they contribute sediments and pollutants into streams and change water flow patterns. NOAA Fisheries has defined road densities of less than 2 mi/mi² as contributing to “properly functioning” watershed conditions, 2-3 mi/mi² as “at risk” and over 3

mi/mi² as “not properly functioning” (NOAA 1996). We calculated road densities based on an Island-wide roads layer (including only paved city roads) and again based on roads combined with COBI-mapped driveways, which includes a much more extensive network of private paved, gravel, and dirt roads. The standard of 3 mi/mi² is not realistic within an area with the housing densities of Springbrook Watershed, but the overall density of 16.15 when all roads are included is quite high, and with clear differences between assessment units within the watershed (Table 3).

Table 3. Road density by Assessment Unit.

Area	City Road Density (mi/mi ²)	City Roads and Driveways ¹ (mi/mi ²)
AU1	10.03	24.84
AU2	3.02	19.00
AU3	4.21	18.89
AU4	3.75	13.70
AU5	5.13	15.30
AU6	6.73	15.21
AU7	3.55	14.09
All Springbrook	5.01	16.15

¹May be gravel, paved, or dirt.

3.2 Climate

The Puget Sound area has a mild, marine climate, with average daily temperatures on Bainbridge Island ranging from ~50-70°F in summer and ~35-50°F in winter. Although summers are much drier and sunnier than winters, skies are cloudy an average of 225 days of the year and total precipitation averages 37 inches, almost exclusively in the form of rain rather than snow. When snow falls, it tends to melt rapidly.

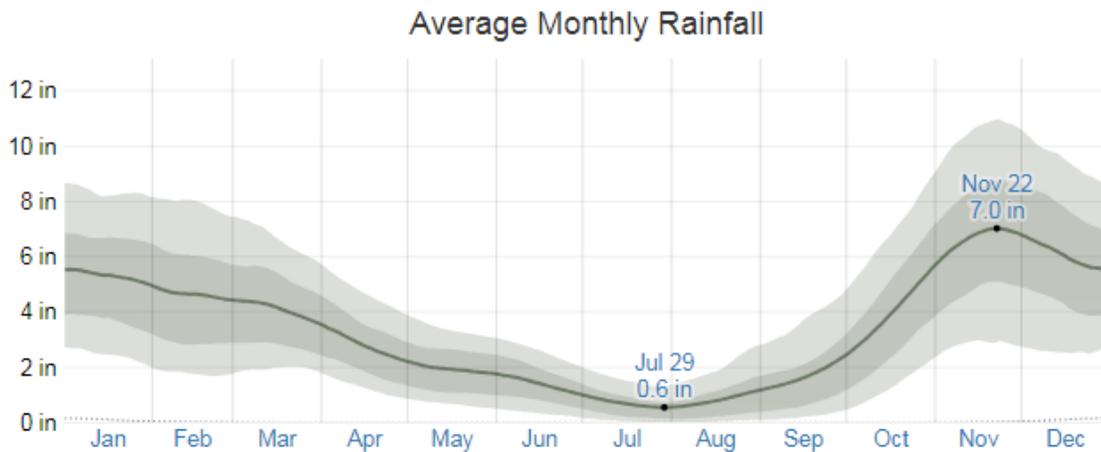


Figure 8. Average monthly rainfall on Bainbridge Island, with 25th-75th percentile inner and 10th-90th percentile outer band.

From Weatherspark.com, distance-weighted averages of weather stations at: King County International Airport (48%, 20 km SE); Bremerton National Airport (30%, 24 km SW); Snohomish County Airport (17%, 36 km NE); and William R Fairchild International Airport (4.8%, 91 km NW).

According to a 2016 Bainbridge Island Climate Change Assessment (Hansen et al. 2016), analysis suggests that temperature increases will affect all seasons, with the greatest increase in summers. Precipitation is anticipated to become more variable, with more intense winter rain events, but decreased summer precipitation. The increased temperature combined with decreased precipitation in summer is anticipated to increase human demand for water for household use and maintenance of landscaping, as well as stressing natural vegetation and changing vegetative communities (Hansen et al. 2016). Warmer, drier conditions increase evaporation rates. Dry conditions result in reduced stream flow and diminished aquifer recharge. Warmer and drier conditions can also reduce water quality, both by increasing in-stream temperatures and concentrating contaminants in smaller volumes of water. Climate changing conditions can elevate wildfire risk.

The increased intensity of winter storm events may overwhelm stormwater infrastructure capacity as more intense and frequent storms or heavier rainfall events cause infrastructure inundation, localized flooding, chronic flooding, non-infiltrated run-off, erosion and landslides (COBI Comp Plan 2017). More delivery of precipitation in high-intensity events decreases groundwater recharge rates as water does not have time to infiltrate into saturated soils, and impacts surface water quality by carrying contaminants and sediments into streams (Hansen et al. 2016).

Specific to streams, and their interactions with road crossing through culverts, it is anticipated that climate change will cause major changes in stream hydrology and channel morphology across Washington State. Culverts built today may not accommodate future channel conditions without careful analysis. In the Pacific Maritime ecoregion, it is projected that bankfull width will increase 12.1% by 2080 (Wilhere, George F., et al. 2017).

Another impact to water quality may come from increased septic system failures due to either too much or too little water for proper functioning. All of these factors will negatively impact in-stream fish habitats in terms of water quantities and quality. The anticipated 14-54" increase in sea level in this region will greatly impact shorelines, estuaries such as Fletcher Bay, and the lower reaches of Island streams (Mauger et al. 2015). Increases in frequency and intensity of harmful algal blooms may impact nearshore foodwebs.

3.3 Ecological Systems and Critical Areas

A combination of climatic factors as well as soil attributes, ecological processes such as flooding and fires, and human management shape the Island's vegetation. Washington Department of Natural Resources' mapping of plant communities using NatureServe's Ecological Systems classification (Figure 9) identifies a majority of the natural vegetation within Springbrook as North Pacific Maritime Mesic-Wet Douglas-fir-Western Hemlock Forest followed by North Pacific Maritime Dry-Mesic Douglas-fir Western Hemlock Forest (Rocchio and Crawford 2015b; Figure 9). These forests have been influenced by a low rate of natural disturbances (such as moderate-severity fires occurring at long intervals and occasional bark beetle attacks) and were historically characterized by giant Douglas-fir with western hemlock and western red cedar co-dominant. Bigleaf maple and red alder are common canopy or sub-canopy dominants, especially where disturbance has occurred, and broadleaf trees may dominate stands regenerating after fire and/or logging for decades.

A substantial area of marshy to forested wetland communities (indicated as ‘wetland types’ on Figure 9) are mapped along the creek in the mid-watershed. Much of this is North Pacific Lowland Riparian Forest and Shrubland Ecological System, which is categorized as State imperiled (S2, Rocchio and Crawford 2015a). Impacts cited as contributing to this status in Washington include development, agricultural uses, alterations in hydrology, and degradation by invasive species, and few of these systems assessed region-wide by WDNR had good ecological integrity. All of these stressors impact these lowland riparian habitats in Springbrook Watershed, as further detailed below.

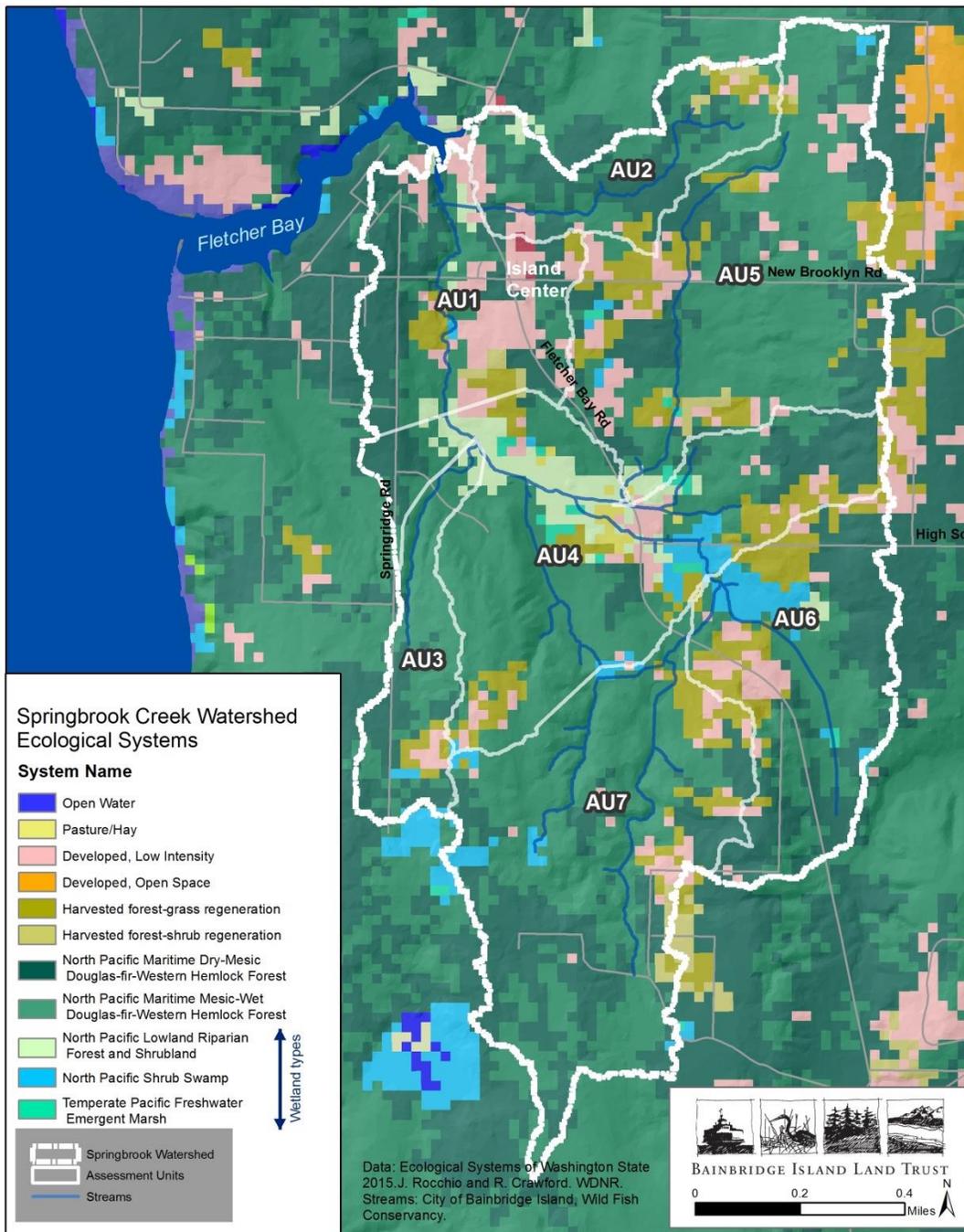


Figure 9. Ecological Systems of Springbrook Creek Watershed.

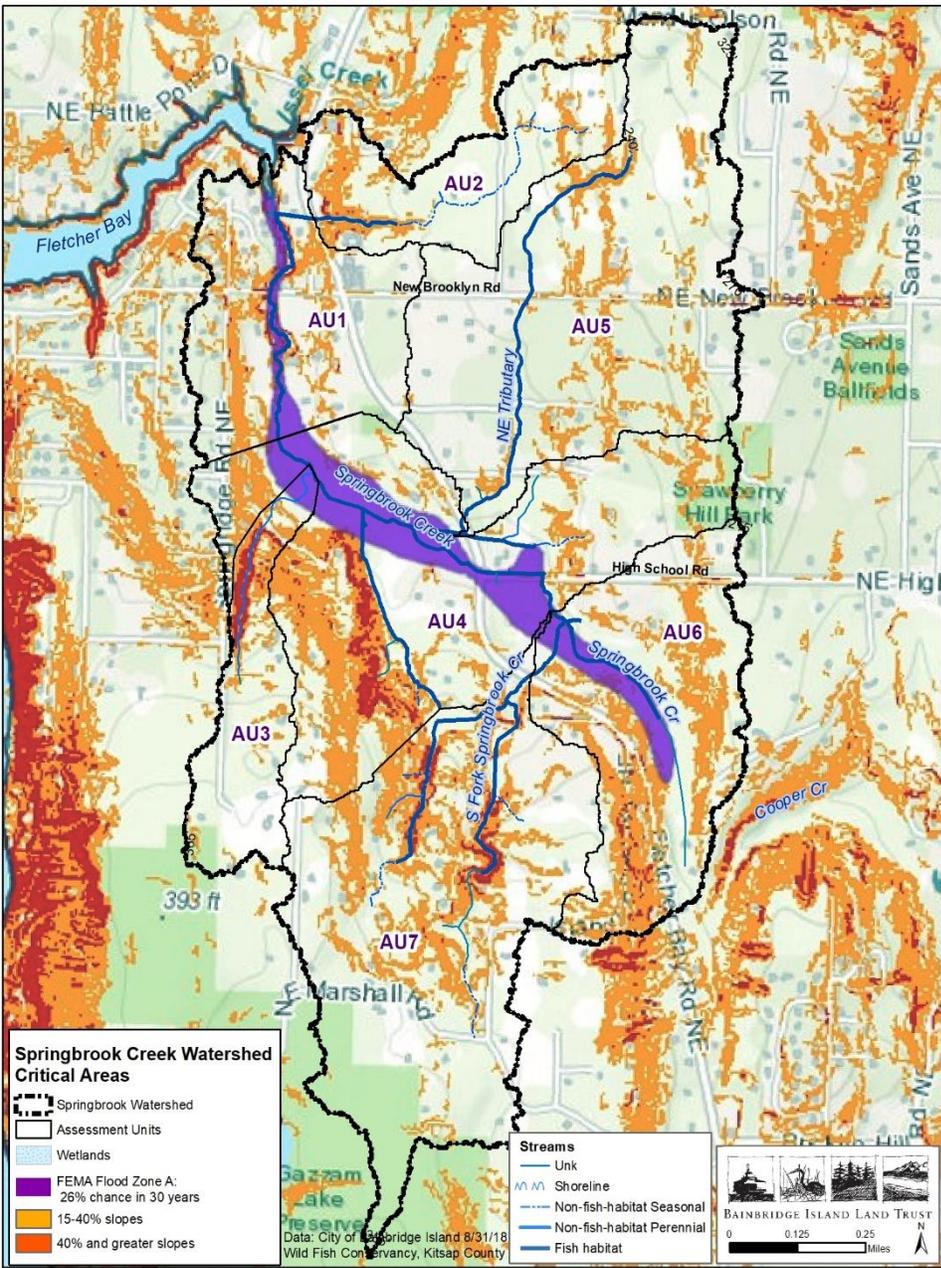


Figure 10. Springbrook Creek Watershed Critical Areas.
Note that stream and wetland buffers are not depicted.

Critical area designations within the watershed include shoreline, streams and their associated riparian areas, wetlands, critical aquifer recharge areas and steep slopes. Each designation reflects the diversity of ecosystem functions within the watershed. The watershed has an overall bowl shape sloping down to Fletcher Bay, with the highest elevations of just over 380 feet in elevation in the southwest, and with often steep-sloped upper watersheds of tributaries around the south, east, and northeast fringe. The Springbrook Creek floodplain forms a flat valley through the center of this watershed, flowing from the southeast to northwest (Figure 10). As mentioned under Section 3.1 above, the entire watershed is classified by Kitsap County as a Category 2 Critical Aquifer Recharge Area, indicating vulnerability to contamination by some land use activities, and the Category 1 Critical Aquifer Recharge Areas in the northwest and southeast have

high potential for certain land use activities to affect water quality (Figure 10). The City of Bainbridge Island classifies the entire island as a critical aquifer recharge area based on current data.

3.4 Watershed Features: Geology, Assessment Units, Stream Networks

3.4.1 Surficial Geology

(Excerpted from Washington Department of Ecology Springbrook Characterization 2018, contained as Appendix I. Stephen Stanley, et.al 2018)

Surficial geology determines where infiltration, recharge, and discharge of groundwater occurs in a watershed and is a key control for these watershed processes. The surficial geology of Bainbridge Island is, in part, the result of glaciation originating in Canada approximately 18,000 years ago and by surface erosion occurring over the last 14,500 years after the glacier’s retreat. The weathering and erosion of the glacial surface deposits has been caused by the movement of surface and shallow subsurface flows and discharges, which have, in turn, created the present day stream network within the Springbrook Creek Watershed.

The glacial deposits on the island consist primarily of till, advance outwash and recessional outwash (Figure 11). Till is a highly compacted glacial deposit that has relatively low permeability and low potential for erosion. Advance outwash consists of sorted sands and gravels that were washed out in front of the advancing glacier. Due to compaction by the advancing glacier, advance outwash deposits are considered to have moderate permeability and water holding capacity. Because recessional

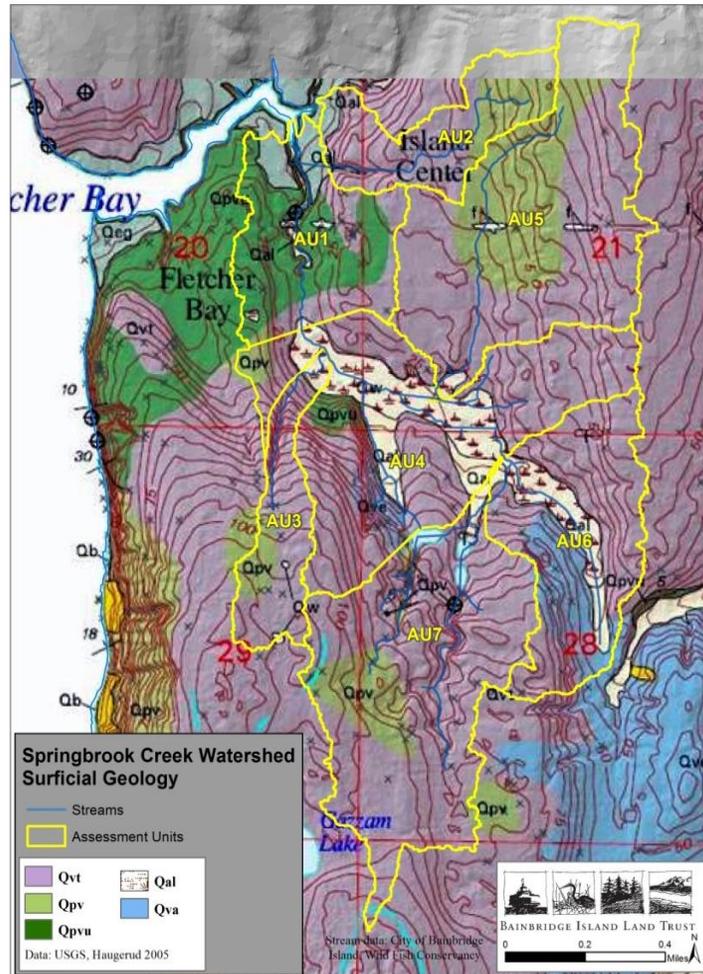


Figure 11. Surficial geology map of Springbrook Watershed

Note that the watershed is comprised primarily of low permeability till deposits (purple color: Qvt), but also contains areas of higher permeability “advance outwash” deposits (green color: Qpv) that are important for water flow processes and are primarily located in the upper watershed of Project Assessment Unit (PAU) 3 and 7 as well as in PAU 2 and 5. The “white” Qal polygon is the location of depressional wetlands (PAU 4) which play an important role in the storage of surface waters and is also an area of groundwater discharge. Source USGS, Haugerud, 2005.

outwash was not compacted by the retreating glacier, it is highly permeable and also has the highest capacity for storing groundwater.

Thus both the advance and recessional outwash deposits are present in the uplands areas of the watershed and are important for maintaining stream and wetland hydrology. These outwash deposits, however, are also susceptible to erosion due to their composition of sands and gravels. [End of excerpt.]

Throughout the project, landowners and those who are familiar with the watershed shared their observations of accumulated amounts of sediment building up in certain areas of the watershed where the stream had been constrained or the hydrologic regime had been altered. The role of fine sediments is discussed in the water quality section of this report as well as within the WDOE Stream Characterization (Appendix A).

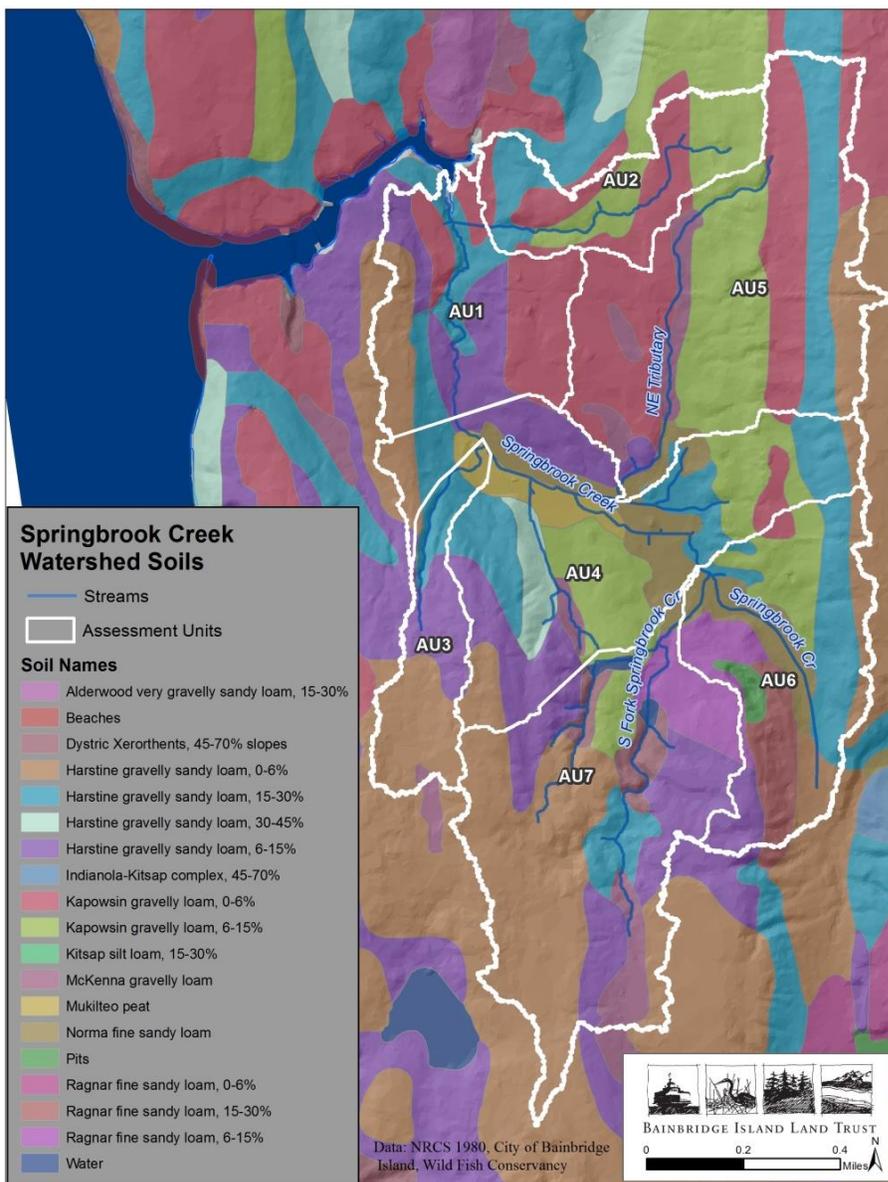


Figure 12. Springbrook Creek Watershed Soils.

3.4.2 Assessment Units and their Characteristics

To facilitate weighing the value derived from certain natural processes against the level of degradation of those processes it was necessary to divide the watershed into distinct areas known as Assessment Units (AU). These Assessment Units consist of smaller sub-basins, grouped based on their contribution to major tributaries of the mainstem of Springbrook creek. AU 1 and AU4 comprise the lower and middle watershed respectively with AU1 characterized by a more incised, increased gradient stream channel, and AU4 served by a relatively flat, wetland dominated landscape. AUs 2, 5, 6, 7, and 3 are generally upper watershed areas. (Fig. 13).

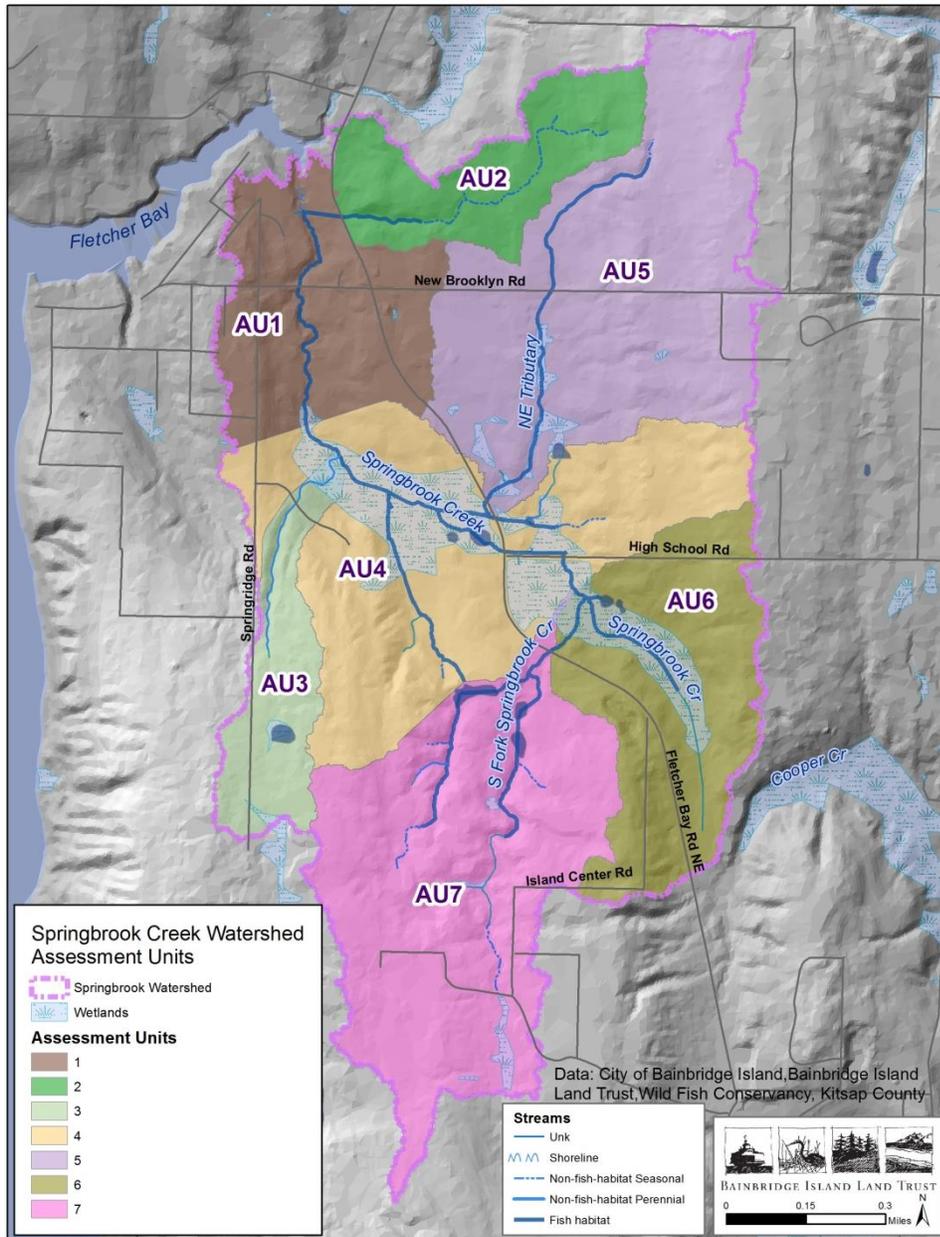


Figure 13. Springbrook Watershed Assessment Units and stream network for WDOE Springbrook Creek Characterization July 2018, Publication 18-06-006.

Table 4. Assessment unit characteristics

Unit	Drainage Area (ac)	Topographic Relief (ft)	Min (ft)	Max (ft)
1	103.4	40	0	40
2	71.8	68	8	76
3	54.8	100	18	118
4	209.7	86	20	106
5	215.9	78	22	100
6	127.6	60	24	84
7	216.0	92	24	116
Watershed Total	999.2	118	0	118

In **AU1** the mainstem of Springbrook Creek (reach SB01 in the Section 3.4.3 reach descriptions) flows down an increasingly steeply incised channel as it passes north through a large culvert and weir system and into the broad estuary shared with Issei Creek at the eastern tip of Fletcher Bay. This AU contains the Island Center Neighborhood Service Center, and therefore the densest residential and commercial uses in the watershed. Impervious surfaces and buildings cover 16% of the area, with a road density (including driveways) of nearly 25 mi/mi², as well as over 18% is in bare ground or low ground cover in horse pastures, lawns, etc. (Tables 2 and 3). The 62% in tree cover is the lowest for the watershed.

AU2 and **AU3** are smaller upper watershed units delineated around single tributaries (SB01A for AU2 and SB01B for AU3 in the Section 3.4.3 reach descriptions). Land uses are largely residential in AU2 on the northern edge of the watershed just north and east of Island Center, with the second-highest proportion of impervious surfaces in the watershed (8.5%, Table 2), and a road density at 19 mi/mi² (Table 3). However, it also has healthy intact forest sections and trees cover 76% of the area and little bare ground or low ground cover. It has no wetland areas. AU3 is higher in elevation and includes the highest point in the watershed at 118 feet (Table 4). Like AU2, AU3 is largely residential but with only 5% impervious surfaces, a few small wetlands (Figure 7), and the highest percentage of forest at 82% (Table 2). However, road density is surprisingly high at nearly 19 mi/mi² (Table 3).

AU4 comprises the majority of the mid-watershed, and is dominated by a large depressional wetland complex with historic and current land use as pasture. This wetland complex is along the mainstem of Springbrook Creek (reach SB01-1 in the Section 3.4.3 reach descriptions) as well as the lower, flatter portions of two seasonal tributary streams; one to the south (reach SB01C) and one to the east (reach SB01E). Over 45 acres of wetland fall within AU4, nearly 22% of the area (Figure 7). About 20% of the area is in low cover and bare ground (Table 2), largely reflecting past and present agricultural use, and ditching and

ponding for agriculture and to accommodate roads is readily apparent. Other areas previously cleared for farms have regrown into stands of willows and red alder in wetland areas and conifers in uplands. Trees now cover 72% of the assessment unit. Impervious surfaces are moderate for the watershed at 5% and road densities are the lowest at just under 14 mi/mi².

The upper watershed assessment units of **AU5** was delineated based on a single tributary (SB01D) like AU2 and AU3, it is a much larger drainage basin (Table 4). The Northeast Tributary in AU5 was unmapped prior to the WFC 2014 water typing assessment. This AU is characterized by a mix of forest and cleared areas with some remnant pockets of the agricultural uses that used to dominate the hillside. The proportion of low ground cover and bare ground is the highest in the watershed at over 20% (Table 2). However, the proportion in impervious surfaces is close to the overall watershed average (6%, Table 2). The road density is moderately high at 15 mi/mi² (Table 3). With very little area of wetland in the assessment unit (Figure 7) the tributary tends to be seasonal but can contribute almost a third of the total stream volume during the wet season.

Upper watershed assessment unit **AU6** carries the mainstem of Springbrook Creek (SB01-2) as well as flow from the southernmost tributaries (SB01G and SB01F, the lowermost portion of which is within AU6) into AU4. AU6 contains the southeast portion of the same forested wetland complex extending across AU4 and wetlands cover a large portion of this assessment area (over 18 acres, comprising 14% of the area, Figure 7). During summer months, AU6 is an important contributor to summer time baseflows for the mainstem, as the Upper Springbrook Creek provides a good steady baseflow of water meeting water temperature criteria. This basin encompassing the most south-easterly extent of Springbrook Creek is relatively low gradient with low density residential uses, and a moderate proportion of impervious surfaces, bare ground, and low cover (5.6%, 0.1%, and 17.9%, Table 2) and moderately high road density (15 mi/mi², Table 3).

Upper watershed assessment unit **AU7** originates in the high-elevation area northeast of Gazzam Lake, encompassing a portion of the Gazzam Lake Preserve (Figure 3), and topography drops steeply to the north down into AU4 (Figure 10). This assessment unit was created based on the drainage area of two tributaries in the southern extent of the watershed (SB01G and SB01F). The northern boundary of this unit follows the drainage to the artificially-diverted flow path of the westerly tributary (SB01G) as redirected to the larger central tributary (SB01F, South Fork Springbrook Creek). This assessment unit has the highest proportion of tree cover (over 77%, Table 2), lowest impervious surfaces (4%), bare ground and low ground cover (15% combined), and second lowest road density (just over 14 mi/mi², Table 3) in the watershed. However, the hydrology has been altered dramatically and the agricultural ponds and clearing have significantly impacted the northern portion of the assessment unit. There are only about 3 acres of wetlands in AU7, which is unsurprising given the steep terrain.

3.4.3 Stream Network, Characteristics, and Barriers

Springbrook Creek is one of the largest and most productive salmon-bearing streams on Bainbridge Island. Approximately 4.7 miles, or about $\frac{2}{3}$ of the total stream miles, are typed as fish habitat as a result of 2014-2018 WFC stream assessment work (<http://www.moonlitgeo.com/wfc/>).

Springbrook Creek has many unnamed tributaries, and there seems to be some confusion as to which streams represent the true “Springbrook Creek”. Figure 13 shows the generally accepted designation of

Springbrook Creek being the main channel flowing from the far southeast of this watershed to Fletcher Bay. South Fork Springbrook Creek refers to a main tributary flowing from the south-central watershed, and a previously unmapped seasonal stream flowing from the north is identified here as the “NE Tributary” (Figure 13).

Between 2014 and 2018, Wild Fish Conservancy had the opportunity to walk much of the Springbrook watershed where permission to access the stream was granted by landowners (Figure 14). Field staff measured bankfull widths and channel gradients, described instream and riparian habitat conditions, and documented potential protection and restoration opportunities observed during the surveys. Water type classification were assigned based on fish observations and the physical habitat characteristics associated with presumed fish use provided in WAC 222-16-031; channels greater than 2' wide at bankfull width, and less than 20% average gradient, are presume to provide fish habitat (Type F). Channel reaches exceeding those criteria were identified as Type N (non fish-habitat reaches, further characterized as Np (perennial) or Ns (seasonal)). Reaches where survey access was insufficient to make a determination were identified as Type U (unknown). The extensive point and reach-scale data and photographs collected during the Wild Fish Conservancy water type assessment are available in an interactive web map:

<http://www.moonlitgeo.com/wfc/>

Over 70% of the watershed was assessed with boots on the ground providing the opportunity for developing detailed descriptions and documentation about stream conditions, including areas of the stream that had not previously been mapped. Stream condition, fish barriers, and associated riparian conditions were documented. Additionally, in 2014 Washington Department of Fish and Wildlife (WDFW) conducted culvert assessments on portions of Springbrook Creek, providing priority indexes (as further defined below) to many of them. WDFW was helpful during this project in examining up-to-date field information and topographical information to help update priority index ratings.

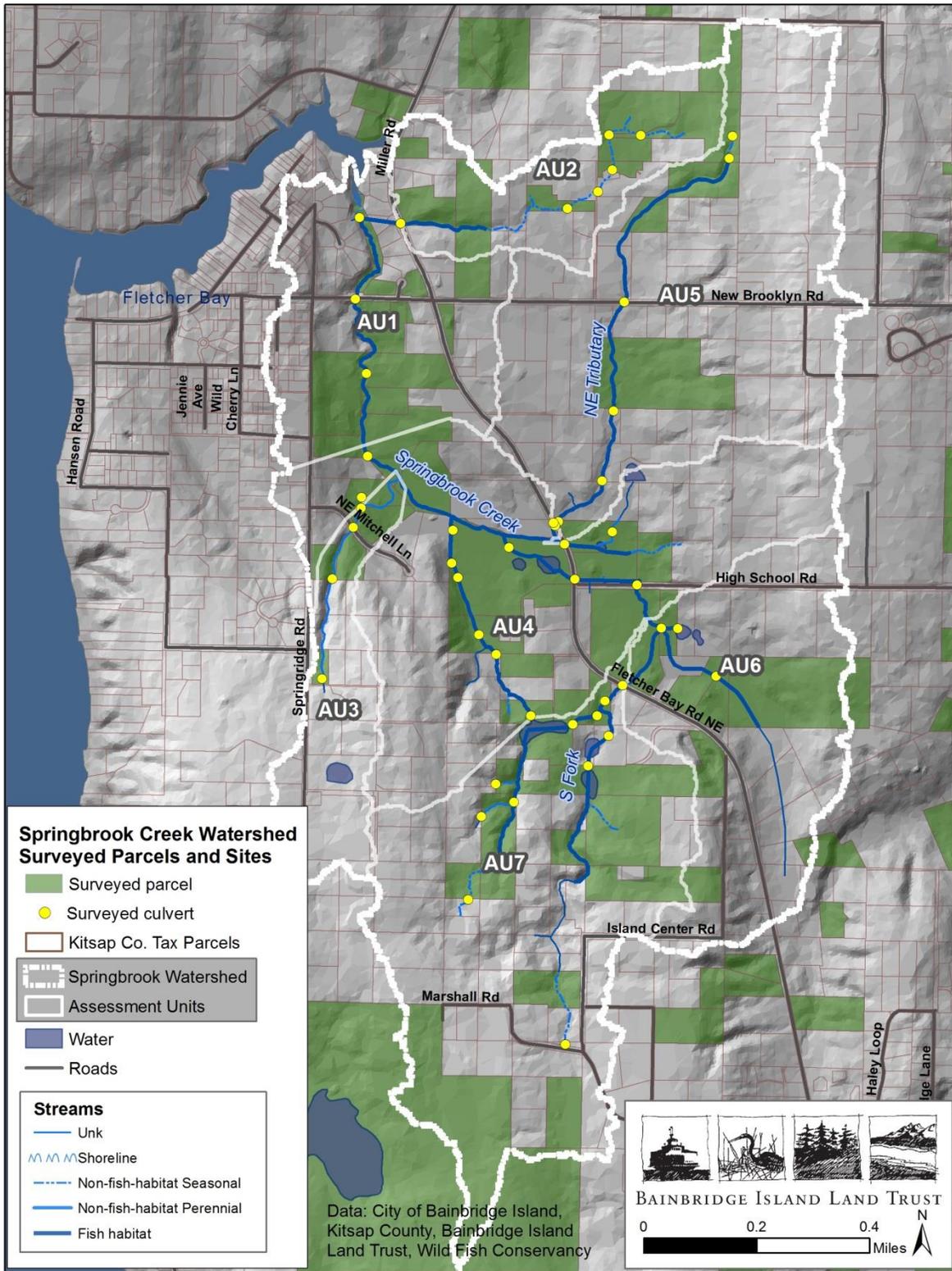
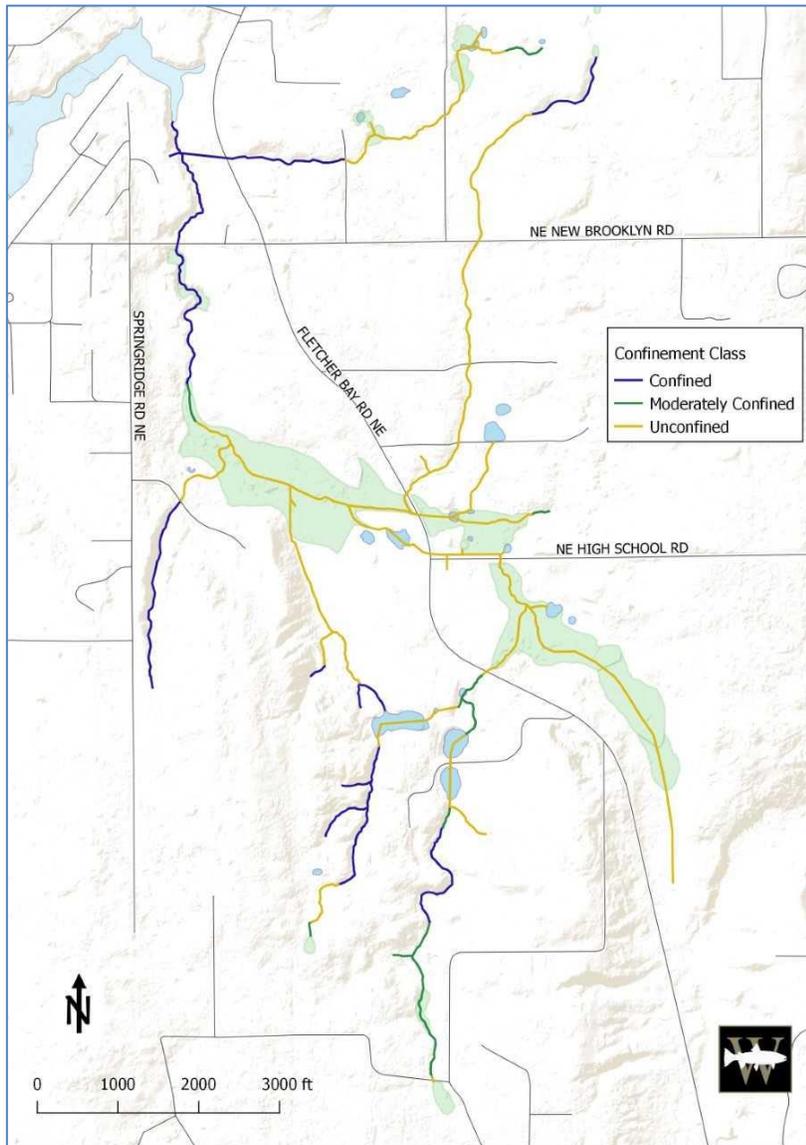


Figure 14. Extent of area surveyed as part of this assessment project.

Based on field surveys' comparisons with LIDAR and aerial maps, channel confinement classes were assigned. The classes are based on statewide criteria and guidance. Channel confinement may be considered to be the ratio of the valley or flood plain width (VW), to the channel width (CW). Confinement is an important control on potential channel response. Channels with wide flood plains may shift laterally over the valley bottom, changing course, sinuosity, or pattern (e.g., meandering, braided) in response to disturbance, whereas channels confined by bedrock valley walls can only respond in other ways (e.g., bedform modification or channel armoring). Channel confinement generally cannot be measured directly from topographic maps, especially for small channels, because channel widths are not portrayed accurately. With the large amount of on the ground work in Springbrook creek confinement estimates from topographic/aerial maps were confirmed with field observations. Each channel reach is classified as confined ($VW < 2CW$), moderately confined ($2CW < VW < 4CW$), or unconfined ($VW > 4CW$) (Figure 15).



Confinement Class	Definition
Unconfined	Valley width > 4 channel widths
Moderately Confined	Valley width = 2 to 4 channel widths
Confined	Valley width < 2 to 4 channel widths

Figure 15. Stream channel confinement based on statewide criteria.

WA Dept. of Natural Resources: https://www.dnr.wa.gov/publications/fp_wsa_manual_appx.pdf

Multiple full and partial fish passage barriers throughout the system compromise fish access to some fish habitats. Partial barriers may limit fish use on a seasonal basis when flows are too low to overcome the physical barrier or too high, making the force of flow through a culvert, for example, high enough to deter passage. WFC identified 46 culvert stream crossings, eight on city-owned property and 38 on private property. Of the 30 on fish habitat streams, 10 (33%) were full passage barriers, three (10%) were rated 33% passable, six (20%) were rated 67% passable, six (20%) were partial barriers with no passability rating assigned, and five (17%) were completely unknown passability. None of the assessed culverts were found to be fully passable, and about 1.8 miles of fish habitat are upstream of full barriers (Figure 16). The WDFW also inventoried 13 culverts within the watershed. For culverts where it has been calculated, Figure 16 shows the WDFW Priority Index (PI)—a number calculated based on the severity of the barrier, the amount of habitat blocked, species mobility (anadromous vs. resident), fish stock status, and the projected cost of the project (WDFW 2009). A higher PI indicates higher priority for repair or replacement. The culvert and weir system at Fletcher Bay Road PI of 24.06 is the second highest rating on the Island.

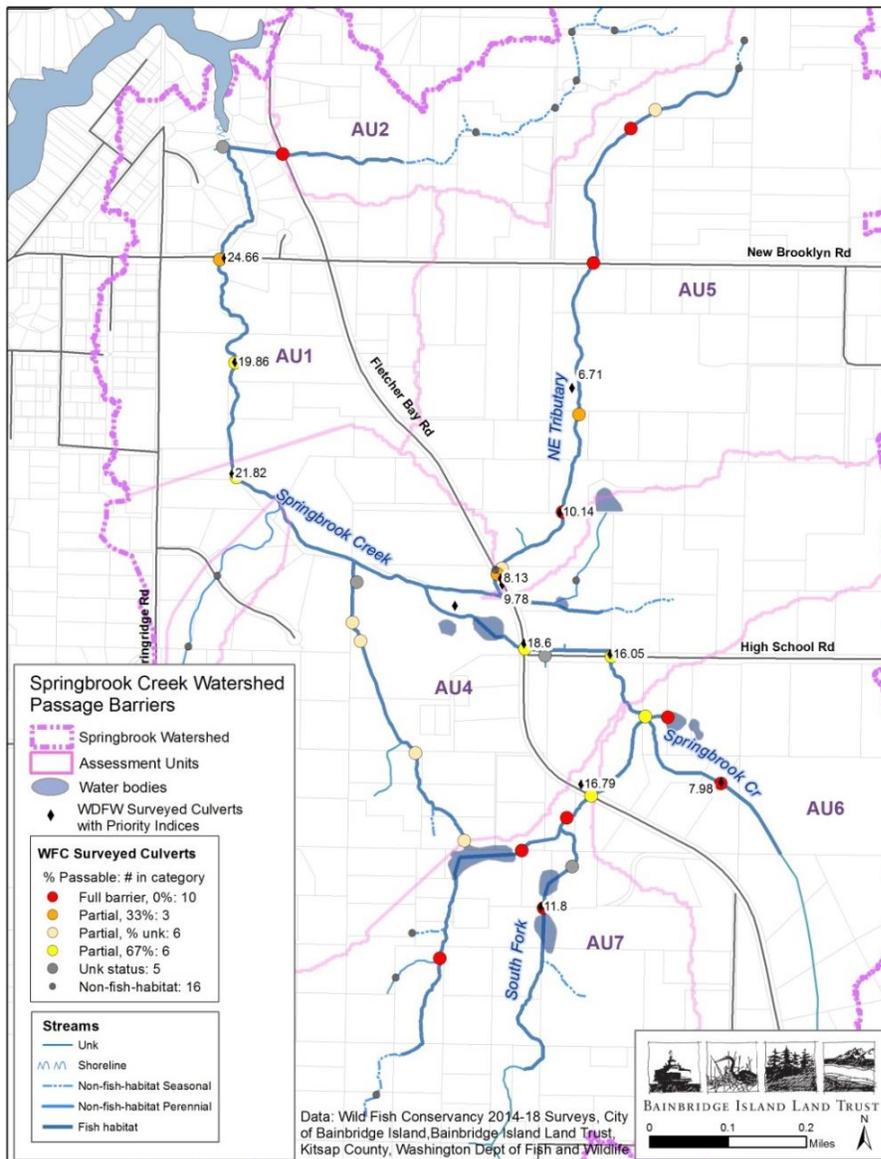


Figure 16. Documented Fish Passage Barriers Springbrook Creek Watershed

3.4.4 Stream Reach Descriptions

The following section provides a reach by reach description of the physical and biological characteristics of Springbrook Creek based on field assessments by Wild Fish Conservancy, Bainbridge Island Watershed Council and other project team observations. Limiting factors within each reach are also listed. Left-bank and right-bank notes are provided using the convention that the observer is facing downstream.

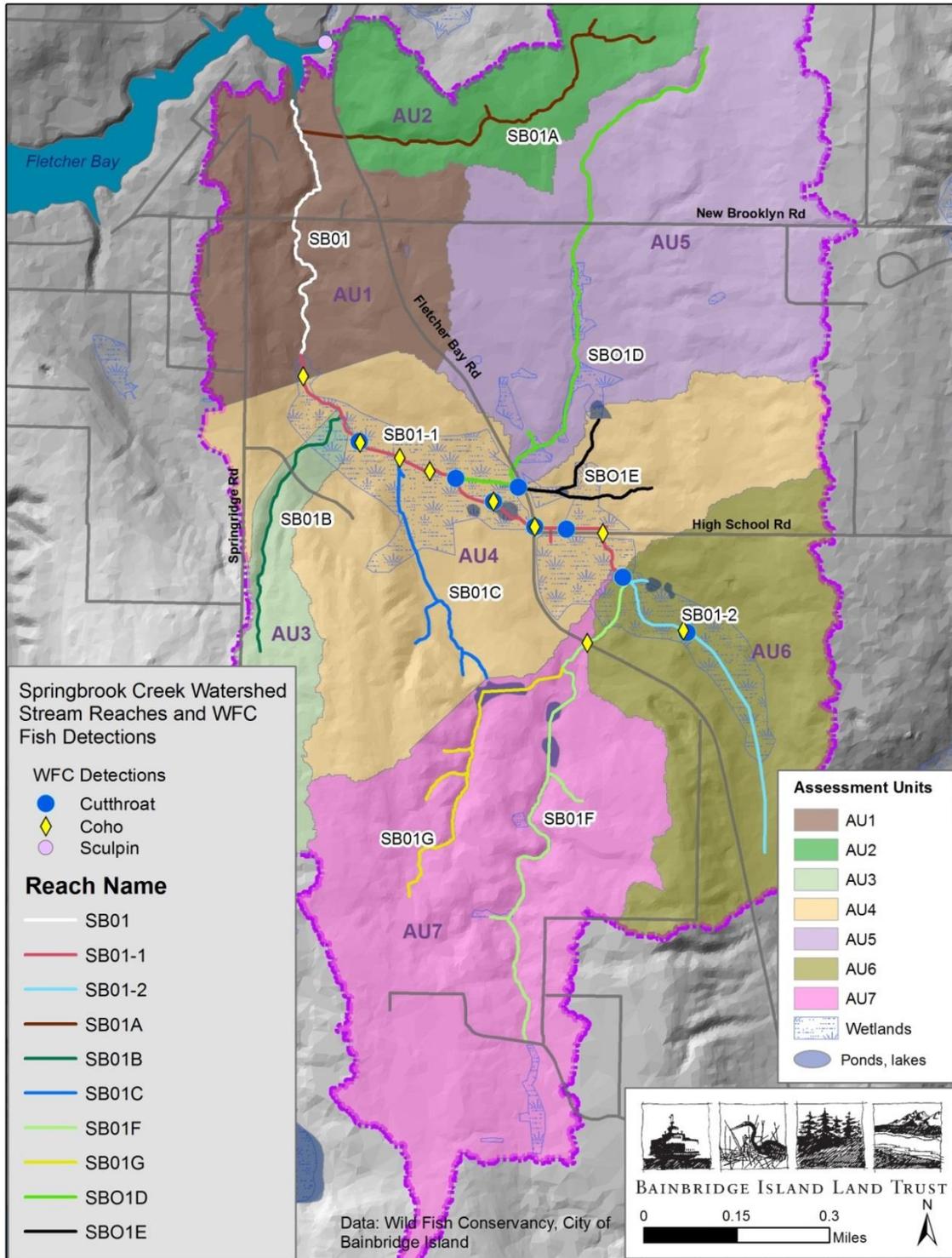


Figure 17. Reaches of Springbrook Creek and fish detected during surveys.

Tributary SB01A



Intact forest habitat

Tributary SB01A runs through Assessment Unit 2 (AU2) and consists of approximately 4,000 ft. of stream channel, of which 1,500 ft. meet physical criteria for type F (fish) habitat. The stream originates from a seasonal spring head in a shallow forested ravine. It runs down the ravine with an average bankfull width of 2.8 ft. with an average gradient of 10%. The stream then leaves the ravine, passes under a private drive, and feeds into a small man-made pond. The pond's outflow flows back under the same private drive emptying into a downstream wetland (which is not mapped in the City of Bainbridge Island's GIS wetland layer). This wetland drains into a ditch which passes under Holly Farm Lane NE. Below the crossing SB01A runs down a forested hillside with an average bankfull width of 1.9 ft. with an average gradient of 4%. The stream then flows under another private drive, is ditched along a lawn, and then feeds into a small forested wetland (also unmapped). Below the forested wetland, the stream's average bankfull width increases to 2.7 ft. running with an average gradient of 6%. This section of stream meets the physical characteristics of type F habitat. The type F channel runs down a forested valley though dense patches of English ivy. It then passes under Miller Rd NE. in a full barrier culvert. The outlet to this crossing was found 400 feet to the west of the culvert inlet where it empties directly into the right bank of Springbrook Creek at stream mile 0.06 with a 1.7 ft. tall perch. No fish were found in this stream.

- Limiting factors include poor stream and riparian conditions, altered hydrology, fish passage barriers, commercial use. This reach provides marginal fish habitat and seasonal flow and stream restoration efforts would have minimal impact on fish resources. Low impact development practices and retaining vegetation to assist with stormwater runoff will help reduce water quality impacts to the lower section of SB01 (the main stem). See Project 18, Section 6.1.2. No instream fish restoration actions are recommended in this reach of the stream.

Tributary SB01B



Tributary SB01B runs through Assessment Unit 3 (AU3). This tributary is approximately 2,000 ft. long, providing perennial type N waters to mainstem Springbrook Creek. The stream originates in a forested ravine where it passes under two private driveways. Below the crossings SB01B continues down the forested ravine becoming incised in a naturally confined channel with an average bankfull width of 2.5 ft. running over an average gradient of 18%. Approximately 1,000 ft. below the headwaters the stream flows under a derelict forested access road in an undersized culvert which is perched 9.3 ft. The channel below the culvert is deeply incised with mass wasting present on both banks. The average bankfull width in this lower section of the forested valley is 3.1 ft. with an average gradient of 10%. Flows were intermittent during the time of survey on March 3rd 2014. Approximately 600 ft. below the derelict culvert the stream passes under NE Mitchell Ln. Below this crossing the stream runs over 300 ft. of steep gradient averaging 18% with an average bankfull width of 3 ft. Below the steep section of channel the stream disperse into a forested wetland before it enters the left bank of Springbrook Creek (SB01-1).

- Limiting factors include high road density, and sediment inputs caused by a 9.3 ft perched derelict culvert which is responsible for severe down-cutting and erosion. Intact habitat prior to entering SB01-1 provides wetland function protection opportunities. See Project 3a.

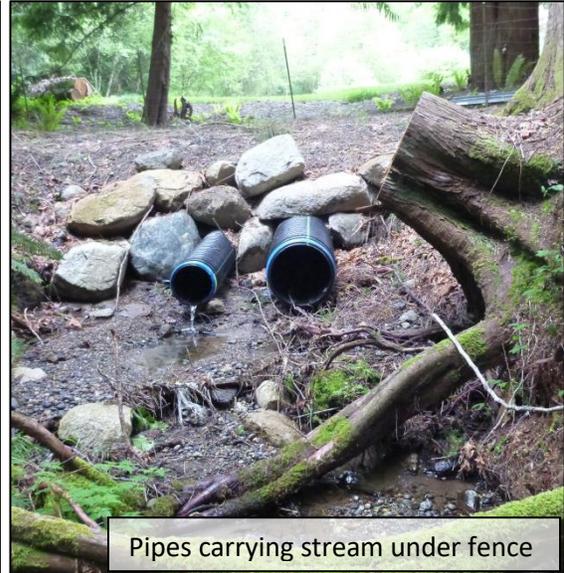
Tributary SB01C

Tributary SB01C runs through Assessment Unit 4 (AU4). This stream is approximately 2,100 ft. long, and considered type F habitat. The stream's main source of water is a seasonal, secondary outflow of a manmade pond located in AU7. The primary outflow of the pond is located on the east end and feeds into a separate drainage of Springbrook Creek (SB01G and SB01F). The seasonal SBO1C outlet channel runs down a forested hillside with a gradient of 6% and an average bankfull of 2.1 ft. This channel is joined by a small seasonal type Ns channel which emerges from a spring seep near the outlet of the man-made pond. A

second small Type N tributary joins the combined flows before crossing a private driveway via an underground pipe. Directly below the private driveway the stream enters a pair of pipes carrying the flows



West of horse pastures



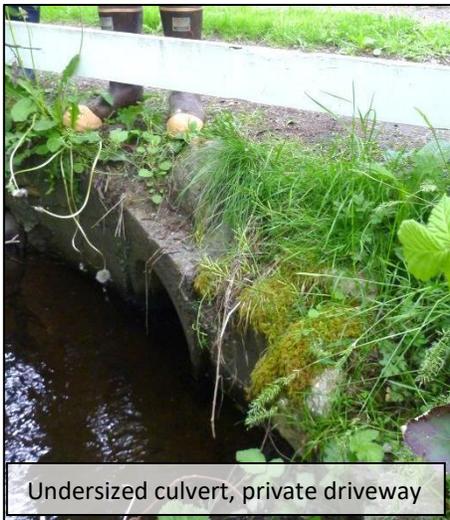
Pipes carrying stream under fence

under a fence line. Below this crossing the stream runs down the west side of a horse pasture with an average bankfull of 4 ft. and an average gradient of 2%. This channelized section of stream lacks large woody debris and instream habitat complexity. This reach passes under two field access road crossings, both of which are partial barriers to fish migration. The stream then enters a wetland complex on the left bank of Springbrook Creek. The wetland flows feed into the left bank of the mainstem without a well-defined channel. No fish were observed in SB01C during the water typing survey on 05/01/2014. Historically, this tributary likely connected with SB01G prior to the construction of manmade ponds in AU7 providing good fish habitat, and landowners reported that Islanders fished for salmon in the stream before the ponds were constructed.

- Limiting factors include dramatic alteration of stream hydrology, structure and function. In the upper extent of this tributary restoration would be very expensive due to the dramatic alterations caused by ponds and dams in AU7. Fish barriers, riparian alterations, lack of stream complexity, and number of ill- designed and constructed culverts constrain fish utilization. Removal of newly installed culverts on parcel 047 and replacement of two downstream culverts on parcel 047 with new fish-friendly culvert, reintroducing large woody debris, and managing land use within the stream, riparian and wetland buffers could provide fish use to the lower portion this tributary, which was likely one of the main historical channels of Springbrook Creek. See Project 13.

North East Tributary SB01D

North East Tributary SB01D runs through Assessment Unit 5 (AU5). The total length of this stream is 5,100 ft. of which 4,900 ft. meet physical criteria for type F habitat, but was not mapped or regulated as a stream until 2014. A seasonal headwater wetland feeds SB01D. This wetland feeds a small type Ns channel that runs down a forested ravine with an average bankfull width of 1.9 ft. and an average gradient of 5%. Approximately 200 ft. below the headwaters, the stream's bankfull width averages 2.2 ft. and meets the physical characteristics of type F habitat. The seasonal type F stream continues down the forested ravine. This section of stream ran with intermittent flows during a site visit on 12/13/2017. The stream then flows through a partial barrier culvert on a private driveway. Below this crossing the ditched and channelized stream runs through numerous private properties. The stream then passes under NE New Brooklyn Road in a partial barrier culvert. Below this crossing, SB01D meanders down a wide valley through a stand of second growth conifers with an average bankfull width of 5 ft. with a 2% average gradient. This section of creek provides excellent potential rearing habitat for juvenile salmonids.



At the lower end of the unconfined forested valley the stream passes under Berganio Lane in a partial barrier culvert. The stream then continues down a confined forested valley for 300 ft. before it enters a cleared field where it is channelized for 350 ft., lacking shade and stream complexity. The channelized stream then flows under Greg Farm Ln. in a culvert that Mid Sound Fisheries Enhancement Group identified as a full barrier in 2008. Below this full barrier culvert, SBO1D continues down a forested valley to a crossing on a private driveway (Project 7). The private driveway culvert is undersized for managing the flow from 5,100 ft. of stream draining the 215 acres of AU5, and forms yet another partial barrier to fish passage. Below the driveway the stream flows through Fletcher Bay Road NE in the lowest culvert in the system. Below this partial barrier culvert the stream is ditched along the west side of

Fletcher Bay Road. A local landowner recently cleared the ditch of all vegetation. The stream then leaves the ditch turning west where it is channelized along the north side of a sheep pasture for 500 ft. Here, the stream runs with a bankfull width of 6 ft. with a gradient of 1%. The substrate in this reach is sand, mud and

gravel. The stream then enters the right bank of Springbrook Creek. Cutthroat trout were netted in the lower 500 ft. of stream, below the partial barrier culvert on Fletcher Bay Road.

- Limiting factors include fish passage barriers, culverts undersized for flow, lack of stream complexity, and extensive riparian vegetation clearing, as might be expected given the fact the stream was until recently not mapped or regulated. Multiple landowners commented that they did not regard the channel on their property to be a 'stream' and education of streamside landowners will be an important component of successful management. There are multiple opportunities for restoration of a more natural channel and riparian vegetation (see Project 16 and 7), and for protection of high-quality habitat where it still exists (Projects 15 and 17). There are several partial barrier culverts in need of replacement. Those near the junction of this tributary and SB01E, in the High School Road x Fletcher Bay Road NE area, should be considered in conjunction with channel realignments as described in Project 7.

Tributary SB01E



A manmade pond and adjacent pasture

Tributary SB01E runs through Assessment Unit 4 (AU4). Two small streams and their associated wetland complex feed this tributary. The left bank stream emerges from a springhead on a forested hillside. This spring feeds a type Ns stream that runs down the forested hillside with a discontinuous channel and intermittent flows. The average bankfull width of this reach is 1.7 ft. and the average gradient is 4%. The stream definition is completely lost at the base of the hill where it enters a wide forested wetland with a dense brushy understory. The forested wetland drains into a long glide which feeds into a small 0.1 acre manmade pond. This lower section of channel is type F habitat with a 20 ft. wide unconfined bank and a gradient less than 1%. A right bank stream also feeds the small manmade pond. The headwaters of this stream were not surveyed and their exact location and extent are unknown. Where the stream was surveyed it ran down a ditch-line in a field with an average bankfull width of 1.9 ft. and an average gradient

of 4%. The ditched section of stream feeds into a small manmade pond approximately 0.03 acres in size. This stream then continues down a second ditch-line on the south side of the field to where it feeds into the 0.1 acre manmade pond, joining the left bank channel. The combined flows then drain out of this pond and down a forested wetland without a defined channel. The wetland complex then drains under Fletcher Bay Road in a partial barrier culvert. Below the road crossing the stream passes under a walking trail culvert installed in 2017 by a local landowner. Below this second crossing the stream feeds into the right bank of the type F tributary SB01D. Juvenile salmonids were observed in the outlet pool of the Fletcher Bay Road crossing during a site visit in the spring of 2018.

- Limiting factors include loss of natural in-stream and riparian habitat in the ditched portion and the partial barrier culvert under Fletcher Bay Road NE. Restoration of the ditched channel would be beneficial, particularly in conjunction with addressing the Fletcher Bay Road NE culvert as part of the Project 7 High School Road x Fletcher Bay Road NE area culvert and stream improvements.

Tributary SB01F South Fork Springbrook Creek



South Fork Springbrook Creek SB01F runs through Assessment Unit 7 (AU7). The total length of this stream is 4,500 ft. with 2,800 ft. providing type F habitat. The stream originates in headwater wetlands on the south side of NE Marshall Road. The wetlands drain under the road and feed into a small type Ns stream running down a forested valley with a dense brushy understory and an average bankfull width of 1.7 ft. with a 4% average gradient. As the stream continues down the forested valley the bankfull width increases in size. Approximately 1,800 ft. below the headwater wetlands the channel runs through a forested ravine with an average bankfull width of 6.5 ft. and an average gradient of 6%. This reach flows through an intact riparian corridor, providing pool - riffle habitat, large woody debris, and excellent cutthroat spawning gravels. Then, 2,700 ft. downstream from the headwaters the stream leaves the ravine and enters a 0.72-acre shallow manmade pond on the Johnson Farm. This pond drains under NE Twin Ponds Road via an

enclosed pipe and catchment basin into a second 0.71-acre manmade pond through a stand pipe which functions as a full barrier to fish passage. The outlet of the lower pond was not surveyed and its barrier status is unknown. Below the second pond, the channel is incised with an average bankfull width of 4 ft. as it runs through a stand of alders infested with English ivy. SB01F then feeds into yet another man made pond 0.08 acres in size. Here, it joins the type F tributary SB01G. The pond drains onto a thick plastic sheet armored with riprap forming a cascade approximately 5 ft. tall. Below the pond, the stream is channelized along the edge of a lawn with riprap armor along both the left and right banks. The stream is artificially narrow in this stretch with an average bankfull width of 3.8 ft. and an average gradient of 4%. The stream then flows under Fletcher Bay Road NE in a partial barrier culvert. Two coho were netted in the culvert plunge pool during a site visit on 10/31/2013. Below the road crossing SB01F is braided down a forested hillside with a combined average bankfull width of 7.2 ft. This tributary then feeds into the left bank of the headwater reach of Springbrook Creek.

- Limiting factors include significant alteration of the stream’s hydrology through the construction of ponds, drainage control systems, underground piping, partial and full fish passage barriers, and degradation of the natural channel and riparian vegetation. Large manmade ponds contribute to increases in stream temperatures and decreases in dissolved oxygen. These factors (as further described in Section 3.6) fall outside acceptable parameters for fish in the summer months throughout most of this stream system. In-channel and riparian restoration of the degraded stream just south of Fletcher Bay Road NE would be beneficial. Replacement of the partial barrier culvert on Fletcher Bay Road NE and correction of the barrier outlets from the ponds would be very important for restoration of access to the high-quality spawning habitat above these ponds, and mechanisms for addressing the temperature increases from the large ponds should be explored (Project 14).

Tributary SB01G



Forested valley habitat

Tributary SB01G runs through Assessment Unit 7 (AU7) with a total stream length of 2,800 ft. of which 2,200 ft. provide type F habitat. The stream is fed by a small wetland that drains into a ditched and straightened channel running along a private driveway. The channel flows under the driveway then enters a forested valley. This headwater reach is type Ns with an average bankfull width of 1.8 ft. with an average gradient of 4%. As the stream runs down the forested valley the bankfull width gradually increases as additional springs feed into the channel. At approximately 600 ft. below the headwaters the streams physical measurements qualify it as type F habitat. Below this point the stream averages a bankfull width of 5 ft. with a gradient of 11%. Then, 1,350 ft. below the spring head the type F channel is joined by a type Np left bank tributary. The combined flows cross a private road in a full barrier, undersized, culvert perched 2.2 ft. Below this culvert the stream continues down a forested ravine with an intact riparian corridor, providing pool riffle habitat, large woody debris, and excellent cutthroat spawning gravels. A second left bank tributary joins SB01G approximately 200 ft. downstream from the crossing. 400 ft. below this confluence the stream enters a 1.4-acre manmade pond surrounded by developed and landscaped private residences. This pond has two outflow locations. The primary outflow is located on the eastern end of the pond where water enters a stand pipe with an old control valve. This stand pipe is a full barrier to fish migration. Below the pond outlet the stream runs down a lawn in an armored and landscaped channel completely devoid of instream complexity and canopy cover. The landscaped section of channel runs for 300 ft. before feeding into a small 0.08 acre manmade pond where it joins with SB01F. The secondary outflow to the 1.4-acre pond is located on the northern edge pond and drains into SB01C. The entirety of SB01G and SB01C was likely the historic drainage path of this stream prior to the construction of the pond.



- Limiting factors include significant alteration to the natural hydrology of the stream, full and partial passage barriers, a large manmade pond that increases water temperature, blocks fish passage, and alters the historic water flow, and degradation of habitat below this pond. Planning for restoration of habitat in this area requires consideration of long-term goals and consequences of retaining the current configuration which funnels the majority of year-round flow to the northeast to join with SB01F and flow into the mainstem of Springbrook Creek east of Fletcher Bay Road NE, versus restoring the historic flow path into SB01C and into the main channel over 2,500 feet further northwest (Projects 13abc). Replacement of the perched partial barrier culvert on the private drive upstream of the pond could be beneficial to resident fish, and to anadromous fish if the downstream barriers are first addressed.

Upper Springbrook Creek SB01-2



While a good majority of Upper Springbrook Creek mainstem was surveyed, the headwaters were not, due to lack of landowner permission. Their full extent and habitat characteristics remain unknown, although the Washington Department of Natural Resources has an additional 1,500 ft. of type N channel mapped above the uppermost surveyed reach (just upstream of the adjacent coho and cutthroat detections in SB01-2 in Figure 17). The upper extent of water typing surveys conducted by WFC found Springbrook Creek meandering down a low gradient forested wetland valley with an average bankfull width of 5 ft. and an average gradient of 1%. This section of channel provides excellent potential rearing habitat with sandy sediments, undercut banks, and large woody debris. Approximately 500 ft. downstream from the upper end of the survey the stream flows under a derelict forest access road crossing. The culvert at this crossing is very steep, forming a full barrier to fish migration. Below the crossing the stream continues down the wide valley bottom with a deciduous canopy and a dense understory dominated by salmonberry. A coho was netted in this reach during a site visit in the spring of 2016. Downstream 600 ft. from the derelict road crossing Upper Springbrook Creek enters an 80 ft. long section of channelized and armored stream channel. This short section of stream is artificially narrow with a bankfull width of 1.8 ft. Below the armored channel the stream is joined by a right bank tributary draining two man-made ponds. The combined flows cross a horse trail in two side by side partial barrier culverts. Below the crossing SB01F merges with the left bank of Springbrook. The combined flows run down a forested valley with an average bankfull width of 6.5 ft. and an average gradient of 2%. This section of channel provides excellent fish habitat with numerous pools, undercut banks, and excellent spawning gravel. This stream reach is the upper extent of documented coho spawning and is the transition point from AU6 to AU4. Below this point the stream is described as SB01-1, Middle Springbrook Creek.

- This is largely an intact, functioning stream reach with good habitat protection opportunities (see Projects 11 and 12). Limiting factors for fish access to habitat are a partial barrier culvert and full barrier culvert. The former is proposed for replacement under Project 9 (Section 3.4.5) and the latter for removal under Projects 10 and Project 11 (Conceptual Design Project Rolling Bay Property Culvert Removal and Riparian Protection).

Middle Springbrook Creek. SB01-1



The middle section of Springbrook Creek flows through Assessment unit 4 (AU4) through a wide unconfined valley with a large wetland corridor. The total stream length of middle Springbrook Creek is 2,800 ft., all of which is Type F habitat. The reach begins on the south side of High School Road, where the valley becomes unconfined and flows meander through high-quality forested wetlands with an average bankfull width of 7 ft. and an average gradient of 1%. The substrate here is dominated by gravel (0.1-2" diameter pebbles), with sand increasing as the stream nears the road. The stream then passes under High School Rd in a partial barrier culvert. Below the crossing the stream is ditched along the north side of the road for 550 ft. with a predominantly sand and silt substrate and dense overgrowth of blackberry thickets. Scouring of the ditch banks is evident. The stream passes under Fletcher Bay Road NE in a 3' diameter culvert which is beginning to rust out. The frequent flooding of the adjacent property to the north evidences the size deficiency of this culvert. Coho and cutthroat trout were netted in the outflow pool below this Fletcher Bay Road culvert. Continuing down from the culvert, the stream is channelized down a narrow strip of alders for 175 ft. before feeding into a 0.5 acre man-made pond. At the pond outlet there is a fully fish-passable log weir control structure. Below the pond the stream continues down a narrow strip of alders, with an average bankfull width of 7.5 ft. and an average gradient of 1%. This reach is homogenous, lacking instream complexity. Approximately 450 ft. below the pond the SB01D tributary enters the right bank of Springbrook creek.



The combined flows continue down the channelized stream corridor on the north side of a horse pasture. Springbrook Creek is then joined by SB01C, a left bank type F tributary 500 ft. downstream of the confluence with SB01D. In this area the landowner planted trees to help provide shade to the stream. Below the confluence with SB01C Springbrook Creek meanders down an unconfined low gradient valley bottom through adjacent wooded wetlands with an average bankfull width of 6.3 ft. and an average gradient of 1%. Here, the left bank of the valley floor is densely forested with an over story of alder, ash, mature willow, and red osier dogwood. The right bank of the valley has been cleared of native vegetation and is currently dominated by invasive reed canary grass. Springbrook Creek runs within the left bank forested section for 450 ft. providing excellent low-gradient salmonid rearing habitat with undercut banks and instream large woody debris. The stream then leaves the forested habitat running into the recently cleared valley bottom. For approximately 250 ft. the stream is choked with reed canary grass. Below the cleared section of stream Springbrook Creek flows under a wire mesh fence and enters wooded wetlands densely populated with alder, mature willow, and red osier dogwood. Approximately 400 ft. below the cleared area the creek flows under a derelict field access road in a partial barrier culvert. Below this crossing the valley becomes more confined and the stream gradient increases from an average of 1% to 3%. Here the substrate changes from sand and silt to gravel and cobble. This demarks the transition from middle Springbrook Creek SB01-1 to lower Springbrook SB01.

- Limiting factors in this mainstem reach include clearing of native riparian vegetation and replacement with invasives, alteration of stream channels and funneling into a ditch alongside a major road and under an intersection of two main Island arterials (with associated pollutants), loss of stream complexity in additional areas, and partial fish passage barrier culverts. As noted under section 3.6 below, there were also detections of human fecal bacteria in this reach, and actions to find and address these sources are needed. There are many opportunities for riparian restoration (including Conceptual Design Projects 3 and 4), and protection of important wetland functions. It is recommended that the entire High School Road x Fletcher Bay Road NE area be considered as a coordinated suite of culvert and stream improvements as per Project 7.

Lower Springbrook Creek SB01

The lower section of Springbrook Creek runs through AU1, our most highly-developed assessment unit, in a confined forested valley with faster moving waters and excellent spawning gravels. This reach is approximately 2,600 ft. in length, all of which is Type F. The upper section of this reach flows through a stand of conifers with a bankfull width of 7.5 ft. and an average gradient of 2%. It then flows under a field access road in a partial barrier culvert. Approximately 100 ft. downstream from the culvert there is a long section of riprap armoring protecting a picnic area on the right bank of the creek. This armored section of channel is artificially narrow and has caused substantial scour of the left bank. The armored channel also lacks instream complexity forming a 70 ft. long continuous riffle with neither pools nor large woody debris. Below the artificially confined channel, Springbrook Creek re-enters a natural intact riparian corridor with an average bankfull width of 9.5 ft. and an average gradient of 3%. This section of stream provides excellent spawning habitat with numerous pools and instream large woody debris, and a substrate dominated by cobble (2-10" diameter rocks) and gravel (0.1-2" pebbles). Then, 800 ft. below the armored section of channel, Springbrook Creek passes under Fletcher Bay Road NE, the first road crossing on the mainstem. This partial barrier crossing is comprised of eight concrete weirs and a 100 ft. long culvert. The

downstream-most weir below the culvert is failing and water now passes through a crack in its foundation and through the large rocks armoring the bank rather than spilling over the top of the weir. The City of Bainbridge Island has installed plastic sheeting and sandbags to temporarily restore function to this lower weir. Below the failing weir the channel is incised and scoured down to hardpan for approximately 200 ft. WDFW identifies this structure as 33% passable and has assigned it a Prioritization Index of 24.66; this crossing affects fish access to 3.6 miles of fish habitat. Outside of the influence of the Fletcher Bay Road NE crossing Springbrook Creek continues down a forested ravine dominated by large second growth cedar with an average bankfull width of 15 ft., average gradient of 2%, and a substrate of primarily cobble and gravel. Approximately 1,100 ft. downstream of the Fletcher Bay Road NE crossing the mouth of Springbrook creek enters Fletcher Bay.



Weirs below Fletcher Bay Rd NE culvert



Stream further below culvert

Springbrook Creek enters Fletcher Bay Estuary at its southeastern extent, with Issei flowing in just north of this confluence. Sediment from these two streams contribute to a large mudflat area exposed at low tides, with lesser contributions from the smaller seasonal creeks entering closer to the mouth of the estuary (North Fletcher Bay Creek flowing from north and Foster’s Creek from the south). Fletcher Bay Estuary was placed on the State’s ‘Threatened’ list of shellfish growing areas in 2013 due to high levels of fecal bacteria. Subsequent work by Kitsap Public Health found decreasing levels of bacteria from 2013-2016 (Walther 2016), and as reported under Water Quality (Section 3.6), most recent samples detected moderate levels of human and ruminant source fecal bacteria in this reach.



Springbrook Creek/ Fletcher Bay estuary

- Limiting factors for this reach include streamside armoring, loss of channel complexity, and an undersized culvert and failing weir system acting as a fish passage barrier, and one additional fish passage barrier culvert. Given the concentration of development within this watershed, additional limiting factors include high road densities and high proportion of the area in impervious surfaces. Although water quality monitoring (Section 3.6) did not detect high levels of metals during the monitoring period, this is an area with high risk of contaminants flushing into the stream in stormwater events, and bacterial contamination persists. Removal of armoring and streambank restoration (see Project 2, Appendix III: Eddy) and replacement of undersized culverts and the failing weir system (Project 1, Appendix III: Fletcher Bay Culvert) would be very important actions given the location near the outlet of the stream system. Protection of intact habitat is also important here, as are actions to improve stormwater infrastructure to prevent pollutants from reaching the stream system (Project 18).

3.5 Salmonid Life History and Distribution

A 1982 study of fish life in Springbrook Creek found juvenile coho, steelhead, and cutthroat trout downstream of the Fletcher Bay Road crossing, and coho and large numbers of cutthroat trout upstream of the crossing (Fiscus 1982). Recent surveys within Springbrook Creek have documented that salmonid species currently present include cutthroat trout and coho salmon, salmonids that are well adapted to small stream systems in Puget Sound. Chum salmon also use this system, but only very low numbers of

adults have been recorded in recent years (Section 2.4.2). Springbrook is identified by NOAA as critical habitat for ESA-listed Puget Sound steelhead, though their presence has not been observed recently. NOAA classifies the shorelines and associated nearshore habitats of Fletcher Bay, as well as all of Bainbridge Island shoreline, are classified by NOAA as critical habitat for ESA listed Puget Sound Chinook salmon, supporting a number of life history stages. Below is a description of the life histories of species who currently or have historically utilized Springbrook Creek for a number of life stages. Figure 18 illustrates recently observed fish presence.

3.5.1 Salmon Life History

Coho

Puget Sound coho (*Oncorhynchus kisutch*) typically display a three year life cycle, with the freshwater first phase of life generally lasting about a year before the young salmon migrate to sea in spring. However, some coho may use a seasonal strategy of down migration to the estuary for rearing in their first year (age 0) and may either directly outmigrate in fall, or move back into streams to overwinter before outmigrating at age one (Roni et al. 2012). It is unknown what range of life history strategies are undertaken by juvenile Springbrook Creek coho.

The importance of even intermittent streams to coho is well documented. *"[W]e found that intermittent streams were an important source of coho salmon smolts. Residual pools in intermittent streams provided a means by which juvenile coho could survive during dry periods; smolts that overwintered in intermittent streams were larger than those from perennial streams. Movement of juvenile coho into intermittent tributaries from the mainstem was another way in which the fish exploited the habitat and illustrates the importance of maintaining accessibility for entire stream networks. Loss of intermittent stream habitat would have a negative effect on coho salmon populations in coastal drainages, including downstream navigable waters,"* (Wigington, et. al 2006).

Coho typically spend one year at sea before returning to spawn in fall and early winter. Returning coho may gather at the mouths of streams and wait for flow to rise once the fall rains return and the base flow of the streams increase. River entry timing in Springbrook Creek is generally from late October through late November, with the majority of spawning observed from mid- through late-November. Spawning adult coho average around 10 lbs but may range in size up to 30 lbs (WDFW 2018).

In freshwater habitat, coho are strongly associated with slow water and areas with high channel complexity and physical cover, including in-channel wood, vegetated and overhanging banks, and side channels. Coho require cool temperatures, ideally below 14 °C (USFWS 1986). Low turbidity and siltation rates, and high oxygenation, are important to the survival of eggs and juveniles (USFWS 1986). Summer low flow is a significant limiting factor for young coho in Puget Sound streams, as it reduces habitat quantity and is associated with higher temperatures, and greater competition and predation rates (Woodward et al. 2017). High winter flows can also negatively affect juvenile overwintering salmon, and in periods of high discharge, side-channel or floodplain access is important so that coho can take refuge in slower moving waters.

Coho in streams feed primarily on aquatic and terrestrial insects, and once they transition to estuarine and ocean water, and are larger, eat more crustacea and other fish (USFWS 1986). Coho are an important

species for both commercial and sport fisheries. They are fished using nets and trolling gear, and sportfishing is by hook and line in saltwater habitat. Fishing regulations for salmon change year-to-year or even on a weekly basis depending on population status. Fishing is not allowed on Bainbridge Island for returning salmon once they have re-entered freshwater streams to spawn.

Chum salmon

Chum salmon (*Oncorhynchus keta*), sometimes referred to as dog salmon, are one of the most abundant and widespread salmon in Washington state, and are one of the larger salmonids found in Puget Sound. Chum spend very little time in freshwater, heading towards salt water soon after emergence from the gravel. Young chum salmon may make extensive use of intertidal and nearshore areas adjacent to their natal streams in order to feed and grow (WDFW 2018b). In total they typically spend between two and four years in the open ocean before returning to streams to breed. Three different races that have different return times are found in Puget Sound: summer, fall, and winter. Fall chum are the most abundant and widespread race in Puget Sound, and are the race found in Bainbridge Island streams, though only a few have been recorded in Springbrook Creek.

Chum salmon are less affected by some in-stream stressors such as high summer temperatures and low oxygen compared to coho, because chum spend so little time in freshwater habitat. However, passage barriers may pose an even greater threat to chum than coho, as chum salmon are not as strong swimmers/jumpers, and have limited ability to navigate vertical barriers that other salmon like coho may be able to overcome.

Cutthroat Trout

Coastal cutthroat trout (*Oncorhynchus clarki clarki*) are a salmonid found throughout a great number of Puget Sound streams including many perennial and seasonal streams of Bainbridge Island. These fish are in the range of 1 to 4 lbs as adults. Cutthroat trout display a wide variety of life history, and are variously anadromous, with some in a population that may migrate to sea after two to three years of freshwater rearing, while others remain residents in fresh water throughout their life. Sea-run cutthroat generally spawn in winter months through to spring. They are found in a wide variety of streams but are known in particular for accessing the shallow headwaters of streams that larger salmonids cannot access, and resident populations can be found above natural or man-made barriers to anadromous fish (WDFW 2018c).

Sea-run cutthroat that leave the stream are generally found within a few miles of their natal stream, following food resources wherever it is, be it estuarine or freshwater habitat. They are opportunistic predators on a wide variety of invertebrates and, at larger sizes, small fish. Protected bays and estuaries provide excellent habitat for cutthroat.

Chinook Salmon

Puget Sound Chinook (*Oncorhynchus tshawytscha*) were listed as Threatened under the Endangered Species Act in 1999. Adult Chinook salmon have not been documented in Springbrook Creek, but it is very likely that juvenile chinook from other watersheds rear in the Springbrook/ Fletcher Bay estuary and may travel some distance upstream from the mouth as they acclimate to salt water ([Beamer et. al, 2013](#)).

Steelhead:

Puget Sound steelhead (*Oncorhynchus mykiss*), or sea-run rainbow trout, were listed as Threatened under the Endangered Species Act in 2007. Typical steelhead life histories include two years of freshwater rearing followed by two years at sea, after which adults return to spawn in their natal watersheds. However, wild steelhead demonstrate a wide range of variations on this typical life history, as they are locally adapted to the conditions within their natal watersheds. Unlike salmon, many steelhead survive spawning and emigrate to the sea for another before returning to spawn a second (or more) season.

Springbrook is identified by NOAA as critical habitat for ESA-listed Puget Sound winter steelhead. The WA Dept. of Fish and Wildlife has documented presence of steelhead in Springbrook Creek (ID 155186377 in SalmonScape). The 1995 Bainbridge Island Watersheds Report (Puget Sound Cooperative River Basin Team 1995) listed steelhead as occurring in Fletcher Bay Watershed, possibly based on the 1982 surveys that found juvenile steelhead in Springbrook Creek downstream of the Fletcher Bay Road crossing (Fiscus 1982). Given its size and habitat characteristics, it is likely that Springbrook Creek historically supported a small population of steelhead; with the population of Puget Sound steelhead at less than 3% of its historical abundance, it is not surprising that steelhead have not been observed there recently. Protecting and restoring habitat and natural processes in small watersheds like Springbrook is important for steelhead (and other fish) recovery, as spatial structure and diversity are two critical components of viable salmonid populations (VSP, [McElhany et. al. 2000](#)).

Other Fish Species

Several other fish species likely use habitats within Springbrook Creek or its estuary. Freshwater fish species include several native sculpin (*Cottidae*) species, and Western brook lamprey (*Lampetra richardsoni*). Estuarine and marine species may include numerous Puget Sound nearshore fishes, including forage fish (surf smelt (*Hypomesus pretiosus*), and Pacific sand lance (*Ammodytes hexapterus*)).

3.5.2 Fish Distribution

Based on field observations by Wild Fish Conservancy, Washington Department of Fish and Wildlife, Bainbridge Island Watershed Council salmon survey monitors, and state databases of fish resources, Figure 18 shows fish species distributions within the watershed.

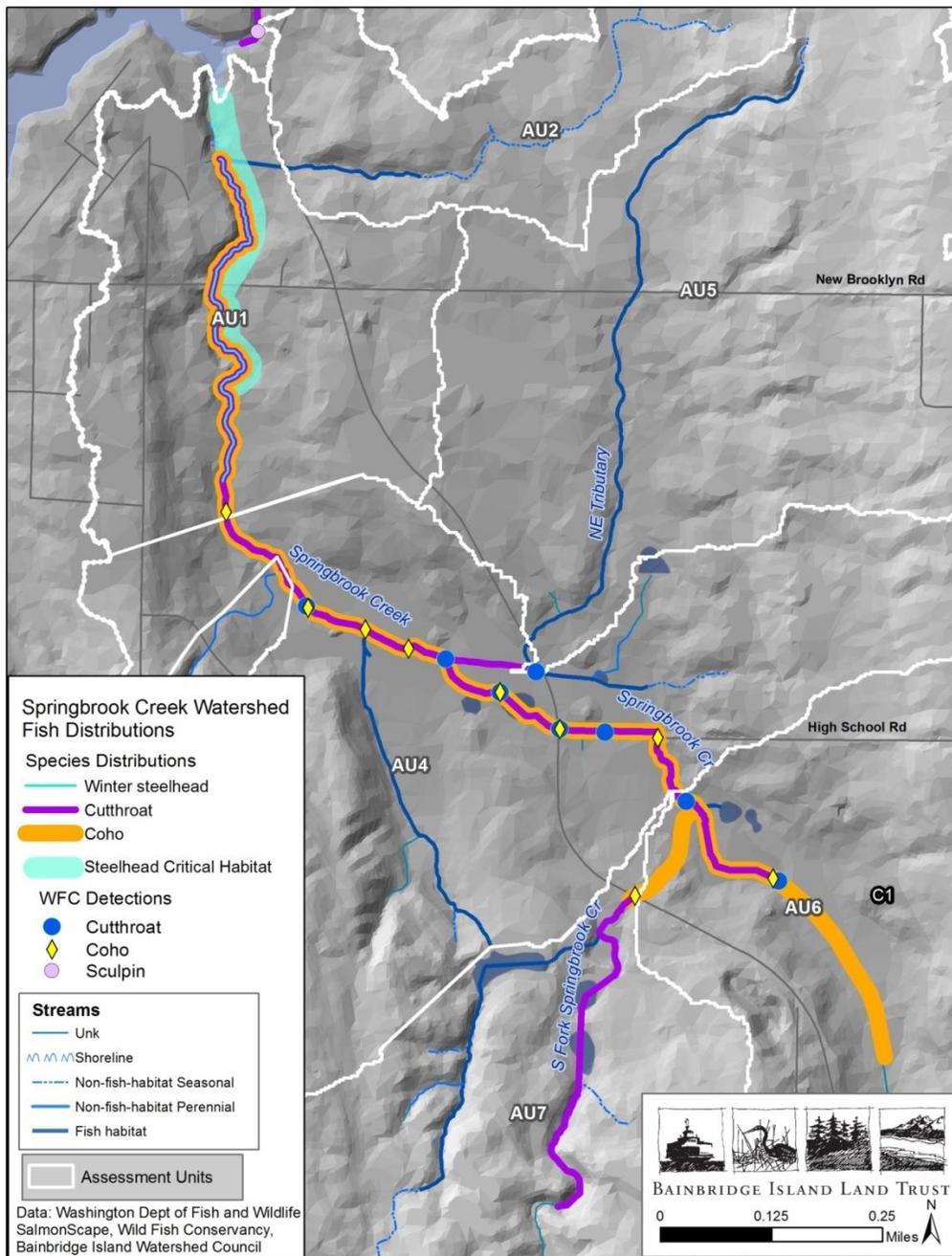


Figure 18. Fish Species Distribution Springbrook Creek Watershed

Annual fall salmon monitoring conducted between 2005 and 2017 confirms that Springbrook Creek hosts a small population of spawning coho salmon. In most years of monitoring, about a dozen adult spawning coho have been observed in the lower portion of Springbrook Creek from the mouth of the stream up just past Fletcher Bay Road (Figure 20). In 2011, a particularly abundant year, 58 observed spawning adults were observed. These numbers may have been boosted relative to other years by strays associated with the Suquamish Tribe’s Agate Pass net pens which restarted operation in 2010. Redd production on Springbrook Creek is consistently among the highest of the four streams that the Watershed Council monitors (Figure 21). The number of juveniles observed, however, has been fairly low and inconsistent

across the monitoring period, with no juveniles sighted in some years (Figure 22), though this may be in part because Springbrook is one of our wider streams with more hiding places, making detection of small fish a challenge.

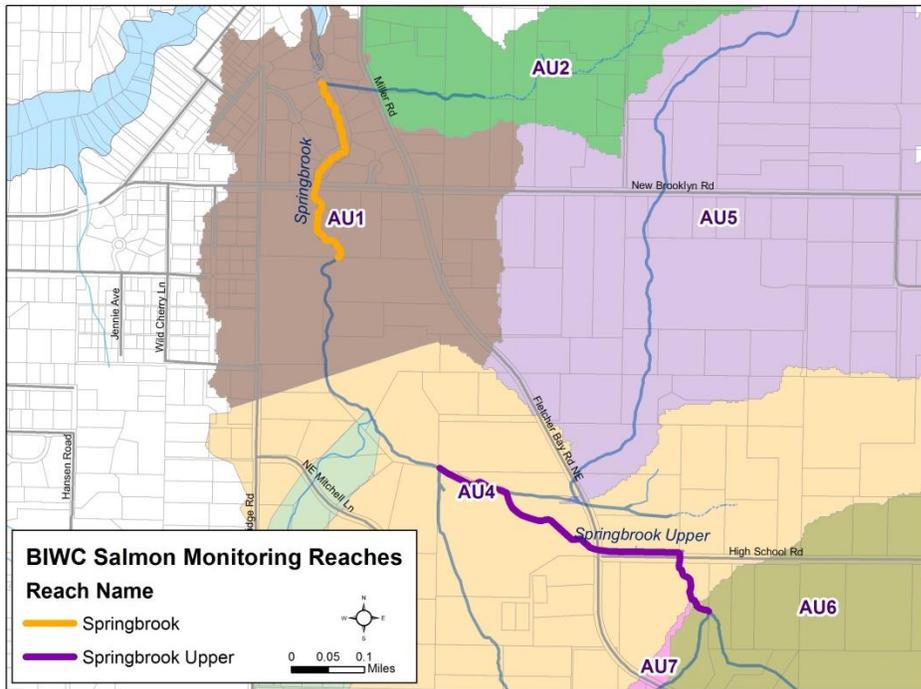


Figure 19. Bainbridge Island Watershed Council Springbrook Creek salmon monitoring reaches. The lower reach was monitored in 2006-2017 and the upper reach in 2014-2017.

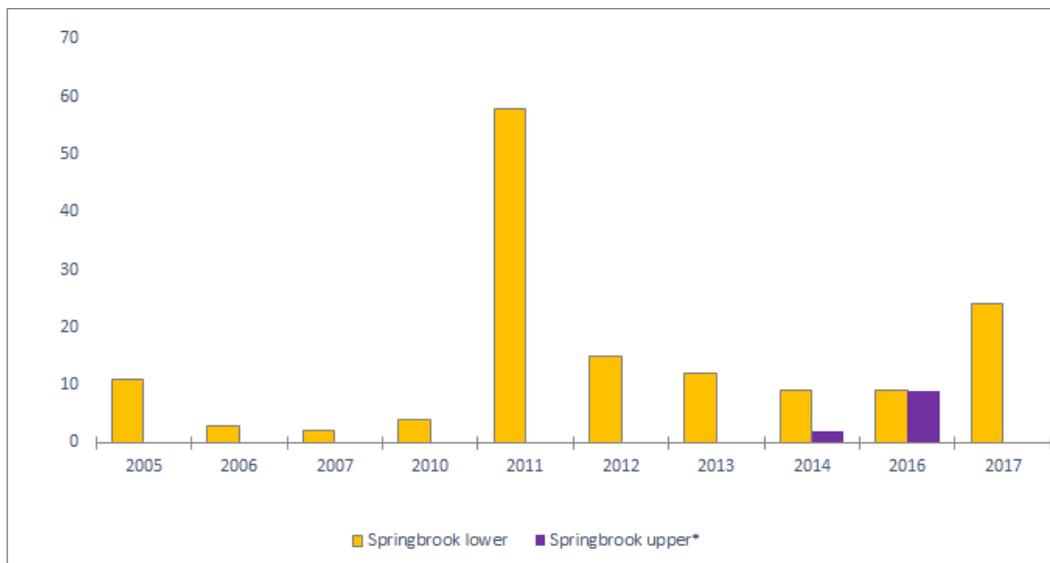


Figure 20. Adult spawning salmon observed on Springbrook Creek by year. (sampling reaches as per Figure 19). Springbrook Upper was monitored in 2014-2017.

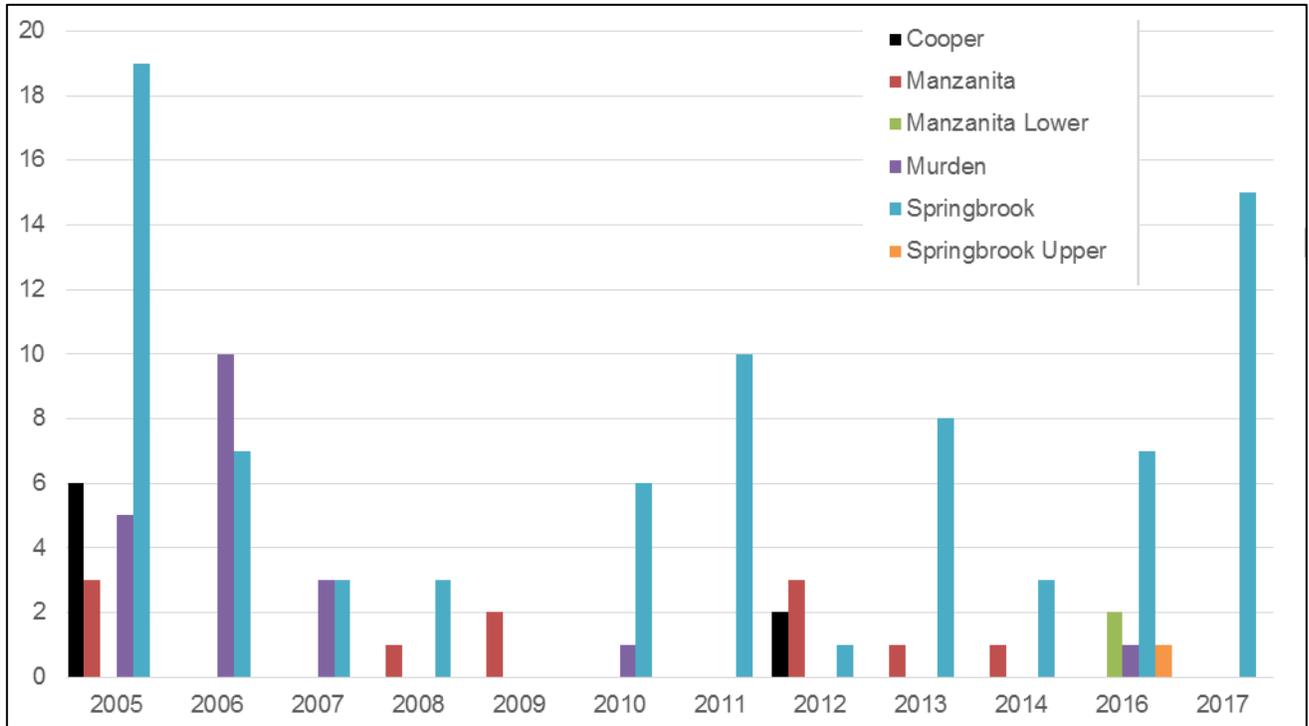


Figure 21. Annual salmon redd tally by stream, Bainbridge Island. Springbrook Upper was monitored in 2014-2017.

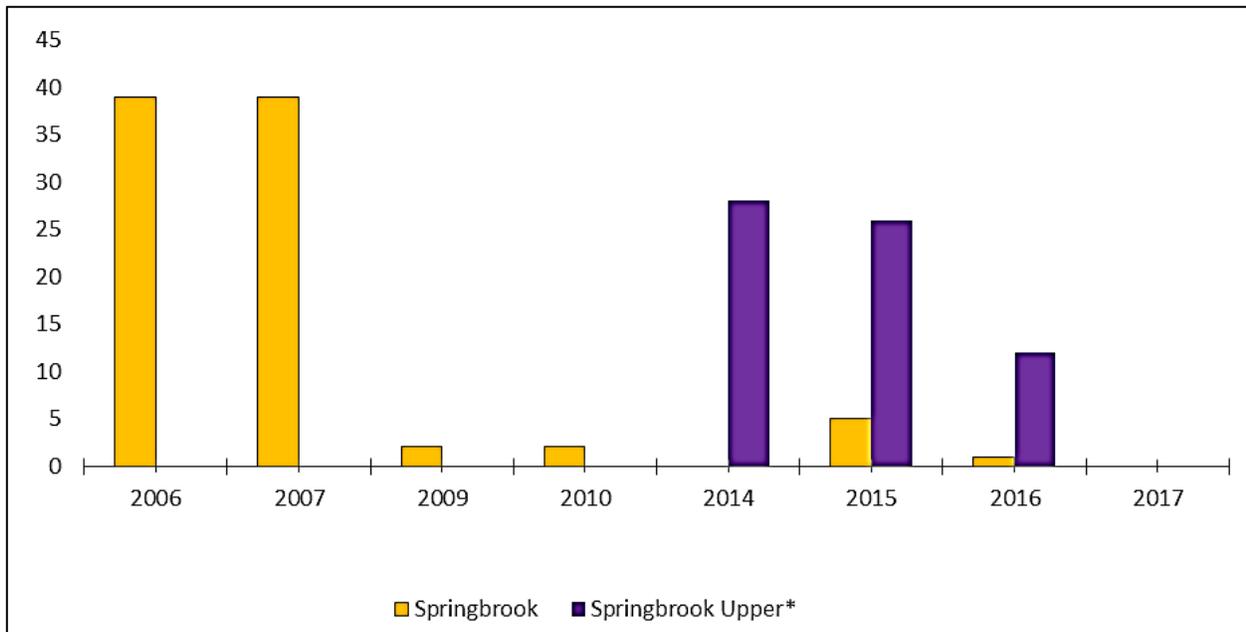


Figure 22. Juvenile salmon and cutthroat trout observed in Springbrook Creek by year. Volunteer salmon monitors were not asked to identify to species. Springbrook Upper was monitored in 2014-2017.

3.6 Water Quality and Flow Monitoring

Baseline water monitoring was conducted during water year 2017 (Oct. 2016 - Sep. 2017) to assess in-stream aquatic life conditions, aquatic life status, water quality, water flow, and human health conditions throughout the watershed. The project team selected monitoring locations and parameters based upon habitat characteristics, tributary confluences, suitability for monitoring, representativeness of habitat and land use types, ease of access, landowner permission, findings from historic assessments, and previous or ongoing monitoring locations.

A total of 14 sites were selected and monitored for one or more parameters (Figure 23 and Table 5). Monitoring included routine monthly flow and physiochemistry field measurements; continuous flow (site A only); continuous conductivity, temperature and dissolved oxygen monitoring; and storm event monitoring (1.39" of rain in a 24-hour period on March 17th and 0.93" of rain in a 24-hour period on April 12th).

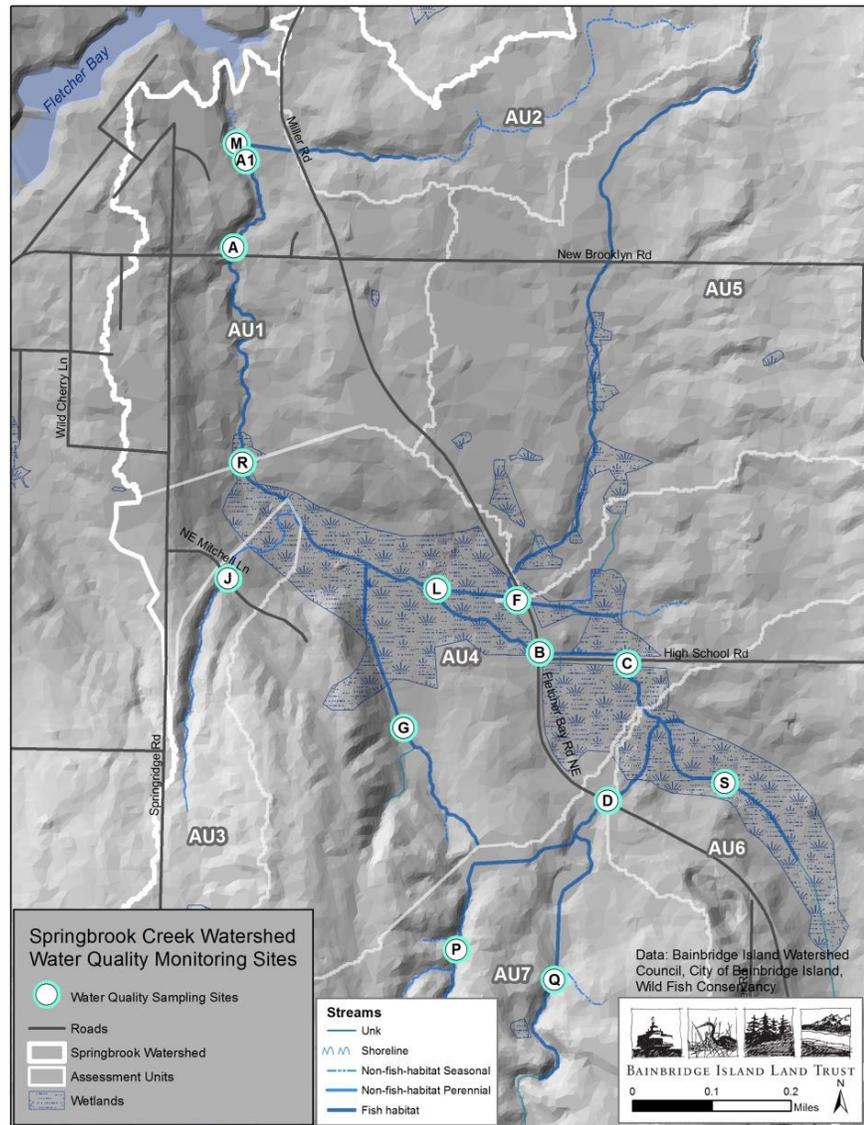


Figure 23. Baseline Water Quality Monitoring Locations, Springbrook Creek Assessment

Table 5. Monitoring Parameters and Frequency

Site	Continuous	Monthly	Annual Dry-Season	Targeted Storm
A	Flow, conductivity, temp	Physiochem	Bacteria, MST, macroinvertebrates	Dissolved metals, hardness, TSS
A1	Dissolved oxygen, temp	----	----	----
B	----	Flow, physiochem		Dissolved metals, hardness, TSS
C	----	Flow, physiochem	Bacteria, MST	Dissolved metals, hardness, TSS
D	Conductivity, temp	Flow, physiochem	Bacteria	Dissolved metals, hardness, TSS
F	----	Flow, physiochem	----	Dissolved metals, hardness, TSS
G	----	Flow, physiochem	----	Dissolved metals, hardness, TSS
J	----	----	----	Dissolved metals, hardness, TSS
L	Conductivity, temp	Flow, physiochem	Bacteria, MST, macroinvertebrates	Dissolved metals, hardness, TSS
M	----	----	----	Dissolved metals, hardness, TSS
P	----	Flow, physiochem	----	Dissolved metals, hardness, TSS
Q	----	Flow, physiochem	----	Dissolved metals, hardness, TSS
R	Dissolved oxygen, temp	----	----	----
S	Dissolved oxygen, temp	----	Bacteria, MST	----

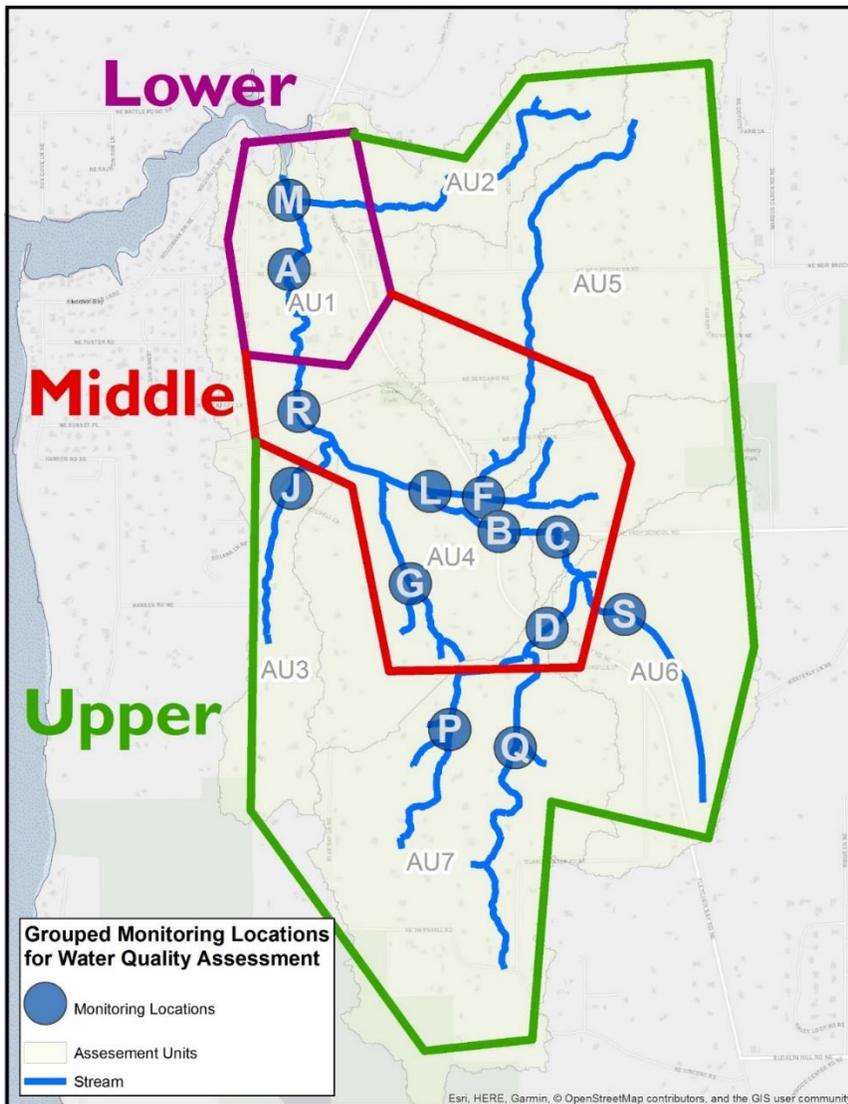


Figure 24. Upper, Middle and Lower Watershed Groups for Water Baseline Monitoring Locations

For water monitoring assessment purposes, the watershed was divided into three sections: upper, middle, and lower watershed areas. Monitoring locations were grouped according to location along the associated mainstem or tributary (Figure 24). Sites P, Q, J, and S fell in the upper watershed area. Sites G, D, F, C, B, L and R fell in the mid-watershed area, and sites A and M fell in the lower watershed area. Monitoring results are summarized in Table 6 and discussed in more detail below.

Table 6. Springbrook Creek Watershed Baseline Conditions

Springbrook Creek Baseline Conditions			
	Upper Watershed	Mid Watershed	Lower Watershed
Aquatic Life Conditions			
In-stream physical chemistry	Fair - generally adequate levels of dissolved oxygen Temperature standards met	Poor - low dissolved oxygen and high temperatures (Core Summer Salmonid Habitat Season: May - September)	
Metals	Good	Good (no lead or copper; only zinc detected, but did not exceed acute or chronic criteria)	Good (no lead or copper; only zinc detected, but did not exceed acute or chronic criteria)
Sediment	Good	Poor	Fair
Flow (mean cfs)	Dry Season Baseflow = 0 - 0.04 Wet Season Baseflow = 0.15 - 0.43 Storm Flow = 0.35 - 0.85	Dry Season Baseflow = 0.03 - 0.44 Wet Season Baseflow = 0.39 - 2.26 Storm Flow = 1.05 - 7.86	Dry Season Baseflow = 0.90 Wet Season Baseflow = 4.19 Storm Flow = 6.16 - 9.49 (peaks = 21 and 11)
Aquatic Life Status			
Macroinvertebrates	No monitoring due to lack of suitable site and lack of landowner permission	Poor (likely stressors include animal and human waste, fine sediment, metals, low dissolved oxygen and high temp)	Fair to Good (likely stressors include animal and human waste, fine sediment, low dissolved oxygen, and high temp)
Human Health Conditions			
Fecal Coliform Bacteria	No concern	High concern	Moderate concern
Microbial Source Tracking	No sources detected	Human source detected	Human and ruminant source detected (possibly sheep, goat, or wildlife; no horse or cattle)

3.6.1 In-Stream Aquatic Life Conditions

In-situ physiochemistry, metals toxicity, suspended sediment, and flow were used to assess in-stream aquatic life conditions. Physiochemistry such as pH, dissolved oxygen, temperature, and suspended sediment can have significant impacts on in-stream aquatic animals’ ability to feed, breathe, and reproduce. Dissolved metals concentrations can become toxic to aquatic life depending upon the hardness and pH of the water, and streams require sufficient cool, well-oxygenated flow to sustain aquatic life throughout the core summer salmonid habitat season (May through September).

Lower watershed aquatic life conditions were generally fair. Flows were sufficient for sustaining aquatic life year-round, and no lead or copper were detected. Zinc was detected, but concentrations were well below acute or chronic criteria. Monthly ambient turbidity measurements were well below 25 nephelometric turbidity units (NTU) (the level at which aquatic impairment begins), and site A barely peaked above 25 NTU (29.4 NTU) during one of the two storms sampled. Total suspended solids concentrations (TSS) were low, ranging from one to 14 milligrams per liter (mg/L). However, dissolved oxygen and temperature did not meet aquatic life protection criteria throughout the core summer salmonid habitat season (Table 6, Figures 25 and 26).

Springbrook Creek - Dissolved Oxygen

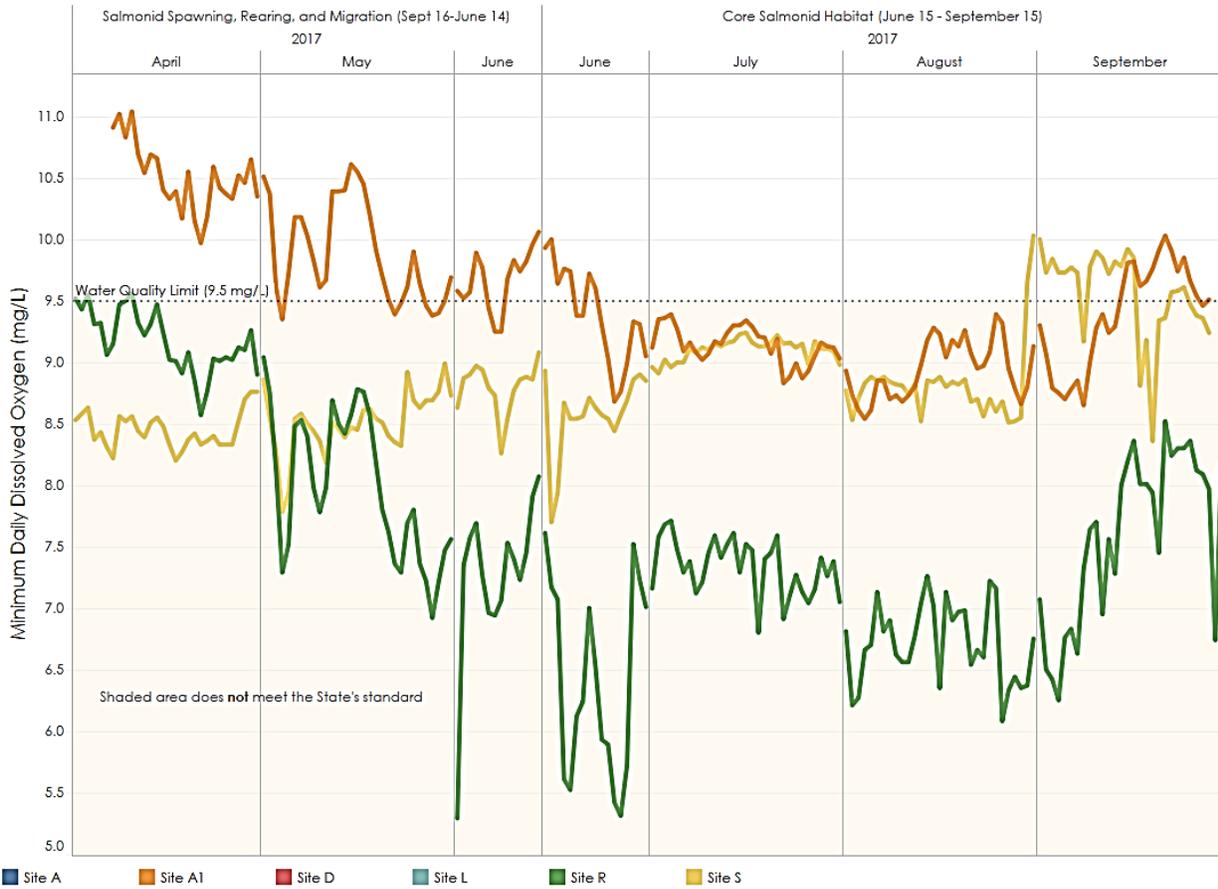


Figure 25. Continuous Dissolved Oxygen Data

Site A in the lower watershed was the only site in the project area with continuous flow gaging. A recent King County assessment of flow “flashiness” at this site indicates potential moderate impacts from development in the basin on High Pulse Count (numbers of times each water year that discrete high flow pulses occur), TQmean (the fraction of time during a water year that the daily average flow rate is greater than the annual average flow rate of that year), and R-B Index (Richards-Baker Flashiness Index-A dimensionless index of flow oscillations relative to total flow based on daily average discharge measured during a water year) (DeGasperi and Gregerson, 2015).

Aquatic life conditions in the mid-watershed were relatively poor. Although flows were sufficient, metals sampling results were well below acute or chronic conditions, and monthly ambient turbidity measurements were well below 25 NTU, sites B and G exceeded 25 NTU during targeted storm sampling with site G having the highest level of any site at 46 NTU. Total Suspended Solids (TSS) concentrations at most of the mid-watershed sites were generally higher than upper or lower watershed sites. Concentrations ranged from five to 39 mg/L with the highest concentration in that range measured at site G. Dissolved oxygen and temperature did not meet aquatic life protection criteria throughout the core summer salmonid habitat season (Table 6, Figures 25 and 26).

Springbrook Creek - Stream Temperature History

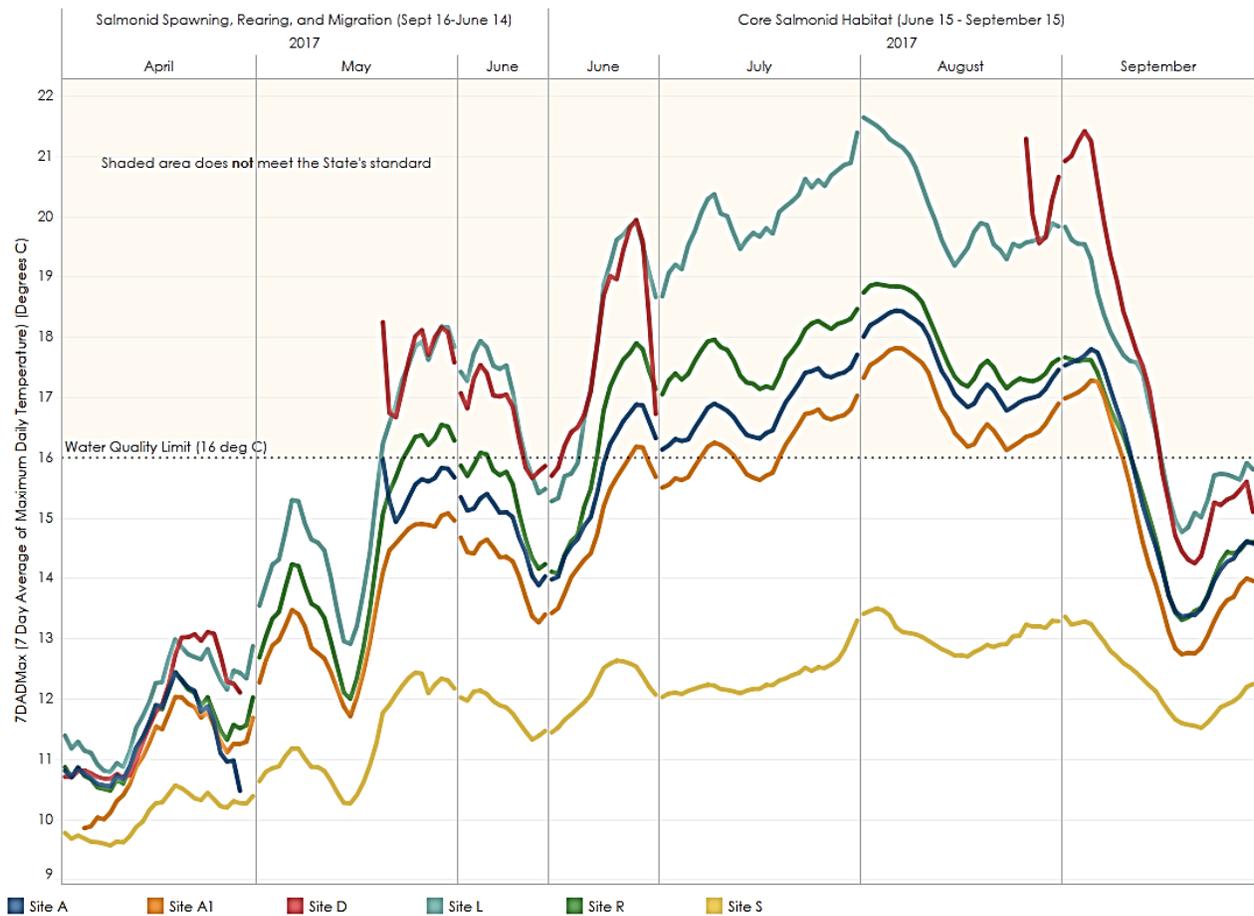


Figure 26. Continuous Temperature Data

Aquatic life conditions in the upper watershed were generally better, though summer flows were fairly low in most headwaters areas and likely not sufficient for sustaining fish year-round. Sites P and Q are in forested draws upstream from artificial ponds, and monthly monitoring (not depicted in Figures 25 and 26) found that conditions did meet aquatic life protection criteria (low temperatures and high dissolved oxygen) during the core summer salmonid habitat season. Site S along the southeastern stream reach in the upper watershed, which has a heavily-forested, healthy riparian buffer, met temperature criteria during the summer months but hovered just below the ideal dissolved oxygen standard year-round; Table 6, Figures 25 and 26).

3.6.2 In-Stream Aquatic Life Status

Four stream benthic macroinvertebrate health indices were used to assess in-stream aquatic life status: Benthic-Index of Biological Integrity (B-IBI), Hilsenhoff Biotic Tolerance Index, Metals Tolerance Index, and Fine Sediment Sensitivity Index.

The B-IBI is calculated from ten metrics of overall species diversity and relative proportions of pollutant-tolerant and intolerant species. In terms of the overall B-IBI score, the lower watershed conditions at site A

scored “fair to good” similar to a reference site in the adjacent Cooper Creek basin. The Cooper Creek basin is relatively undeveloped and generally has excellent water quality. Mid-watershed conditions at site L scored poor based on macroinvertebrate sampling in December 2016. Upper watershed in-stream aquatic life status was not assessed due to lack of landowner permissions.

The Hilsenhoff Biotic Tolerance Index measures sensitivity to labile organic matter pollution (i.e. animal waste including human waste). The scale is from 0 - 10 with higher values indicative of likely organic matter pollution. The lower watershed scored 4.1 while mid-watershed scored 5.3. The Cooper Creek reference site scored 3.0.

The Metals Tolerance Index measures the likelihood of metals impacts through the relative proportion of metals-tolerant species. Elevated metals in streams not due to natural conditions can be an indication of human impacts through stormwater runoff. The scale is from 0 - 10 with higher values indicative of likely elevated metals concentrations. The lower watershed scored 1.8 (same as the Cooper Creek reference site), but mid-watershed scored 4.3.

The Fine Sediment Sensitivity Index measures sensitivity to fine sediment from both natural and human factors. Puget Sound Lowland streams range from 0 to ~200 with lower scores indicative of likely impact (with the caveat that the model may not be well-calibrated to this region due to inclusion of only 7 Puget Sound Lowlands in the original model; Sean Sullivan, Rhithron Associates Inc, pers. comm. 2018). The lower watershed scored 20. The mid-watershed scored only five, with only one species of “slightly fine sediment sensitive” taxons detected. The Cooper Creek reference site scored 40.

3.6.3 Human Health Conditions

Though bacteria in waterbodies do not directly impact aquatic animals, bacteria and other pathogens usually associated with bacteria are a threat to human health and can contaminant downstream shellfish harvest areas. Bacteria can originate from numerous sources to include leaking septic systems, agriculture, or wildlife.

The lower reach of Springbrook Creek was State-listed as impaired by fecal coliform bacteria in 2004, and Fletcher Bay was State-listed as a Threatened Shellfish Growing Area in 2013 due to continued high bacteria counts. This reach is currently covered by the Sinclair and Dyes Inlets Fecal Coliform Bacteria Total Maximum Daily Load TMDL and Water Quality Implementation Plan. Fecal coliform bacteria concentrations at site A have decreased since routine monitoring began in 2010, but middle to lower watershed reaches continue to fail to meet criteria.

Baseline monitoring for this project utilized both fecal coliform bacteria and microbial source tracking (MST) to try to identify type and location of sources in the watershed. The State recognizes and regulates fecal coliform bacteria as the indicator species to determine impairment in a waterbody. However, fecal coliform bacteria is ubiquitous to all warm-blooded animals, so is less helpful in identifying the source of the bacteria. MST, however, is a set of DNA-based methods used to determine the host (different animals or Human) that contributes to fecal pollution.

Of highest concern are elevated bacteria concentrations in the mid-watershed, particularly along the mainstem at High School Road (site C) which does not meet the standard and where fecal coliform bacteria

level is approximately 24 times greater than the level measured at site L which met the standard. MST indicated a human source for these bacteria, which were not detected at either of the two upstream sites from this location (D or S). The source was therefore between these monitoring locations, south of High School Road.

Of moderate concern are elevated bacteria concentrations in the lower watershed at NE Fletcher Bay Road (site A) which does not meet the standard (bacteria level approximately six times greater than level at site L which met the standard). A possible human source was detected at site A, though detection may simply be the signal from site C upstream. A ruminant source was detected at site A as well, but cattle and horse were ruled out, leaving possibly sheep, goat, or wildlife as the source.

Human health conditions in the upper watershed were very good. Bacteria concentrations were extremely low and easily met State criteria. Further, there were no human or animal microbes detected in these waters.

3.6.4 Summary of Water Quality Conditions

In regards to water quality, the mid-watershed (AU4) needs the most work in all categories - aquatic life condition and status and human health condition. Improvements here should have a positive impact on lower watershed conditions, as well.

Stormwater runoff from roads, construction sites, and other denuded areas are potential sources of fine sediment likely impacting aquatic life status. In-stream sediment from either or both natural conditions or historical land use such as forest clearing and agriculture can also be a source of fine sediments when they are eroded and carried downstream during flashy high flow events. Therefore, it is important to use low impact development practices to reduce or eliminate stormwater runoff as much as feasible, and to protect and restore wetlands and floodplains to attenuate storm flows.

The most critical challenge in terms of salmonid habitat is summertime temperature and dissolved oxygen. Temperature and dissolved oxygen are inversely proportional - the higher the temperature, the lower the oxygen, so stream shading is important. Other than runoff from small, infrequent summer storms, summertime flow in the watershed is solely fed by groundwater. As groundwater is cool and usually well-oxygenated, well-shaded reaches with a healthy riparian buffer usually meet summertime temperature and dissolved oxygen criteria such as at site S (AU 6) in the upper watershed. Therefore, it is important to maintain groundwater levels to sustain flow and protect and restore healthy riparian buffers to shade stream channels.

In regards to human health protection, bacteria remains a recalcitrant problem. The sources of human bacterial contamination have not been identified and Kitsap County Health Department has not been working on projects such as this in the watershed since 2015. **Follow up investigation to find and address the human sources south of High School Road (site C) and the source(s) of the detected sheep, goat, or wildlife fecal contamination upstream of site A is recommended, whether by the City of Bainbridge Island or Kitsap County Health District.**

3.7 Puget Sound Characterization Decision Support Tool Modeling Results Summary

The Washington Department of Ecology analyzed watershed characteristics utilizing their Puget Sound Characterization decision support modeling system (Stanley et al. 2016) using GIS data for assessment unit boundaries, hydrography, surficial geology, land cover, wetlands, and stream confinement provided by the City of Bainbridge Island and Wild Fish Conservancy. The report findings were supplemented by Stephen Stanley’s observations from a May 10, 2018 tour of the watershed with the Project Core Team. Appendix I contains the full report: Characterization Results for Springbrook Creek Watershed, Bainbridge Island, Washington, and WDOE Publication 18-06-006. This tool models relative importance of the individual assessment units to the delivery, movement, and loss of water and to the input and capture of sediments. It also models relative degradation of the landscape features that regulate those processes (such as loss of depressional wetlands decreasing surface storage of water). The Importance score and Degradation score are then combined in a Management Matrix to identify prioritization for protection and restoration based on these water flow processes (Figure 27). Note that important stressors such as water quality impairments and fish passage barriers were outside of the scope of this modeling, and these results are just one input to the Springbrook Project’s overall assessment process.

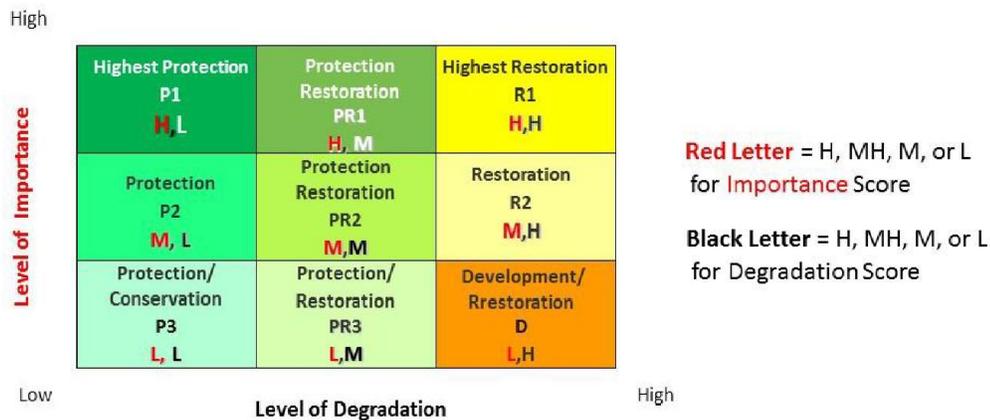


Figure 27. WDOE Watershed characterization management matrix for prioritization of assessment units.

The water flow characterization portion of the analysis includes delivery, movement, and loss components. Recharge refers to the downward movement and influx of water into the underlying aquifer, while discharge is the movement back out of the aquifer to the surface. Recharge areas tend to be places such as ephemeral stream bottoms and wetlands, while natural discharge might occur in springs or perennial streams and artificial discharge from wells. The analysis showed that the southern, steeper half of the watershed in AUs 3, 6, and 7 are important areas for interception and infiltration of precipitation to recharge groundwater and both shallow groundwater and surface flow in these areas support stream flows (Figure 28). The intact forest cover and low development impacts in these areas result in good condition and emphasis of protection of stream systems rather than restoration.

Where these slopes level off in the center portion of the watershed in AU4 and lower portions of AUs 5 and 6 is the primary area where deeper groundwater flows from the upper reaches discharge into and are temporarily stored in both the wetlands and stream systems (Figure 28). As a result, this area has

historically been very wet. This area functions to help maintain low flows during summer and fall months and also assists in retaining and attenuating high surface flows during storms and reducing downstream flooding, erosion and transport of sediment, and also traps sediments. This portion of the watershed is also highly altered by activities such as vegetation clearing, artificial ponding, and ditching. Therefore AU4 was classified as highest priority for restoration (Figure 28).

The northern half of the Springbrook Watershed contributes relatively less to the overall water flow and water quality processes. This portion of the watershed is generally more degraded than the southern portion of the watershed, particularly in the neighborhood service center area (designated for meeting the Island’s future needs for housing, goods, services, and jobs). Concentrating development within this lower part of the watershed, where there is less potential to attenuate stream flows, serves to protect and maintain the more important assessment units (referred to in the WDOE report as Project Assessment Units or PAUs) in the central and southern portion of the watershed. It is also critical, however, that Low Impact Development measures be required for new development in these AU’s in order to minimize impacts to water flow and water quality processes including protection of floodplain storage in AU 2.

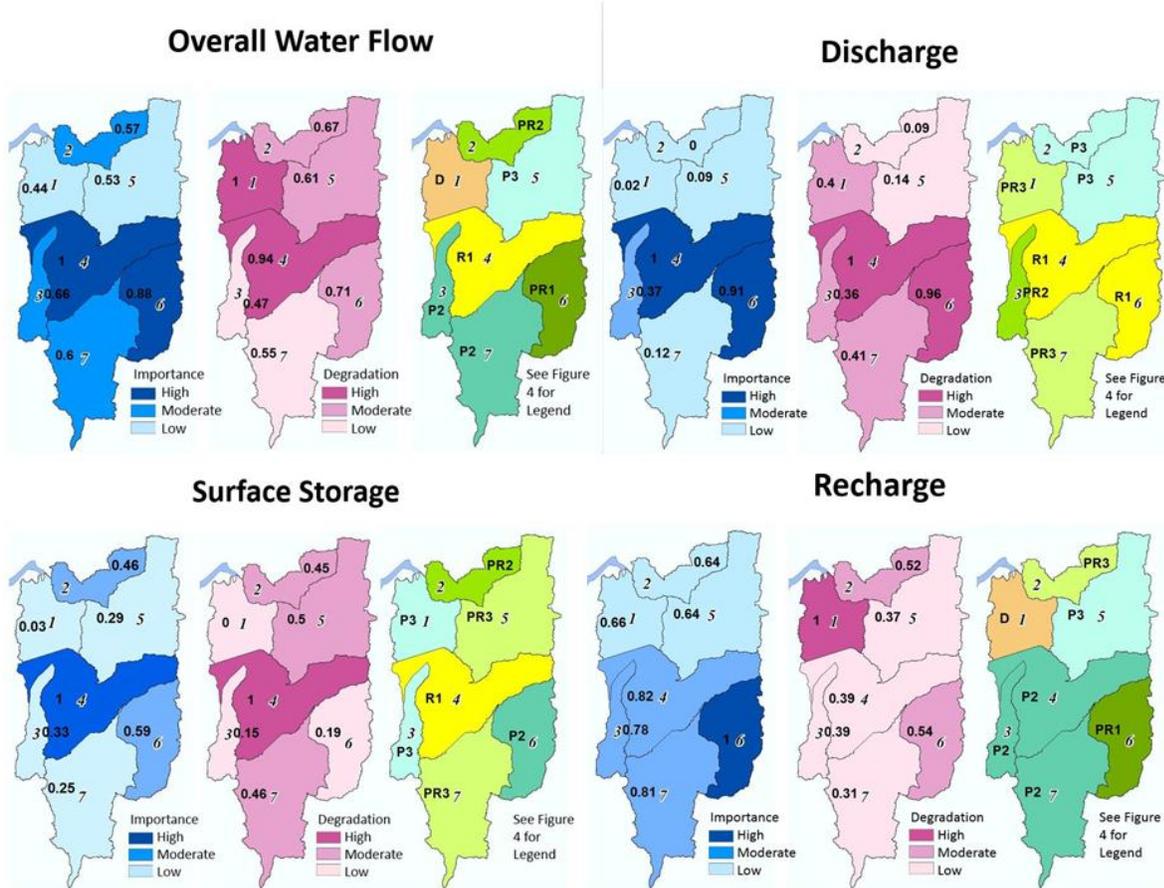


Figure 28. WDOE Springbrook Creek Watershed Characterization results 2018.

Bold numbers from 0 to 1 are the normalized scores, with a higher score indicating a higher level of importance or alteration. The numbers 1 through 7 are the assessment unit numbers. The blue basins represent the output of the importance model; the pink basins represent the output of the degradation model and the green/yellow basins represent combined output of the two previous models using the management matrix in Figure 27.

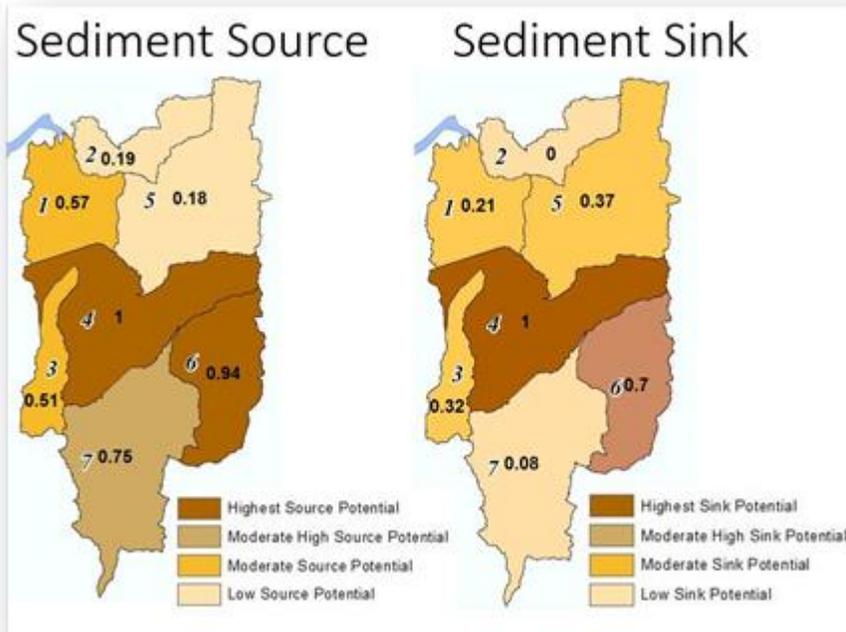


Figure 29. Results of WDOE Springbrook Creek Watershed sediment model 2018. The left graphic shows the areas with the highest potential for generating sediment (darker colors), such as assessment units 4, 6 and 7. The right graphic shows the areas with the highest potential for retaining sediment (darker colors) such as assessment units 4 and 6.

The Characterization Results for Springbrook Creek Watershed provided the following summary/synthesis of all findings and recommendations from the Washington Department of Ecology based on modeling results and a May 10, 2018 field visit to some key areas of the watershed:

- 1) Maintain native forest and scrub-shrub cover and minimize impervious surfaces in the headwater assessment units. This will help minimize erosion in the upper watershed particularly in assessment units 6 and 7 and minimize transport of sediment downstream.
- 2) Encourage gradual “natural” restoration of agricultural ponds in PAU 4, 5, 6 and 7 to wetland systems with emergent, scrub-shrub and forested components. This will allow trapping of sediment and creation of shading to reduce solar heating of open water areas.
- 3) Restore native forest and scrub-shrub cover within the depressional wetland systems in assessment units 4 and 6 and re-establish the stream channel. This includes providing adequate buffers widths to protect stream and watershed processes and functions.
- 4) Protect key groundwater discharge systems (slope wetlands) that are still intact, particularly in assessment unit 4 on slopes bordering the west boundary of the depressional wetland system.
- 5) Develop alternative “bio-engineered” solutions to replace culvert system at Fletcher Bay Road NE and downstream compound weir system.

Table 7. Washington Department of Ecology summary and recommendations by assessment unit.

PAU #	Overall Results ¹	Storage ¹	Recharge ¹	Discharge ¹	Restoration Priority	Protection Priority	Overall Condition of PAU and Key Issues	Recommendations
1	D	P3	D	PR3	7	6	Concrete compound weir and culvert in lower reaches impedes fish passage and affects stream fluvial dynamics. Homes have impacted the riparian corridor by removing native vegetation, introducing non-native vegetation and increasing erosion on creek banks. This PAU has lower importance and higher degradation of processes relation to other PAUs due to a relatively higher level of development and less opportunity to support watershed processes.	Concentrate development here using LID techniques. Investigate funding sources for removing compound weir and culvert system with bio-engineered alternative that re-establishes natural processes and historic longitudinal profile and gradient. Seek riparian conservation easements for properties along creek and restore native vegetation.
2	PR2	PR2	PR3	P3	4	4	Assessment unit has moderate level of urban residential development. Floodplain storage has moderate importance.	Seek riparian conservation easements for properties along creek & protect floodplain storage. Use LID techniques for development.
3	P2	P3	P2	PR2	5	3	Assessment unit is relatively intact with limited development	Seek riparian conservation easements for properties along creek.
4	R1	R1	P2	R1	1	1	Relatively widespread damage to storage & discharge processes in this assessment unit. Clearing of floodplain & wetland vegetation for rural residential farming operations and for access by owners to active stream channel. Most streams are diverted away from historic wetland areas. Clearing has encouraged growth of reed canary grass which is clogging stream channels.	This assessment unit presents the greatest opportunity for biological lift in the system and requires relatively extensive restoration measures. It is key to successful restoration of the overall system. Work with home owners to obtain conservation easement for purpose of restoring riparian and floodplain vegetation & protecting intact slope discharge areas. Existing areas of forested floodplain should be protected.
5	P3	PR3	P3	P3	6	6	Assessment unit has lower importance but moderate level of development could affect integrity of watershed. Depressional wetlands and floodplains present; important for flood storage.	Seek riparian and forest conservation easements to sustain native cover, protect wetland/stream ecosystems.

PAU #	Overall Results ¹	Storage ¹	Recharge ¹	Discharge ¹	Restoration Priority	Protection Priority	Overall Condition of PAU and Key Issues	Recommendations
6	PR1	P2	PR1	R1	2	1	Assessment unit is relatively intact and contains part of the large depressional wetland system in the adjacent assessment unit 4.	Maintain & restore forest cover; restore natural cover in wetland system. Seek riparian & wetland conservation easements.
7	P2	PR3	P2	PR3	3	2	Erosion of outwash deposits in upper watershed & transport downstream. Solar heating of water in artificial ponds may contribute to stream temperature increase.	Protect & maintain forest cover. Allow ponds to fill in and convert to shallow wetland systems which act as sediment trap & provide forested cover.

¹See Figure 27 for interpretation of protection/restoration prioritization codes.

3.8 Landowner Willingness and Public Outreach

One reason the Springbrook Creek area was chosen for more thorough watershed analysis was the large number of interested and involved landowners in this watershed. Following the 2013-2014 Wild Fish Conservancy water type assessments (SRFB project 13-1143), supported by Bainbridge Island Land Trust, a number of willing landowners provided access to their properties and deeply engaged in discussions about the history of the stream and current conditions and uses. Between 2014 and 2018 over 120 landowners of 142 parcels received a request for permission or access, with 75 responding. In November 2017 we sought permission of 23 additional landowners for access for additional sampling (both stream assessment and water quality). As shown in Fig. 14 (Section 3.4.3) permission to access was granted by landowners across a very large proportion of Springbrook Creek and its tributaries. Through comments on the access permission forms, phone conversations, and in-person conversations on properties, many landowners expressed interest in maintaining healthy streams and offered their observations of stream changes they have either observed themselves or heard about from older friends and family. Some had thoughts on stressors they believe may be impacting the stream and ideas for improvements. These conversations were also very important in gathering information on landowners' use of creeks, riparian areas, and wetlands on their property and how they feel these should appear and function, and afforded us opportunities to share information with them about our findings and knowledge of best management practices.

As restoration and protection opportunities were identified, landowners and potentially affected neighbors were contacted about potential project areas and to further discuss changes they had observed over time, their land use practices, and their goals for the stream and wetland areas on their properties, while also sharing information about the assessment project and how land management practices affect watershed health. These were usually meetings with owners of one or two properties, and often involved walking along streams together to discuss the conditions and possible improvements. For discussions of the more involved potential reconfiguration of channels and culverts at the Fletcher Bay Road and High School Road intersection, we held a meeting for all six potentially involved properties on June 12, 2018. Landowners were briefed on the assessment findings and problem points, shown some potential designs for rerouting stream channels for more natural flow configurations and separation from roads, and there was extensive dialogue on pros and cons of the designs presented and other potential options. Many individual phone calls and meetings with landowners took place over the project period.

Compatibility between landowner goals and project goals was a major factor in assessing project feasibility. For a project to proceed to conceptual design stage, it needed landowner support and a level of assurance that any improvements made would be maintained over time.

Information about the project was shared to the public via [Bainbridge Island Land Trust's website](#) and [newsletter](#), [Wild Fish Conservancy's website](#), and the [City of Bainbridge Island's website](#). Project team members attended the Harvest Fair September 2017, a public event at Johnson Farm, with a display about the project and to interact with the public. Presentations on the assessment and recommended actions were provided to the Island Center Subarea Planning Committee, West Sound Watersheds Council, and Land Trust Projects Committee and Board. Additional public presentations are planned in the future to share assessment results and to help keep restoration and protection actions in the forefront.

4. Summary of Findings and Identification of Limiting Factors

The results of the assessment and analysis work contained in Section 3 illustrates that the Springbrook Creek Watershed contains a range of natural and manmade conditions. The culmination of assessment and analysis resulted in the identification of many positive attributes as well as complex issues affecting stream and watershed conditions. Describing these issues and opportunities is important for identifying actions to provide a higher level of function to support fish resources and support water quality health, while supporting other uses in the watershed such as residential and commercial uses.

The analysis contained in Section 3 provides clear identification of areas of the watershed that are rural and natural, while others are highly impacted by land use and development. Sections of Springbrook Creek meander and flow freely and naturally through mature canopy of trees and native vegetation helping water temperatures remain cool all through the year and providing excellent habitat for fish and other species. There are other sections of the creek that have been channelized/straightened or ditched along roads or through private property where no natural stream side vegetation has been retained, contaminants from nearby roads drain into the stream, and culverts block fish from migrating upstream. The stream flows in its historic path in some stretches, while other parts of the stream have been re-routed so many times it is hard to know where the “natural” stream channel might be. Some wetland areas function fully, providing important stormwater, water quality, and habitat functions. In other areas ponds have been installed where wetlands used to be, warming water temperature and causing sediment input into the stream. A majority of the culverts under public roads are fish passage barriers and/or are in a state of disrepair, while many culverts on private properties are not functioning well (cannot accommodate the flow of water or are also fish passage barriers).

The challenge with Springbrook Creek is that sections of healthy habitat and watershed functions are disrupted by sections of highly disturbed or modified sections— there aren’t large segments of the stream or watershed that provide contiguous fully functioning natural conditions.

There exists a long history of a myriad of land uses within the watershed leading to its present condition. Land uses range from residential and agricultural to commercial. Major vehicular transportation corridors exist within the watershed. Some land use modifications were done during a period when the stream was had an abundance of fish and cold, clear water, such that worries about land use impacts on the stream were not considered. Trees were cleared. Ponds were dug and streams were re-routed to accommodate agricultural or residential uses. Roads and culverts were installed without full consideration or knowledge of the stream’s flow or design features necessary for fish to pass through.

Now more is known about ecosystem processes and how degradations affect processes and habitats, as illustrated in Figure 30. Better knowledge of how to care for these resources and about the functions they provide both humans and other species have led to improved regulations to guide activities to prevent or reduce impacts, such as the City of Bainbridge Island’s Critical Areas Ordinance and Washington Department of Fish and Wildlife’s hydraulic code for working in streams. Yet it is evident that, despite a general spirit of stewardship by many landowners in the watershed, the watershed has been considerably degraded and the decline of the condition of the stream and associated riparian area continues. Rules alone cannot protect and improve the stream and watershed conditions. Knowledge about stream conditions and

functions and how to care for them needs to be shared widely to engage landowners in protection and restoration of these important streams and wetlands.

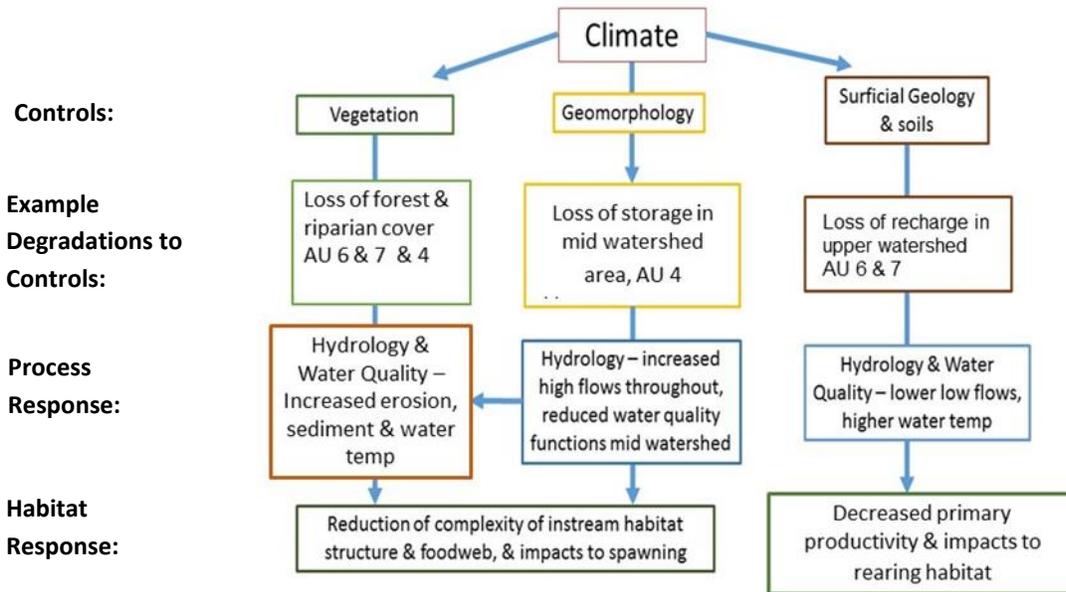


Figure 30. Effect of degradations on ecosystem processes and habitat.

Because each AU and stream reach has different factors influencing conditions within it, no single strategy can be applied towards “fixing” the issues. Identifying the limiting factors within each is needed in order to identify actions that can improve conditions.

Table 8 provide a summary of the limiting factors of each AU and stream reach as more comprehensively identified in Section 3, and broad recommended strategies for addressing these limiting factors. These are key factors that were used to identify specific action items that could be implemented to address limiting factors. These actions are outlined in Section 5 of this report.

Table 8. Summary of key AU attributes and recommendations.

PAU #	Reaches	Fish Passage Barriers	Stream Conditions	Salmonid Occurrence	% Impervious	Road density ¹ (mi/mi ²)	Land Uses/ Land Cover	WDOE Watershed Functioning Results: Overall and by Function	WDOE Restoration Priority	WDOE Protection Priority	Water Quality: Temp & O2	Water Quality: Metals & Sediment	Fecal coliform bacteria	Summary of key threats and opportunities	Overall Recommendations
1	SB01	1 Unk 2 Partial	Confined forested valley with faster moving waters and excellent spawning gravels (all Type F), before flowing into the Fletcher Bay Estuary. Some armored stretches, and non-native vegetation along the banks and erosion from clearing. The lowest two culverts in the system are within AU1 (including failing weir and culvert system on Fletcher Bay Road) and these restrict fish passage, constrain stream channel, and affect stream fluvial dynamics.	Critical Steelhead habitat. Currently occupied by cutthroat and coho. Important Island spawning stream. Possibly used by juvenile chinook and historically by chum.	15.9	24.8	Includes Island Center Neighborhood Center: densest residential and commercial uses in the watershed. Relatively low tree cover and little wetland area, with high % impervious and high road density.	Degraded: Low Importance, High Degradation Importance reflects capacity to provide a function, while degradation indicates diminishment of this capacity. Results reflect this AUs position at the bottom of the system, in an area with few wetlands. Storage: Low Importance, Low Degradation Recharge: Low Importance, High Degradation Discharge: Low Importance, Mod Degradation	7	6	Fair: Fails to meet standards in summer months	Fair	Mod concern	> Highest development impacts (roads, commercial/industrial uses, impervious surfaces). > Lower opportunity for supporting overall watershed processes than other AUs but highest priority for addressing fish passage. > Fish barriers low in system - particularly failing weir and culvert system on Fletcher Bay Road. > Important fish habitats (critical steelhead habitat, coho spawning beds, and access to entire system) > In-stream habitat degradation (armoring, loss of channel complexity). > Riparian habitat impacted by non-native vegetation and removal of vegetation in areas, but good intact habitat at south end and north of Fletcher Bay Road NE. > Bacterial contamination, inadequate stormwater treatment, and high risk of contaminants from impervious surfaces flushing into the stream in stormwater events.	Address fish passage barriers low on mainstem Springbrook Creek to improve fish access to approximately 4.6 miles of fish habitat. Improve riparian conditions through removal of streamside armor, and restoration of natural hydrologic connections, and through restoration of native vegetation. Protect high-quality habitat through riparian conservation easements. Concentrate development here since it is already highly disturbed and in accordance with Island's Growth Management Act, but implement Low Impact Development techniques and continued best management practices by farm landowners. Implement stormwater treatment improvements. Retain water monitoring program in lower watershed, and continue to engage Kitsap Health District in addressing fecal coliform. Educate landowners as to best management practices for healthy streams.
2	SB01A	1 Full	This stream originates from a seasonal spring head in a shallow forested ravine, with the lower 1,500' of the total 4,000' reach providing marginal fish habitat with seasonal flow through a confined channel. Issues include a full barrier culvert at the mouth, ditching, artificial ponding, and invasives.	No known current occupancy.	8.5	19	Primarily residential, with some commercial area. High impervious surfaces and road density. Average tree cover and no mapped wetlands.	PR2: Mod Importance, Mod Degradation Storage: Mod Importance, Mod Degradation Recharge: Low Importance, Mod Degradation Discharge: Low Importance, Low Degradation	4	4	No data	Good	Low concern	> Moderately impacted by development. > Poor stream and riparian conditions, altered hydrology, fish passage barriers, commercial use. > This reach provides marginal fish habitat and seasonal flow and stream restoration efforts would have minimal impact on fish resources. However floodplain storage has moderate importance.	Consider riparian conservation easements for properties along creek to protect floodplain storage. Use LID techniques for development to avoid degradation of water quality flowing in to Fletcher Bay. Continue water quality monitoring efforts. Educate landowners as to best management practices for healthy streams. The full passage barrier low in the system is not currently a high priority.
3	SB01B	Non-fish	Originates in a forested ravine, drops through a derelict culvert perched 9.3-ft high, below which channel is deeply incised, then becomes very steep. The channel is largely confined, but in a level area before the tributary joins Springbrook Creek the channel is unconfined within intact forested wetland habitat.	No known current occupancy.	5.3	18.9	Residential, low impervious surfaces, high road density, little wetland area, but high tree cover.	P2: Mod Importance, Low Degradation Storage: Low Importance, Low Degradation Recharge: Mod Importance, Low Degradation Discharge: Mod Importance, Mod Degradation	5	3	No data	Good	Low concern	> Limited overall development but high road density. > High sediment inputs from erosion caused by perched derelict culvert. > Intact habitat prior to entering SB01-1 provides wetland function protection opportunities.	Address perched culvert so as to halt further downcutting and erosion, decreasing sediment flow into the mainstem creek. Seek riparian conservation easements for properties along creek, particularly forested wetland at lower end.
4	SB01-1, SB01C, SB01E, end of SB01D	3 Unk 8 Partial	The SB01-1 mainstem reach includes some stretches of high quality habitat with unconfined, low gradient channel, but is highly impacted by stream modifications such as altering stream channels and ditching along major arterial roads, partial barrier culverts, riparian clearing for farms and pastures, manmade ponds, and invasives. A manmade pond in AU7 has diverted natural water flow that historically fed SB01C. This was previously a salmon stream and retains some high-quality habitat, but impairments include fish passage barriers, channelization, degradation of stream complexity and lack of woody debris. SB01E is also impacted by ponds, rerouting and ditching along major roads, and partial barrier culverts.	Cutthroat and coho (including spawning) within mainstem reach SB01-1, and cutthroat detected in lower SB01D below confluence with SB01E.	5.0	13.7	Residential, farms, and pasturelands, greatest concentration of wetlands, average tree cover and impervious surfaces and relatively low road density.	R1: High Importance, High Degradation Storage: High Importance, High Degradation Recharge: Mod Importance, Low Degradation Discharge: High Importance, High Degradation	1	1	Poor: removal of riparian shading and ponds increase water temps	Poor	High concern	> Highest priority for restoration of watershed processes due to highest importance and high degradation. > Degradations include diverted input flows, riparian alterations (including ditching away from wetlands and along major arterials) diminishing stream complexity, clearing of native riparian vegetation and replacement with invasives. > Fish passage severely impaired by a number of poorly designed culverts. > Active land use and many landowners requires multiple individualized protection and restoration efforts. > Unknown source of fecal coliform bacteria.	This assessment unit presents the greatest opportunity for biological lift in the system and requires relatively extensive restoration measures. It is key to successful restoration of the overall system. Address fish passage barriers. In particular, address culvert passage barriers and stream ditching/re-routing issues in the High School Road x Fletcher Road intersection as an interrelated complex. Tie in culvert issues in AUs. Restore degraded channels by examining opportunities to restore historic flows, conditions, and locations of streams. Improve riparian areas and seek conservation easements or acquisitions for protection of intact habitats. Explore opportunities to improve stream temperature through reestablishment of wetland function and riparian shading. Continue Kitsap Health District efforts to identify and address source(s) of fecal coliform bacteria. Educate landowners as to best management practices for healthy streams.
5	SB01D	3 Partial 3 Full	Previously unmapped or regulated seasonal stream with 4,900' now typed as fish habitat. Originates in a seasonal wetland with stretches of intact habitat along unconfined channel and good in-stream habitat but many areas of riparian vegetation clearing and ditching (with landowners explaining that they regarded the flow as 'run-off' rather than a stream) and multiple full and partial barrier culverts. Two undersized culverts low in the system cause stormwater and fish barrier issues.	Cutthroat detected at confluence of SB01D and SB01E. No known current occurrence higher in AU5.	6.0	15.3	Residential, with little wetland area, relatively high proportion cleared and moderate road density and impervious surfaces.	P3: Low Importance, Mod Degradation Storage: Low Importance, Mod Degradation Recharge: Low Importance, Mod Degradation Discharge: Low Importance, Mod Degradation	6	6	No data	Good	Low concern	> Ratings not high for watershed functions, but covers large area with high-quality stretches within the 4,900' of newly-identified fish habitat. > Limiting factors include fish passage barriers, culverts undersized for flow, constrained channel, lack of stream complexity, and extensive riparian vegetation clearing. > Landowner education could be highly impactful as this was a previously unmapped stream.	Educate landowners as to regulatory restrictions and best management practices for healthy streams. Address passage barriers and stormwater management problems created by undersized culverts low in system. Seek conservation easements or acquisitions of intact riparian forests and wetlands.
6	SB01-2, lower SB01F	1 Partial 2 Full	Upper Springbrook headwaters hosts some of the highest-quality stream and wetland conditions within the entire watershed. Excellent potential rearing habitat. Mature riparian vegetation hydrologically connected to the stream. Full and partial fish passage barriers restrict fish access to habitat within portions of this AU. There is a short stretch of armored channel, and some vegetation clearing within adjacent wetlands.	Cutthroat and coho.	5.6	15.2	Residential with high concentration of wetlands, and moderate proportion cleared and in impervious surfaces, and moderate road density.	PR1: High Importance, Moderate Degradation Storage: Mod Importance, Low Degradation Recharge: High Importance, Mod Degradation Discharge: High Importance, High Degradation	2	1	Good: headwaters in intact wetlands	Good	Low concern	> This is largely an intact, functioning stream wetland reach with good habitat protection opportunities. High priority for protection of multiple stream and watershed functions. > Only area where water quality standards are met year-round. > Limiting factors include small segment of stream armor and some wetland vegetation clearing, as well as partial and full barrier culverts.	Address the full and partial barrier culverts. Seek conservation easements or acquisition for riparian forests and wetlands to sustain native cover and protect water quality and proper functioning. Restore natural cover in wetland system.
7	SB01F, SB01G	1 Unk 1 Partial 4 Full	SB01F flows from wetlands down a confined channel in largely forested ravine, with areas of excellent cutthroat spawning habitat, then flows down into two large manmade ponds (with clearing up to the banks of the lower pond) and into armored channels. The ponds and multiple culverts block fish passage. SB01G is similar, also flowing into a large manmade lake which diverts flow from the original channel (SB01C) over to SB01F. The outlet of this lake is also a full fish passage barrier with cleared and armored artificial channel.	Cutthroat in upper SB01F, coho in lower. No known current occurrence in SB01G.	4.1	14.1	Parks, residential, and farm on relatively steep terrain, with little wetland area but high forest cover and low clearing, impervious, and road density.	P2: Mod Importance, Low Degradation Storage: Low Importance, Mod Degradation Recharge: Mod Importance, Low Degradation Discharge: Low Importance, Mod Degradation	3	2	Poor: ponds increase water temps	Good	Low concern	> High priority for restoration and protection of watershed functions. > Significant alteration of the stream's hydrology has occurred through construction of large ponds, drainage control systems, and underground piping. > Ponds also heat water where headwater streams would normally provide conditions for cooling and oxygenation. > Other degradations include partial and full fish passage barriers, and degradation of the natural channel and riparian vegetation.	Consider developing an integrated long-term plan for addressing the fish passage barriers, water quality and habitat degradation, and hydrologic 'replumbing' of the system created by the manmade pond complex. Restore in-stream habitat and riparian vegetation where these have been degraded, such as around and downstream of ponds. Seek conservation easements to protect intact riparian habitat.

¹Includes driveways

5. Protection and Restoration Strategies and Actions

In identifying recommended actions that could assist in maintaining and improving watershed and stream health, the project team was guided by the foundational belief “that river restoration is more likely to be successful at restoring individual or multiple species and preventing the demise of other species if there is careful consideration of the watershed or ecosystem context in which individual restoration actions are set (Beechie et al. 2008).”

The Springbrook Creek Watershed Assessment:

1. Collected sufficient data and information to identify needs within the watershed.
2. Identified restoration and protection strategies that attend to a number of ecological and community needs but specifically focused on the goal of restoring Springbrook Creek so that it supports documented and historical fish populations.
3. Adopted a logic approach informed by the analytics of the data collected to identify projects and chose priorities (Beechie, et al. 2008).

As provided for in Section 4 and Table 8 – the Summary of Findings – factors that limit stream and watershed health depend on the reach and assessment unit but also the context of the entire watershed. No one project type can address stressors in the watershed, so a suite of recommended actions is needed.

Prioritization of projects was an iterative process of synthesizing collected data, identifying problem areas and high-value areas within the watershed, conceptualizing projects to address or protect these, obtaining feedback from affected landowners and/or agencies, assessing feasibility, and gathering further information to cycle back into project proposals, etc.

The project team did not attempt to summarize these rating factors into a single prioritization score or other metric, but instead used them to guide development of a project-team consensus of projects to be developed to conceptual design in this phase of the overarching endeavor of restoring the watershed.

Including data driven factors, the following elements were those that were considered when recommending restoration, protection or other action items:

1. **Projects that address multiple limiting factors or protect values that are identified as priorities in the assessment were elevated in the selection process.** See Appendix II.
2. **Landowner willingness:** With the majority of the watershed owned by private landowners, engagement by private citizens is a key element in recommending an action. If a landowner is onboard, success in achieving restoration or protection actions is highest. The five projects that were elevated for developing conceptual designs all had written and verbal landowner willingness (four of them being private landowners). In the case where the landowner was the City of Bainbridge Island, their willingness to participate in talks of restoration actions was likewise necessary. For projects that were not developed into conceptual designs but are contained in this report as recommended actions, working with landowners to further develop projects in the future is needed.

3. **Fish Passage Barriers and stream armoring:** Fish passage barriers (culverts, vegetation blockages, other in-stream obstructions) and armor/structure along stream banks were identified as among some of the highest contributors constraining stream function and fish utilization. Removing these stream barriers (either completely or replacing them with bridges, improved culvert designs, or removing blockages such as reed canary-grass) are some of the highest priorities actions within the watershed. Removing armor, which constrains stream hydrology and function, also was an identified a high priority. Addressing fish passage barriers lower in the system first, then moving upstream to the next barrier was a strategy applied by the project team. The first four priority projects (Projects 1 -4) address the first four blockages in the stream in sequence of stream miles. In the case where a culvert constrained watershed processes in an otherwise intact reach (i.e. the stream and riparian habitat is in good condition but there is a fish barrier), those projects were also prioritized (such as Project 11). If a fish barrier project could also address storm water and utilities in need of upgrades, reduce maintenance needs (i.e. reducing the number of culverts), accommodate climate change patterns (such as more intense storm events), and other multiple needs, the project was elevated in priority.

4. **Riparian/wetland condition:** The condition of the riparian (the area next to and adjoining a stream) and wetland habitats of Springbrook Creek and its tributaries has been greatly diminished. Projects that improve these conditions and functions, including landowner engagement in understanding the value of a healthy riparian area, are of high importance. Where there are good to excellent riparian and wetland conditions, protection of these values is also key.

5. **Position of the project within the watershed:** Connecting functioning stream segments and habitats, or restoring segments of the stream or watershed, to functioning habitats assists in the cumulative positive impact of actions. For instance, having one project that improves 5 acres and .5 miles of stream that is contiguous or near another 10 acres of habitat and stream already in good shape elevated interest in that project. Projects in areas isolated from other efforts were closely examined for overall benefit versus effort.

Projects were also evaluated within the larger watershed ecosystem context. Key actions include:

- **Maintain and Protect Ecosystem Processes.** Upper watershed (Primarily in AUs 7 and 6 and secondarily in AUs 5, 3 and 2) water flow processes are intact but key threats are the cumulative future impacts to these processes from removal of forest and riparian cover for urban and agricultural development. Removal of forest and riparian cover in these upper watershed AUs can increase the intensity and duration of peak flows downstream which in turn impacts the biological integrity of downstream reaches. Actions in this area should focus on protecting forest and riparian cover through the use of zoning and conservation easements.
- **Restore Ecosystem Processes and Functions.** Ecosystem processes and functions are the most degraded in AU 4 due to clearing of riparian and forest cover and the ditching and diking of wetlands and streams. Water quality assessments indicate that elevated water temperatures are due to lack of riparian cover and associated low dissolved oxygen. Additionally, septic systems and livestock are contributing to fecal coliform levels. Working with land owners, actions should include restoring riparian cover (lower temperatures) and historic wetlands (pollutant removal, attenuate storm flows, increase habitat diversity).

- **Restore Natural Stream Bed Condition.** The historic and natural stream bed gradient and channel structure has been altered by concrete weirs (AU1), stream culverts and roads, stream armoring and ditching. Many of these alterations have created barriers for fish accessing both the mainstem and tributaries of the Springbrook watershed. Recommended actions include removing these barriers and restoring natural stream bed and bank condition. Long term success of these actions is dependent on the protection and restoration actions outlined in priorities 1 and 2 above.

As potential projects were identified, they were placed into a matrix that identified the major priorities of the WDOE Watershed Characterization, Watershed Stressors, Water Quality Assessment, and elements such as landowner willingness and landowner education.

This matrix is contained within **Appendix II**.

It needs to be noted that Appendix II on its own should not be interpreted without the benefit of reviewing and reading Section 3 and 4 of this report.

Section 5.2 contains watershed-wide strategies, Section 5.3 contains summary descriptions of the 5 conceptual design projects as developed as part of this project (with full descriptions provided in Appendix III) and Section 6 outlines additional opportunities.

5.2 Watershed-wide Strategies

5.2.1 Education and Outreach

Although a primary project objective of the project was development of five Conceptual Designs for specific restoration or protection projects, there are strategies identified as important across the watershed as a whole. Primary among these is landowner education. The number of landowners removing vegetation in the riparian area in this watershed is significant, allowing for the establishment of invasive plants, reducing shade (and therefore increasing water temperature), reducing stormwater moderation function (vegetation retains soil and slows down waterflow), and reducing habitat functions for aquatic and terrestrial species. When the project team spoke to landowners who had cleared vegetation near streams or wetlands, the landowners generally expressed an appreciation for the stream and natural resources, but there was misunderstanding of how best to protect and care for these resources. There are good streamside-living practices that need to be shared with landowners, educating them about stream health and how it is influenced by their management actions. It also was evident that generally landowners need to be informed about Critical Area Ordinances (particularly changes made in 2018) and permits needed to work in the water or the adjacent riparian area. A recommended watershed-wide action is to work with partners such as Kitsap Conservation District, Wild Fish Conservancy, Washington Department of Fish and Wildlife, Washington Department of Ecology, the BI Watershed Council, the Land Trust, and others to research and develop effective approaches to landowner outreach and educations (e.g. distribution of a Living on the Stream pamphlet specific to Springbrook Creek Watershed, streamside living workshops, etc.) Also, communications with realtors, landscapers, and contractors hired to work on properties could be effective outreach efforts.

Continued and additional education and outreach focusing on onsite septic system maintenance, animal waste management, groundwater, and water conservation is recommended. A 2014 outreach effort by

Kitsap Public Health District (Walther 2016) in Fletcher Bay targeted older septic systems within 200' of shorelines or creeks and completed 82 inspections and found two failing septic system as well as eight with some concerns. The outreach results included information on pet and livestock waste management and reduction of pesticide use. Results were encouraging, as 89% of homeowners found these inspections to be helpful, and a large portion implemented actions such as septic pumping and implementation of natural yard care practices. This project recommends the expansion of these efforts to portions of Springbrook Creek Watershed not included in the initial Kitsap Public Health District project.

5.2.2 Restoration and Protection

There are ample opportunities for restoration and protection throughout this watershed, beyond those specifically discussed in this assessment, and the opportunities discussed in this assessment should by no means be considered an exhaustive list of potential restoration and protection actions. As discussed in Section 3.1 (History, Land Use, and Development) the City of Bainbridge Island has strong Critical Areas Ordinances (CAO's) protecting streams, wetlands, riparian areas, and native vegetation. However, improved communication and enforcement appears to be necessary, given the number of cases observed of recent vegetation clearing within stream or wetland buffers, or work within the stream (such as culvert installment), without a permit.

In prioritizing protections of wetlands, floodplains, and riparian buffers beyond those required under CAOs, the WDOE characterization report (Appendix B) indicates that actions in Assessment Units 4, 6, 7, and 3 are potentially of highest protection benefit. In prioritizing future habitat restoration actions, the characterization results indicate highest potential biological lift from actions in Assessment Units 4, 6, 7, and 2. Conversion of artificial ponds (particularly the larger of these) into shallow wetland systems could be especially beneficial in restoring some of the natural wetland extend, trapping sediments, reducing water temperatures, and providing forested cover.

5.2.3 Future Culvert Replacements/Removals and Prioritization

Forty six road crossing structures were identified within the Springbrook Creek watershed. Conceptual designs 1, 2,3 and 5 address four of these culverts through removal and restoration actions. Given that none of the 30 structures on fish habitat streams are categorized as 100% fish passable, further work is needed to improve fish passage throughout the watershed by replacing or removing culverts to enable anadromous fish to access suitable spawning and rearing habitat. The prioritization of culvert work logically follows the principle of moving up the stream network to fix passage issues sequentially from lowest to highest in the system, but is also planned in concert with landowner willingness, habitat restoration work, and any 'replumbing' or stream modification planned that may change water flow patterns.

To assist with future prioritization of addressing structures in the stream, the project team recommends a culvert removal/restoration prioritization process. Steps include: Reviewing the Washington Department of Fish and Wildlife Priority Index calculations for existing culverts, review Wild Fish Conservancy's comprehensive database on in-stream structures, examine the data aligned with WDFW PI's to determine if latest stream data was used to inform the PI (such as information gathered as part of the Springbrook Creek Assessment - i.e. amount of fish habitat available upstream), ask WDFW for updates of PI's if needed, determine landowner willingness to pursue options, identify a logical prioritization sequence (i.e. – lowest

in the system to highest, remove culverts where surrounding habitat conditions are good, etc.), identify project partners, costs, funding sources, and implementation timetable.

The project team recommends that results of this prioritization help guide the inclusion of fish habitat and fish passage projects into the City's process for prioritizing capital improvement projects (CIP). Currently, culverts are included in the CIP typically on the basis of prioritization of road maintenance or stormwater needs. Having prioritization for fish passage factored in to the CIP closes a significant gap in planning from a resource standpoint, as this affects not only allocation of city funding, but also competitiveness for grants that might look to that CIP prioritization as indicative of the biological value of a culvert restoration project.

5.2.4 Growth Management

The City of Bainbridge Island's comprehensive plan focuses residential, commercial, and industrial growth in designated centers with urban services. Island Center is one of these designated centers that will accommodate new growth. The following recommendations should guide the Island Center Sub-Area planning process in progress at the time of this printing.

The Fletcher Bay Watershed, of which Springbrook Creek is a sub-watershed, is currently <10% effective impervious surface. It is recommended that zoning and development/re-development requirements should be designed to keep effective impervious surface at <10%. This can be done using low impact development practices that incorporate stormwater infiltration and treatment to the maximum extent practicable. The Island Center Sub-Area is an ideal location in which to develop and test a pilot Stormwater Control Transfer Program which allows for the transfer of stormwater management funding from heavily developed and impacted areas to areas with relatively minor impacts. Transferred funding can then fund restoration and/or retrofit projects to restore and protect hydrologic function in the watershed.

Other strategies for improving and protecting water quality include consideration of alternatives to individual septic systems such as small community treatment box plants, particularly those that incorporate water reclamation and reuse to reduce consumptive water use and protect recharge of aquifers that sustain summer stream flow. Purchase of properties for conservation can decrease development impacts, and purchase or transfer of development rights can prevent development of intact areas of ecological significance.

5.2.5 Water Quality Monitoring

In order to protect water quality and ensure efficacy of efforts to improve aquatic life and human health conditions in Springbrook Creek and Fletcher Bay, monitoring of water quality and follow-up to address any detected problems are necessary. This needs to occur at several of the established monitoring sites throughout the watershed to provide the information required to locate sources of contaminants. Monitoring water flow is also important for reasons including ensuring that infrastructure is adequate for handling peak flows and that flow is adequate to support salmon through each life cycle phase. At this time, neither COBI nor Kitsap Public Health have a plan for continuing monitoring beyond monitoring taking place at station A near the mouth of Springbrook Creek (as per Table 5).

5.3 Site Specific Conceptual Designs – Summaries

This section of the report provides an overview of projects that were identified as providing benefits to improved stream and watershed conditions. Five conceptual designs (circled on the Figure 31 map) were created for these highest priority projects and details of those designs are included in Appendix III.

Developing five conceptual designs was a requirement of the grant which supported this project. The project team used project grant funds to develop the conceptual designs which involved many landowner discussions, site visits and surveys, engineered drawings (in the case of restoration projects), and development of cost estimates. It is hoped that each of the five conceptual designs can be used as a basis for developing final designs, obtaining funding support, moving forward with permitting, and then ultimately being implemented. Much work was done in the development of these projects, especially those which would take place on private lands, where balancing restoration actions with land uses was imperative. Additionally, private landowners needed to consider their ongoing obligations to maintain restoration actions when deciding on restoration alternatives.

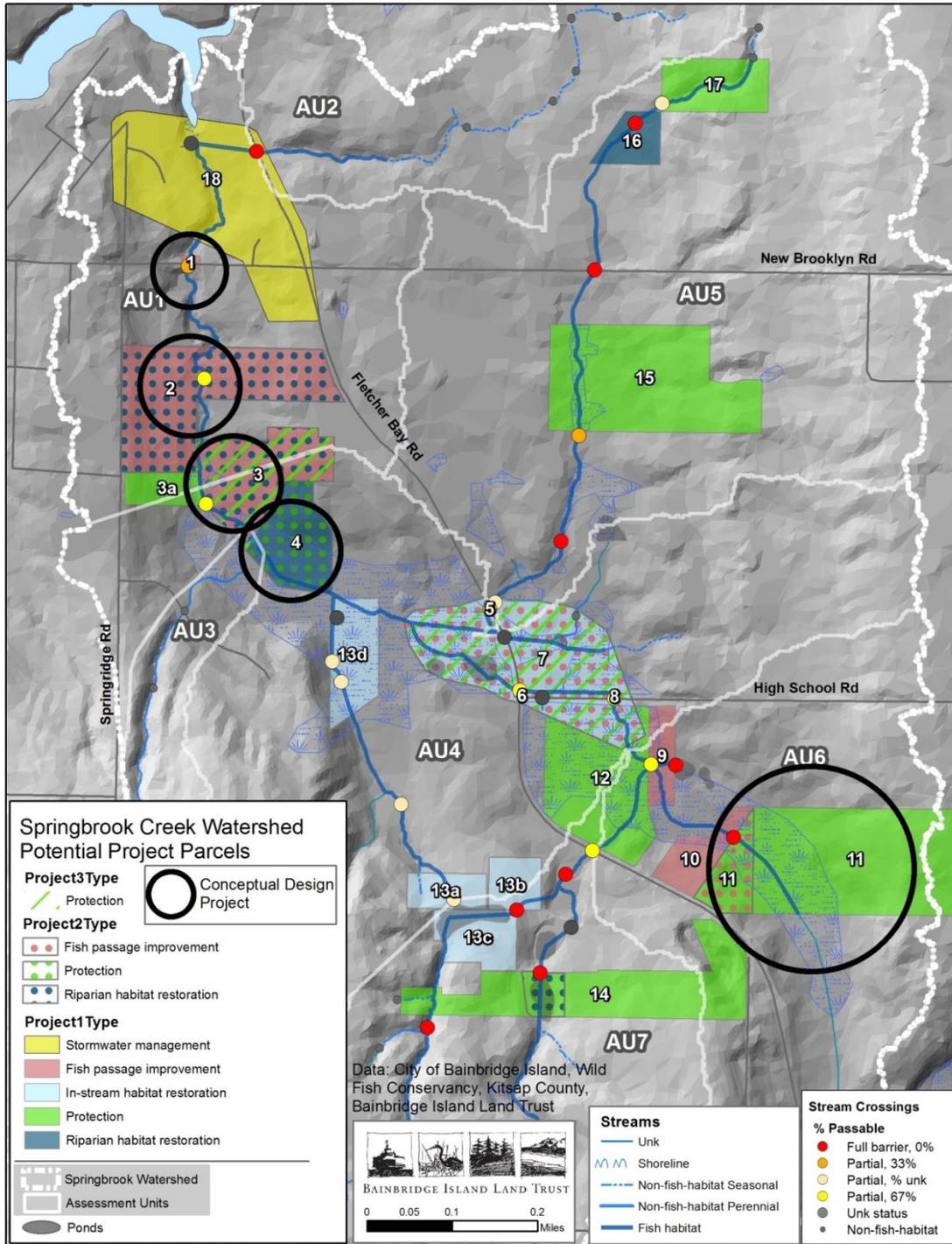


Figure 31. Location of Conceptual Design Projects

5.3.1 Fletcher Bay Road NE Culvert and Weir Removal and Stream Restoration Project Appendix III Project 1

Project team rationale for recommending this project as the #1 project to be done in the Springbrook Creek Watershed was that it addresses the following limiting factors: fish passage, riparian habitat, sediment transport, in stream complexity (large wood transport and restoring stream to its historical profile and gradient), water quality (temperature), stream hydrology, and landowner (COBI) willingness.

Additionally, the project team focused on sequencing projects moving upstream from Fletcher Bay. This project is the lowest barrier in the creek system, making it a priority to address in the near term in order to provide access to upstream habitat.

Approximately 1100 feet upstream from where Springbrook Creek enters Fletcher Bay, exists the first road crossing on the Springbrook Creek mainstem. This crossing, under Fletcher Bay Road NE, is a partial barrier which includes eight concrete weirs, 70 feet of armor along both sides of the bank, and a 5 ft. wide by 100 ft. long steel culvert. Upstream of the culvert are two weirs and approximately 30 feet of armor along both banks. The downstream-most weir below the culvert is failing and



water now passes through a crack in its foundation and through large rocks armoring the bank rather than spilling over the top of the weir. The City of Bainbridge Island has installed plastic sheeting and sandbags to temporarily restore fish passage function to the lowest weir. WDFW identifies this complex as 33% passable and has assigned it a Prioritization Index (PI) of 24.66 (WDFW culvert ID #15-0340); this is amongst the highest PI's of 44 PI calculations that WDFW has performed on Bainbridge Island. This crossing affects fish access to 3.6 miles of fish habitat upstream. Below the failing weir the channel is incised and scoured down to hardpan for approximately 200 ft. potentially affecting spawning habitat. The entire 999 acre Springbrook Creek watershed drains to this location.

Project Goals:

The primary objective of this project is to replace an undersized culvert, failing weir complex, and bank armor with a crossing structure, allowing an unconstrained stream passage below Fletcher Bay Road and a naturalized stream and bank. Removing the undersized culvert and weirs will improve fish passage, the transport of sediment and large woody debris, and remove the need for ongoing maintenance/repair of the failing culvert and weir complex. Bank bioengineering and imported streambed material will be used to reconstruct the eroded channel features downstream from the existing undersized structure. Another goal

is to avoid negative impacts from the undersized culvert and failing weir complex that will be exacerbated in the coming decades as intensity and frequency of hydrologic events occur as a result of climate change.

The project team, Washington Department of Fish and Wildlife, Suquamish Tribe and the City of Bainbridge Island examined the project site multiple times to discuss restoration options. The 1996 KCM, Inc. design drawings were obtained and examined as well as past survey information. Interviews with Wayne Daley, project manager for the 1996 culvert installation took place, as well as interviews with upstream landowners. As part of this project a total station survey was performed as well as examination of LIDAR data.

Two options were created: Option 1 replaces the existing culvert and weir system with a bridge and restore the stream bank by removing armor and, Option 2 would replace the existing culvert with a new larger culvert while also improving stream bank conditions.

The project team and the City of Bainbridge Island preferred the conceptual structure and channel modifications described in Option 1 in order to restore fish passage, remove substantial bank armoring, restore natural processes at the downstream-most crossing in the watershed and in this reach, remove the need of ongoing maintenance/repair needs of culverts, and accommodate potentially higher flow patterns in the watershed.

5.3.2 Eddy Culvert and Armor Removal, Bridge Replacement, Stream Restoration Project Appendix III Project 2

The project team rationale for recommending this project as the #2 project within the Springbrook Creek Watershed included: project's location low in the watershed, its adjacency to project #1 (Fletcher Bay Culvert/Weir Removal) and project #3 (Rekow Stream Restoration), improving the following limiting factors: fish passage, riparian habitat, sediment transport, instream complexity designed to support fish life stages (large wood transport and restoring stream to its historical profile and gradient and more pools and riffle), stream hydrology, and landowner willingness. Landowner Barb Eddy was deeply involved in the design discussions and allowed full access to her property in order to perform due diligence necessary for formulating restoration ideas. Additionally, the project team focused on sequencing projects moving upstream from Fletcher Bay. This project is the second lowest barrier in the creek system, making it a priority to address in the near term order to provide access to 3.4 miles of upstream fish habitat.



At river mile 0.39 Springbrook Creek crosses a field access road on a 14.58 acre parcel belonging to Barbara Eddy. Above the crossing, Springbrook Creek runs through a forested valley with an average bankfull width

of 9.5 ft. and the average gradient of 2%. 3.4 miles of fish habitat exist upstream from this crossing. The stream is carried beneath the field access road in a 4 ft. round corrugated steel pipe 40 ft. in length. WDFW has identified it as a 67% passible partial barrier culvert due to the fact that it is undersized and has a slope of 1.68% and has established a priority index (PI) of 19.86. Approximately 100 ft. downstream from the culvert there is a long section of riprap armament protecting a picnic area on the right bank. This armored section of channel is artificially narrow and has caused substantial scour of the unprotected left bank. The armored channel also lacks instream complexity forming a 70 ft. long continuous riffle with neither pools nor large woody debris. A footbridge at the upper end of the right bank riprap has additional armor protecting its left bank foundation. Below the armored section of the channel, Springbrook Creek enters a lush forested valley with excellent pool-riffle habitat.

Project Goals:

The primary objective is to replace the undersized culvert with a crossing structure that improves fish passage and the transport of sediment and large woody debris. A secondary goal is to remove the downstream armoring from the right bank, increase instream habitat complexity, and widen this section of channel to reflect natural stream conditions. This project improves connectivity between the intact stream reaches adjacent to the existing undersized culvert.

Negative impacts from the undersized culvert and constrained stream (from the armor) are likely to exacerbate in the coming decades as a result of climate change impacts on hydrology (higher flows/storm events).

Design Development: Topographical and stream condition surveys were performed on site with the permission of the landowner by Wild Fish Conservancy. Three conceptual drawings and project narratives were presented to the landowner for review and revised based on her feedback. The project team and the landowner preferred a conceptual design to install a steel bridge over an arch culvert design due to the bridge's ability to accommodate potentially higher flow patterns in the watershed anticipated in the coming decades as a result of climate change. The landowner deliberated the footbridge options at length and in the end decided she was more comfortable maintaining the picnic area in its present location, though without the hard rock armoring and with the addition of riparian vegetation. Replacing the existing footbridge with a longer one will remove the flow constriction and hydromodification associated with the current footbridge.

5.3.3 Rekow Stream and Riparian Restoration Appendix III Project 3

This project was selected due to its being the next instream barrier upstream of Project 1 (Fletcher Bay Culvert Replacement) and Project 2 (Eddy Culvert Replacement), landowner willingness, and the opportunity to make modest improvements to a section of the stream that is in fairly good condition.

At river mile 0.33 Springbrook Creek crosses under a derelict field access road on the western edge of an 8.48 acre parcel belonging to Kenneth Rekow. At this crossing the top of a culvert is now fully exposed yet it still passes 100% of stream flow. The culvert is a 2 ft. round concrete pipe 9 ft. in length. There is a 3 ft. square concrete box at the culvert inlet which has become disconnected from the pipe. The combined length of the inlet box, the three inch gap, and the culvert is 13.3 ft. The combined slope of the culvert and the inlet box is 1.38% making it 67% passible.



Washington Department of Fish and Wildlife has assigned a priority index of 21.82 to this culvert. A small type F stream feeds into the left bank of Springbrook Creek at the culvert outlet. Above the culvert crossing Springbrook Creek meanders down an unconfined valley bottom through adjacent forested wetlands with a bankfull of 6.8 ft. Below the culvert crossing the valley becomes more confined. The left bank of the downstream valley below the culvert is forested with a mixed stand of conifers and deciduous trees. The right bank valley below the culvert is primarily a grassy field with scattered pockets of skunk cabbage and other wetland vegetation, trees and a thin strip of shrubs growing along the creek. Some reed canary grass and other invasive plants are mixed in with native vegetation. Some native vegetation has been mowed or reduced on the right bank (perhaps by past livestock use).

Project Goals:

The primary objective of this project is to restore stream processes by removing the derelict culvert from the stream channel. The secondary objective is to improve the riparian habitat along the right bank of the stream by removing invasive plants and planting native tree and shrub species.

Limiting Factors Addressed: This project lies within Reach SB01-1 in the middle section of Springbrook Creek. Restoring channel complexity and fish passage and providing for stream complexity are addressed through the implementation of this project.

Design Development: Wild Fish Conservancy conducted stream assessment and on-site topographical surveys with permission of the landowner. Site visit with landowner and review of stream history and land use took place with Bainbridge Island Land Trust. The landowner reviewed conceptual plans. Adjustments to the proposed concepts were made after landowner input received.

5.3.4 Nickum Stream and Riparian Restoration Project Appendix III Project 4

The project team selected this project for a conceptual design due to it being upstream and in sequence with Projects 1, 2 and 3, landowner willingness, and the need to improve degraded stream, floodplain and riparian vegetation/habitat conditions in this segment of the stream.

From river mile 0.63 to 0.74

Springbrook Creek runs along the southwestern edge of a 5.88 acre parcel belonging to Will and Cathy Nickum. In this reach, the stream meanders down an unconfined low gradient valley bottom of approximately 1.5 acres with adjacent wooded wetlands with an average bankfull measurement of 6.3 ft. The left bank of the valley floor is densely forested with an over story of alder, ash, mature willow, and red osier dogwood. The Nickum property is located on the right bank of the channel. The



right-bank portion of the valley has been cleared of native vegetation and is currently dominated by invasive reed canary grass. The stream exists wholly within the Nickum parcel at this time. The associated wetland forest and upland riparian area uphill of the left bank of the stream is owned by three separate landowners and is comprised of intact mature mixed forest and wooded wetlands.

Where Springbrook Creek enters the Nickum property it runs within the forested section of the valley floor. This upper section of stream extends for 450 ft. providing excellent low-gradient salmonid rearing habitat with undercut banks and instream large woody debris. Downstream from this section, a left bank avulsion diverges from the main stem, carrying a portion of the flow through the adjacent forested wetlands. At this point the right bank channel, carrying the majority of the flow, turns northeast toward a recently cleared section of the valley bottom which is now dominated by reed canary grass with lack of tree cover. At this point the channel runs along the edge of the tree line for approximately 150 ft. at which point the avulsed channel rejoins with the mainstem flows. Here, the combined flows turn north, leaving the edge of the tree line and entering the cleared valley floor. This lower section of channel is now choked with invasive reed canary-grass for approximately 100 ft. The stream then exits the Nickum property under an existing fence that collects wood debris and reenters forested habitat at the property boundary. There are a series of small footpaths used by the landowners within the seasonal (avulsed) stream channel and riparian area.

Project Goals:

The main goal of Nickum property project is to improve the quality and quantity of salmon rearing habitat, improve fish passage in the stream (which is now compromised by reed canary grass), and improve water

quality and large wood recruitment by restoring the associated riparian habitat in this unconfined low-gradient reach of Springbrook Creek. This will be accomplished by reestablishing an intact riparian corridor and natural channel processes in the section of stream now choked by invasive reed canary grass and replanting with native plant species. Options were developed between the project team and the landowners with a strong emphasis on the project team recommending the largest riparian buffer that the landowner was willing to support (understanding that greater buffer widths represent a more natural condition at the site and convey greater ecological benefits to the stream and riparian community).

Limiting Factors addressed by this project: High water temperatures, low dissolved oxygen, sediment, degraded conditions for benthic macroinvertebrates, degraded riparian habitat, and fish passage barriers.

Design Elements: Wild Fish Conservancy performed in stream and associated riparian assessments, examined LIDAR elevations, performed topographical surveys, discussed the restoration options with the project team and landowner. The selected restoration option was agreed to by the landowner.

5.3.5 Upper Springbrook Creek Protection Appendix III Project 11

This project proposes to protect by acquisition nearly 23 acres of mostly undisturbed and undeveloped forested wetland, stream and associated riparian habitat in Springbrook Creek Assessment Unit 6 (AU).

During the Springbrook Creek Watershed Assessment the Upper Springbrook Creek tributary (SB01-2) was identified as hosting some of the highest quality stream and wetland conditions within the entire watershed. Water monitoring indicates temperatures in the stream are of high quality all year round – the only area within the watershed to meet temperature water quality standards year round.

Coho and cutthroat have been documented within this reach of the stream and downstream, and there is excellent potential for fish rearing habitat within the AU. There is mature riparian vegetation hydrologically connected to the stream.



The Upper Springbrook Creek tributary is characterized by a large wetland complex, native vegetation which provides shade to the stream and food for a number of birds and other animals. The stream width varies from 6 feet in width with a defined channel to a narrow approximately 2 foot channel within a large wetland complex.

The stream runs year round. Due to the large undisturbed wetland complex, the Washington Department of Ecology's Watershed Characterization identified this AU as particularly important for providing water recharge and discharge functions thus keeping this functioning wetland protected is important to overall watershed health.

During the Springbrook Creek Watershed Assessment, this property, and adjoining properties downstream were identified as a high priority for protection.

Project Goals:

This proposal is to acquire the property from the existing willing landowner (see Landowner Acknowledgment) for protection purposes and leave the property as is, for the most part, except for perhaps some well sited foot path for hikers, invasive plant and debris removal over time. There is a full fish passage barrier culvert on the northwest property boundary. There is an opportunity to remove the culvert after the acquisition takes place, to improve fish utilization of over .25 miles of stream habitat above the fish culvert.

There are two separate parcels:

Kitsap County tax parcel 282502-1-005-2006 (20.03 acres)

Kitsap County tax parcel 282502-2-001-2008 (2.96 acres)

The 2.96 acre parcel had an old home and outbuildings on it which have been removed by the existing landowner. The conceptual plan does reserve the opportunity to utilize approximately 1.16 acres of this parcel for flexible uses such as parking for public use of trails or an interpretive kiosk.

In discussing options for protection, the acquisition tool, versus a conservation easement, was chosen based on discussion with the landowner. The goal would be to have the property acquired by an entity such as Bainbridge Island Land Trust who is experienced in holding preserve property and who would develop a stewardship and management plan for the property which would outline the care needed to retain and preserve the important stream and wetland functions the property provides to the entire Springbrook Creek watershed.

6.0 Additional Opportunities

As a result of the Springbrook Creek assessment work and interactions with landowners, several other additional opportunities for protection and restoration beyond the five conceptual designs were identified within the watershed. These opportunities are all deserving of further consideration for improvement of fish habitat conditions and watershed function, additional discussions with landowners, and (if landowners are interested) to work with project partners on further refining project designs and implementation.

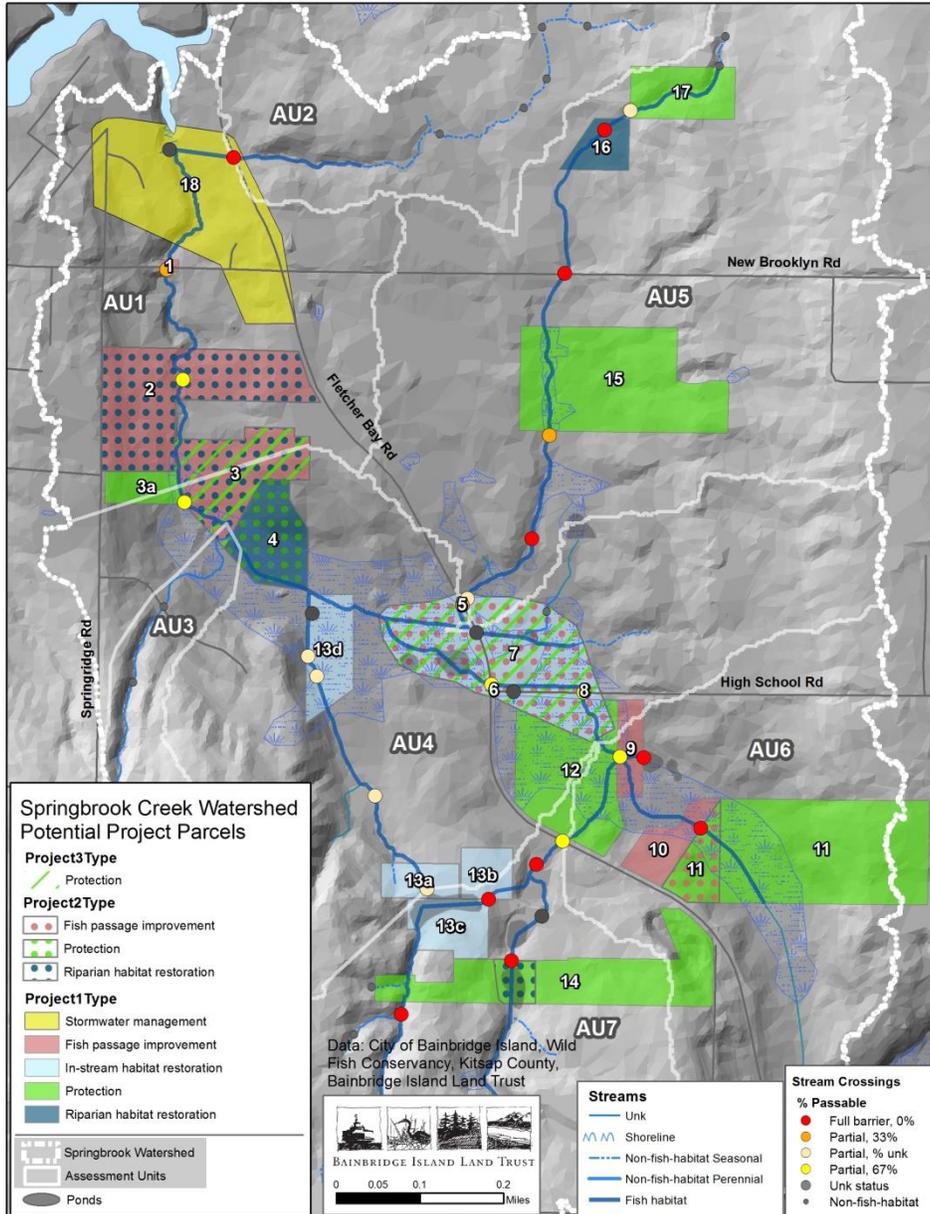


Figure 32. All potential projects evaluated.

6.1.2 Potential Project 18: Island Center Stormwater System Upgrades – AU1

The commercial nature and high traffic of the Island Center neighborhood service center coupled with its proximity to Springbrook Creek and the head of Fletcher Bay raise concern over potential water quality impacts from stormwater runoff. Though the project did not identify strong evidence of water quality impairment, field observations indicate there is a high probability that polluted runoff is reaching the public stormwater system via surface flow to catch basins and ditches (Figure 33). Currently the stormwater system servicing Island Center is limited in its ability to provide water quality treatment. Additional treatment facilities or increased maintenance of the current facilities could benefit the water quality entering Springbrook Creek and Fletcher Bay. The addition of on street parking could be coupled with bio-retention planters, bio-swales, or advanced treatments systems such as Contech’s StormFilter or Filterra units. Ideas and challenges to resolving this issue is likely to be discussed in the Island Center sub-area planning process, currently underway at the City of Bainbridge Island.



Figure 33. Potential silt source: COBI road maintenance equipment lot.

6.1.3 Summary of Potential Project 7: Fletcher Bay Road NE and High School Road Culvert and Stream Improvements – Appendix IV

The intersection and proximity of Fletcher Bay Road NE and High School Road is a nexus of complicated problems arising from past engineered solutions, stream modifications, multiple stream channels, roads, and existing land use. The area includes drainage from four assessment units (AU 4, 5, 6, and 7) – draining approximately 600 acres of the 999 acre Springbrook Creek watershed. There are seven culverts (Figure 34) that partially or fully block fish passage under, adjacent or in proximity to the main roads in this intersection area, and several are in need of replacement to address fish passage, stormwater, and aging infrastructure. The stream reaches of SBO1D, SBO1E, SB01-2, SB01F and portions of SB01G and SB01-1 flow through this area. There are seven individual landowners who live on the stream or in the proximity of the stream.

Fletcher Bay Road NE and High School Road are major Island arterials, and as congestion has increased on State Highway 305 (the major road that serves the Seattle-Bainbridge Washington State Ferry and leads to Poulsbo off island to the North) these roads have become quasi secondary bi-ways for local traffic. The large paved area with a high number of vehicles traveling through or stopping to turn at the intersection of these two roads makes tire debris and other toxic pollutants a high concern.



Figure 34. Existing Conditions

Instead of addressing a number of issues individually (Project id's 5,6,7,8 on Figure 32) the project team strove to formulate alternatives for addressing the entire suite of issues in this area as an interrelated whole. The project team had numerous site visits and conversations with affected landowners, and utilized data gathered on culverts, water quality, and historic channels in conjunction with high-definition elevational models (1m LIDAR). As further described in Appendix III F, four alternatives were designed to affect greater restoration of stream health and fish habitat quality by addressing limiting factors of: impeded fish passage; degraded riparian conditions; invasive plants; constrained floodplains; high stream temperatures; unfiltered stormwater runoff from roads to the stream; and degraded aquatic life conditions, while contributing to overall watershed function, meeting landowners' needs, addressing failing infrastructure, reducing the number of culverts, and restoring lost wetland habitat. These four alternatives all address major issues such as the channeling of the creek through a perched culvert under High School Road into a blackberry-choked ditch, and replace or obviate the need for undersized culverts (Figure 35), but differ in the degree to which they separate the stream from roads, the location and number of remaining culverts, and the patterns of water flow.



Figure 35. High School Road perched culvert C1 and undersized culvert C6.

It is of utmost importance that actions affecting the roads, stream channels, and culverts in this area not be taken piecemeal. However, planning for a comprehensive solution will require working closely with all potentially affected landowners to reach a mutually agreeable and biologically beneficial outcome.

6.1.4 Protection of Key Mid-watershed Wetlands and Riparian Areas

The Springbrook reach from Barnabee Farms to Fletcher Bay Road NE lies within a broad shallow bowl with a wide wetland zone along the creek. As mentioned in the Conceptual Designs section, the high concentration of the overall watershed's wetlands in this area is a driver of AU4's high importance rating

for all watershed functions and overall top rating for both protection and restoration in the WDOE Watershed Characterization. In addition to the restoration opportunities carried forward into Conceptual Design phase there are multiple protection opportunities in this area. Particularly high-quality riparian habitat includes that on 2.23-acre Kitsap County Tax Parcel 6514-000-001-0005 (Figure 36, Potential Project 3a) and the next five parcels lying between NE Mitchell Lane and the creek to the south of this parcel (Figure 37). Intact wetlands encompass large portions of these parcels, and the tributary flowing into Springbrook Creek through parcels 6514-000-005-0001 and 6514-000-004-0002 drains AU3 to the southwest. These are all within the Rekow Valley Farm Division created in 1984. The owner of the parcel identified as Potential Project 3a expressed interest in preserving the natural values of her property, suggesting high potential for a conservation easement to add assurance of long-term protection. She has sadly passed away but this positive indication from the landowner led to inclusion of the parcel as an identified potential project within this project's time frame. Upon further investigation, we found that the protective covenants put in place by the Rekows on the Rekow Valley Farm parcels include prohibitions against grazing or clearing within a 25' green belt along the eastern property boundaries, and no building, impermeable surfaces, or clearing below the 60' elevation line. This encompasses much of the wetland area along the creek (Figure 37). Keeping these landowners engaged in maintenance of healthy stream and wetland conditions is recommended.



Figure 36. Intact riparian wetland habitat in Potential Project 3a.

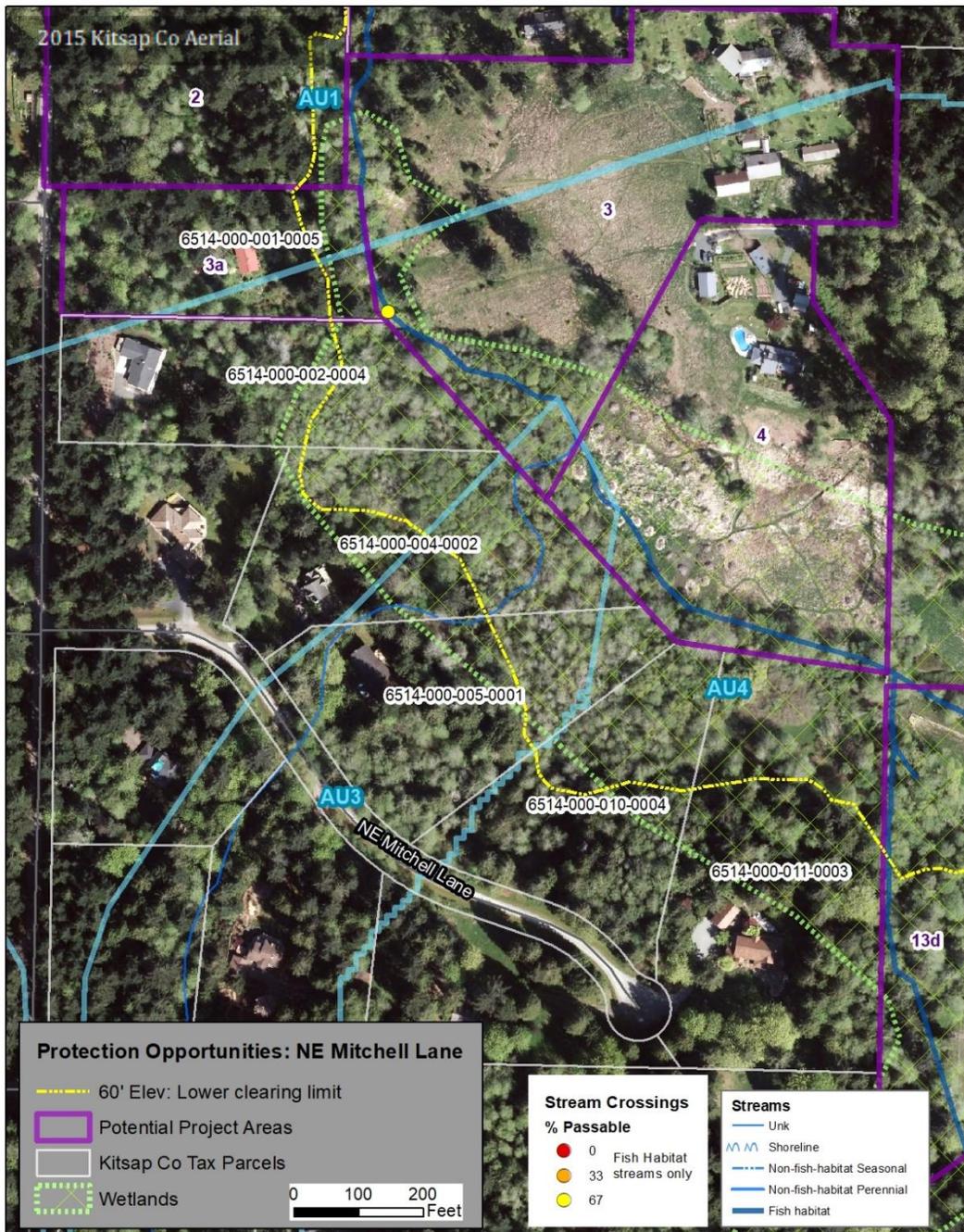


Figure 37. Potential protection opportunities north of NE Mitchell Lane.

Additional protection opportunities exist within AU4 and AU6 just up the system to the east, where the large wetland complex extends southeast of the High School Road and Fletcher Bay Road NE intersection (Figure 38). This area includes the only continuously monitored stream site (Site S, Figure 23) found by the project’s monitoring efforts to meet guidelines for temperature year-round (Figure 26), and dissolved oxygen levels were generally just below the standard for high water quality (Figure 27). Potential changes to culverts and stream flow just north of here are discussed above (Project 7: Fletcher Bay Road NE and High School Road Culvert and Stream Improvements), and Potential Project 11 on Figure 38 is Appendix III Project 11: Upper Springbrook Protection Project Conceptual Design. In addition, there are parcels in this

area with high-quality riparian and wetland vegetation and landowner interest in protecting these resources. There are also parcels where vegetation has been cleared but a cooperative restoration effort could be possible with the single landowner of these multiple parcels.

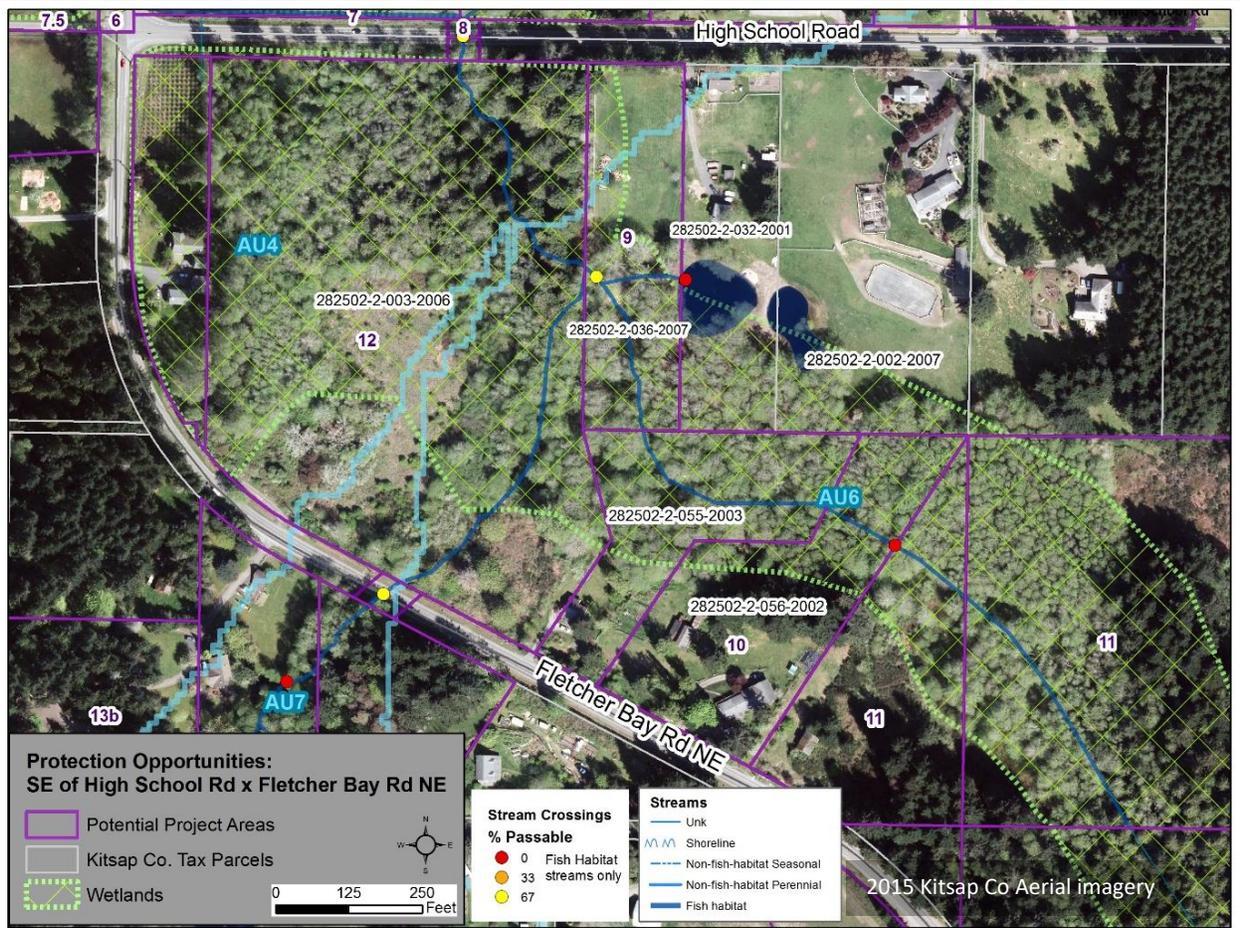


Figure 38. Potential protection opportunities SE of High School and Fletcher Bay Roads.

Potential Project 12 (Kitsap County Tax Parcel 282502-2-003-2006) is a 12.87-acre parcel owned by a conservationist landowner who has worked with the Land Trust in the past on purchases of, and Conservation Easements on, her properties. This property was once part of the Anderson Farm as well as a homesite, with just remnants of an old house next to an old clearing remaining. The riparian and wetland areas are in very good condition (Figure 39), with the stream meandering in braided channels through mature forests. Permanent protection mechanisms for the property we have discussed with the landowner could include a Conservation Easement with the conservation area covering the entire area, or retaining a development footprint to allow redevelopment of the southern portion around the old homesite.



Figure 39. High-quality stream conditions and riparian habitat on Potential Project 12.

Establishing more permanent protections for the wide wetland band between Potential Project 12 and Potential Project 11 (Appendix III Project 11: South East Fork Springbrook Creek Protection Conceptual Design) could be highly beneficial. Habitat on Kitsap County Tax Parcels 282502-2-055-2003 and 282502-2-056-2002 is in good, intact condition and both of these landowners have a high degree of interest in protecting the stream and wetlands. Working with these landowners to assist them in maintaining long-term habitat protections is recommended.

6.1.5 Project 9 Footpath Culvert Removal and Riparian/Wetland Vegetation Restoration

The three parcels immediately east of Potential Project 12 (Kitsap County Tax Parcels 282502-2-036-2007, 282502-2-032-2001, and 282502-2-002-2007, Figure 38) share a common landowner, also with a high interest in protecting fish and streams. South of the small manmade ponds, vegetation clearing inadvertently occurred within areas mapped as wetlands such that the dense deciduous forest shown in the aerial photograph (Figure 38) has been converted to scattered trees over lawn. There is also a short, small culvert passing under a footpath which was found to be 67% passable due to excessive slope (Figure 40) on Kitsap County Tax parcel 282502-2-036-2007. The stream merges with channels on Potential Project Parcel 12 immediately west of this point. The landowner wishes to enhance fish habitat and is willing to consider a

project to replace or perhaps remove the culvert. Assisting the landowner with information on managing healthy riparian and wetlands is recommended, along with a vegetation restoration plan. Portions of the stream were also lined long ago with wooden boards in the wetlands south of the culvert (Figure 41), and another restoration opportunity exists in removal of the sideboards and a return to a more natural channel.



Figure 40. Surveyor just right of 67% passable culvert under path.



Figure 41. Old sideboards in channel upstream from culvert.

6.1.6 Project 14 Johnson Farm Pond Naturalization - AU7:

Ponds throughout the watershed have been identified as hindrances to water quality and quantity. The pond on the City-owned Johnson farm (Potential Project 14, Figure 42) is no exception. The water quality at site Q above the pond remained cooler and more plentiful than the water quality at site D below the pond (Figure 42). Increasing the amount of baseflow throughout the summer and reducing the water temperature could be achieved by allowing the pond to naturalize and encourage buffer plantings. The main hurdle to this idea is that the pond is currently being utilized by commercial farming on the site for an irrigation source. Water lines would need to be installed from the drilled well (existing onsite) to replace this water source if the pond were to be return to its natural state entirely.

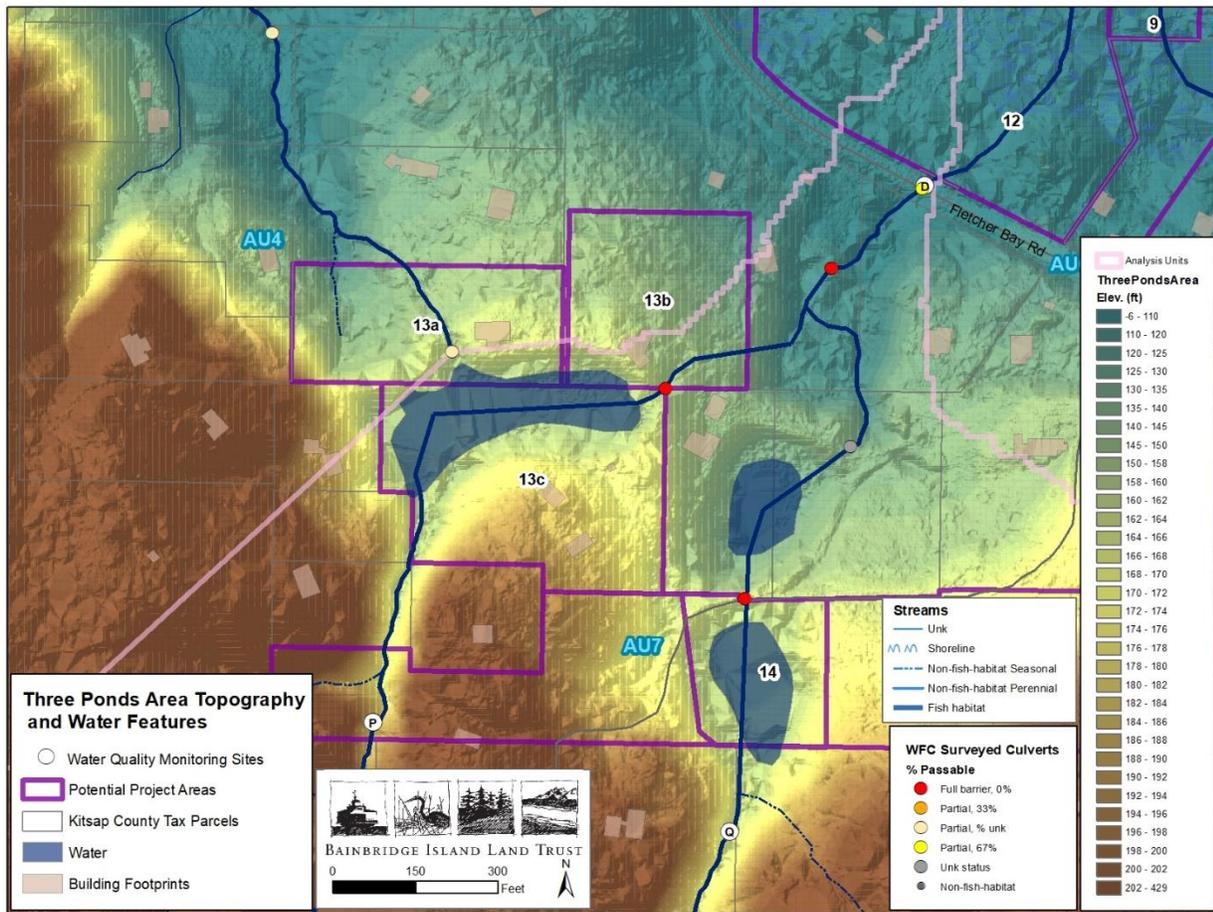


Figure 42. Three Pond area topography, water quality monitoring stations, streams, and water bodies.



Figure 43. Johnson Farm pond.

6.1.7 Project 13a,b,c,d Interbasin Pond Replumbing and Riparian Restoration - AU7/AU4:

One factor that complicated drawing the boundaries between AUs 4 and 7 was the alteration of hydrology that occurred when a pond was built straddling a natural division between subwatersheds. A Springbrook tributary that once flowed directly north from Water Quality Monitoring Site P to continue northwest from the present-day pond is now captured and diverted to flow out of the pond eastward (Figure 42, Potential Project Areas 13a, 13b, and 13c). Thus, although the historic channels would have supported an analysis unit split down the middle of the pond, now a split to include the upper reach with the streams to the east better reflects how water flows.

The owner of the parcel 13a mentioned that long-time Island residents told her they would often go to fish in the old stream there before it was bermed and ponded. Area landowners also reported that this pond was built by Clarence Johnson for (then-larger) Johnson Farms in 1962, with the large downslope berm built from material excavated from the pond area. Vegetation in the steep draw on Potential Project Parcel 13a is intact woodlands with understories of thick shrubs and ferns. The channel just below the pond berm now tends to be dry, although there is a pond overflow chute to carry water in this direction when the level is very high. There are many seeps and springs in this draw, and water accumulates as you move downstream before joining wetlands about 0.2 miles to the north (on Potential Project Parcel 13d, Figure 32). This is far more natural stream habitat than that created downstream of the eastern outlet of the pond on parcels

13b and 13c, above, and some consideration should be given to reestablishment of water flow to the north through parcel 13a. Any planning effort would need to first establish the range of changes that could be acceptable to the affected landowners, particularly the owners of parcels 13a, b, and c. Should any increased flow to the north be planned, related efforts would include further protection and enhancement of riparian wetlands within the 13d parcel and addressing the partial barrier culverts below 13a (Figure 42). However, careful analysis of the implications of the decreased flow to the northeast would be needed, as this feeds into the wetlands southeast of High School Road x Fletcher Bay Road NE.

6.1.8 Projects 15, 16, and 17 Northeast Tributary Riparian Protection and Restoration - AU5:

In 2017 we obtained permission from several landowners to conduct the survey work necessary to increase our understanding of a previously unmapped northeast tributary of Springbrook Creek running from north of New Brooklyn Road down into the confluence of multiple tributaries just north of the Fletcher Bay Road NE by High School Road intersection. AU5 is the area that this tributary drains. Thanks to this additional survey work, we were able to document 0.87 miles of seasonal stream typed as fish-habitat based on physical criteria, but with multiple fish passage barriers (Figure 44). As further discussed and pictured under the Fletcher Bay Road NE X High School Road culvert complex Conceptual Design, where this tributary meets Fletcher Bay Road NE, a portion of the flow passes directly under the road through a 67% passable barrier and is forced to turn into the now-cleared ditch west of the road and into the “Winter Stream”, while an unknown proportion continues south down the ditch east of the road to join the Winter Stream where it flows through a full-passage-barrier culvert under Fletcher Bay Road NE.

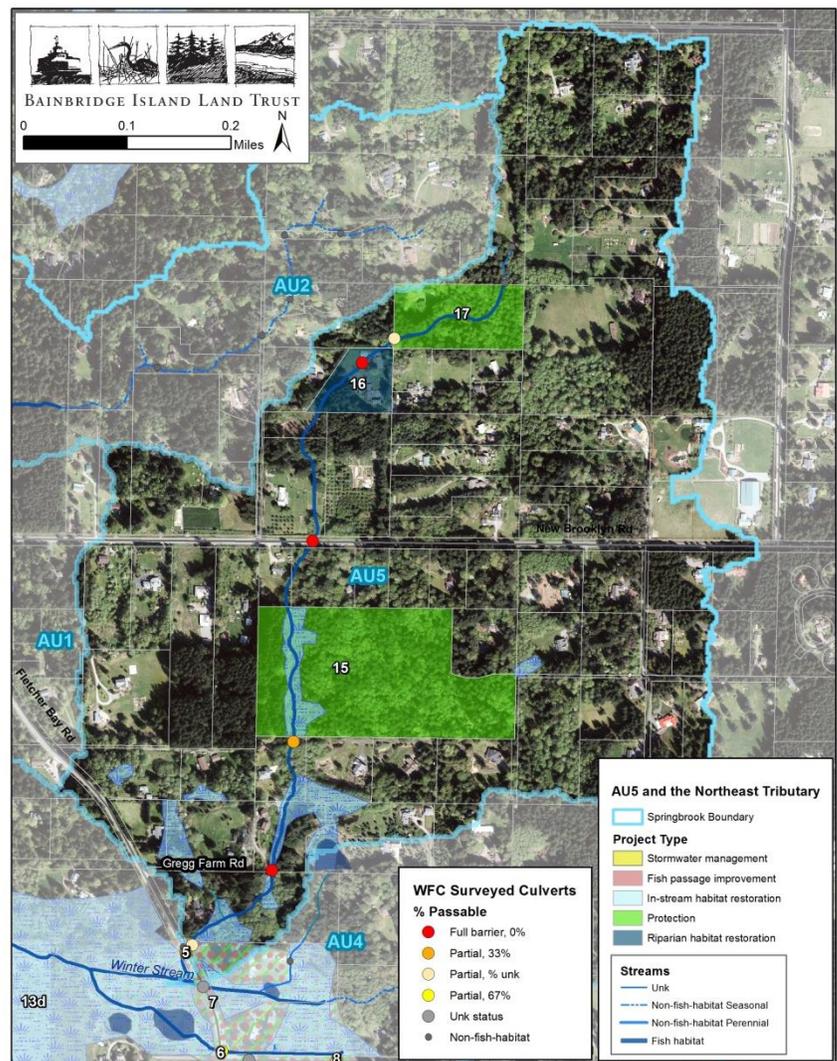


Figure 44. The Northeast Tributary and AU5 2015 aerial.

North of Fletcher Bay Road NE this Northeast Tributary flows through a full-fish-passage-barrier culvert under Greg Farm Lane, 850 feet upstream from the confluence with the Winter Stream (Figure 44). Here

intact forest habitat to the south transitions to a straight narrow channel filled with tall grasses, sedges, shrubs and forbs bordered by lawn mowed to the channel edge to the north.



Figure 45. Narrow unmowed streamside vegetation north of full passage barrier culvert, Greg Farm Lane.

Replacing the culvert here would restore access to 0.71 miles of upstream suitable fish habitat, and would be best combined with working with the landowner to learn about the newly mapped stream and regulatory buffer, and understand the benefits of the restoration.

About 730 feet further upstream from Greg Farm Lane, the creek winds through wetlands in a beautiful mature western red cedar and Douglas-fir forest on an undeveloped 17.5-acre parcel (Figure 44 Potential Project #15; Kitsap County Tax Number 212502-3-005-2009), above a 67% passage barrier culvert under Berganio Lane. The landowners are long-time Islanders with a deep appreciation of their lands and a combination of culvert replacement and assisting the landowners in preserving these forest habitats would be a valuable future project. In the context of Bainbridge Island, this is a substantial piece of undeveloped and unprotected forest, and protection through conservation easement or purchase would be highly beneficial to stream health and to maintenance of high-quality forest habitat in the watershed.



Figure 46. Mature forest along the Northeast Tributary, south of New Brooklyn Road.

North of New Brooklyn Road, the stream course between a distinct ravine at the very top of the tributary to the road is difficult to estimate from aerial photographs and was mapped using a combination of modeling from LIDAR followed by on-the-ground verification with landowners. Most of the landowners we communicated with did not consider water flowing through their properties to constitute a stream, nor was it mapped or regulated as a stream by the City of Bainbridge Island. On Tax Parcel Number 212502-2-024-2008 (Figure 44 Potential Project 16), the water (not flowing at the time of our December 2017 visit) comes into the top of the property through a culvert under a driveway. The previous owner had it flowing through a small pipe under a raised garden area, then down a ditch in the lawn into forest below the property. The current owner found flooding to be a recurrent issue, sometimes into their shop/garage building. They regraded and eliminated the pipe and attempted to make the water flow in something closer to the natural low point and no longer have flooding issues. Water now flows down a ditch along their gravel driveway, then down across the driveway in front of the shop/garage, and into the ditch through the lawn. Water flows only in rainy periods, and frequently disappears into the ground before reaching the downstream neighbor. Were fish able to access this reach, the driveway would serve as a full passage barrier.



Figure 47. Northeast Tributary north of New Brooklyn Road.

In contrast, the property immediately upstream (Figure 44 Potential Project 17; Tax Parcel Number 212502-2-015-2009) hosts very high-quality riparian habitat along about 760 feet of typed fish-habitat stream, with ferns under large mature trees in a distinct ravine. Aside from some trails and minor clearing, development impacts are restricted to the benches above the draw. The stream transitions from seasonal fish-habitat to seasonal non-fish-habitat at the northern boundary of the property, and ends about 200 feet further upstream.



Figure 48. Excellent habitat at headwaters of Northeast Tributary, Potential Project #17.

All along this tributary a key action will be informing landowners of the stream and its values as well as regulatory protections. Long-term protection of the forested ravine combined with working with the landowner directly south to restore a healthier channel and riparian vegetation would be quite beneficial to function and downstream water quality in this tributary.

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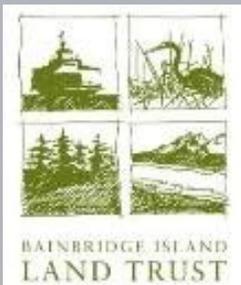
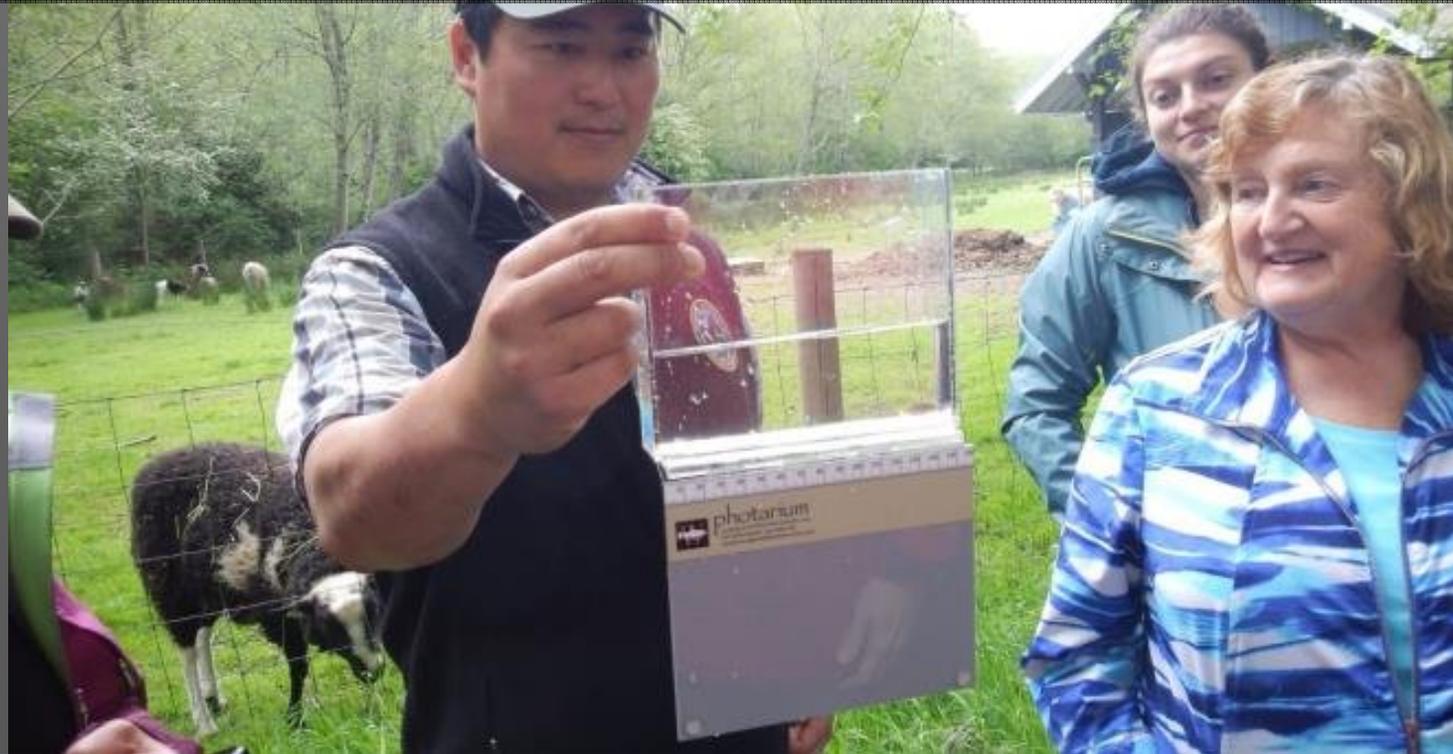
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SPRINGBROOK CREEK WATERSHED ASSESSMENT PROJECT



With assistance from: WDFW, WDOE, Suquamish Tribe



Recreation and Conservation
Funding Board

Salmon Recovery Funding
Board

Members
Meetings
Mission and Strategic Plan
Funded Grants

Invasive Species Council

Governor's Salmon Recovery
Office

Salmon Recovery Funding Board

In 1999, the Washington State Legislature created the Salmon Recovery Funding Board. The board provides [grants](#) to protect or restore salmon habitat and assist related activities.

Composed of five citizens appointed by the Governor, and five state agency directors, the board brings together the experiences and viewpoints of citizens and the major state natural resource agencies.



- Springbrook Creek Evaluation and Feasibility Study: Project #14-1517
- Funded by Washington State Recreation and Conservation Office – Salmon Recovery Funding Board in 2014
- Significant in-kind support by all project partners and volunteers

Why this area?

- ◎ Fish resources - historic **steelhead** and **fall chum** salmon stream, current **cutthroat** trout and **coho** salmon. One of only 2 streams designated as **Critical Habitat for Puget Sound steelhead** on Bainbridge Island. Steelhead are ESA listed species.
- ◎ Infrastructure/culvert repair needs
- ◎ Water quality concerns
- ◎ Landowner participation



Project Area

- Springbrook Creek Sub-watershed 999 acres
- Lies within the Fletcher Bay Watershed
- Springbrook Sub-watershed area comprises about half of Fletcher Bay Watershed



What has taken place?

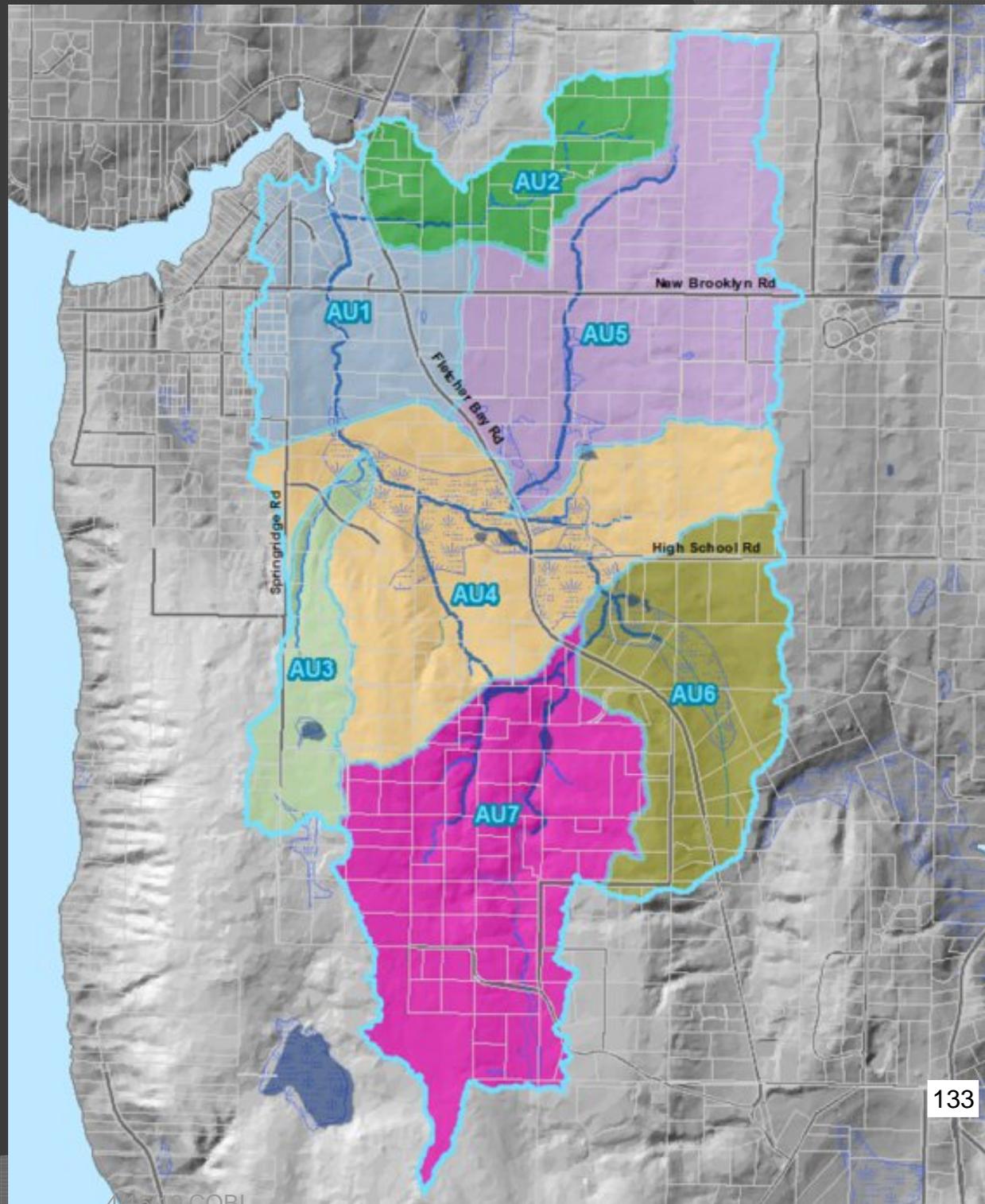
- ⦿ Review of historical information and available data.
- ⦿ Identify information gaps and perform new assessments or collect new data
 - Comprehensive stream condition and riparian habitat assessment
 - Water quality & Salmon monitoring
 - Discussions with landowners about historical and present use *and* prospective restoration and protection projects and many natural resource agencies
 - Washington Department of Ecology Watershed Characterization

What has taken place?

- Review and synthesize information
- Identify what was great about the watershed and what the stressors are
- Develop a rationale for developing and selecting projects
- Identify projects
- Prioritize 5 projects and develop five conceptual designs
- Produce a Report

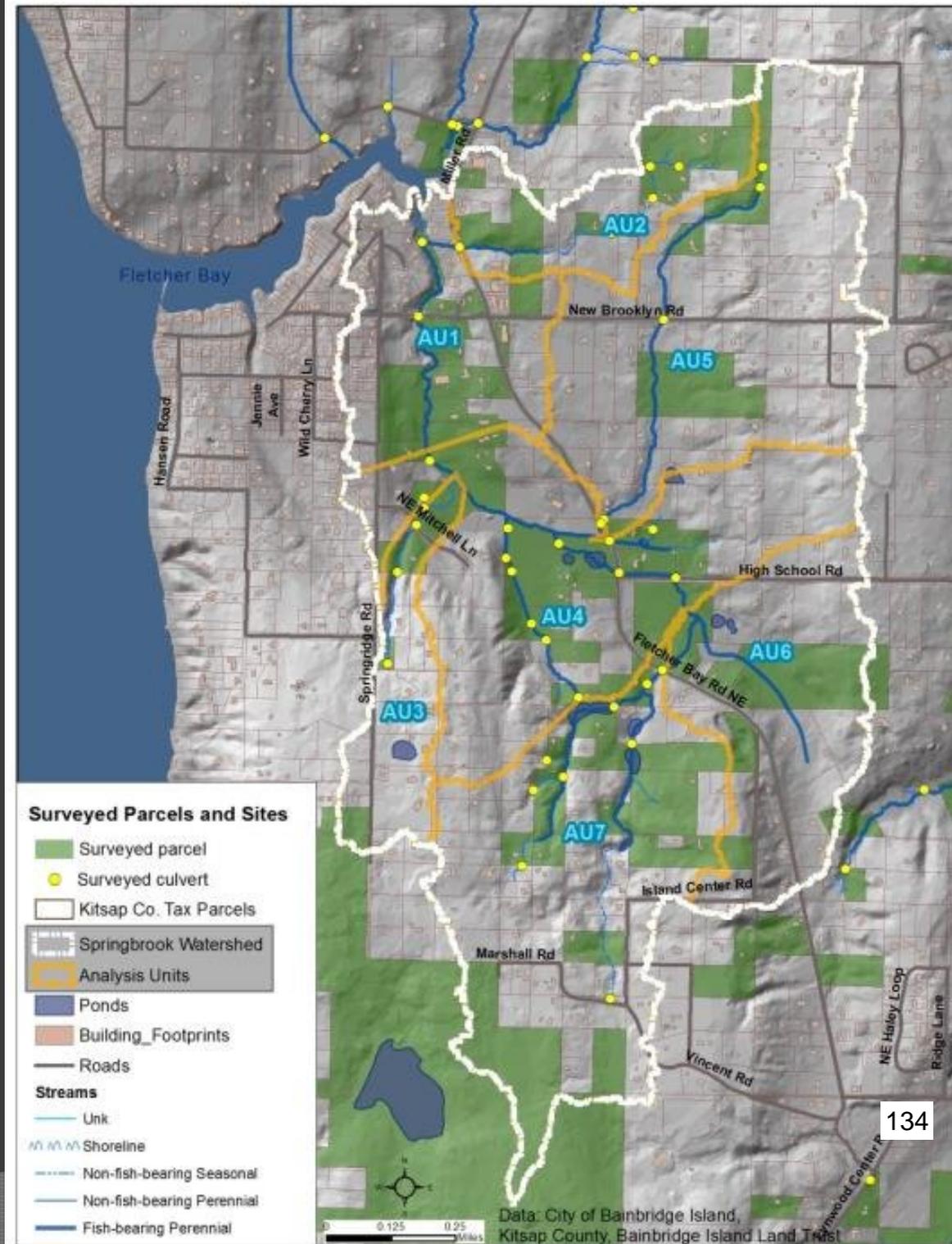
Assessment Units

- The watershed was further divided based primarily on drainage patterns
- Allows for comparisons between areas & what actions to emphasize where



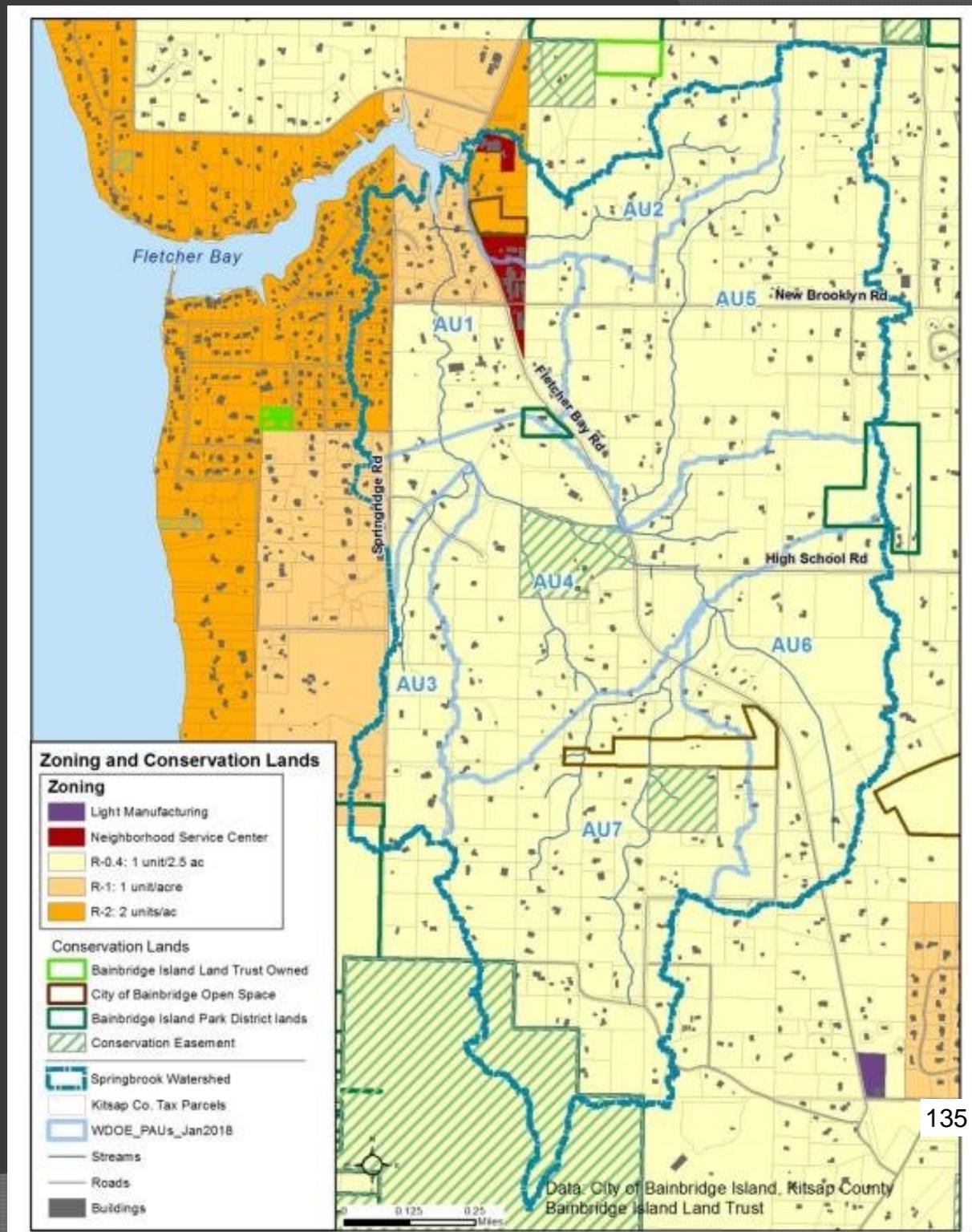
Properties where the stream and riparian (adjacent conditions) were observed and assessed

- Over 50 landowners provided access or were involved in the assessment project
- 240 acres assessed on the ground
- 70% of the watershed's stream length physically surveyed



Land Use

- Current Zoning and Land Use
- Bainbridge Island Land Trust and other conservation lands in Springbrook Creek Watershed
- Opportunities for increased protection/restoration



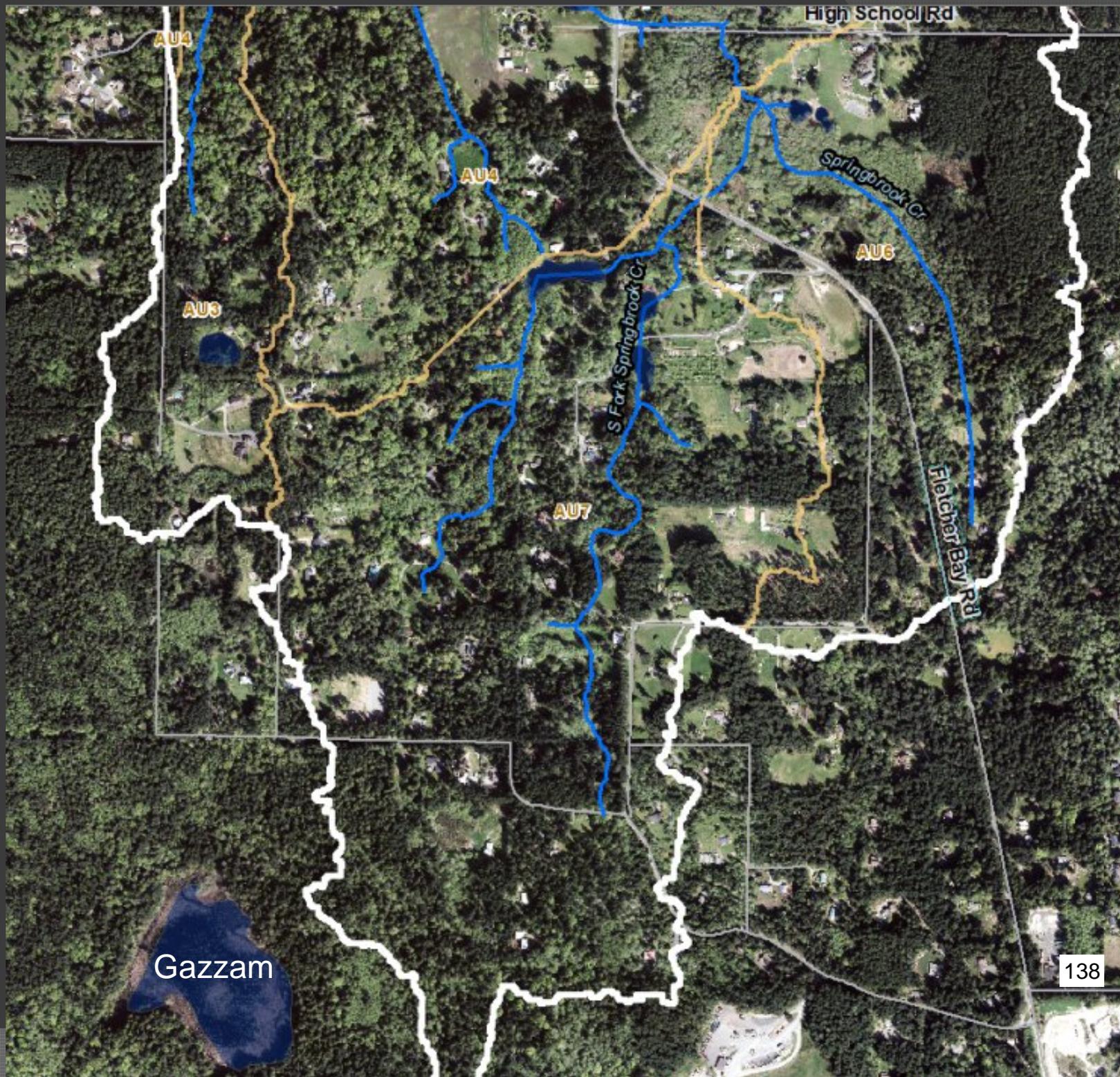
Northern watershed: high concentration of impacts



Middle watershed: Very high importance for watershed functions, more intact forest, high hydrologic alteration



Southern/
middle
headwaters:
more intact
forest, high
hydrologic
alteration

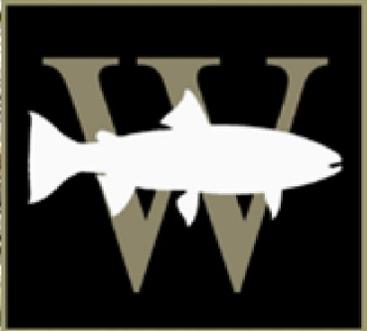


Watershed Assessment – science based

Boots on the ground.

- Channel locations
- Channel dimensions
- Riparian Condition
- Instream wood
- Fish Passage Barriers
- Fish Use
- Characteristics of each tributary
- Local knowledge from streamside residents

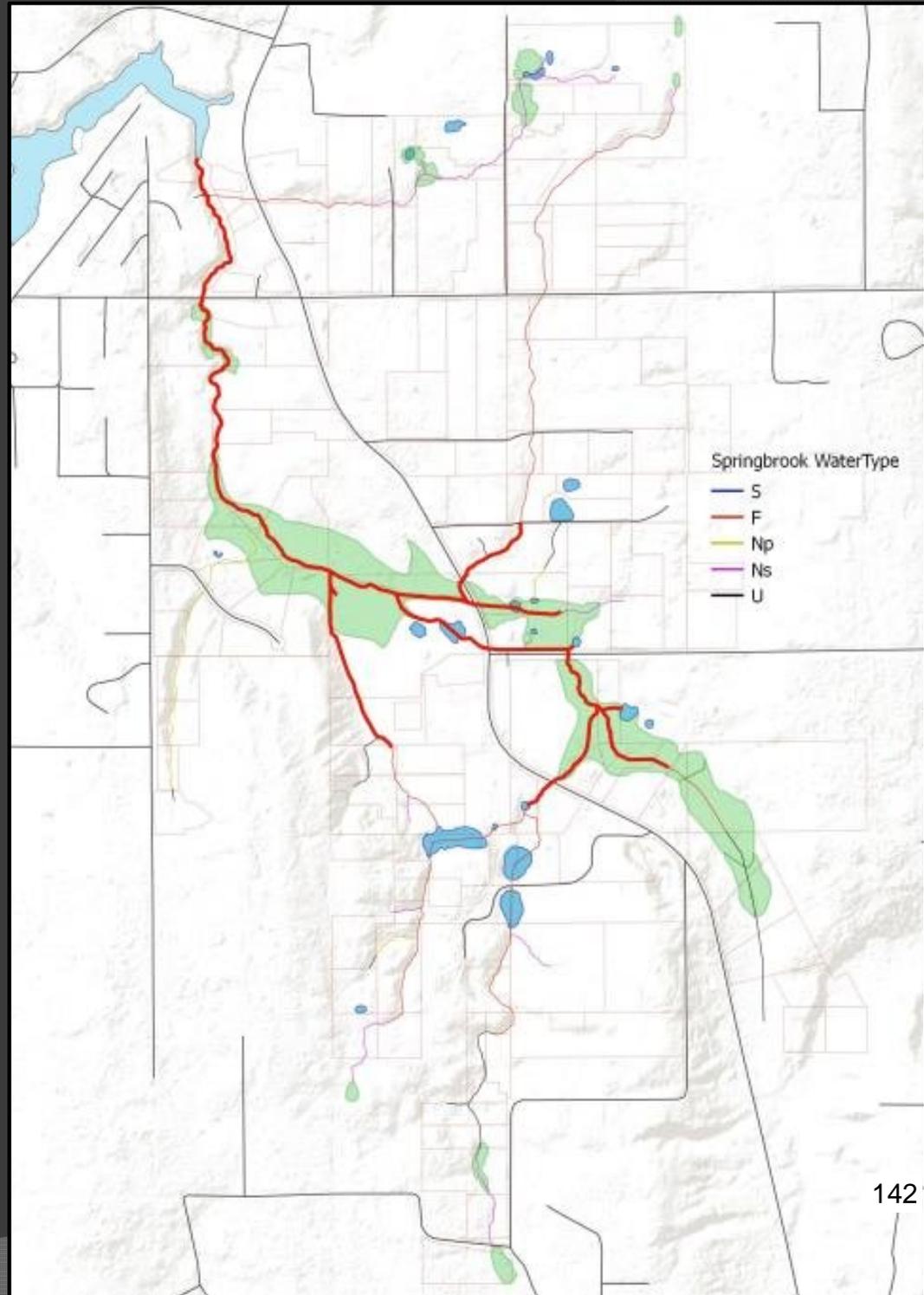




Springbrook Creek
6.8 miles

Fish Habitat
4.3 miles

Current extent
accessible
2.6 miles



Healthy Riparian Habitat



Degraded riparian habitat



Fish passage barriers and degraded/ill-designed culverts identified as a major constraint to watershed function and fish utilization of habitat



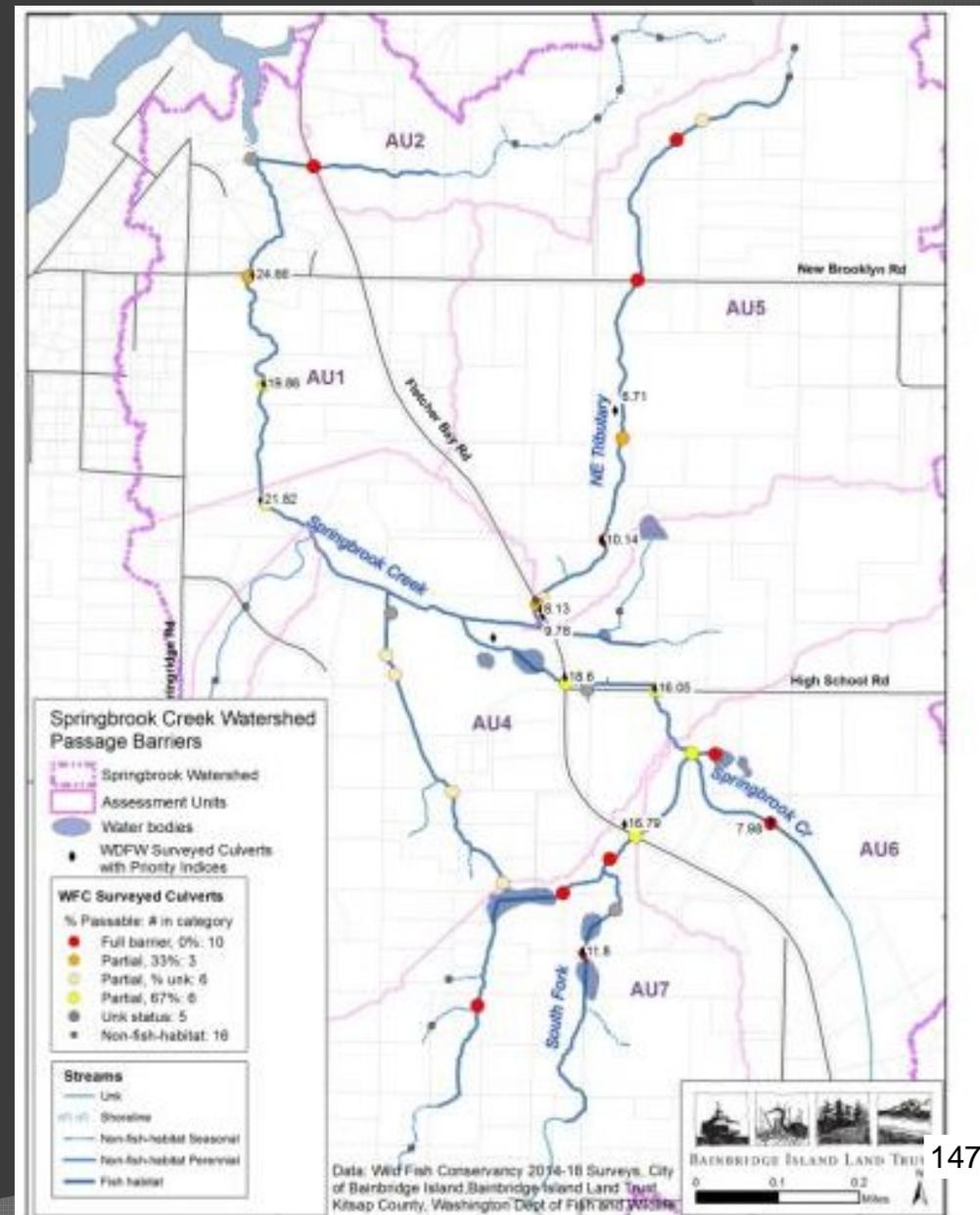
Fish Passage Barriers

46 culvert stream crossings

- 8 on city owned property
- 38 on private property

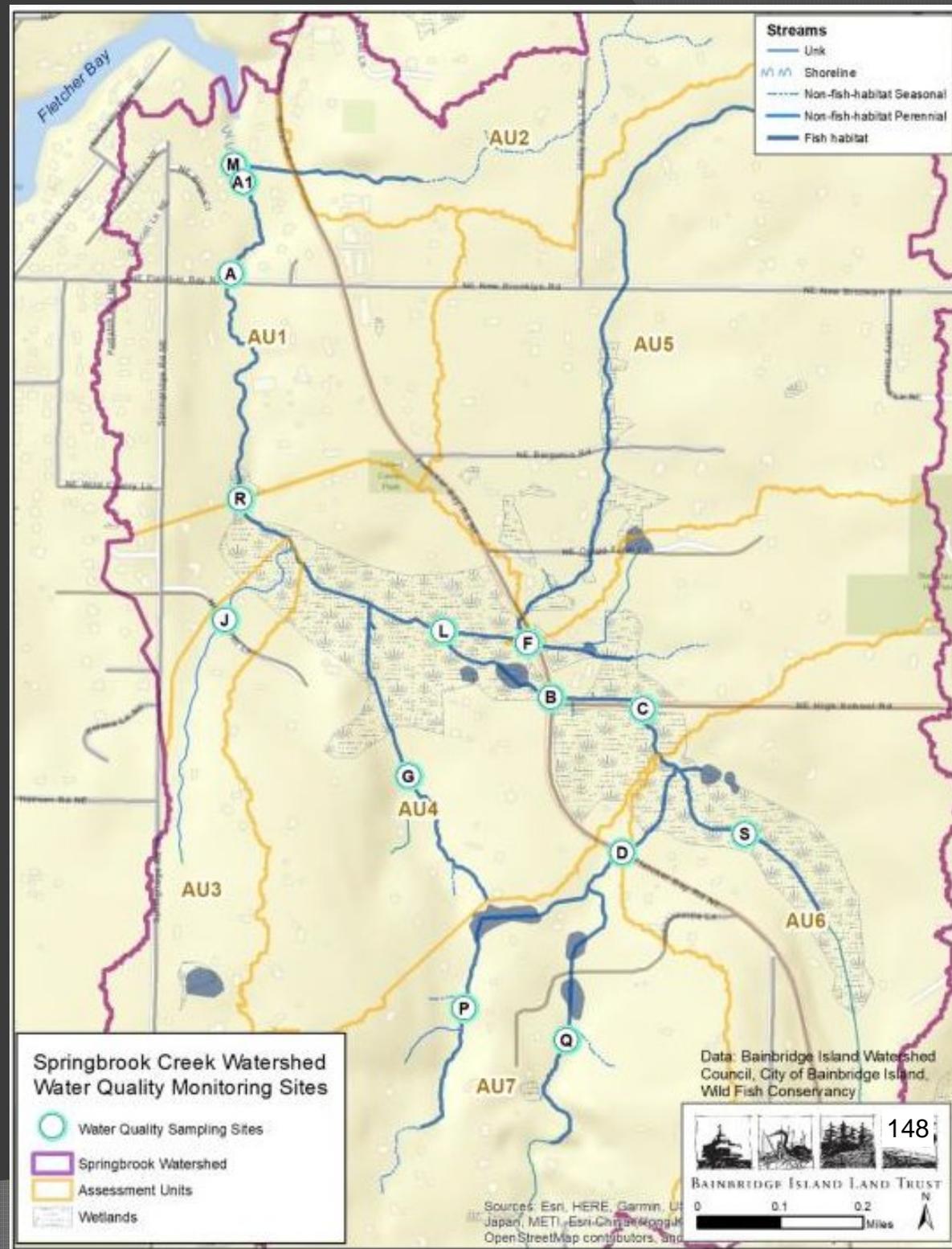
30 culverts impacting passage

- 10 – full passage barriers
- 15 – partial passage barriers
- 5 – unknown passability



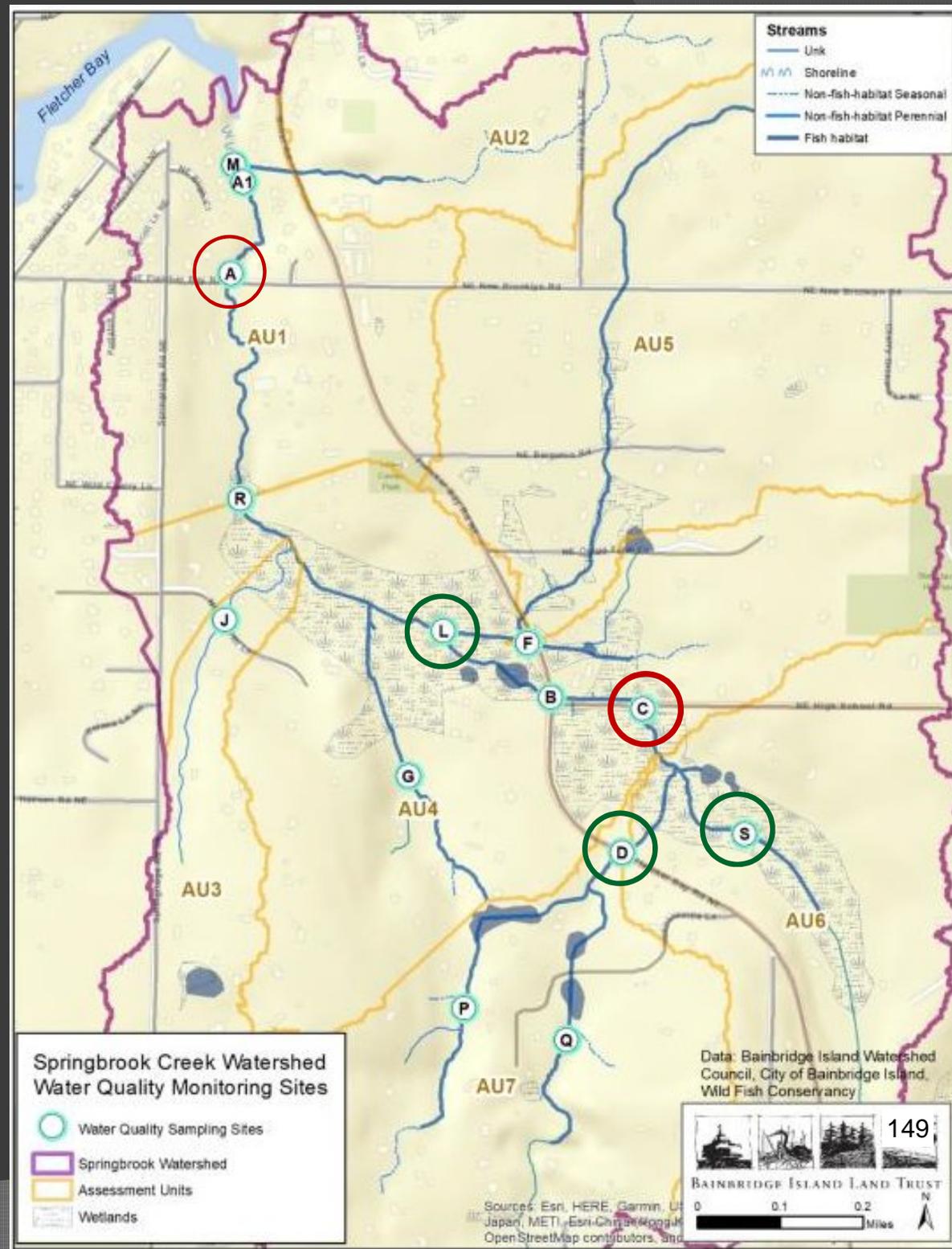
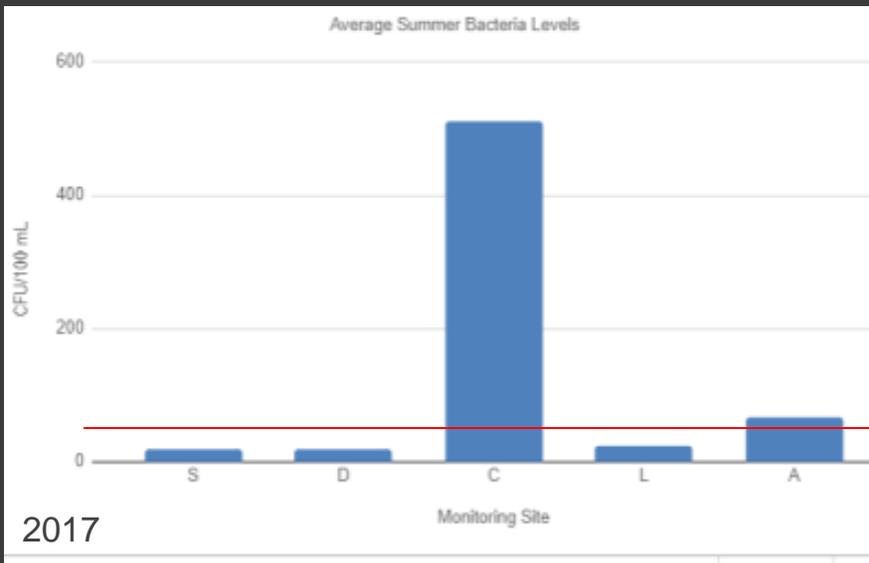
Limiting Factor: Water Quality

- 14 sites monitored throughout watershed by COBI



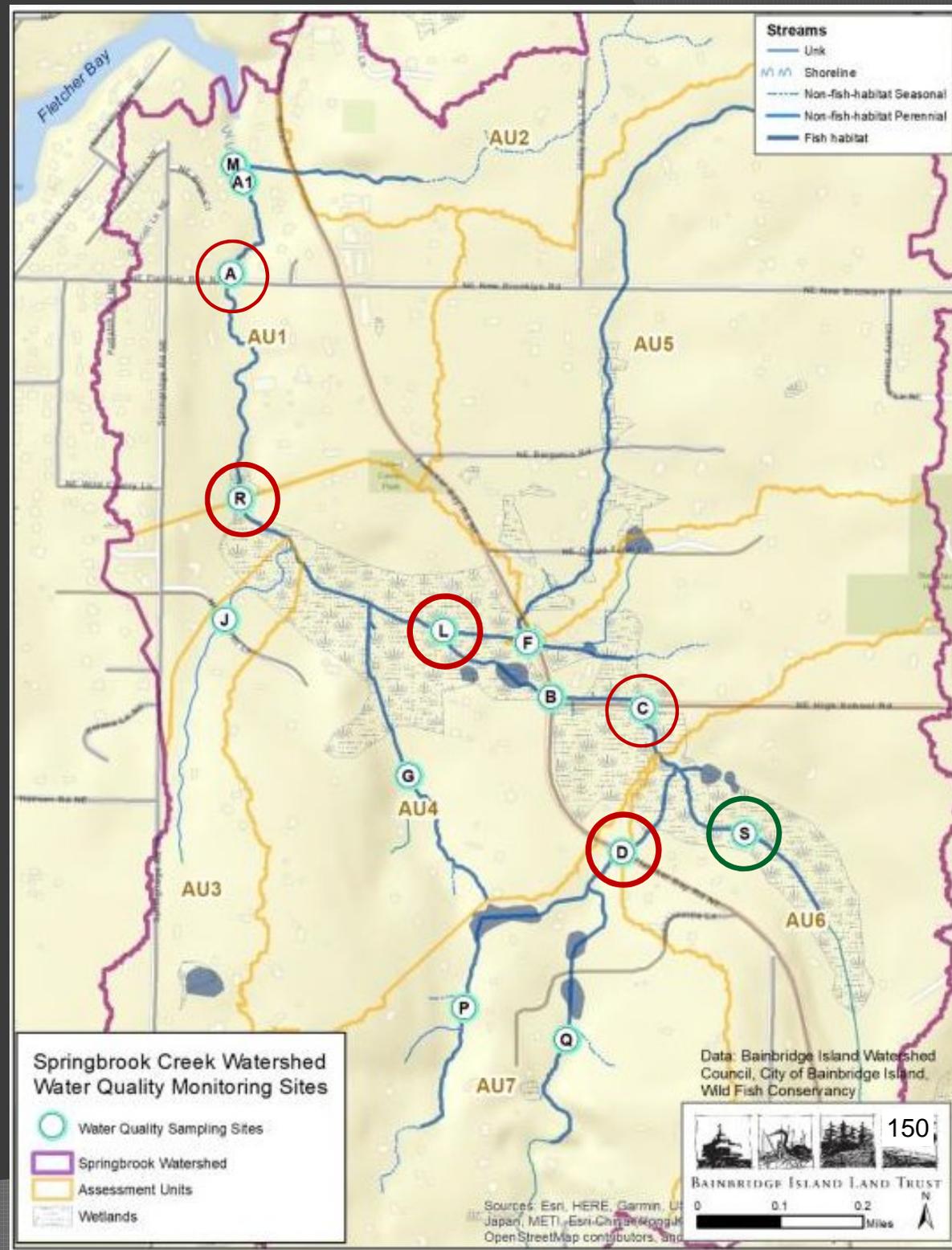
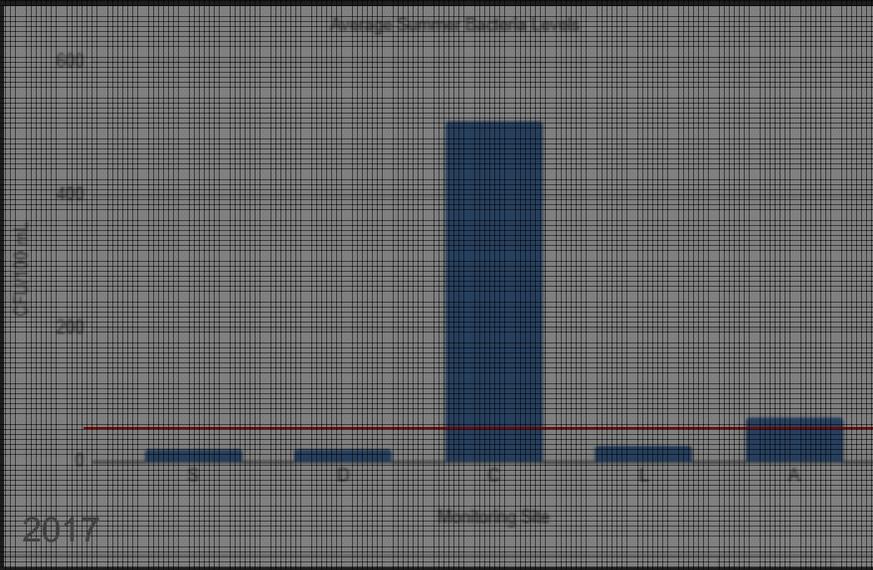
Limiting Factor: Water Quality

- 14 sites monitored throughout watershed
- Sites A & C exceeded standards for fecal coliform bacteria



Limiting Factor: Water Quality

- 14 sites monitored throughout watershed
- Sites A & C exceeded standards for fecal coliform bacteria



- Stream temp exceeds standards in summer at all but S, especially at D and L
- Dissolved O2 falls too low in summer, esp. at R

Springbrook Creek Baseline Conditions

	Upper Watershed	Mid Watershed	Lower Watershed
Aquatic Life Conditions			
In-stream physical chemistry	Fair - generally adequate levels of dissolved oxygen Temperature standards met	Poor - low dissolved oxygen and high temperatures (Core Summer Salmonid Habitat Season: May - September)	
Metals	Good	Good (no lead or copper; only zinc detected, but did not exceed acute or chronic criteria)	Good (no lead or copper; only zinc detected, but did not exceed acute or chronic criteria)
Sediment	Good	Poor	Fair
Flow (mean cfs)	Dry Season Baseflow = 0 - 0.04 Wet Season Baseflow = 0.15 - 0.43 Storm Flow = 0.35 - 0.85	Dry Season Baseflow = 0.03 - 0.44 Wet Season Baseflow = 0.39 - 2.26 Storm Flow = 1.05 - 7.86	Dry Season Baseflow = 0.90 Wet Season Baseflow = 4.19 Storm Flow = 6.16 - 9.49 (peaks = 21 and 11)
Aquatic Life Status			
Macroinvertebrates	No monitoring due to lack of suitable site and lack of landowner permission	Poor (likely stressors include animal and human waste, fine sediment, metals, low dissolved oxygen and high temp)	Fair to Good (likely stressors include animal and human waste, fine sediment, low dissolved oxygen, and high temp)
Human Health Conditions			
Fecal Coliform Bacteria	No concern	High concern	Moderate concern
Microbial Source Tracking	No sources detected	Human source detected	Human and ruminant source detected (possibly sheep, goat, wildlife; no horse or cattle)

Washington Department of Ecology
Characterization
Results for Springbrook
Creek Watershed,
Bainbridge Island, WA

Publication 18-06-006

Special thanks to:
Steven Stanley, Susan
Grisby, Colin Hume



**Characterization Results for Springbrook
Creek Watershed, Bainbridge Island,
Washington**

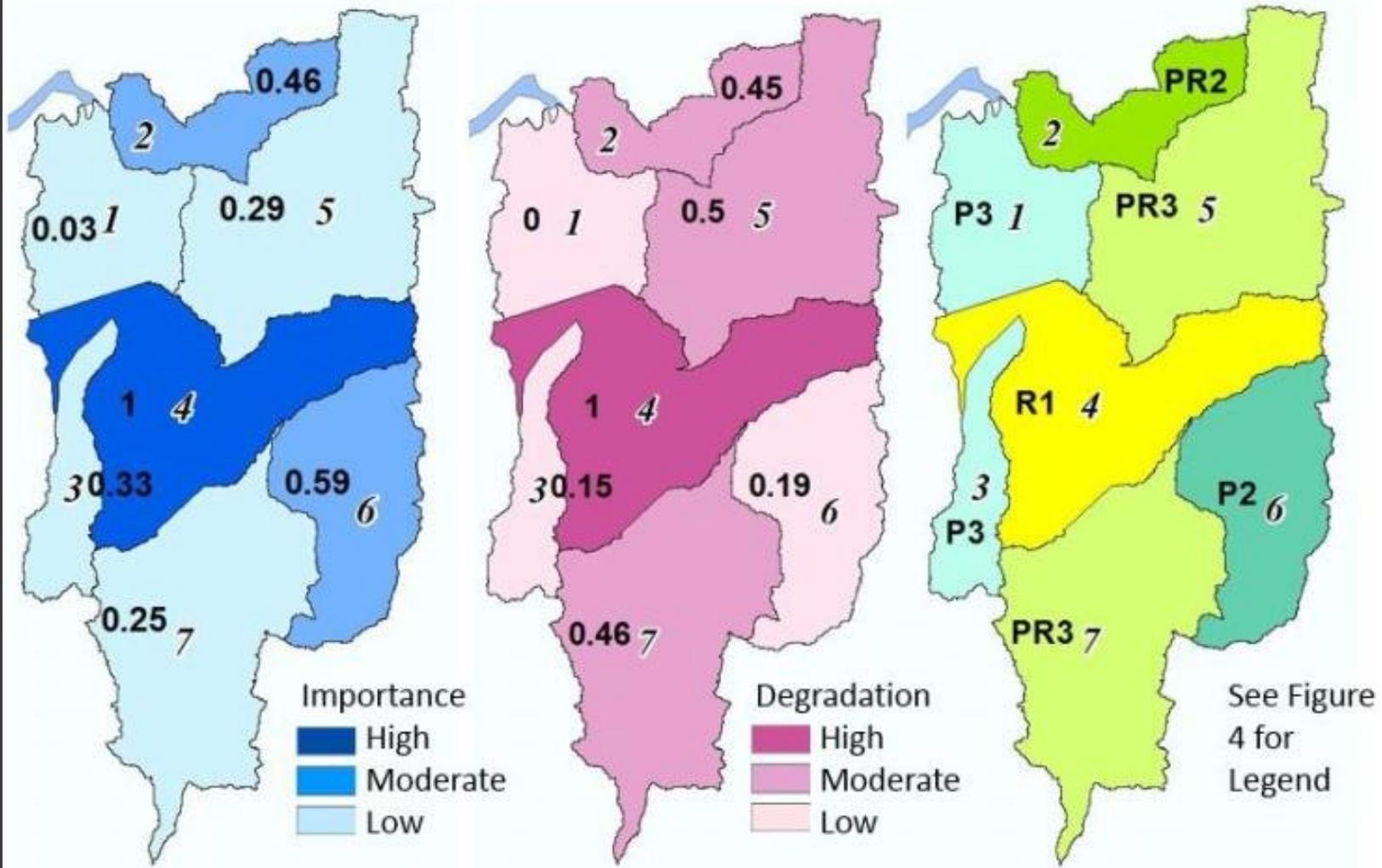


Publication 18-06-006

July 2018

Example: Surface Storage largely driven by wetlands:
 AU4 most important, then AU6

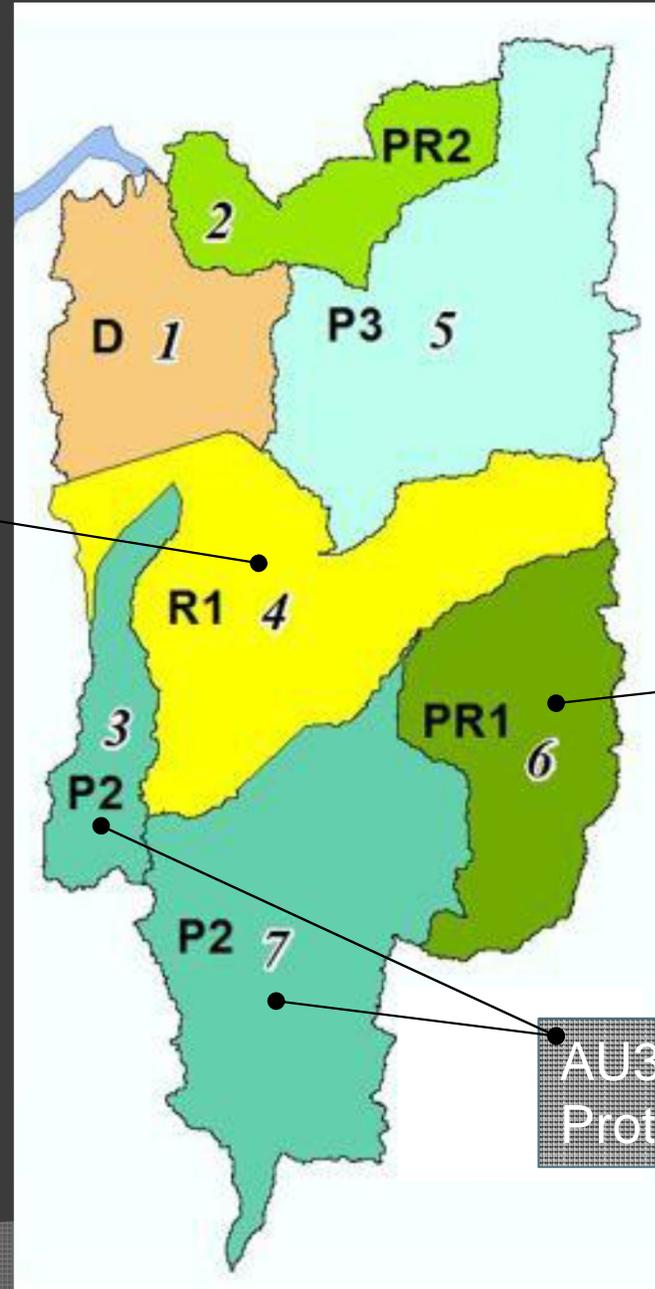
Surface Storage



Source: WDOE Publication #18-06-006

Overall Water Flow Results and Key Recommendations

AU4: Key to restoration of the overall watershed. Restore riparian and floodplain vegetation and protect intact habitats



AU6: Highest Protect/ Restore priority

AU3, AU7: Protection

After the above was achieved we reviewed and compiled

- All data
- Stream Survey
- WDOE
- Water Monitoring
- Landowner interactions

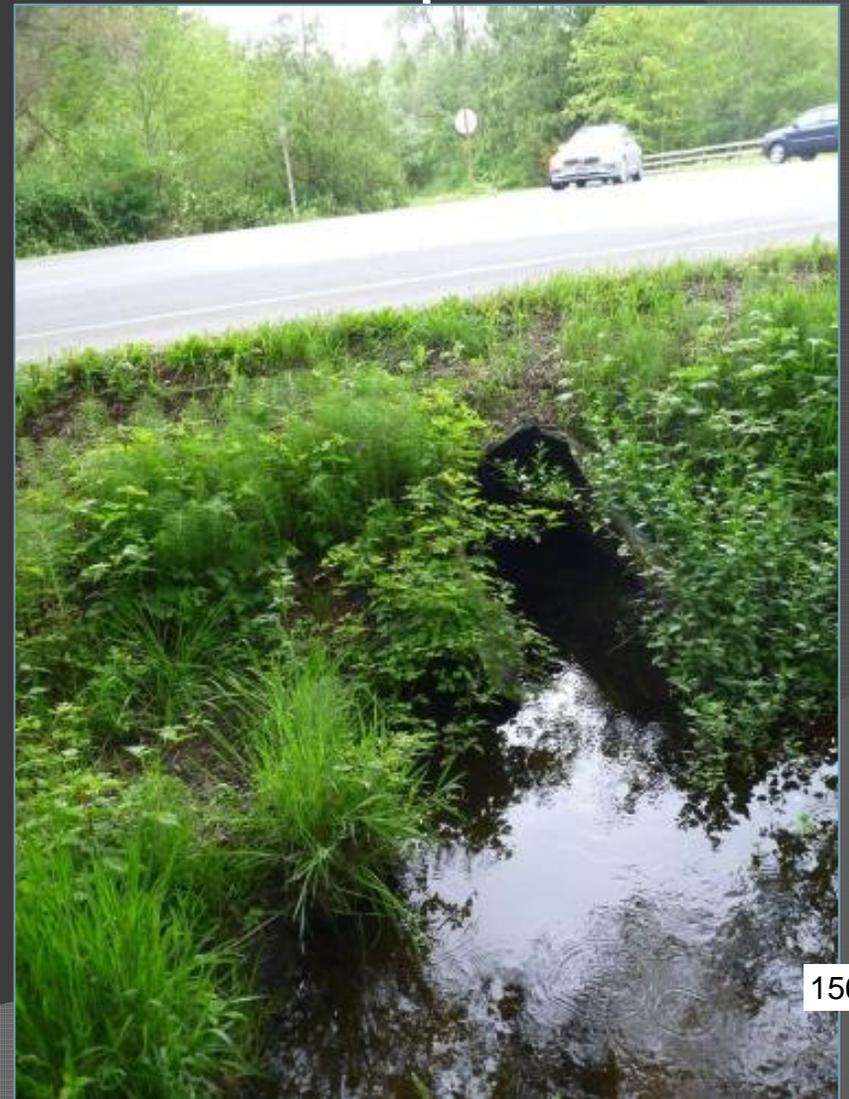
to identify areas of stress, success, priorities, and recommendations

Our Recommendations

2 main categories of strategies:

Watershed-wide

Site-specific



Watershed-wide recommended actions

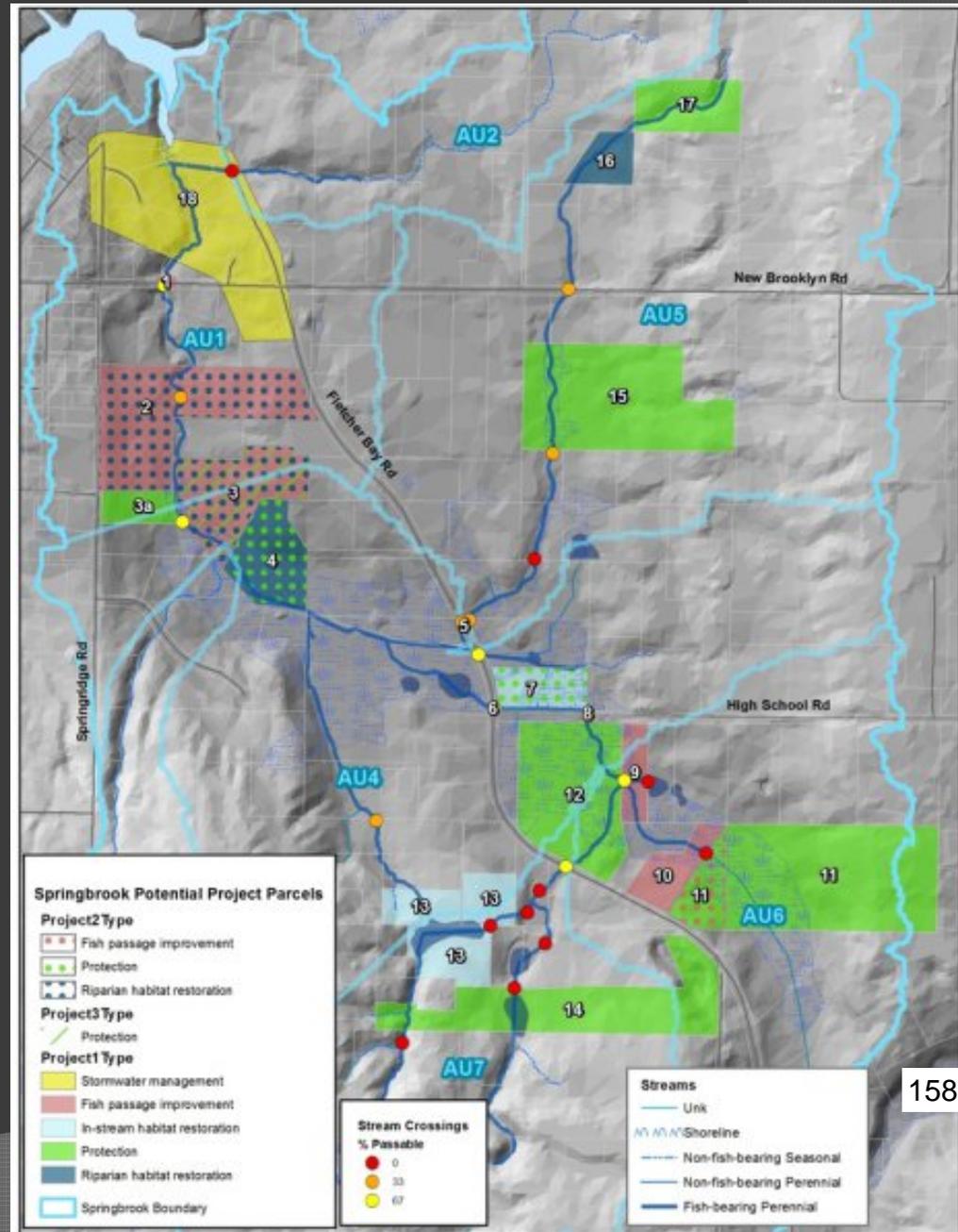
- Education and Outreach
- Restoration and Protection
- Future Culvert Replacements/Removals and Prioritization
- Stormwater Infrastructure Improvements
- Growth Management
- Water Quality Monitoring

Fletcher Bay Rd NE

Site-Specific Actions: Identified 18 potential restoration and/or protection opportunities

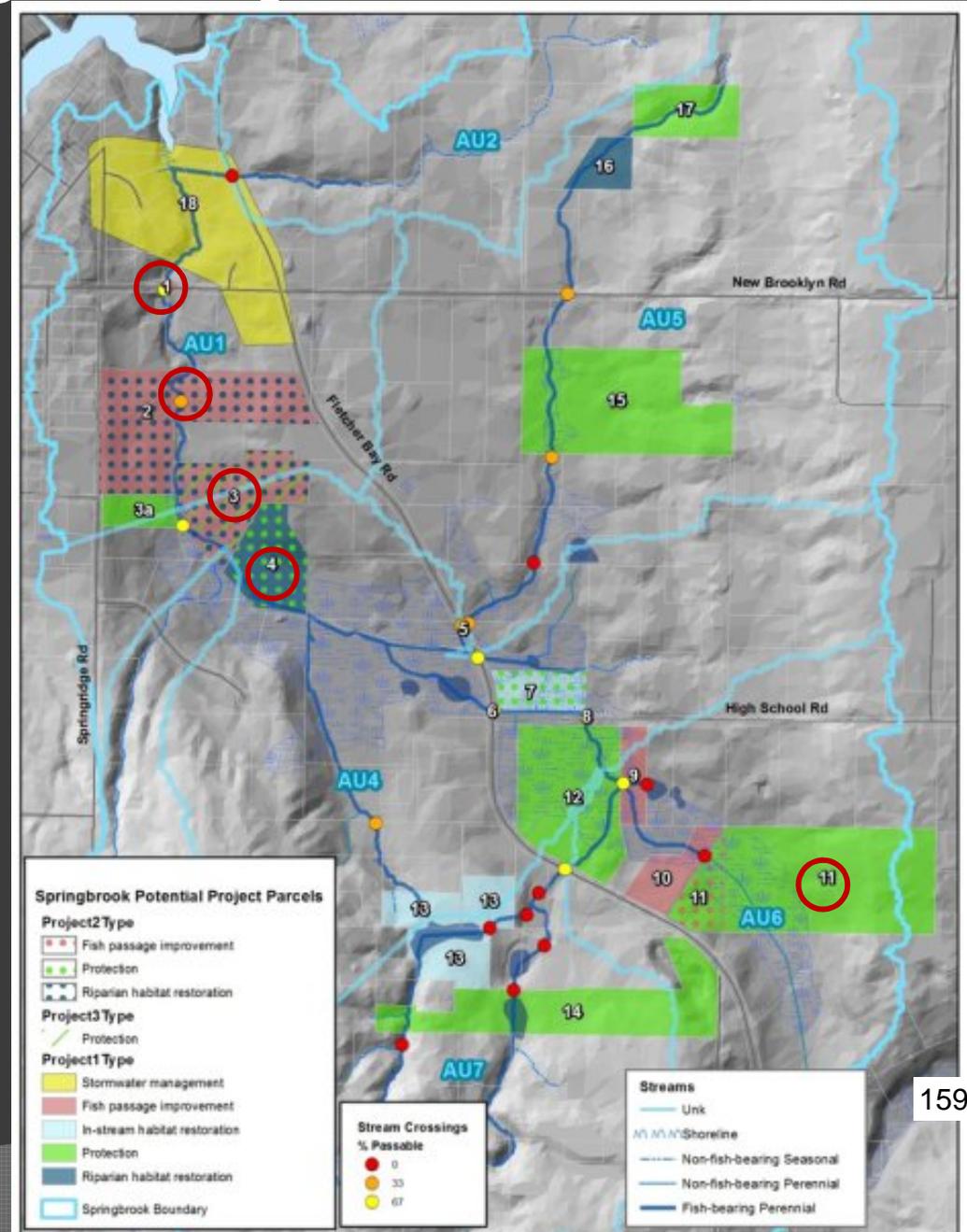
Chose our top tier based on findings, landowner willingness and:

- Impact on stressors/ limiting factors (e.g. riparian condition)
- Sequence – position within the watershed



5 Conceptual Design Projects Chosen

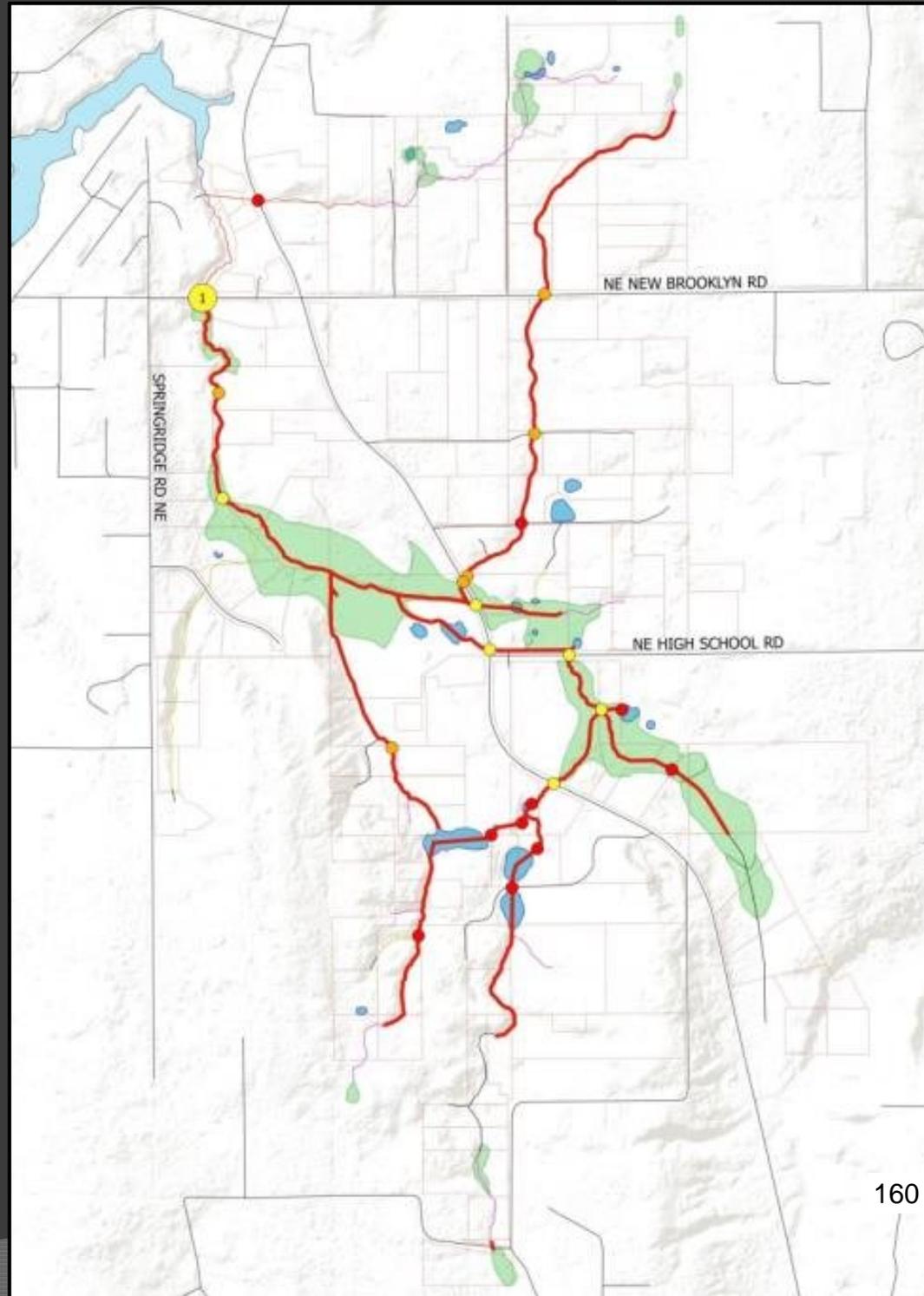
1. Fletcher Bay Culvert
2. Eddy Culvert & Riparian restoration
3. Rekow Culvert & Riparian restoration
4. Nickum riparian restoration
5. Rolling Bay Properties - protection



#1 Fletcher Bay Rd NE Culvert Replacement

First barrier upstream of estuary

3.6 miles of type F
habitat above the crossing



Fletcher Bay Rd. NE Culvert & Weirs

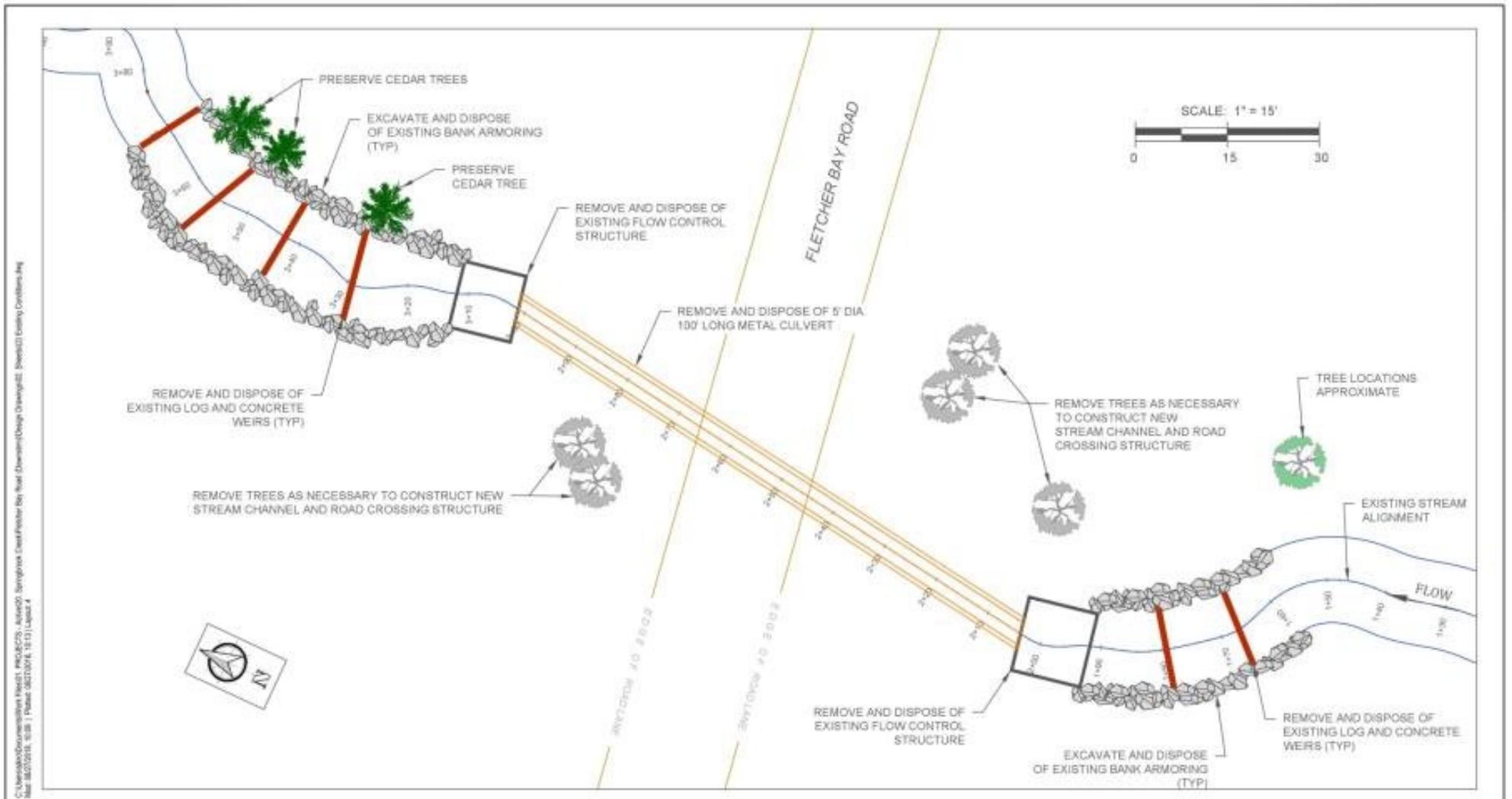


Fletcher Bay Rd. NE Culvert & Weirs

- 33% passable for adult salmonids (vertical drop) - WFC 2017
- 0% passable for juvenile salmonids, brook lamprey, sculpins, and stickleback.
- Series of 8 weirs, (5 below the culvert, 3 above) the lower weir is failing.
- WDFW PI: 24.66



Fletcher Bay: Existing Conditions



C:\Users\j\Documents\Projects\Fletcher Bay Road\Drawings\Design\Drawings\22_Sheet01 Existing Conditions.dwg
 Date: 08/21/2018, 10:58 | Plotter: 3627301A, 11D | Layout: 4

DATE:	08-21-2018
DRAWN BY:	S. KROPP
DESIGNED BY:	A. STOKRUS, P.E.
CHECKED BY:	
JOB NO.:	



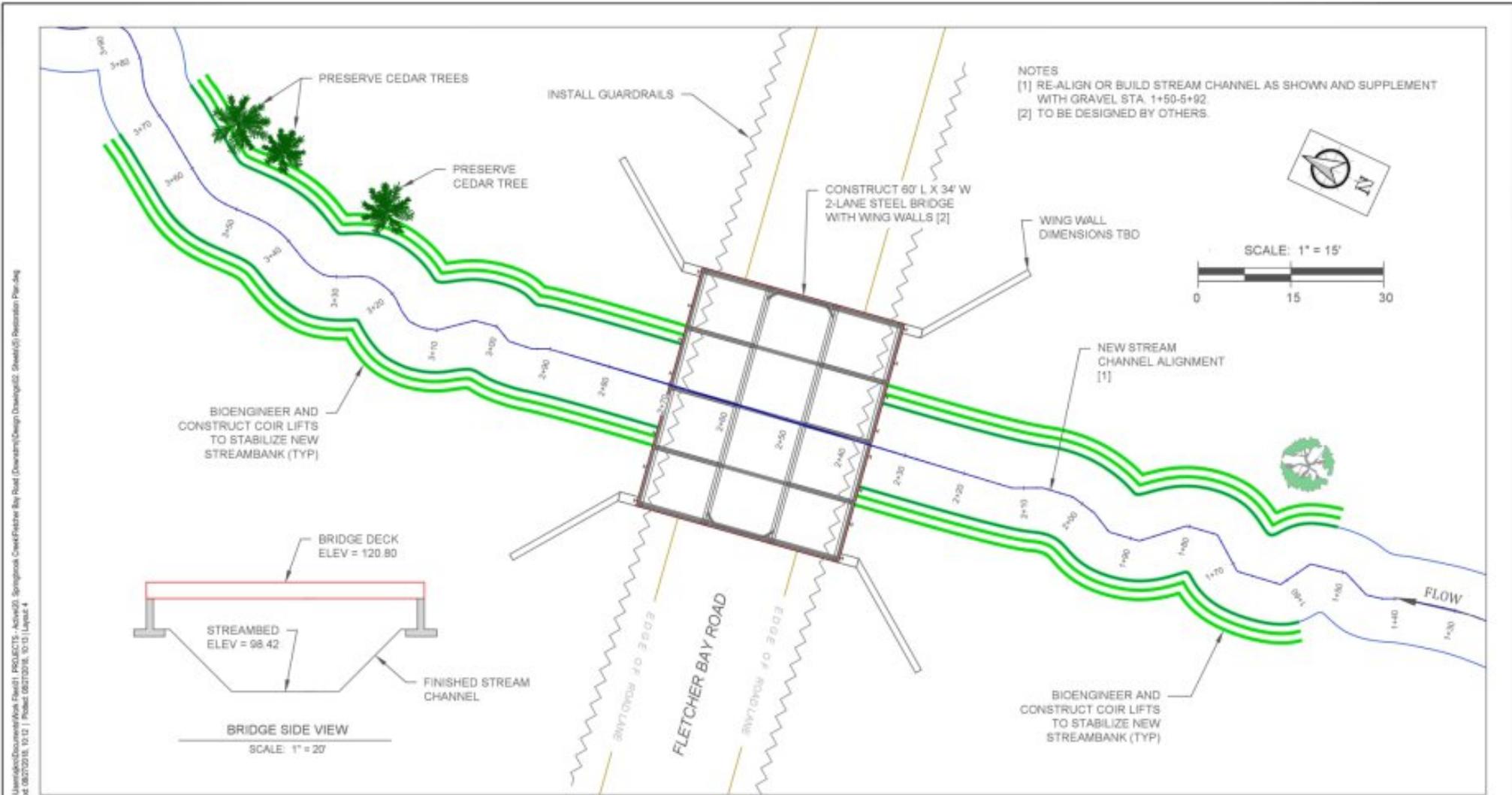
Wild Fish Conservancy
 15629 Main Street NE
 Duwell, WA 98019
 Phone: 425-788-1167

EXISTING CONDITIONS
FLETCHER BAY ROAD CULVERT REPLACEMENT
BAINBRIDGE ISLAND, WA

REVISION	DATE

SHEET NO.	1
SHEET	OF XX

Fletcher Bay: Bridge option



C:\Users\jdoon\Documents\Bak\Drawings\PROJECTS - Active\20_Springbrook Creek\Fletcher Bay Road (Drawings)\Design\Drawings\02_Sheet\05_Plan\Plan-01.dwg
 Mod: 08/27/2018, 10:10 | Plot: 08/27/2018, 10:10 Layout: 4

DATE:	08-27-2018
DRAWN BY:	S. KROPP
DESIGNED BY:	A. STONKUS, P.E.
CHECKED BY:	
JOB NO.:	



Wild Fish Conservancy
 15629 Main Street NE
 Duwitt, WA 98519
 Phone: 425-789-1167

OPTION 1: STEEL BRIDGE
FLETCHER BAY ROAD CULVERT REPLACEMENT
BAINBRIDGE ISLAND, WA

REVISIONS	DATE

SHEET NO.	2
SHEET	164
SHEET 1 of 25	

High School Road and Fletcher Bay



Additional Site-Specific opportunities:

- Island Center stormwater system upgrades
- Additional protection/restoration opportunities identified



What is next?

- Information is available for current and future endeavors – such as Island Center Subarea Planning effort
- Identify partners for implement projects
- Pursue funding sources for implementation of 5 conceptual designs
- Continue work to engage and explore other opportunities and get feedback from Springbrook Creek residents
- Prioritize culvert improvement work

Questions?



Land Trust Website:

<https://www.bi-landtrust.org/protected-spaces/springbrook-creek/>

City of Bainbridge Island Website:

<http://www.bainbridgewa.gov/868/Springbrook-Creek-Watershed-Study>

How to access the assessment

Land Trust Website:

<https://www.bi-landtrust.org/protected-spaces/springbrook-creek/>

City of Bainbridge Island Website:

<http://www.bainbridgewa.gov/868/Springbrook-Creek-Watershed-Study>



CITY OF
BAINBRIDGE ISLAND

City Council Study Session Agenda Bill

MEETING DATE: April 16, 2019

ESTIMATED TIME: 30 Minutes

AGENDA ITEM: (6:55 PM) Water and Sewer Utilities Rate Study Report and Recommendation - Public Works,

STRATEGIC PRIORITY: Reliable Infrastructure and Connected Mobility

PRIORITY BASED BUDGETING PROGRAM:

AGENDA CATEGORY: Report

PROPOSED BY: Public Works

RECOMMENDED MOTION:

Direct staff to bring back to the City Council an ordinance for implementing the water and sewer utility rate recommendations for Council approval by the end of April.

SUMMARY:

Public Works will provide an update to the recent consultant study and recommendations related to water and sewer utility rates. The changes made since the City Council meeting on March 19, 2019 are related to proposed Winslow commercial and residential sewer rates and are highlighted on slides number 7 (prior recommendation) and slide number 8 (revised recommendation) in the attached presentation.

FISCAL IMPACT:

Amount:	
Ongoing Cost:	
One-Time Cost:	
Included in Current Budget?	

BACKGROUND:

FCS Group has conducted a study of the City's water and sewer utilities and developed a recommendation for rate adjustments to ensure the financial health of the utilities. The Utilities Advisory Committee has provided significant review and input to the FCS report and recommendations over the past approximately six months and prepared a memorandum summarizing their deliberations and recommendations. FCS Group presented their recommendations to City Council on March 19, 2019.

Attached is a presentation prepared by the FCS Group with a revised recommendation following City Council discussion on March 19, 2019.

ATTACHMENTS:

[Water and Sewer Rate Study - Executive Summary v2 - Council 4 16 19.pptx](#)

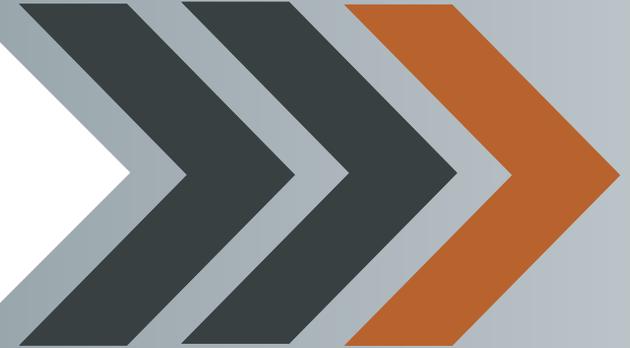
FISCAL DETAILS:

Fund Name(s):

Coding:



CITY OF
BAINBRIDGE ISLAND



Water & Sewer Rate Study

Presented by:
Chris Gonzalez, Senior Project Manager

April 16, 2019

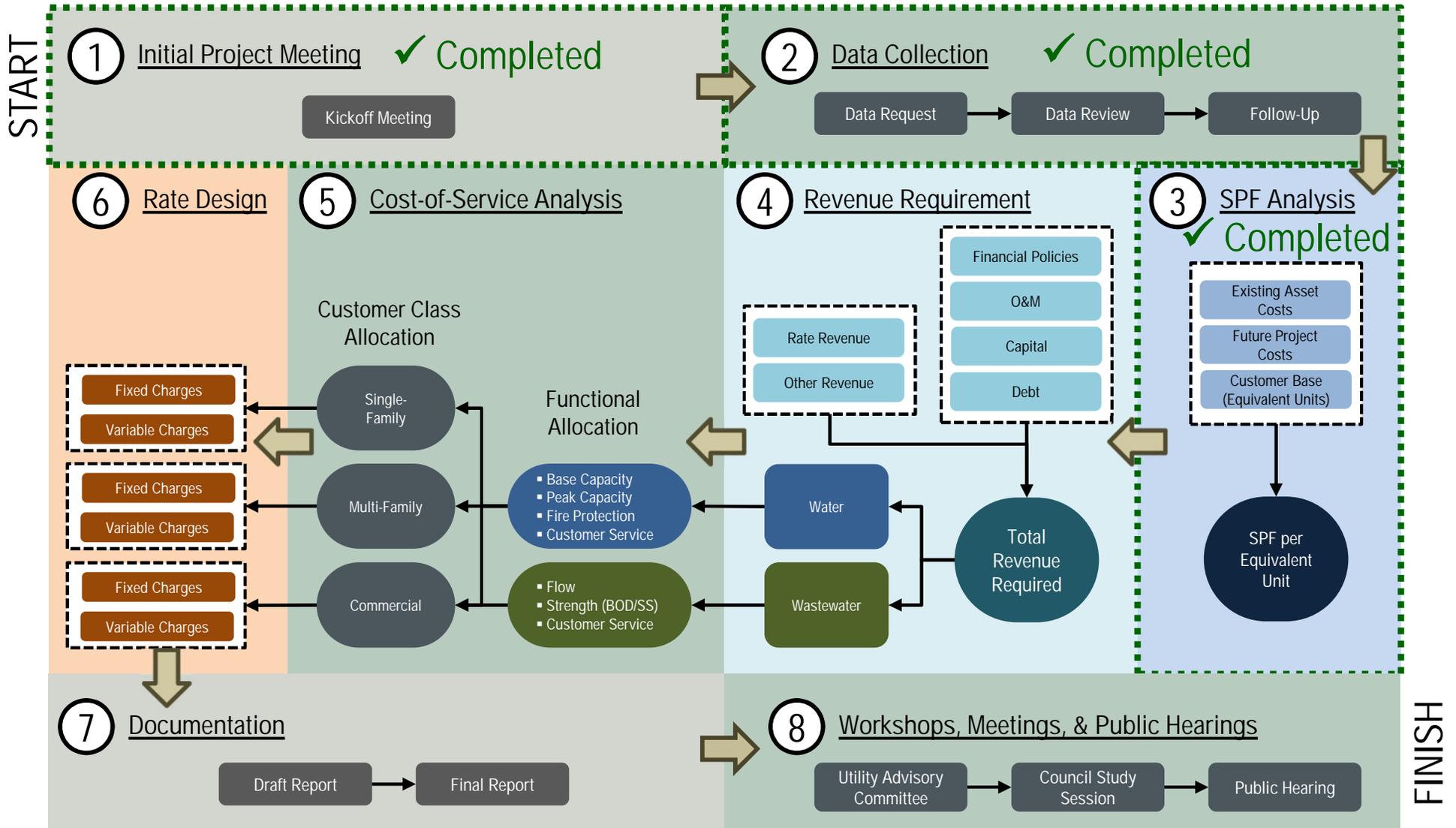


Agenda

- ◆ Overview of Project Scope
- ◆ Summary of Recommendations
 - Winslow Water Rates
 - Rockaway Beach Water Rates
 - Winslow Sewer Rates
 - South Island Sewer Rates
- ◆ Questions/Discussion



Overview of Project Scope





Winslow Water Rate Recommendations

- ◆ Target aggregate water rate revenue increases of 2.0% per year
 - Needed to keep up with rising operating costs and projected debt service
 - Increases would need to be 6.0 – 6.5% per year to cash-fund 2019 – 2024 capital plan
- ◆ Impose class-specific rate increases to reach cost of service by 2021

Water Rate Increases – Winslow	2019	2020	2021
Single-Family	+7.6%	+3.7%	+3.6%
Multi-Family	0.0%	0.0%	+0.2%
Commercial	-0.8%	0.0%	0.0%
Irrigation	-13.5%	0.0%	0.0%
Other (Mixed Use)	-23.7%	0.0%	0.0%

Beyond 2021, rate revenue increases of 2% per year would apply across the board until the next rate review

- ◆ Modify water rate structure to:
 - Consolidate the five existing mixed-use customers into commercial class (eff. 2019)
 - Move multi-family and commercial/mixed-use customers to uniform volume rates
 - Multi-family currently subject to an inclining-block volume rate
 - Commercial/mixed-use currently subject to a seasonal volume rate



Recommended Water Rates – Winslow

Monthly Water Rates: Residential	
Base Rate – Up to 3/4" Meter	
Base Rate – 1" Meter	
Base Rate – 1-1/2" Meter	
Base Rate per Living Unit	
Consumption Charge per ccf	
First 5 ccf (0 – 5 ccf)	
Next 7 ccf (6 – 12 ccf)	
Next 18 ccf (13 – 30 ccf)	
Over 30 ccf	

Single-Family				
Existing	2019	2020	2021	
\$10.77	\$11.59	\$12.02	\$12.45	
\$21.24	\$22.85	\$23.70	\$24.55	
\$38.72	\$41.65	\$43.20	\$44.75	
\$1.09	\$1.17	\$1.22	\$1.26	
\$1.76	\$1.89	\$1.96	\$2.03	
\$2.49	\$2.68	\$2.78	\$2.88	
\$3.39	\$3.65	\$3.78	\$3.92	

Multi-Family				
Existing	2019	2020	2021	
\$5.37	\$5.37	\$5.37	\$5.38	
	\$1.11	\$1.11	\$1.11	
\$1.09				
\$1.76				
\$2.49				
\$3.39				

Monthly Water Rates: Non-Residential	
Base Rate – Up to 3/4" Meter	
Base Rate – 1" Meter	
Base Rate – 1-1/2" Meter	
Base Rate – 2" Meter	
Base Rate – 3" Meter	
Base Rate – 4" Meter	
Base Rate – 6" Meter	
Consumption Charge per ccf	
Winter (November – April)	
Summer (May – October)	

Commercial/Mixed Use				
Existing ¹	2019	2020	2021	
\$16.45	\$16.33	\$16.33	\$16.33	
\$36.40	\$36.12	\$36.12	\$36.12	
\$69.78	\$69.25	\$69.25	\$69.25	
\$109.52	\$108.69	\$108.69	\$108.69	
\$215.89	\$214.25	\$214.25	\$214.25	
\$335.55	\$333.00	\$333.00	\$333.00	
\$667.94	\$662.87	\$662.87	\$662.87	
	\$1.54	\$1.54	\$1.54	
\$1.43				
\$1.65				

Irrigation				
Existing	2019	2020	2021	
\$4.73	\$4.09	\$4.09	\$4.09	
\$6.22	\$5.38	\$5.38	\$5.38	
\$8.70	\$7.53	\$7.53	\$7.53	
\$11.70	\$10.12	\$10.12	\$10.13	
\$19.64	\$16.99	\$16.99	\$17.00	
\$28.59	\$24.74	\$24.74	\$24.75	
\$53.47	\$46.26	\$46.26	\$46.28	
\$3.89	\$3.37	\$3.37	\$3.37	

¹Mixed-use customers currently pay a base rate that is ≈ 50% higher than the applicable commercial base rates.



Rockaway Beach Water Rate Recommendations

- ◆ Modify water rate structure to:
 - Consolidate Rockaway Beach into Winslow single-family class (effective 2020)

Recommended Water Rates	Rockaway Beach			
	Existing	2019	2020	2021
Annual Water Rate Increase		0.0%	3.3%	3.6%
Base Rate – Up to 3/4" Meter	\$11.64	\$11.64	\$12.02	\$12.45
Base Rate – 1" Meter	\$22.94	\$22.94	\$23.70	\$24.55
Base Rate – 1-1/2" Meter	\$41.85	\$41.85	\$43.20	\$44.75
Consumption Charge per ccf				
First 5 ccf (0 – 5 ccf)	\$1.18	\$1.18	\$1.22	\$1.26
Next 7 ccf (6 – 12 ccf)	\$1.90	\$1.90	\$1.96	\$2.03
Next 18 ccf (13 – 30 ccf)	\$2.69	\$2.69	\$2.78	\$2.88
Over 30 ccf	\$3.66	\$3.66	\$3.78	\$3.92

Beyond 2021, rate revenue increases of 2% per year would apply across the board until the next rate review



Winslow Sewer Rate Recommendations 3/19/19

- ◆ Target aggregate sewer rate revenue increases of 2.0% per year
 - Needed to cover projected new debt service attributable to 2019 – 2014 capital plan
 - Increases would need to be 4.0 – 4.5% per year to cash-fund 2019 – 2024 capital plan
- ◆ Impose class-specific rate increases to reach cost of service by 2021

Sewer Rate Increases – Winslow		2019	2020	2021
Single-Family				
Annual Rate Increase		-3.2%	-3.2%	-3.2%
Monthly Base Charge per Unit	\$42.69	\$41.32	\$40.00	\$38.74
Volume Charge per ccf ¹	\$7.28	\$7.05	\$6.82	\$6.61
Sewer-Only Base Charge per ERU	\$119.80	\$115.97	\$112.26	\$108.72
Multi-Family				
Annual Rate Increase		-5.1%	-8.2%	-12.4%
Monthly Base Charge per Unit	\$37.39	\$35.12	\$31.33	\$25.79
Volume Charge per ccf ¹	\$7.28	\$7.05	\$6.82	\$6.61
Commercial				
Annual Rate Increase		+19.1%	+19.1%	+19.0%
Monthly Base Charge per Unit	\$123.69	\$126.16	\$128.69	\$131.26
Volume Charge per ccf	\$7.28	\$9.47	\$12.10	\$15.23
Sewer-Only Base Charge per ERU	\$129.43	\$154.15	\$183.59	\$218.47

Multi-family volume charge is decreased with the single-family charge; remainder of decrease factored into base charge per unit.

Commercial base charge is increased by 2% per year; remainder of increase factored into volume charge.

Beyond 2021, rate revenue increases would apply across the board until the next rate review

¹From mid-Jun – mid-Sep, residential users are billed for their average water usage from mid-December through mid-May.



Winslow Sewer Rate Recommendations Revised

- ◆ Target aggregate sewer rate revenue increases of 2.0% per year
 - Needed to cover projected new debt service attributable to 2019 – 2014 capital plan
 - Increases would need to be 4.0 – 4.5% per year to cash-fund 2019 – 2024 capital plan
- ◆ Impose class-specific rate increases to reach cost of service by 2021

Sewer Rate Increases – Winslow		2019	2020	2021
Single-Family				
Annual Rate Increase		0.0%	0.0%	0.0%
Monthly Base Charge per Unit	\$42.69	\$42.69	\$42.69	\$42.69
Volume Charge per ccf ¹	\$7.28	\$7.28	\$7.28	\$7.28
Sewer-Only Base Charge per ERU	\$119.80	\$119.80	\$119.80	\$119.80
Multi-Family				
Annual Rate Increase		0.0%	0.0%	0.0%
Monthly Base Charge per Unit	\$37.39	\$37.39	\$37.39	\$37.39
Volume Charge per ccf ¹	\$7.28	\$7.28	\$7.28	\$7.28
Commercial				
Annual Rate Increase		+7.8%	+7.5%	+7.3%
Monthly Base Charge per Unit	\$123.69	\$126.16	\$128.69	\$131.26
Volume Charge per ccf	\$7.28	\$8.12	\$8.99	\$9.90
Sewer-Only Base Charge per ERU	\$129.43	\$139.53	\$149.99	\$160.89

Residential rates are kept at their existing level.

Commercial base charge is increased by 2% per year; remainder of increase factored into volume charge.

Beyond 2021, rate revenue increases of 2% per year would apply across the board until the next rate review

¹From mid-Jun – mid-Sep, residential users are billed for their average water usage from mid-December through mid-May.



South Island Sewer Rate Recommendations

- ◆ Also reflects aggregate sewer rate revenue increases of 2.0% per year
- ◆ Impose class-specific rate increases to reach cost of service by 2021

Monthly Sewer Rates: Single-Family Residential	South Island Sewer ¹			
	Existing	2019	2020	2021
Annual Rate Increase ²		+6.0%	+6.3%	+6.2%
With Grinder Pump	\$23.59	\$25.00	\$26.58	\$28.22
No Grinder Pump	\$19.42	\$20.58	\$21.88	\$23.23

Beyond 2021, rate revenue increases of 2% per year would apply across the board until the next rate review

¹South Island Sewer customers also pay \$58.71 per ERU per month for KCSD #7 treatment service.

²Rate increases only apply to the City's portion of the rate.

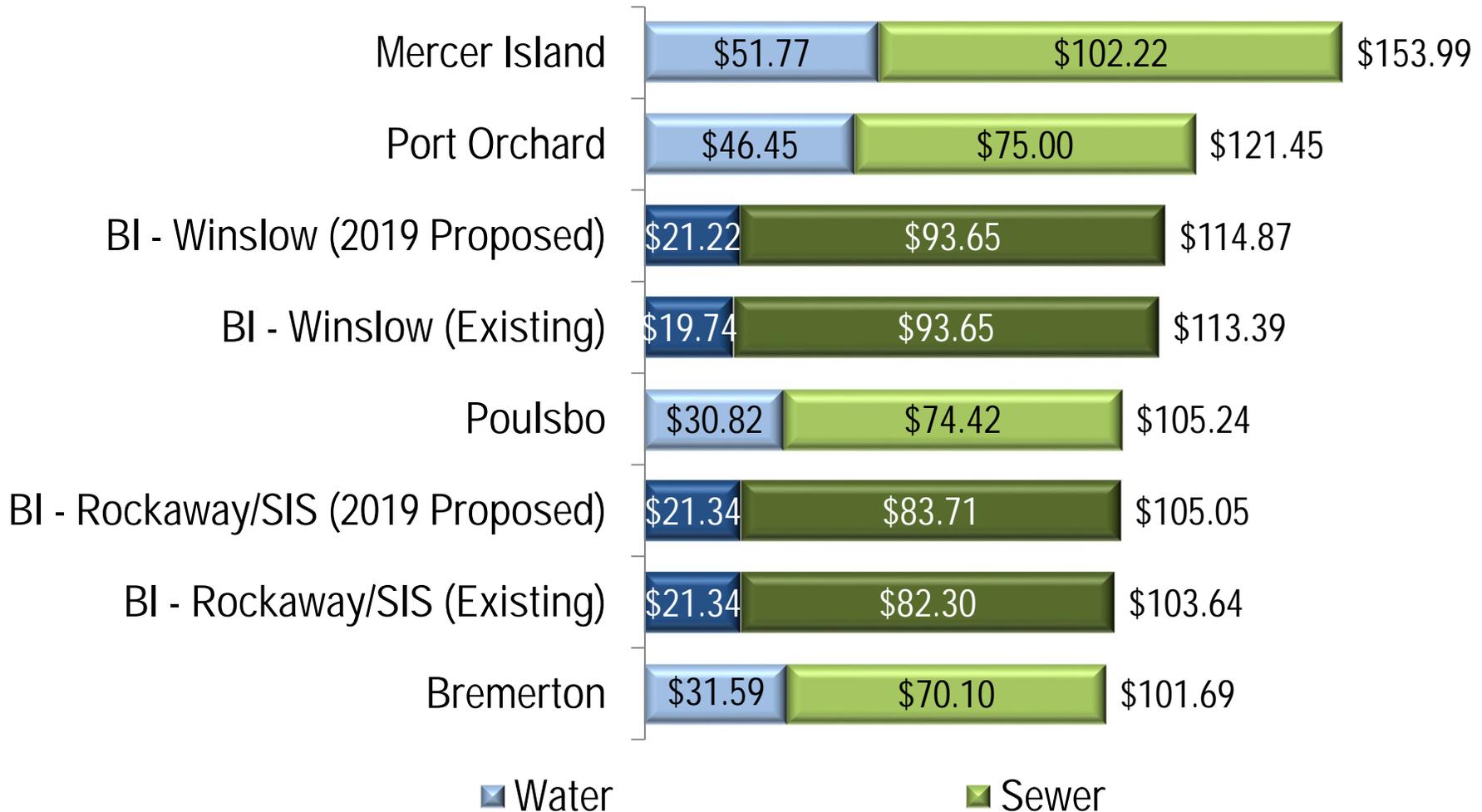


Sample Monthly Bill Impacts – Residential

Monthly Bill	Mar-Apr Usage	Existing (2019)	Phased COS (Recommended)			Sep-Oct Usage	Existing (2019)	Phased COS (Recommended)		
			2019	2020	2021			2019	2020	2021
Winslow Single Fam. (3/4")										
Water Bill	4 ccf	\$ 15.13	\$ 16.27	\$ 16.90	\$ 17.49	7 ccf	\$ 19.74	\$ 21.22	\$ 22.04	\$ 22.81
Sewer Bill	4 ccf	71.81	71.81	71.81	71.81	3 ccf	64.53	64.53	64.53	64.53
Total Bill		\$ 86.94	\$ 88.08	\$ 88.71	\$ 89.30		\$ 84.27	\$ 85.75	\$ 86.57	\$ 87.34
% Δ From Prior Year			+1.3%	+0.7%	+0.7%			+1.8%	+1.0%	+0.9%
Rockaway Beach SF (3/4")										
Water Bill	5 ccf	\$ 17.54	\$ 17.54	\$ 18.12	\$ 18.75	3 ccf	\$ 15.18	\$ 15.18	\$ 15.68	\$ 16.23
Sewer Bill (City)	5 ccf	23.59	25.00	26.58	28.22	6 ccf	23.59	25.00	26.58	28.22
Sewer Bill (KCSD #7)		58.71	58.71	58.71	58.71		58.71	58.71	58.71	58.71
Total Bill		\$ 99.84	\$ 101.25	\$ 103.41	\$ 105.68		\$ 97.48	\$ 98.89	\$ 100.97	\$ 103.16
% Δ From Prior Year			+1.4%	+2.1%	+2.2%			+1.4%	+2.1%	+2.2%
Multi-Family A (1", 60 Units)										
Water Bill	100 ccf	\$ 431.20	\$ 433.20	\$ 433.20	\$ 433.80	187 ccf	\$ 526.03	\$ 529.77	\$ 529.77	\$ 530.37
Sewer Bill	100 ccf	2,971.40	2,971.40	2,971.40	2,971.40	187 ccf	3,604.76	3,604.76	3,604.76	3,604.76
Total Bill		\$ 3,402.60	\$ 3,404.60	\$ 3,404.60	\$ 3,405.20		\$ 4,130.79	\$ 4,134.53	\$ 4,134.53	\$ 4,135.13
% Δ From Prior Year			+0.1%	0.0%	0.0%			+0.1%	0.0%	0.0%
Multi-Family B (2", 50 Units)										
Water Bill	132 ccf	\$ 412.38	\$ 415.02	\$ 415.02	\$ 415.52	312 ccf	\$ 650.12	\$ 614.82	\$ 614.82	\$ 615.32
Sewer Bill	132 ccf	2,830.46	2,830.46	2,830.46	2,830.46	312 ccf	4,140.86	4,140.86	4,140.86	4,140.86
Total Bill		\$ 3,242.84	\$ 3,245.48	\$ 3,245.48	\$ 3,245.98		\$ 4,790.98	\$ 4,755.68	\$ 4,755.68	\$ 4,756.18
% Δ From Prior Year			+0.1%	0.0%	0.0%			-0.7%	0.0%	0.0%



Sample Monthly Bill – 3/4" Single-Family @ 7 ccf



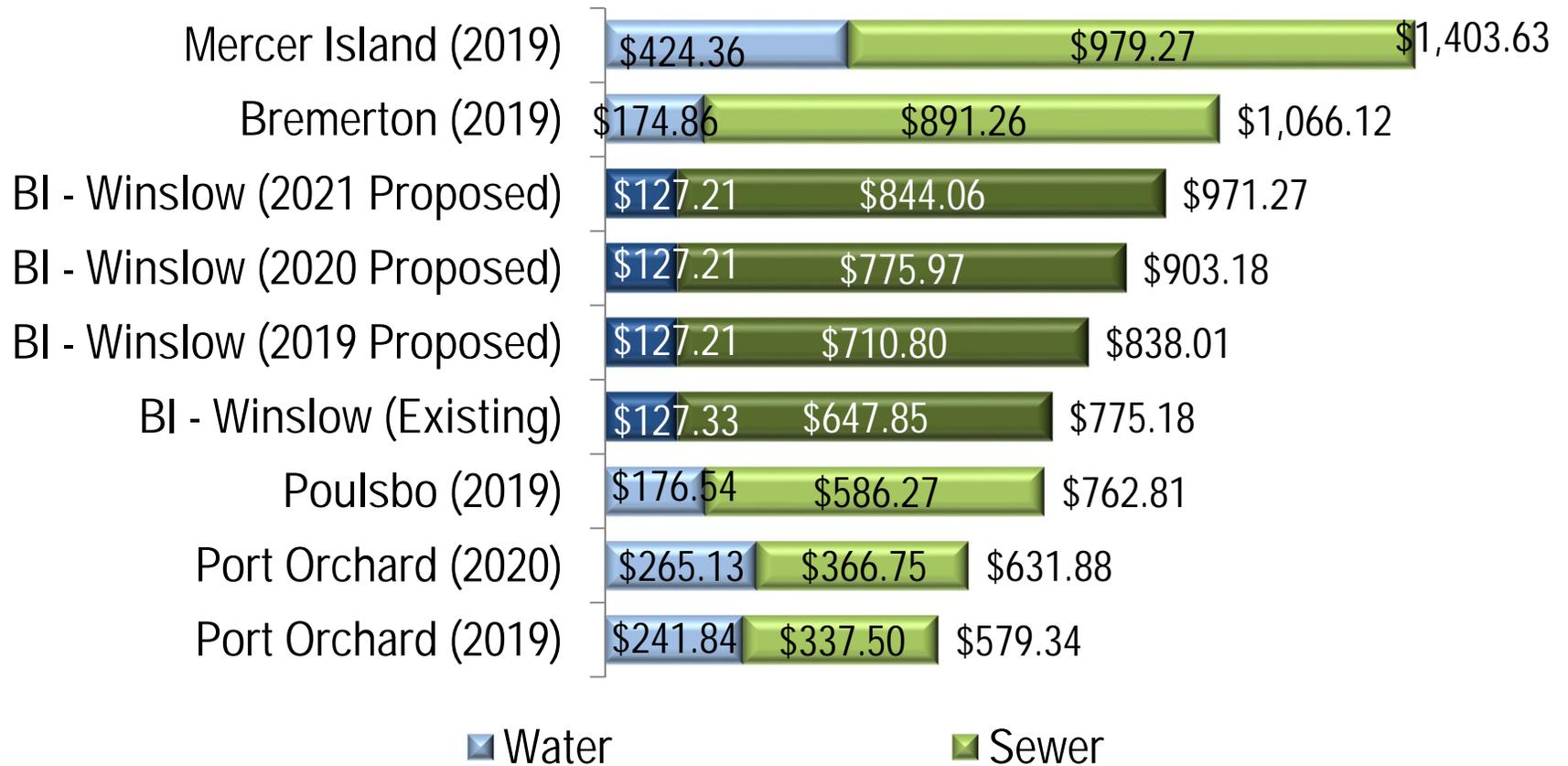


Sample Monthly Bill Impacts – Non-Residential

Monthly Bill	Mar-Apr Usage	Existing (2019)	Phased COS (Recommended)			Sep-Oct Usage	Existing (2019)	Phased COS (Recommended)		
			2019	2020	2021			2019	2020	2021
Restaurant (3/4")										
Water Bill	61 ccf	\$ 103.68	\$ 110.27	\$ 110.27	\$ 110.27	82 ccf	\$ 151.75	\$ 142.61	\$ 142.61	\$ 142.61
Sewer Bill	61 ccf	567.77	621.48	677.08	735.16	82 ccf	720.65	792.00	865.87	943.06
Total Bill		\$ 671.45	\$ 731.75	\$ 787.35	\$ 845.43		\$ 872.40	\$ 934.61	\$ 1,008.48	\$ 1,085.67
% Δ From Prior Year			+9.0%	+7.6%	+7.4%			+7.1%	+7.9%	+7.7%
Church (1-1/2")										
Water Bill	13 ccf	\$ 88.37	\$ 89.27	\$ 89.27	\$ 89.27	24 ccf	\$ 109.38	\$ 106.21	\$ 106.21	\$ 106.21
Sewer Bill	13 ccf	218.33	231.72	245.56	259.96	24 ccf	298.41	321.04	344.45	368.86
Total Bill		\$ 306.70	\$ 320.99	\$ 334.83	\$ 349.23		\$ 407.79	\$ 427.25	\$ 450.66	\$ 475.07
% Δ From Prior Year			+4.7%	+4.3%	+4.3%			+4.8%	+5.5%	+5.4%
Hotel (3")										
Water Bill	29 ccf	\$ 257.36	\$ 258.91	\$ 258.91	\$ 258.91	61 ccf	\$ 316.54	\$ 308.19	\$ 308.19	\$ 308.19
Sewer Bill	29 ccf	334.81	361.64	389.40	418.36	61 ccf	567.77	621.48	677.08	735.16
Total Bill		\$ 592.17	\$ 620.55	\$ 648.31	\$ 677.27		\$ 884.31	\$ 929.67	\$ 985.27	\$ 1,043.35
% Δ From Prior Year			+4.8%	+4.5%	+4.5%			+5.1%	+6.0%	+5.9%
School District (2")										
Water Bill	66 ccf	\$ 203.90	\$ 210.33	\$ 210.33	\$ 210.33	47 ccf	\$ 187.07	\$ 181.07	\$ 181.07	\$ 181.07
Sewer Bill	66 ccf	604.17	662.08	722.03	784.66	47 ccf	465.85	507.80	551.22	596.56
Total Bill		\$ 808.07	\$ 872.41	\$ 932.36	\$ 994.99		\$ 652.92	\$ 688.87	\$ 732.29	\$ 777.63
% Δ From Prior Year			+8.0%	+6.9%	+6.7%			+5.5%	+6.3%	+6.2%



Sample Monthly Bill – Restaurant with 3/4" Meter @ 72 ccf*



*Assumes seating capacity of 100 and average BOD/TSS of 800 mg/L



Questions / Discussion



Chris Gonzalez
Senior Project Manager
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(425) 502-6280

Contact FCS GROUP:
(425) 867-1802
www.fcsgroup.com



CITY OF
BAINBRIDGE ISLAND

City Council Study Session Agenda Bill

MEETING DATE: April 16, 2019

ESTIMATED TIME: 10 Minutes

AGENDA ITEM: (7:25 PM) Update on Moratorium - Planning,

STRATEGIC PRIORITY: Green, Well-Planned Community

PRIORITY BASED BUDGETING PROGRAM:

AGENDA CATEGORY: Report

PROPOSED BY: Planning & Community Development

RECOMMENDED MOTION:

Moratorium work program and status update. Respond to City Council questions and discussion.

SUMMARY:

City staff have been working to address the issues identified in the development moratorium (Ordinance No. 2018-02, amended by Ordinances Nos. 2018-03, 2018-05, 2018-09, 2018-14, 2018-23, 2018-41, and 2019-10).

On March 26, 2019, after conducting another public hearing regarding the current moratorium on certain development, the City Council adopted Ordinance No. 2019-10 (effective date April 3, 2019) which will extend the moratorium for an additional six months, unless the Council decides to terminate the moratorium earlier based on new information or on completion of remaining tasks on the moratorium work plan. The development moratorium is scheduled to expire on October 3, 2019, unless the Council takes further action before such date.

See attached Work Program Status Report, Ordinance No. 2019-10, and summary.

FISCAL IMPACT:

Amount:	
Ongoing Cost:	
One-Time Cost:	
Included in Current Budget?	

BACKGROUND:

ATTACHMENTS:

[20190404 Moratorium work program status report.docx](#)

[Ordinance No. 2019-10 Extending the Development Moratorium](#)

[Development Moratorium Summary Effective 20190403.docx](#)

FISCAL DETAILS:

Fund Name(s):

Coding:

Moratorium on Accepting Certain Development Applications: Work Program Status Report – April 4, 2019

Note: Substantive changes to this document since the last version to the City Council are included in blue text.

Moratorium Topic	Status	Timeline
<p>Critical Areas Ordinance (CAO)</p>	<p>The development moratorium was amended by the City Council on April 24, 2018 to continue to apply within the City's shoreline jurisdiction areas (Ordinance 2018-14). This effectively applied the aquifer recharge protection area (ARPA) requirement in the shoreline, although the change did not apply other provisions of the CAO update within the shoreline. At its October 16, 2018 study session, the Council made the policy decision to not include the ARPA requirement in the shoreline area. This policy decision means that "Part B" of the moratorium could be removed. On November 13, 2018, the Council adopted Ordinance 2018-43 (effective date November 21) removing "Part B" (i.e., the ARPA requirement) from the moratorium.</p> <p>The City has a Shoreline Master Program (SMP) Amendment in process to integrate the updated critical areas regulations into the SMP.</p>	<p>On September 11, 2018, the City Council held a public hearing on the SMP amendment. The Council held study sessions on October 2 and 16, 2018, and is continuing to consider the amendment at subsequent Council meetings (see below). The Public Comment Period expired on November 9, 2018.</p> <p>The joint state/local review process requires that the draft amendment and a summary of response to comments be transmitted to the Department of Ecology within 30 days after the end of the Public Comment Period. City staff has requested an extension for this transmittal until January 31, 2019. In the meantime, comments are still being accepted and considered by staff and the Council as part of the Council's ongoing consideration of the SMP amendment.</p> <p>On November 27, 2018, the Council discussed the SMP amendment relating to integration of critical area regulations and regarding nonconforming structures, uses, and lots. On December 11, 2018, the Council discussed this matter and instructed staff to prepare a resolution to transmit the SMP amendment to</p>

Moratorium on Accepting Certain Development Applications: Work Program Status Report – April 4, 2019

Note: Substantive changes to this document since the last version to the City Council are included in blue text.

Moratorium Topic	Status	Timeline
		<p>the Department of Ecology for its SMA consistency review.</p> <p>On January 8, 2019, the Council passed Resolution No. 2019-05 approving the draft amendment and authorizing staff to transmit the proposed SMP amendment to the Department of Ecology for initial review. The draft SMP amendment is expected to be transmitted to Ecology in April 2019. Ecology then sends back the draft amendment with recommended changes and the Council locally adopts the amendment. It is then sent back to Ecology for final approval. The amendment process is expected to be completed in summer 2019.</p>
<p>Status on April 4, 2019:</p>	<p>Complete: CAO update effective outside shoreline jurisdiction. Incomplete: Applicability of CAO update within shoreline jurisdiction.</p>	

Moratorium on Accepting Certain Development Applications: Work Program Status Report – April 4, 2019

Note: Substantive changes to this document since the last version to the City Council are included in blue text.

Moratorium Topic	Status	Timeline
<p>Subdivisions</p>	<p>The subdivision update includes three components:</p> <ul style="list-style-type: none"> • Revisions to review process, decision criteria, and decision-making authority • Creation of new design guidelines • Revisions to subdivision standards <p>The Planning Commission completed its review of all three components.</p> <p>The Council accepted the Planning Commission recommendations related to the role of the Planning Commission and Design Review Board in reviewing and making recommendations on preliminary decisions on subdivisions. However, the Council did not agree to the Planning Commission’s recommendation that the Council be the decision-maker for preliminary decisions on subdivisions (i.e., preliminary plat approval).</p> <p>On September 25, 2018, the Council removed two-lot short subdivisions in which there is an existing single-family residence from the moratorium with the adoption of Ordinance 2018-41.</p>	<p>Next City Council discussion TBD (April 16 or May 7)</p> <p>April 2: City Council discussion</p> <p>March 26: City Council discussion</p> <p>March 19: City Council first reading (staff transmittal of Planning Commission recommendation)</p> <p>On September 27, October 25, and November 8, 2018, the Planning Commission met to discuss subdivision standards and the review process. The Planning Commission continued its discussion in November and December 2018, and in January 2019.</p> <p>On October 23, 2018, the City Council held a public hearing related to Planning Commission/DRB review and recommended roles. The Council deferred taking action until receiving all of the forthcoming Planning Commission recommendations on subdivision design guidelines, standards, review process, and decision criteria.</p>

Moratorium on Accepting Certain Development Applications: Work Program Status Report – April 4, 2019

Note: Substantive changes to this document since the last version to the City Council are included in blue text.

	<p>The second two components of the subdivision update – new design guidelines and revised standards – are being discussed by the City Council. It is anticipated the City Council will hold a public hearing related to the subdivision update in late May or early June.</p>	<p>On December 4, 2018, the Council discussed Ordinance 2018-20, related to revisions to land use review procedures for major projects, including subdivisions, and on December 11, 2018, held a public hearing and approved the ordinance.</p> <p>On January 8, 2019, the Council adopted Resolution No. 2019-02, updating the administrative manual to address development review process code amendments in Chapter 2.16, BIMC.</p>
<p>Status on April 4, 2019:</p>	<p>Complete: Ordinance 2018-20 approved by the City Council on December 11, 2018, related to revisions to land use review procedures for major projects, including subdivisions. Planning Commission review of revised subdivision standards.</p> <p>Incomplete: City Council review and approval of subdivision update – new design guidelines and revised standards.</p>	

Moratorium on Accepting Certain Development Applications: Work Program Status Report – April 4, 2019

Note: Substantive changes to this document since the last version to the City Council are included in blue text.

Moratorium Topic	Status	Timeline
<p>Design Guidelines Update (related to Site Plan and Design Review and Conditional Use Permits).</p>	<p>A RFQ for professional services was published and closed on August 17, 2018. On October 23, 2018, the City Council authorized a professional services agreement with Framework to produce an updated set of design guidelines (Chapter 18.18 BIMC).</p>	<p>The consultant met with the Design Review Board (DRB) on March 18 to discuss the existing conditions report and draft design guidelines. The existing conditions report should be available to the public by mid-April.</p> <p>On November 13, 2018, a kick-off meeting with the consultant was held with the DRB. On December 19, 2018, focus groups met to discuss design guideline perceptions, issues, problems, and ideas.</p> <p>On January 30, 2019, a Design Guideline Update Open House was held. On February 5, 2019, the Design Guideline Update project consultant briefed the Council.</p> <p>Next steps include staff and DRB review of the draft design guidelines then the second public meeting to present and gather feedback on them. The consultant team will present the draft design guidelines to the City Council after the public meeting, likely in May.</p> <p>The update to the City’s Design Guidelines is expected to be completed before mid-year 2019.</p>

Moratorium on Accepting Certain Development Applications: Work Program Status Report – April 4, 2019

Note: Substantive changes to this document since the last version to the City Council are included in [blue text](#).

Status on April 4, 2019:	Complete: Consultant professional services agreement approved, kick-off meeting held with the DRB, design guideline open house held, City Council briefed. Incomplete: Updated design guidelines.
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Moratorium on Accepting Certain Development Applications: Work Program Status Report – April 4, 2019

Note: Substantive changes to this document since the last version to the City Council are included in blue text.

Moratorium Topic	Status	Timeline
<p>Review Process for Land Use Permits (related to Subdivisions, Site Plan and Design Review, and Conditional Use Permits).</p>	<p>The Planning Commission and Design Review Board discussed this topic at their meetings beginning in May and continuing through December 2018.</p> <p>The Planning Commission provided recommendations to the City Council related to roles and responsibilities for the Planning Commission, Design Review Board, and the Council and the legislative review process for amending the BIMC.</p> <p>The Planning Commission will continue its review of site plan and design review and conditional use permit decision criteria as part of a larger housekeeping ordinance for all of BIMC 2.16 and hold a public hearing in May.</p>	<p>On October 23, 2018, the City Council held a public hearing related to the Planning Commission and Design Review Board’s land use review roles and responsibilities (Ordinance 2018-20). The Council deferred taking action until receiving all of the forthcoming Planning Commission recommendations on land use review procedures.</p> <p>At its December 4, 2018 meeting, the Council discussed Ordinance No. 2018-20, regarding revisions to BIMC Title 2 related to land use review approval bodies and procedures. On December 11, 2018, the Council held a public hearing and approved the ordinance.</p> <p>On January 8, 2019, the Council adopted Resolution No. 2019-02, updating the administrative manual to address development review process code amendments in Chapter 2.16, BIMC.</p> <p>On March 14, 2019, the Planning Commission reviewed site plan and design review and conditional use permit decision criteria.</p>

Moratorium on Accepting Certain Development Applications: Work Program Status Report – April 4, 2019

Note: Substantive changes to this document since the last version to the City Council are included in blue text.

		Proposed revisions to decision criteria have been incorporated into a larger housekeeping ordinance for all of BIMC 2.16, which the Planning Commission will discuss and hold a public hearing on in May .
Status on April 4, 2019:	Complete: Ordinance 2018-20 approved by the City Council on December 11, 2018, related to new roles and responsibilities for the Planning Commission and Design Review Board, review procedures for subdivisions, site plan and design review, and conditional use permits, and revisions to the legislative review process for amending the BIMC. Incomplete: Revisions to Chapter 2.16 BIMC related to decision criteria for site plan and design review and conditional use permits.	

Moratorium on Accepting Certain Development Applications: Work Program Status Report – April 4, 2019

Note: Substantive changes to this document since the last version to the City Council are included in blue text.

Moratorium Topic	Status	Timeline
Affordable Housing	<p>The Affordable Housing Task Force completed review of its draft final report to the City Council at its meeting on July 11, 2018.</p> <p>On June 12, 2018, the Council approved a contract with ECONorthwest to conduct an economic market analysis and feasibility study regarding a new inclusionary zoning program and updates to the City's Transfer of Development Rights program.</p> <p>On November 13, 2018, the Council dissolved the Affordable Housing Task Force and created a Council Ad Hoc Committee for Affordable Housing.</p> <p>On January 22, 2019, the City Council Affordable Housing Ad Hoc Committee met. On February 5, 2019, the Committee reviewed a draft of the ECONorthwest final report.</p>	<p>The Affordable Housing Task Force Report with recommendations was presented to the City Council on July 24, 2018 and was discussed further at the August 21, 2018 Council Study Session.</p> <p>Council study sessions were held on October 2 and December 4, 2018, to receive an update on the economic market analysis from ECONorthwest. On February 19, 2019, the City Council reviewed and provided staff direction on the ECONorthwest / Forterra final report, the Affordable Housing Task Force report recommendations, and discussed the status of the City Council Affordable Housing Ad Hoc Committee.</p> <p>City staff is working on prioritizing and organizing work on the inclusionary zoning and other AHTF report recommendations endorsed by City Council on February 19, 2019. An affordable housing work program with prioritized tasks and schedule will be discussed with the City Council at a future agenda meeting.</p>

Moratorium on Accepting Certain Development Applications: Work Program Status Report – April 4, 2019

Note: Substantive changes to this document since the last version to the City Council are included in blue text.

Status on April 4, 2019:	<p>Complete: City Council discussion and endorsement of Priority and Quick Wins recommendations from the AHTF Report.</p> <p>Incomplete: Implementation/approval of AHTF recommendations, including adoption of inclusionary zoning regulations.</p>
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Moratorium Topic	Status	Timeline
Business/Industrial (B/I) zoning district	<p>The Council revisited the inclusion of the B/I zoning district in the moratorium and determined that the results of the moratorium work plan would not have a significant impact on land use applications in that zoning district. On October 23, 2018, the Council made the policy decision to remove from the moratorium certain restrictions related to the B/I zoning district. On November 13, 2018, the Council adopted Ordinance 2018-43 (effective date November 21) exempting from the moratorium B/I zoning district Major Site Plan and Design Review and Major Conditional Use permit proposals.</p>	<p>During their November 13, 2018 discussion of Ordinance 2018-43, and their March 26, 2019 discussion of Ordinance 2019-10, the Council discussed whether commercial subdivisions in the B/I zone should be subject to the moratorium. The Council will discuss at a future meeting whether B/I zoning district commercial subdivisions should also be exempt from the moratorium.*</p> <p>* The City has not held any preapplication conferences for commercial subdivisions in the B/I zone that would indicate a commercial subdivision application is being prepared. Currently, the draft proposed revisions to subdivision standards regarding commercial subdivisions remain the same as the existing municipal code (the noted revisions represent updated code citations).</p>
Status on April 4, 2019:	<p>Complete: Ordinance 2018-43 adopted, thereby exempting B/I zoning district Major Site Plan and Design Review and Major Conditional Use permit proposals from the moratorium.</p> <p>Incomplete: Policy decision regarding whether B/I zoning district subdivisions should be exempt from moratorium.</p>	

Moratorium on Accepting Certain Development Applications: Work Program Status Report – April 4, 2019

Note: Substantive changes to this document since the last version to the City Council are included in blue text.

Moratorium Topic	Status	Timeline
Accessory Dwelling Units	On October 23, 2018, the City Council considered whether the City can prohibit, regulate, or otherwise discourage property owners from making condominiums out of accessory dwelling units (ADUs) located on their property.	On October 23, 2018, the Council directed staff to prepare for the Council's consideration an ordinance to require common ownership of ADUs. This issue has been deferred to a future City Council meeting while waiting for the 2019 WA State Legislature to act on proposed ADU bills.
Status on April 4, 2019:	Complete: Began discussions on ADU condominiums. Incomplete: Policy decision deferred to Q2 2019.	

ORDINANCE NO. 2019-10

AN ORDINANCE of the City of Bainbridge Island, Washington, adopted pursuant to RCW 35A.63.220 and RCW 36.70A.390; amending Ordinance No. 2018-43; providing for severability; leaving the effective date of the moratorium unchanged; and extending the moratorium for six months until October 3, 2019.

WHEREAS, on January 9, 2018, the City Council enacted Ordinance No. 2018-02 and thereby established a temporary emergency moratorium on the acceptance and processing of certain Permit Applications, as defined in Section 2 of Ordinance No. 2018-02; and

WHEREAS, the City Council and City staff received feedback and comment from individuals related to the moratorium and, based partly on that feedback and comment, the Council determined that certain exclusions to the moratorium needed to be amended to clarify the Council's intent regarding such exclusions; and

WHEREAS, on January 16, 2018, the Council enacted Ordinance No. 2018-03, which amended Ordinance No. 2018-02 to clarify some of the exclusions; and

WHEREAS, the Council and City staff received additional feedback and comment from individuals related to the moratorium and, based partly on that feedback, the Council determined that further amendment was necessary to clarify which types of activities are subject to the moratorium, and which activities are excluded from the moratorium; and

WHEREAS, on February 15, 2018, the Council enacted Ordinance No. 2018-05, which amended and restated Ordinance No. 2018-02 and Ordinance No. 2018-03; and

WHEREAS, based on additional information and consideration related to educational facilities and preschools, as well as related to the applicability of the moratorium in the Mixed Use Town Center/Central Core Overlay District, on March 13, 2018, the Council approved Ordinance No. 2018-09 to further clarify which types of activities are subject to the moratorium, and which activities are excluded from the moratorium; and

WHEREAS, this moratorium was imposed, in part, to allow the City Council and City staff adequate time to complete the Critical Areas Ordinance Update process, and to address the Council's concerns about the City's development review process, standards, and guidelines, as well as regarding affordable housing related issues; and

WHEREAS, the Council adopted the Critical Areas Ordinance Update (Ordinance No. 2018-01) on February 27, 2018, and the updated Critical Areas Ordinance took effect on April 23, 2018; and

WHEREAS, critical areas within the City's shoreline jurisdiction are regulated by the City's shoreline master program (see, e.g., Chapter 16.12 BIMC, RCW 36.70A.480(3)(b)); and

WHEREAS, integration of applicable critical areas regulations into the shoreline master program is essential to ensuring adequate protection of critical areas within the shoreline jurisdiction and no net loss of shoreline ecological functions; and

WHEREAS, regulations for critical areas within the City's shoreline jurisdiction are in the process of being updated through an amendment of the City's shoreline master program consistent with the Shoreline Management Act and that amendment process was ongoing as of July 9, 2018, which was the original date that the moratorium was set to expire, and that process continues to be ongoing; and

WHEREAS, the City Council approved Ordinance 2018-14 on April 24, 2018, amending the development moratorium in order to have the provisions of Section 3.B. only apply within the City's shoreline jurisdiction areas (Chapter 16.12 BIMC); and

WHEREAS, a number of moratorium priorities were identified at a joint meeting of the City's Design Review Board and Planning Commission on February 22, 2018, including the following:

- (1) Revise review procedures for preliminary subdivisions to include the Design Review Board and Planning Commission in process; and
- (2) Analyze alternatives to decision-making authority for the Design Review Board, Planning Commission, and Hearing Examiner for subdivisions, conditional use permits, and site plan and design review; and
- (3) Identify specific development standards to review/revise in Chapters 18.12 and 18.15 of the Bainbridge Island Municipal Code; and
- (4) Initiate rewrite of subdivision design standards in Chapter 17.12 of the Bainbridge Island Municipal Code; and

WHEREAS, at the April 3, 2018, City Council study session, the City's Department of Planning and Community Development provided a briefing on the Design Review Board and Planning Commission joint meeting wherein the Council authorized staff to proceed with a work plan addressing the priorities identified at the joint meeting; and

WHEREAS, on April 2 and 23, May 7 and 21, June 4 and 18, August 6 and 20, September 4 and 17, and October 15, 2018, the City's Design Review Board discussed alternatives for revisions to the City's land use review procedures and/or subdivision design guidelines; and

WHEREAS, on March 22, May 10, June 7, 14, and 21, July 12 and 26, August 9, 23, and 30, September 13 and 27, October 25, November 8 and 29, and December 13, 2018, as well as on January 10, and February 13 and 28, 2019, the City's Planning Commission discussed alternatives for revisions to the City's land use review procedures, subdivision design guidelines, and/or subdivision standards; and

WHEREAS, the City provided legal background on the roles of land use bodies, presented in a memorandum from attorney James E. Haney (outside legal counsel for the City) entitled, “*Roles of City Council, Planning Commission, Design Review Board, and Hearing Examiner in Land Use Permits*,” dated June 1, 2018, and the City Council had a special workshop related to land use review procedures on August 27, 2018; and

WHEREAS, the City’s Planning Commission completed their review of land use review procedures and forwarded their recommendations on those issues to the City Council, and on December 11, 2018, the Council enacted Ordinance No. 2018-20 related to revisions and updates to the City’s land use review procedures; and

WHEREAS, as part of the Planning Commission’s review and consideration of the City’s subdivision review procedures, design guidelines, and standards, the Commission has been considering a proposed ordinance, Ordinance No. 2019-03; and

WHEREAS, on February 13, 2019, and continuing to February 28, 2019, the Planning Commission conducted a public hearing on Ordinance No. 2019-03, and subsequently forwarded the proposed ordinance and their recommendations to the City Council; and

WHEREAS, each of the multiple Design Review Board and Planning Commission meetings as described above included an opportunity for public comment on the alternatives for revisions to the City’s subdivision guidelines, standards, dimensional standards, and/or land use review procedures; and

WHEREAS, the City Council reviewed and considered proposed updates to the City’s subdivision regulations at regularly scheduled meetings on September 4 and 11, October 9, and December 4, 2018, and January 22, 2019; and

WHEREAS, the City Council is in the process of considering the Planning Commission’s recommendations related to proposed updates to the City’s subdivision regulations as included in Ordinance No. 2019-03, including at the Council’s meeting on March 19, 2019, and the Council will consider those subdivision regulations further at subsequent meetings; and

WHEREAS, City staff is working with the Design Review Board and a consultant team related to updating the City’s Design Guidelines (BIMC 18.18.030) more generally (i.e., the design guidelines that aren’t included in the separate effort described above related to design guidelines for subdivisions), and that work is not expected to be completed until the end of July 2019; and

WHEREAS, on June 12, 2018, the City Council authorized the execution of a professional services agreement to conduct an economic market analysis and feasibility study regarding a new inclusionary zoning program and updates to the City’s Transfer of Development Rights program, both of which address affordable housing related issues; and

WHEREAS, on July 24, 2018, the Affordable Housing Task Force (“AHTF”) presented its final report to the City Council and the Council discussed the recommendations more thoroughly on August 21, 2018; and

WHEREAS, on October 2 and December 4, 2018, the City Council received a project update on the economic market analysis from the consultant (ECONorthwest/Forterra) related to inclusionary zoning and possible updates to the City’s Transfer of Development program; and

WHEREAS, on February 19, 2019, the City Council reviewed and provided direction to staff related to the ECONorthwest/Forterra final report and the AHTF report recommendations, and the Council discussed the status of the Council’s Affordable Housing Ad Hoc Committee; and

WHEREAS, City staff members are currently working on prioritizing and organizing work on the inclusionary zoning and other AHTF report recommendations which were endorsed by the Council at its February 19, 2019, meeting and work is ongoing in this effort; and

WHEREAS, on February 27, 2018, the City Council was provided with a moratorium work program; and

WHEREAS, on April 10, May 22, June 5, June 19, July 17, August 21, September 4 and 18, October 2 and 16, November 6 and 20, and December 4, 2018, as well as on January 15, February 5 and 19, and March 5 and 19, 2019, the City Council was provided further moratorium work program status report updates; and

WHEREAS, on June 26, 2018, the City Council held a public hearing and approved Ordinance 2018-23, extending the development moratorium for another 90 days until October 9, 2018; and

WHEREAS, on September 25, 2018, the City Council held a public hearing and approved Ordinance 2018-41, and thereby extended the development moratorium for another six (6) months, and in so doing narrowed the moratorium to remove two-lot short subdivisions in which there is an existing single-family residence from the moratorium; and

WHEREAS, on October 16, 2018, the City Council discussed integrating critical area regulations into the Shoreline Master Program (Chapter 16.12 BIMC) and made the policy decision to not apply new Aquifer Recharge Protection Area regulations (BIMC 16.20.100) within the City’s shoreline jurisdiction areas; and

WHEREAS, as a result of that policy decision, and the City Council’s affirmation on October 23, 2018, that the moratorium should be narrowed in that manner, the Council directed staff to prepare an ordinance to entirely remove Section 3.B. (which, in effect, applied the Aquifer Recharge Protection Area regulations in the City’s shoreline jurisdiction areas) from the moratorium; and

WHEREAS, on October 23, 2018, the City Council discussed additional revisions to the development moratorium, including related to excluding from the moratorium certain permit applications for development in the Business/Industrial zoning district, and the Council directed staff to prepare an ordinance to narrow the moratorium accordingly; and

WHEREAS, on October 23, 2018, the City Council also discussed potentially further narrowing provisions of the moratorium related to applications for new short subdivisions that the Council had previously narrowed, and the Council decided to not take such action at that time pending the Planning Commission’s ongoing but not yet completed work related to subdivisions, including new subdivision design guidelines and revised subdivision standards and review procedures; and

WHEREAS, on October 23, 2018, the City Council also discussed issues related to making condominiums out of accessory dwelling units (“ADUs”) and common ownership of ADUs, and the Council directed staff to work on possible revisions to the BIMC to allow the Council to further consider the common ownership issue related to ADUs; and

WHEREAS, given that the Washington State Legislature is considering in the current legislative session bills that would impact the regulation of ADUs, the City is awaiting possible action by the Legislature because such action could impact the City’s efforts on this issue; and

WHEREAS, on November 13, 2018, the City Council approved Ordinance 2018-43, and thereby narrowed the moratorium as requested by the Council and described above related to entirely removing Section 3.B. (which, in effect, applied the Aquifer Recharge Protection Area regulations in the City’s shoreline jurisdiction areas) from the moratorium, and broadening an exclusion related to certain Major Site Plan and Design Review and Major Conditional Use Permit proposals to include in that exclusion such proposals for properties located in the Business/Industrial District; and

WHEREAS, although the City has been working to address the land use issues identified in the development moratorium, as described above, the work is ongoing and not yet completed; and

WHEREAS, the City possesses land use jurisdiction and regulatory authority over the City’s incorporated lands; and

WHEREAS, the moratorium promotes the public good and is necessary for the protection of public health, property, safety, and welfare, and the public emergency on which this moratorium was imposed continues to exist and this ordinance does not change the basis for that declaration of emergency, except as described above, nor the effective date of the moratorium, which is January 9, 2018.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF BAINBRIDGE ISLAND, WASHINGTON, DO ORDAIN AS FOLLOWS:

Section 1. Findings of Fact. The recitals set forth above are hereby adopted as additional and supplemental findings of fact to the City Council’s initial findings of fact in support of the moratorium, as established by Ordinance Nos. 2018-02, 2018-03, 2018-05, 2018-09, 2018-14, 2018-23, 2018-41, and 2018-43.

Section 2. Public Hearing. Pursuant to RCW 35A.63.220 and RCW 36.70A.390, the City Council conducted a public hearing on this extension of the moratorium at its meeting on March 26, 2019, and took public testimony and considered further findings of fact.

Section 3. Moratorium Amended. The moratorium is hereby amended, as also stated in Section 6 below, to extend the moratorium until October 3, 2019, which is six (6) months beyond the current duration of the moratorium, based on an effective date of this ordinance of April 3, 2019.

Section 4. Moratorium Work Plan. As provided for under RCW 35A.63.220 and RCW 36.70A.390, the City may renew a moratorium for one or more six-month periods if a work plan has been developed, a public hearing has been held, and findings of fact have been made, and the City has thereby previously extended the moratorium as described herein based on the work plan that has been developed and the findings of fact that have been made in this ordinance and the previous ordinances related to this moratorium, and the City is hereby renewing and extending the moratorium for an additional six months based on an updated work plan (see attached Exhibit A), conducting another public hearing, and adopting additional findings of fact as stated in this ordinance.

Section 5. Severability. Should any section, paragraph, sentence, clause, or phrase of this ordinance, or its application to any person or circumstance, be declared unconstitutional or otherwise invalid for any reason, or should any portion of this ordinance be preempted by state or federal law or regulation, such decision or preemption shall not affect the validity of the remaining portions of this ordinance or its application to other persons or circumstances.

Section 6. No Change to Basis for Declaration of Emergency; Effective Date; Duration. This ordinance shall take effect and be in force five (5) days from and after its passage and publication as required by law. Provided, that this ordinance is not intended to change the basis of the emergency declarations stated in the moratorium ordinances which preceded this ordinance, Ordinance Nos. 2018-02, 2018-03, 2018-05, 2018-09, 2018-14, 2018-23, 2018-41, and 2018-43, except as described in the “Whereas” clauses of this ordinance. Pursuant to *Matson v. Clark County Board of Commissioners*, 79 Wn. App. 641 (1995), non-exhaustive underlying facts necessary to support the emergency declarations adopted as part of the enactment of this moratorium were included in the “Whereas” clauses of Ordinance No. 2018-02 and Ordinance No. 2018-03, and were restated and supplemented in Ordinance No. 2018-05 and Ordinance No. 2018-09, and Ordinance Nos. 2018-14, 2018-23, 2018-41, and 2019-43, as well as in this ordinance, and those “Whereas” clauses are adopted as findings of fact. This ordinance amending the moratorium shall remain effective for the updated period as established for the moratorium, which is currently scheduled to expire based on this ordinance on October 3, 2019, unless terminated earlier by the City Council. This ordinance does not change the effective date of the moratorium, which is January 9, 2018. The Council may, at its sole discretion, renew the

moratorium for one or more six (6) month periods in accordance with state law. This ordinance or a summary thereof consisting of the title shall be published in the official newspaper of the City.

PASSED by the City Council this 26th day of March, 2019.

APPROVED by the Mayor this 26th day of March, 2019.



Kol Medina, Mayor

ATTEST/AUTHENTICATE:



Christine Brown, CMC, City Clerk

FILED WITH THE CITY CLERK	March 15, 2019
PASSED BY THE CITY COUNCIL	March 26, 2019
PUBLISHED:	March 29, 2019
EFFECTIVE DATE:	April 3, 2019
ORDINANCE NO:	2019-10

Attached: Exhibit A (Work Plan)

Exhibit A

Moratorium on Certain Developments Work Plan Schedule, Ordinance No. 2019-10 (April – October 2019)

Work Program Item	Description
Subdivision Standards	Revise the subdivision standards to result in residential development that reflects Comprehensive Plan goals and policies included in the land use, housing, and environmental elements.
Design Guidelines	Update and improve the design guidelines and review process to result in higher quality development that reflects the Island's values and character.
Conditional Use / Site Plan Decision Criteria	Revise criteria to reduce subjectivity in decision-making and better ensure outcomes consistent with the Comprehensive Plan.
Affordable Housing	Develop an affordable housing work program in response to Inclusionary Zoning / Transfer of Development Rights and Affordable Housing Task Force reports.

April 3, 2019

DEVELOPMENT MORATORIUM SUMMARY: Effective beginning January 9, 2018 until October 3, 2019. (Ordinance No. 2018-02, amended by Ordinance Nos. 2018-03, 2018-05, 2018-09, 2018-14, 2018-23, 2018-41, 2018-43 and 2019-10).

Development Activity PROHIBITED During the Moratorium:

- A. All applications for new short subdivisions (BIMC 2.16.070), except two-lot short subdivisions in which there is an existing single-family residence, new preliminary long subdivisions (BIMC 2.16.125), and new large lot subdivisions (BIMC 2.16.080).
- B. Major Site Plan and Design Review and Major Conditional Use Permit proposals that are not otherwise subject to this moratorium and that did not, before the effective date of the moratorium, have a pre-application conference on the Planning Department's calendar. Provided, that the moratorium does not apply to Major Site Plan and Design Review and Major Conditional Use Permit proposals for properties located in the Mixed Use Town Center/Central Core Overlay District or the Business/Industrial District.

EXCEPTIONS to the Above Development Activities Prohibited During the Moratorium:

- A. Permits and approvals for affordable housing projects that qualify as Housing Design Demonstration Project (HDDP) Tier 3 projects pursuant to BIMC 2.16.020.Q. and Table 2.16.020.Q-1, and
- B. Permits and approvals for government facilities and structures; educational facilities and preschools; wireless communication facilities; and emergency medical and disaster relief facilities.



CITY OF
BAINBRIDGE ISLAND

City Council Study Session Agenda Bill

MEETING DATE: April 16, 2019

ESTIMATED TIME: 60 Minutes

AGENDA ITEM: (7:35 PM) Ordinance No. 2019-03 Relating to Subdivision Update - Planning,

STRATEGIC PRIORITY: Green, Well-Planned Community

PRIORITY BASED BUDGETING PROGRAM:

AGENDA CATEGORY: Ordinance

PROPOSED BY: Planning & Community Development

RECOMMENDED MOTION:

Background Information:

The Mayor has requested Council agenda time so that Councilmembers can share and discuss their own perspectives and thoughts on the subdivision update. The Tuesday, April 16, agenda packet is the same as the April 2 packet. Staff is preparing additional information which will be presented at the May 7 Council meeting, at which time staff will be prepared to address further Council questions.

SUMMARY:

The City Council will continue its discussion related to the subdivision update, and staff will be present as a resource. Information provided in the agenda packet includes the following, as requested by the Council:

Tabular data and supporting maps summarizing potential subdivision development:

- Staff memorandum with Buildable Lands Report and City GIS tabular data

- Map showing Buildable Lands Report Dwelling Unit Potential

- Map showing spatial distribution of subdivision potential -- vacant parcels only, R-0.4, R-1, and R-2 zoning districts

- Map showing spatial distribution of high density residential district subdivision potential (City GIS data)

- Table showing breakdown of high density residential district subdivision potential

Staff is available to present a series of diagrams of existing parcels depicting potential subdivision development using the draft proposed standards. Staff will also present a newly conceived approach to natural area and community space within the context of the aquifer recharge protection area (ARPA) to respond to the City Council's discussion on this topic at their March 19, 2019 Study Session.

All materials from the March 19, 2019 Study Session are also included in the agenda packet (see background, 209 below).

FISCAL IMPACT:	
Amount:	
Ongoing Cost:	
One-Time Cost:	
Included in Current Budget?	

BACKGROUND: The following background material is included and remains unchanged from the March 19, 2019, Study Session:

Attachment A -- Ordinance 2019-03 with Exhibits A, B, and C (Planning Commission recommendation -- four documents)

Attachment B -- Planning Commission meeting minutes (February 13 and 28, 2019 -- two documents)

Attachment C -- Ordinance 2019-03 Exhibits A, B, and C (Public hearing draft with Planning Commission subcommittee comments -- three documents)

****Note:** Ordinance 2019-03 includes references to three exhibits (A, B, and C). The staff memo includes references to three attachments (A, B, and C).

ATTACHMENTS:

[20190402 CC Staff Memo Ordinance 2019-03.docx](#)

[BLR 2014 Dwelling Unit Potential.pdf](#)

[Subdivision Potential -- Low Density Residential -- Vacant Parcels.pdf](#)

[Subdivision Potential High Density -- map.docx](#)

[Subdivision Potential High Density -- table.docx](#)

[20190319 CC Staff Memo](#)

[Attachment A -- Ordinance No. 2019-03 Subdivision Update - Draft 031519](#)

[Attachment A -- Ord 2019-03 Exhibit A 20190228 PC Recommendation with Notes.docx](#)

[Attachment A -- Ord 2019-03 Exhibit B 20190228 PC Recommendation.docx](#)

[Attachment A -- Ord 2019-03 Exhibit C 20190228 PC Recommendation.docx](#)

[Attachment B -- Planning Commission Minutes 021319.pdf](#)

[Attachment B -- Planning Commission Minutes DRAFT 022819.docx](#)

[Attachment C -- Subcommittee Comments - Exhibit A.pdf](#)

[Attachment C -- Subcommittee Comments - Exhibit B.pdf](#)

[Attachment C -- Subcommittee Comments - Exhibit C.pdf](#)

FISCAL DETAILS:

Fund Name(s):

Coding:



Department of Planning and Community Development

Memorandum

Date: April 2, 2019
To: City Council
From: Christy Carr, AICP
Senior Planner
Subject: Ordinance 2019-03 – Subdivision Update

This memorandum provides additional information requested at the March 19, 2019 City Council study session related to subdivision potential on the Island. Information is provided from two sources:

- Kitsap County 2014 Buildable Lands Report
- City of Bainbridge Island GIS data

Neither source is exact and is intended to be representative only. Detailed spatial analysis and ground truthing have not been completed. Tabular data and maps showing the spatial distribution of potential subdivision development are provided for each source.

Kitsap County 2014 Buildable Lands Report

The Kitsap County 2014 Buildable Lands Report (BLR) includes a land capacity analysis for Bainbridge Island, completed by Kitsap County using permit data through December 2012. The analysis is useful in that it includes a “discount” for critical areas, includes underutilized as well as vacant land, and provides a map of the available land. The analysis is limited for reporting current subdivision potential due to its date (five years of subdivision development has been permitted since its completion) and that it is cumulative; that is, it provides total number of dwelling unit capacity not number of subdivisions, and was not ground-truthed (for example, lots within existing subdivisions are included).

The BLR takes the net developable acres in each zoning district and divides it by the underlying density (minimum lot size) of that zone to calculate the “dwelling unit capacity.” It does not include figures for neighborhood centers or the mixed-use town center district. The table below shows both underutilized and vacant properties.

Table 1. Dwelling Unit Capacity/Number of Potential Lots by Zoning District

R-0.4	R-1	R-2	R-2.9	R-3.5	R-4.3	R-5	R-6	R-8	R-14
421	407	594	26	34	49	4	7	87	28

City of Bainbridge Island GIS data

Current City of Bainbridge Island GIS data were reviewed to estimate potential subdivision development. While no detailed spatial analysis was done, some assumptions and limited ground-truthing were used to present the most likely potential subdivision development.

Table 2. Dwelling Unit Capacity/Number of Potential Lots by Zoning District – High Density Residential

R-0.4	R-1	R-2	R-2.9	R-3.5	R-4.3	R-5	R-6	R-8	R-14
			29	63	40	2	0	116	11

Table 3. Number of Potential Subdivisions by Size and Zoning District – Low Density Residential

Size of Subdivision (Number of Lots)	Zoning District		
	R-0.4	R-1	R-2
2 lots			
Underutilized	120	55	194
Vacant	41	8	31
3-4 lots			
Underutilized	47	64	217
Vacant	20	25	38
5-9 lots			
Underutilized	10	30	62
Vacant	12	18	18
10+ lots			
Underutilized	2	3	10
Vacant	3	1	10

Underutilized land has the capacity for subdivision due to its size and zoning designation but is less likely to subdivide because it has an existing single-family residence. For example, in Table 3, the data show 483 underutilized parcels in the R-2 zoning designation – 357 (74%) are shoreline properties with an existing home. Additionally, a critical area “discount” was not applied; therefore, subdivision potential may be lower due to limitations on buildable area due to the presence of critical areas. Analysis of additional data (age/value of home, adjacent common ownership, adjacent vacant land, etc.) would further refine the estimate of subdivision potential throughout the island.

Note: The map provided for subdivision potential in the low density residential zoning districts shows only vacant parcels.

City of Bainbridge Island

INTERNAL
DRAFT

Building Limitations City of Bainbridge Island Kitsap County, Washington

- Legend**
- Watercourses**
Fish Habitat Water Type Code
- (F) Fish Habitat
 - (N) Non-fish Habitat
 - (U) Unmodeled hydrographic
- Wetlands
- Liquifaction
- Critical Area Mosaic**
Type
- Area of Concern
50% reduction area
 - Critical area and buffers
75% area reduction
- Tax Parcels
- Street Center Lines**
- State Highway
 - Major Road
 - Collector / Arterial
 - Local Access/Local Road
 - Proposed Road
- Greater Puget Sound Hydrology



This map was created from existing map sources, not from field surveys. While great care was taken in using the most current map sources available, no warranties of any sort, including accuracy, fitness, or merchantability accompany this product. The user of this map assumes responsibility for determining its suitability for its intended use.

* THIS MAP IS NOT A SUBSTITUTE FOR FIELD SURVEY *

DRAFT
Map Date: January 7, 2014



City of Bainbridge Island

Draft Land Capacity City of Bainbridge Island Kitsap County, Washington

Legend

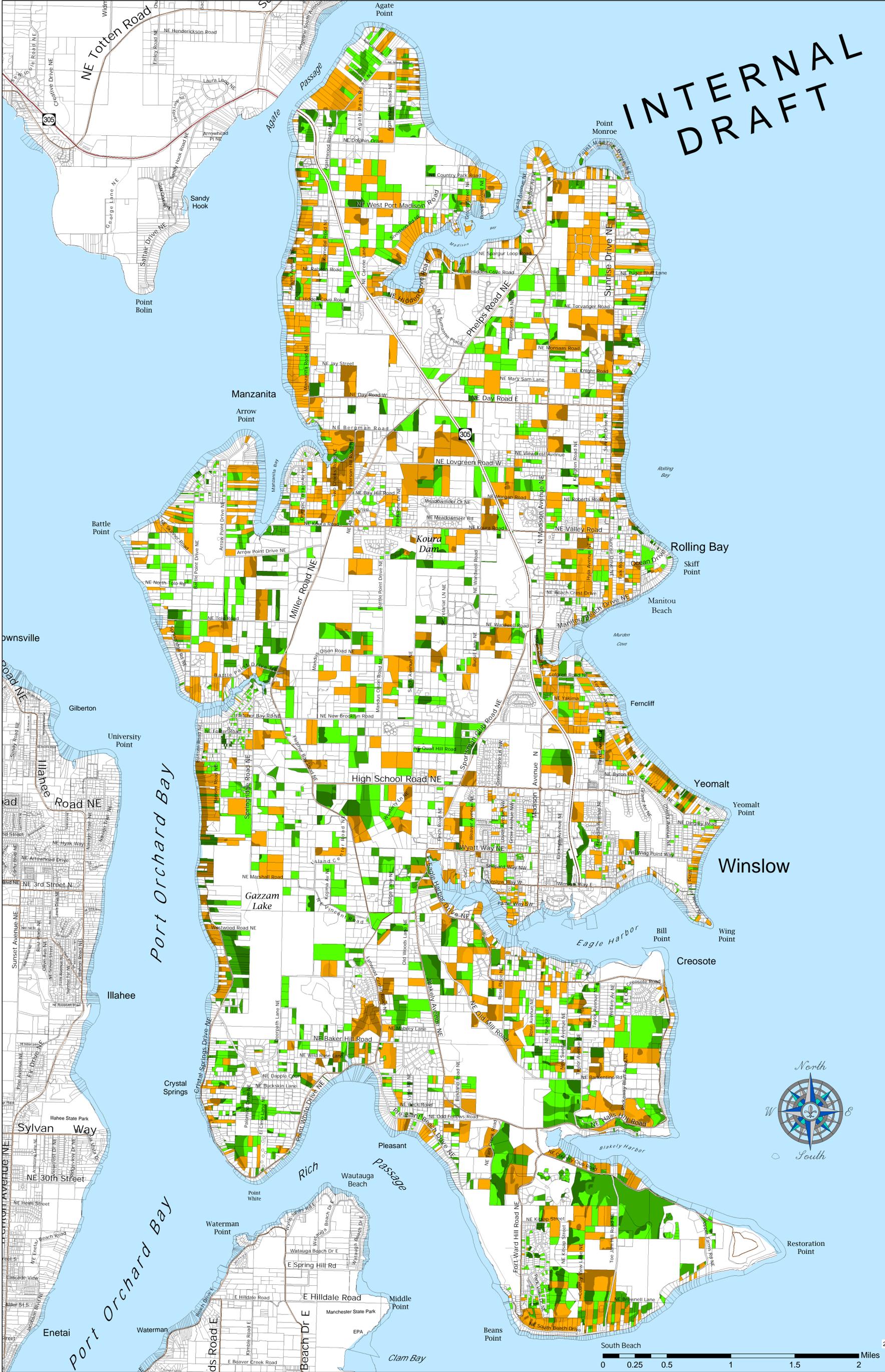
- Capacity Parcels**
- Underutilized
No critical area reduction
 - Underutilized
50% area reduction for critical area
 - Underutilized
75% area reduction for critical area
 - Vacant Land
No critical area reduction
 - Vacant Land
50% area reduction for critical area
 - Vacant Land
75% area reduction for critical area
- Tax Parcels**
- Tax Parcels
- Street Center Lines**
- State Highway
 - Major Road
 - Collector / Arterial
 - Local Access/Local Road
 - Proposed Road
- Greater Puget Sound Hydrology



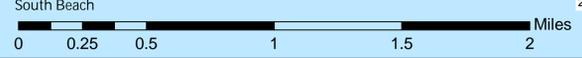
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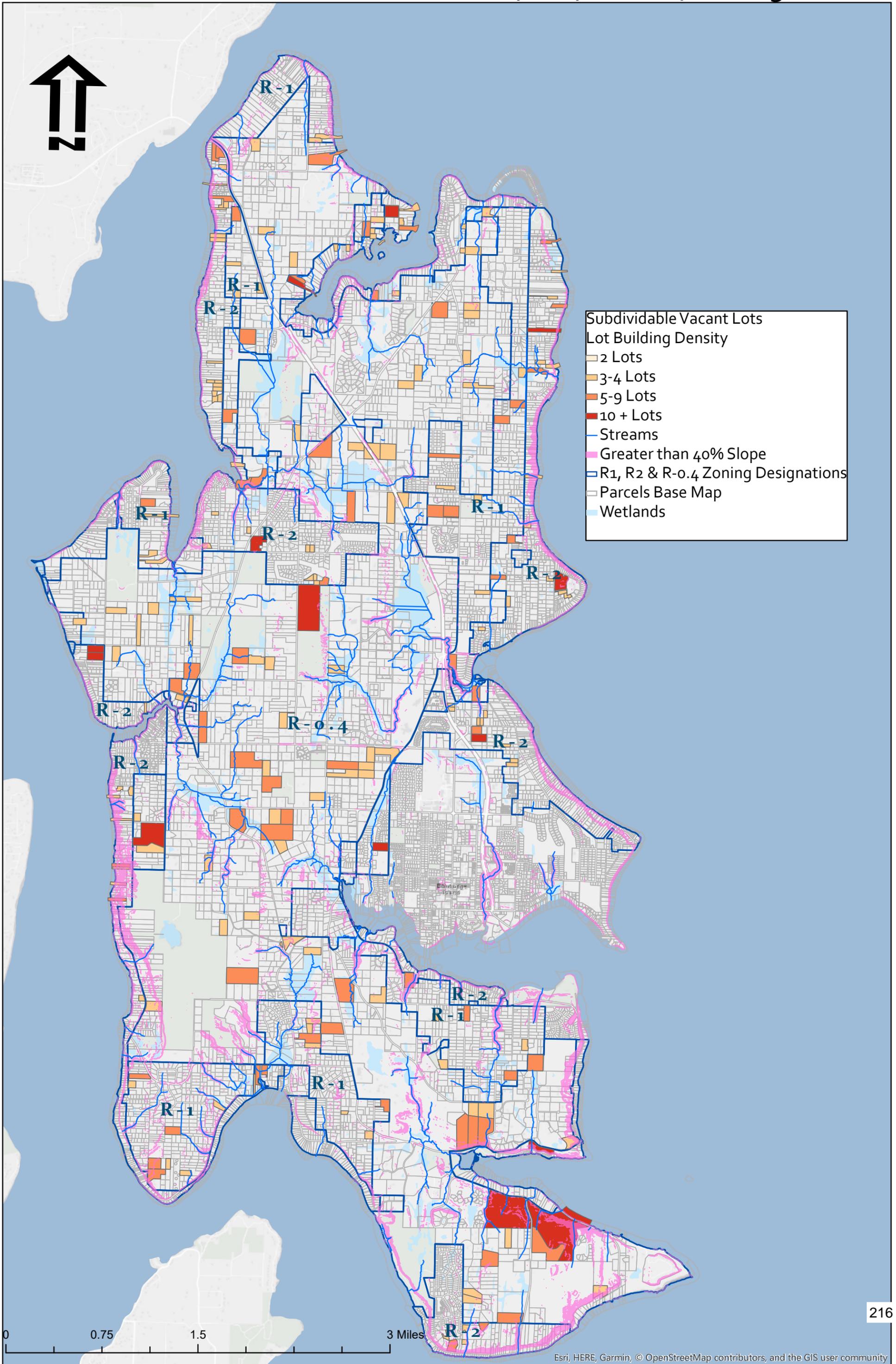
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Map Date: January 7, 2014



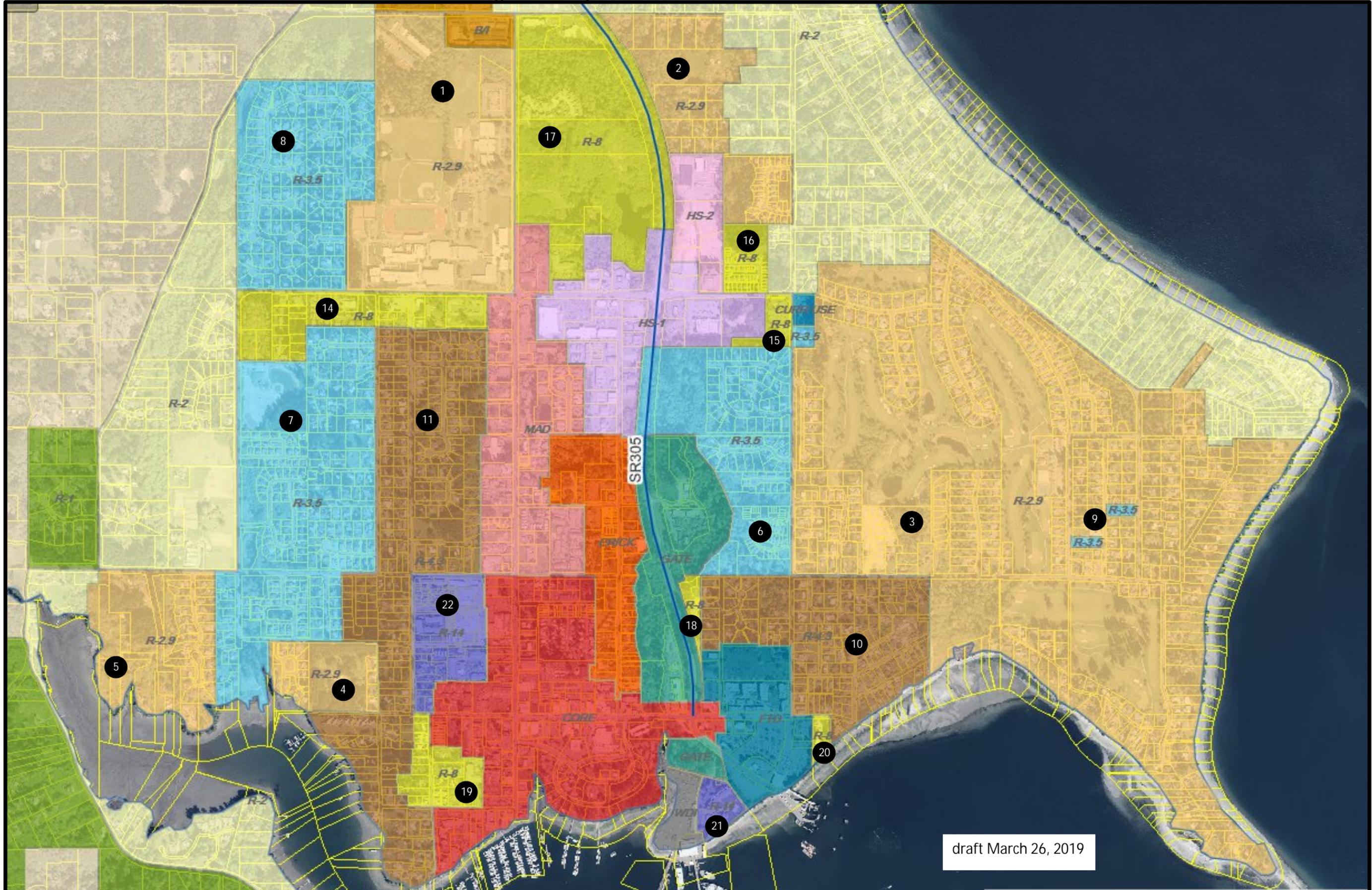
INTERNAL DRAFT



Subdividable Vacant Lots in R-1, R-2, & R-0.4 Zoning



SUBDIVISION POTENTIAL BY ZONING DISTRICT – High Density Residential



draft March 26, 2019

SUBDIVISION POTENTIAL BY ZONING DISTRICT – High Density Residential

Area	Zoning District/Location	# Parcels*	# Potential Units	Notes
	R-2.9			
1	BISD campus	0	0	
2	South of HS Road; east of 305	1	8	Existing SFR built 1994, >\$700k assessed value
3	Wing Point	0	6	Unlikely redevelopment
4	Moratani Preserve	0	0	preserve and existing development
5	St. Barnabas Church	3	15	10 units on church property; 1.13 acre shoreline property
		Total lots:	29	
	R-3.5			
6	Between Ferncliff and 305	3	46	33 units on 9.52 acre parcel south of Ace; other parcels north and south of Ferncliff Village
7	West side of Lovell, continues south of Grow	5	17	2 City-owned parcels south of Wyatt (one vacant; one HRB); one parcel with existing SFR; 2 adjacent parcels west of Lovell
8	Commodore	0	0	
9	Wing Point contract zones	0	0	
		Total lots:	63	
	R-4.3			
10	South of Wing Point Way; straddles Ferncliff	10	28	redevelopment potential of 3-acre property at Ferncliff/Wing Point Way (adjacent to 3-acre property in R-3.5); 4 adjacent lots with SFRs along Ferncliff
11	Lovell/Grow south to Eagle Harbor	5	12	4-unit parcel with cabin on Lovell; others all 2 unit potential
		Total lots:	40	
	R-5			
12		1	2	Common ownership with adjacent, vacant Lynwood Center NC parcel
		Total lots:	2	
	R-6			
13		Total lots:	0	All located on Point Monroe; subdivision unlikely
	R-8			
14	South of HS Road bewteen Madison and Weaver	4	10	4 (adjacent) parcels along Patmos all support between 2-4 units; all with existing SFRs
15	Island Homestead Apartments	0	0	
16	Stonecress Townhomes	0	0	
17	Sakai	2	83	Sakai property (72); City parcel south of park (11)
18	Tawresey	2	4	May be in existing subdivision; MF development on parcels to south
19	South of Winslow Way; straddles Grow	4	19	

Area	Zoning District/Location	# Parcels*	# Potential Units	Notes
20	Bainbridge Condominium east of ferry parking lot	0	0	
		Total lots:	116	
	R-14			
21	Eagle Harbour Condominiums	0	0	
22	East of Grow, south of Wyatt	3	11	adjacent parcels
		Total lots:	11	
	Neighborhood Centers			
	NC/R-12	2	7	existing parking lot
	Lynwood Center	1	12	Vacant parcel
	Island Center	0	0	No current vacant lots
	Rolling Bay	1	10	May already be part of planned project
		Total lots:	29	
	*Only parcels that are subdividable -- largely vacant only; some redevelopment assumed			



Department of Planning and Community Development

Memorandum

Date: March 19, 2019
 To: City Council
 From: Christy Carr, AICP
 Senior Planner
 Subject: Ordinance 2019-03: Subdivision Update – Planning Commission Recommendation

At their February 28, 2019 meeting, the Planning Commission made a recommendation to the City Council on Ordinance 2019-03 (Attachment A). Their motions to transmit this recommendation to the City Council are provided as part of the draft minutes of the February 28, 2019 Planning Commission meeting (Attachment B). The ordinance includes proposed revisions to several sections within Title 17 and 18 of the Bainbridge Island Municipal Code (BIMC), in sum referred to as the “subdivision update.”

This memorandum provides a “road map” to the ordinance itself, an overview of the conceptual approach, a note on cluster development, a summary of procedural history and public comment, a summary of key changes, and staff input on the Planning Commission’s recommendation including comments addressing both housekeeping items and policy questions for the City Council’s consideration.

Ordinance 2019-03 – A Road Map

The City’s subdivision regulations are generally found in BIMC Title 17 (Subdivisions and Boundary Line Adjustments). Subdivision development is also required to be consistent with applicable substantive standards in BIMC Title 18 (Zoning). As such, Ordinance 2019-03 includes proposed revisions to each of these sections. For the most part, the ordinance deletes regulations related to subdivisions from Title 18 and integrates them into Title 17. Proposed revisions are presented in four parts:

Ordinance 2019-03:	The ordinance itself includes changes in the following sections: <ul style="list-style-type: none"> • BIMC 17.04 and 17.08 – Purpose statement and administration • BIMC 18.12 – Subdivision dimensional standards table deleted (relocated to BIMC 17.12) • BIMC 18.15 – Landscaping and parking requirements related to subdivisions deleted (relocated to BIMC 17.12)
Ordinance 2019-03 – Exhibit A:	The ordinance proposes to repeal and replace Section 17.12. Exhibit A is the new Section 17.12. The majority of the proposed changes are in this section.

Ordinance 2019-03 – Exhibit B:	Exhibit B includes revisions to BIMC 17.28, Definitions (related only to subdivisions).
Ordinance 2019-03 – Exhibit C:	New residential subdivision design guidelines are proposed. The City's existing design guidelines are located in BIMC 18.18. Exhibit C is the proposed subdivision design guidelines, that will be codified in BIMC 18.18.

Note: For purposes of compliance with RCW Title 58 (Boundaries and Plats) or its successors, the Bainbridge Island subdivision regulations consist of Title 17, as well as applicable substantive standards in BIMC Titles 15 (Buildings and Construction), 16 (Environment), and 18 (Zoning), applicable procedures set forth in BIMC Title 2 (Administration and Personnel), and related local regulations or ordinances adopted in accordance with state law. Subdivisions must also comply with RCW Title 58.

As a reminder, the subdivision update includes three components:

1. New review procedures including early conceptual meetings and a review and recommendation role for both the Design Review Board and Planning Commission;
2. New design guidelines focusing on site planning to promote compatibility with site and neighborhood; and
3. Revised standards

Ordinance 2018-20
(complete)

Ordinance 2019-03

Overview of Conceptual Approach

A concern expressed by the community is that recent subdivision development across the island has been inconsistent with the City's 2017 Comprehensive Plan, particularly Guiding Principal #1, "Preserve the special character of the Island -- winding, narrow and vegetated roadways and forested areas, meadows, farms, containing much of the Island's wetlands and streams, aquifer recharge areas and fish and wildlife habitat." Members of the City Council and community have expressed general concerns regarding the adverse impacts of development, including subdivisions, under the City's current development regulations due to threatened harm to the island's fresh water aquifers; the loss of trees, forests, native vegetation and soils and their ecosystem services; and the serious challenge of promoting affordable housing. The broad concern is that the City's existing subdivision regulations allow for indiscriminate clearing and grading followed by development of subdivisions wholly out of context with existing roadside and neighborhood character.

The new approach borrows key concepts from "conservation subdivisions." This type of "conservation design" differs from "conventional design" by first protecting the important natural features of a site and then placing homesites on the remaining area instead of dispersing the development area throughout the site without regard to the site's existing physical landscape. Typical subdivision development seeks to maximize the size of the lots and generally disregards the natural areas on site. An alternative approach is to encourage cluster development, which results in the same number of lots but clusters the development onto a smaller, buildable portion of the site. This approach to subdivision design is tailored to the characteristics of each site through a four-step design process completed early in the review phase. In general, the new approach combines the City's two existing subdivision design options – the "open space option" and the "cluster option" – into a single set of standards. Subdivisions will include both the dedication of open space (renamed natural area) and clustering of homesites.

The new approach achieves several key goals and policies of the Comprehensive Plan:

- Discourages the land, energy, and natural resource consumptive pattern of large single-family homes
- Results in context-sensitive development

- Minimizes the development footprint and promotes low impact development
- Promotes development of a variety of housing types

A Note on Cluster Development

The City's existing subdivision standards include two design options: the open space option and the cluster option. Current BIMC provisions related to cluster development in existing subdivision standards include:

BIMC 17.28 defines cluster development as, "a group of adjoining homesite areas situated in a suitable area of a property, designed in such a manner that facilitates the efficient use of land by reducing disturbed areas, impervious surfaces, utility extensions and roadways, while providing for the protection of valued open space features."

BIMC 17.12 includes the following standards:

- Homesite Clustering. The purpose of clustering is to facilitate the efficient use of land by reducing disturbed areas, impervious surfaces, utility extensions and roadways. Homesites shall be located in cluster groupings and the efficient location of infrastructure shall be used to maximize the undeveloped area. Four or more homesites shall constitute a cluster grouping in a long subdivision, and two or more homesites shall constitute a cluster grouping in a short subdivision.
- All homesites in a cluster grouping shall adjoin or be located a maximum of 25 feet apart from another homesite.
- In the R-0.4 and R-1 zoning districts, a homesite area with a maximum area of 10,000 square feet shall be provided for each lot. In the R-2 zoning district, a homesite area with a maximum area of 7,500 square feet shall be provided for each lot.

A key change proposed in the subdivision update is that there will no longer be an "open space" or "cluster" option – all residential subdivisions will follow the same set of standards. The new, single standard will essentially merge the two options, and include both the designation of open space (renamed "natural area") and cluster development.

The public hearing draft of Ordinance 2019-03 included maximum homesite size (varying by zoning district) and, for subdivisions resulting in four or more lots, a requirement for homesite clustering. Homesite clustering would be achieved by a required dimensional standard for how far apart homesites and homesite cluster groupings can be located. To provide flexibility or alleviate any undue hardship due to specific site conditions, an administrative departure could be requested. If the applicant demonstrates that a subdivision layout without clustering is a better design solution, then clustering would not be required.

The Planning Commission's recommendation of Ordinance 2019-03 includes a maximum homesite size but makes clustering the "preferred design model" rather than a requirement and deletes the required dimensional standards for how far apart homesites and homesite cluster groupings can be located. The Planning Commission's recommendation relies on the required four-step design process to allow the characteristics of the land to determine the most suitable location of homesites and allows for administrative departures from certain standards, if it is found that the departure achieves a better outcome.

In considering cluster development, it may be useful to think about at what scale it is required, and what it is that is being clustered. It is also important to keep in mind the objectives of cluster development,

which are – in brief – minimizing site disturbance and the development footprint and protecting valued natural resource features. In the R-0.4 zoning district, for example, the natural area requirement is 55 percent of the site and can be up to 65 percent if that higher number is the required aquifer recharge protection area. If the natural area is between 55-65 percent of the site, then the development area will effectively be “clustered” in 35-45 percent of the site. This scale of cluster development may achieve its objectives. A finer scale of cluster development could be achieved by clustering homesites and homesite groupings within the development area, although such clustering may not be necessary to achieve the objectives.

The approach that best meets the objective of clustering – at the site scale, clustering “natural area” and “development area,” or at the homesite scale, clustering homesites and homesite groupings within the development area – should be based on the size and characteristics of the site and will likely differ depending on the zoning district, since the required natural area decreases outside of the R-0.4 zoning district. Regardless of what standard is decided on and whether it is required or preferred, the selected approach should provide for a high level of certainty to achieve the goals of cluster development and the related goals and policies in the Comprehensive Plan.

Procedural History and Public Comment

The Planning Commission began discussion of the subdivision update in March 2018, and held 20 study sessions related to review procedures, decision-making authority, subdivision design guidelines, and subdivision standards between March 2018 – February 2019. The Design Review Board discussed the subdivision update at 11 meetings between April – October 2018. In total, 31 properly noticed public meetings were held regarding the subdivision update. The Planning Commission held a public hearing on February 13, 2019 which was continued to February 28, 2019. In between the two dates of the public hearing, a subcommittee of Planning Commissioners made changes to the public hearing draft, which were made available to the public via an amended Planning Commission agenda on February 26, 2019. The public hearing draft showing the subcommittee’s comments is provided in Attachment C. The subcommittee’s amended version of the public hearing draft, with the addition of several revisions made at the February 28, 2019, Planning Commission meeting, is the Planning Commission’s recommended draft.

Two public comments were provided at each of the public hearings (a total of four comments from three different people). Minutes from the public hearings, including public comments, are provided in Attachment B.

Primary concerns expressed in public comment focused on the R-0.4, R-1, and R-2 zoning districts and related to concerns about a potential loss of privacy, inconsistency with the island’s rural character, and included comments that clustering is “theft” or a “taking of property.”

Summary of Key Changes

Changes are proposed for each of the three major components outlined above: review procedures, design guidelines, and standards. New review procedures were approved with the adoption of Ordinance 2018-20. A new set of design guidelines was created for residential development within subdivisions. These design guidelines do not apply to residential development outside of subdivisions. The focus of the design guidelines is to generate context-sensitive subdivision development at the site, neighborhood, and island scale. Proposed design guidelines are provided in Ordinance 2019-03 – Exhibit C (Attachment A).

Four-Step Design Process: The four-step design process is required during the pre-application phase and is based on a detailed site analysis and context map. The four steps are: (1) delineate natural space, (2) locate homesites and community space, (3) define access, and (4) draw lot lines. The intent of the process is to allow the characteristics of the land to prioritize natural resource areas to be preserved and determine the most suitable location of homesites.

Administrative Departures: This is a new procedure through which an applicant could request a departure from, or alternative to, one or more standards to allow flexibility and site-specificity for subdivision design. It is not intended to be a separate process, such as a variance.

Natural Area Requirement: The existing "open space" requirement is renamed "natural area." The new subdivision regulations require a percentage of the overall site to be designated as "natural area." Natural area means the undeveloped portion of a subdivision that contains natural resource features such as critical areas, significant tree stands, forested areas, native vegetation, and/or designated wildlife corridors, that is preserved in perpetuity. The natural area requirement ranges from 5% of the site in the Mixed Use Town Center district to 55% of the site in the R-0.4 district. The natural area requirement in the R-1 and R-2 zoning districts is 45% and 30%, respectively. There are a number of allowed uses within the natural area. The proposed regulations include a list of 11 expressly allowed uses within the natural area, including utilities, trails, and small structures. The natural area can be on privately owned lots or within a common tract owned by a homeowners' association or third party.

Community Space Requirement: This new requirement is intended to implement the Comprehensive Plan's concept of livable neighborhoods, "... designed with pedestrians and non-motorized transportation in mind, where children can play safely outdoors, and where public spaces exist for recreation and for neighbors to gather and socialize." Like natural areas, a percentage of the total site area is required to be designated as community space with requirements ranging from 5 to 15 percent of the site. Community space is not required for short subdivisions (4 or fewer lots) and applicants have the option of adding the community space requirement in the R-0.4 zoning district (5%) to the natural area.

Homesite Requirement: The existing subdivision regulations have a homesite requirement only for the "cluster option" subdivision design. The subdivision update includes a homesite requirement in all subdivisions. The homesite is defined as that portion of a lot depicted on the face of a plat that is intended for development of the primary residential dwelling and accessory buildings and necessary infrastructure within a subdivision. Each zoning district has a maximum homesite size ranging from 10,000 square feet in the R-0.4 district to 2,250 square feet in the R-14 and Mixed Use Town Center districts.

Cluster Development: The existing subdivision regulations include cluster development only for the "cluster option" subdivision design. The Planning Commission's recommendation effectively maintains the optional status by calling it the "preferred design model."

General Standards: The subdivision update also includes a number of changes to the general standards. New standards are added related to fencing, landscaping, and design diversity. Some existing standards are revised to improve clarity and consistency with the Comprehensive Plan and other City planning documents, including those related to streets and access, stormwater facilities, and septic systems.

Staff Input on Planning Commission Recommendation

Staff has the following comments on the Planning Commission's recommendation, which are highlighted and numbered in Exhibit A of Ordinance 2019-03 (see Attachment A). Housekeeping corrections were

discovered when updating the Planning Commission's recommended draft, and those corrections are included as well.

1. The Planning Commission changed "design guidelines" to "development standards;" however, the section relates to design guidelines, not development standards.
2. Staff suggests adding "natural" in front of "resources" to clarify that the first step in the four-step design process gives the highest priority to natural resources.
3. Staff recommends that the "or" is replaced with "and" to clarify that a request for a departure must meet all of the listed criteria.
4. The Planning Commission recommended deleting this criterion, noting it would be too challenging to implement. While it may be challenging to implement, staff suggests that the criteria should include the requirement that an applicant demonstrates that there has been a serious effort to comply with the standards and that the City may want to consider the economic implications of either denying or granting a departure.
5. The Planning Commission added the language "the director shall review the record and render a decision on the specified departure(s), subject to review by the hearing examiner." This process is not possible without a separate application and would make the director's decision on the departure subject to appeal. The intent of the "administrative departure" is not to require a separate process, application, or fee. Rather, a request for an administrative departure would be considered at the Design Guidance Review meeting and both the Design Review Board and members of the Planning Commission would provide a recommendation at that point. The departure, if it is an affirmative recommendation, would be included in the pre-application. The Planning Commission and staff agreed that whether or not a departure will be granted needs to be known early in the process.
6. The Planning Commission deleted "one or more of" the following objectives. It is likely that a designated natural area will not support all of the stated objectives. However, without the modifier "one or more of," and applicant would be required to demonstrate just that.
7. The Planning Commission changed "adjacent" to "any" in terms of what a designated natural area should connect to. Staff suggests that "any" is too broad and notes that one of the objectives of conservation subdivisions is to develop connected systems of natural area, which is why the term adjacent was used.
8. The Planning Commission added "as are gates" to the allowance for fencing around natural areas. While gates in and of themselves are not problematic, it should be clarified that the gate should meet the definition of low-impact fencing (e.g., allow for wildlife movement). A chain link gate, for example, would not meet this definition.
9. This is a housekeeping correction – "open space" should be "natural area."
10. Homesite clustering. See "A Note on Cluster Development," above. Staff suggests that clustering should be a requirement with a departure available from the standard rather than the "preferred design model," as recommended by the Planning Commission. A reliance on the four-step design process to "allow the characteristics of the land to determine the most suitable location of homesites" – with no standard – would be problematic to implement. For example, if a property in the R-1 zoning district contains 25 percent native vegetation, the natural area requirement would be 30 percent. Site development could then be dispersed throughout the remaining 70 percent of the property because there is no standard to determine which portion/s of the 70 percent are "the most suitable location" for homesites. If the intent is to minimize site disturbance and the overall development footprint, a standard is needed to

achieve that – guidelines and preferences will not. That said, as noted earlier, dimensional standards that cluster homesites and homesite groupings within the development area are likely not necessary to achieve the intent.

11. Site disturbance. The Planning Commission's recommended language references the City's stormwater code for land disturbing activities, which means, "any activity that results in a change in the existing soil cover (both vegetative and nonvegetative) and/or the existing soil topography. Land disturbing activities include, but are not limited to, clearing, grading, filling and excavation. Compaction that is associated with stabilization of structures and road construction shall also be considered a land disturbing activity. Vegetation maintenance practices are not considered land disturbing activity. Stormwater facility maintenance is not considered land disturbing activity if conducted according to established standards and procedures." The recommended language states that land disturbing activities "shall be limited to the minimum required for site preparation and construction." Implementation of this standard would almost certainly bring up a variety of questions, such as: Site preparation and construction of what? Who decides what the "minimum required" is? Is site disturbance allowed outside the homesite? If an overall objective of the subdivision standards is to limit site disturbance, the standard needs to be more specific.
12. This is a housekeeping correction. The Planning Commission corrected it via motion in the dimensional standards table, but it was missed in this section.
13. Landscaping: The public hearing draft included a maximum amount of turf grass and minimum requirement for native vegetation allowed on lots and within Community Space, based loosely on the innovative site development requirements to receive incentives in the City's current HDDP program (providing <20% turf or >60% native plants receive four points each toward earning incentives). The Planning Commission's recommended language – "should be retained and maintained where possible" and "should be responsive to the natural contours" – does not provide any backstop for City staff to require any specific type of landscaping. While the City may not wish to manage people's yards, specific metrics are more useful than general language if the City wishes to have any sort of requirements related to landscaping.
14. Staff suggests that "public and private streets" should not be allowed in perimeter buffers. This was erroneously copied from roadside buffers, where streets would be permitted to cross, and was missed during Planning Commission review.
15. This is a housekeeping correction – "perimeter" should be "roadside."
16. The Planning Commission discussed that the road into the subdivision should be able to cross the roadside buffer (otherwise there would be no access to the subdivision). Staff suggests that the intent was not to allow driveways (for individual lots) to cross the roadside buffer and that this language/word choice should be clarified that it is the road into the subdivision that may cross the roadside buffer.
17. The Planning Commission changed "maximum density" to "minimum lot area" because the first term is confusing. Staff concurred with this change but notes it follows a row titled "minimum lot area," but has different requirements – which is confusing. Staff suggests (possibly) using the term "allowable lots" for the dimensional standard title and moving the existing note so that it is located directly beneath the title, so that the note would state: The maximum number of lots permitted shall be calculated by dividing the total lot area of the property (without deducting areas to be dedicated as public rights-of-way or areas to be encumbered by private road easements) by the minimum lot area for standard lots in the zone district. "Minimum lot area" could then be changed to "Minimum lot area for standard lots in the zone district," to clarify

that it is not a minimum lot size for the subdivision but a means to calculate the number of allowable lots.

18. The Planning Commission pointed out that the maximum homesite size for subdivisions in the R-0.4, R-1, and R-2 districts (10,000, 7,500, and 6,500, respectively) conflicts with the minimum development area allowed with the aquifer recharge protection area (ARPA), which is 12,500 square feet in all zones. The 12,500 number for the ARPA was based on the minimum lot size in the subdivision standards at the time the ARPA was established. Staff suggested that the ARPA standards (BIMC 16.20.100) be changed to be consistent with the homesite size: "A lower percentage is allowed if necessary to achieve a development area of at least 12,500 square feet on a parcel or the maximum allowable homesite size within a subdivision. The Planning Commission agreed with this change, although changes to BIMC 16.20 were not included in the Planning Commission's recommendation. Note that the subdivision update includes no minimum lot size – lot size in areas with on-site septic systems would be determined by the Kitsap Public Health District. The Health District regulations include a number of alternatives for determining minimum lot size, one of which is opting for the prescriptive standard of 12,500 square feet.
19. The City's current subdivision regulations allow for zero lot lines (attached buildings) in all zoning districts. This was a change made in 2017 to support low impact development and affordable housing goals in the Comprehensive Plan. The consultant recommended maintaining the zero lot line option in all zoning districts if the individual buildings (homes) are less than 1,600 square feet, while the Planning Commission recommended that the zero lot line option should not be allowed in the R-0.4 zoning district regardless of home site. Staff notes that the Planning Commission recommendation reverses the change made in 2017, which was made at that time to support the Comprehensive Plan.
20. The Planning Commission changed "public right of way" to "internal access" because "public right of way" could mean the frontage road and the likelihood is that property owners do not want garages that are zero feet from a frontage road. Staff agrees that this is confusing and notes that the City needs a term and definition for internal roads within a subdivision. "Internal access" is not a currently used or defined term. Staff is considering this issue and will provide a recommendation to the City Council.

ORDINANCE NO. 2019-03

AN ORDINANCE of the City of Bainbridge Island, Washington, relating to subdivision standards, revising Title 17, repealing Chapter 17.12, and adopting an updated Chapter 17.12, repealing Table 18.12.020-1, and revising Chapter 18.12.040, 18.15.005, 18.15.010, 18.15.020, and 18.18.030 of the Bainbridge Island Municipal Code.

WHEREAS, the City Council of the City of Bainbridge Island (“City”) updated the City’s Comprehensive Plan in February of 2017; and

WHEREAS, the City Council has expressed significant concerns about development and growth in the City under current regulations in the context of the vision and goals of the City’s Comprehensive Plan, and desires to revise development regulations to best accommodate growth and development in both general and specific ways; and

WHEREAS, Ordinance No. 2018-02 imposed a temporary six-month moratorium on the acceptance of certain development, stating the City Council’s concerns regarding likely adverse impacts related to growth and development under existing regulations; and

WHEREAS, based on these and related concerns, the City Council required additional time to review the regulations and policies at issue to ensure that the vision and goals of the City’s Comprehensive Plan are being met to the Council’s satisfaction; and

WHEREAS, a number of priorities to address the items at issue in the moratorium were identified at a joint meeting of the City’s Design Review Board and Planning Commission on February 22, 2018, including the following:

- (1) Initiate rewrite of subdivision design standards (Chapter 17.12 BIMC);
- (2) Identify specific development standards to review/revise (Chapters 18.12 and 18.15 BIMC); and
- (3) Consider alternatives and identify preference for design guidelines framework.

WHEREAS, at an April 3, 2018 City Council study session, the City’s Department of Planning and Community Development provided a briefing on the Design Review Board and Planning Commission joint meeting wherein the Council authorized staff to proceed with a work plan addressing the priorities identified at the joint meeting; and

WHEREAS, on April 2 and 23, May 7 and 21, June 4, August 6 and 13, September 4 and 17, and October 15, 2018, the City’s Design Review Board discussed alternatives for subdivision review procedures and subdivision design guidelines; and

WHEREAS, on March 22, May 10, June 7, 14, and 21, July 12 and 26, August 9, 23, and 30, September 13 and 27, October 25, November 8 and 29, and December 13, 2018, as well

as on January 10, and February 13 and 28, 2019, the City’s Planning Commission discussed alternatives for revisions to the City’s subdivision review procedures, design guidelines, and standards; and

WHEREAS, each of the multitude of Design Review Board and Planning Commission meetings included an opportunity for public comment; and

WHEREAS, the Planning Commission held a public hearing on Ordinance 2019-03 on February 13, 2019, which was continued to February 28, 2019; and

WHEREAS, City staff forwarded the Planning Commission’s recommendations related to the subdivision update to the City Council for consideration at the Council’s March 19, 2019 regular study session; and

WHEREAS, the City Council previously reviewed and considered the subdivision update at regularly scheduled meetings on September 4 and 11, October 9, and December 4, 2018; and

WHEREAS, the City Council considered this ordinance at its meetings on March 19, 2019, as well as meetings on [note: this will be revised based on Council activity]; and

WHEREAS, the City issued a State Environmental Policy Act (“SEPA”) Determination of Non-Significance for this Ordinance No. 2019-03 on March 1, 2019; and

WHEREAS, the City notified the Department of Commerce on February 25, 2019 of its intent to revise its development regulations relating to subdivisions; and

WHEREAS, the City possesses land use jurisdiction and regulatory authority over the City’s incorporated lands.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF BAINBRIDGE ISLAND, WASHINGTON, DOES ORDAIN AS FOLLOWS:

Section 1. Section 17.04.010 of the Bainbridge Island Municipal Code is hereby amended as follows.

A. The purpose of this title is to regulate the division of land into short subdivisions, long subdivisions, and large lot subdivisions ~~to promote the public health, safety and general welfare of the citizens of the city in accordance with state law and the city’s comprehensive plan. To carry out this purpose and further the comprehensive plan policies addressing residential subdivision of land, this title establishes a flexible lot process for short and long subdivisions that promotes the preservation and consolidation of open space and clustering of development within residential subdivisions. This process facilitates the fair and predictable division of land, maintains the current character of the city, encourages efficient and cost effective provisions for infrastructure, limits the development impact area, minimizes impervious surface area and provides for greater flexibility in the division and establishment of residential lots. in a manner~~

consistent with the established zoning classifications for residential and other uses, in order to promote the public health, safety, and general welfare of citizens. In accordance with state law and the city's comprehensive plan, this title establishes a planning process for short and long residential subdivisions that promotes the preservation and consolidation of natural areas and the clustering of homes, in order to facilitate the fair and predictable division of land, limit the environmental impacts of development, achieve efficient and cost-effective provisions for utilities and infrastructure, and maintain the current character of the city.

~~B. A further purpose of this title is to:~~

- ~~1. Prevent the overcrowding of land;~~
- ~~2. Lessen congestion in the streets and highways;~~
- ~~3. Provide for adequate light and air;~~
- ~~4. Facilitate adequate provision for water, sewage, storm water drainage, parks and recreation areas, sites for schools and school grounds and other public requirements;~~
- ~~5. Provide for proper ingress and egress;~~
- ~~6. Provide a variety of housing opportunities; and~~
- ~~7. Maintain the quality of life of the city.~~

~~C. Through this title, the city will also allow for the subdivision of land for nonresidential, multifamily, and mixed use, and accomplish uniform monumenting of land divisions and conveyance by accurate legal description.~~

~~D. An additional purpose of this title is to provide criteria for summary administrative approval of boundary line adjustments that satisfy public concerns of health, safety and welfare, or where arranging or rectifying boundary lines is otherwise requested.~~

~~E.B. A final further purpose of this title is to comply with the provisions of RCW Title 58 (Boundaries and Plats) or its successors, and other applicable law of Washington State, and no provision of this title shall be interpreted to authorize or require actions inconsistent with those laws. (Ord. 2011-02 § 2 (Exh. A), 2011)~~

Section 2. Section 17.04.020 of the Bainbridge Island Municipal Code is hereby amended as follows.

B. Location of Review and Approval Procedures and Application Materials. The procedures for approval of short, long, large lot, nonresidential, and multifamily subdivisions, as well as the vesting of rights related to those types of approvals, are set forth in BIMC Title 2 (Administration and Personnel). All such provisions require consistency with the requirements of RCW Title 58 (Boundaries and Plats) or its successors as applicable to the type of land division being proposed. Required application materials are provided in the Bainbridge Island administrative manual.

~~E. Application Materials. Materials required to be submitted with an application for a short or long subdivision, subdivision, large lot subdivision, nonresidential or multifamily subdivision or boundary line adjustment are available in the Bainbridge Island administrative manual.~~

Section 3. Section 17.08.020 of the Bainbridge Island Municipal Code is hereby amended as follows.

~~H. Short subdivisions shall not be used, either by a person alone or by persons acting together, at one time or over a period of time, as a means to circumvent compliance with the more stringent subdivision requirements that control the subdivision of land into five or more lots. When an application for a short subdivision is filed within five years after the approval of a short subdivision on a contiguous land parcel, a presumption of an attempt to circumvent short subdivision requirements may be invoked by the director as a basis for further investigation to assure compliance with the intent of this provision. (Ord. 2011-02 § 2 (Exh. A), 2011)~~

Section 4. Chapter 17.12 of the Bainbridge Island Municipal Code is hereby repealed.

Section 5. An updated Chapter 17.12 of the Bainbridge Island Municipal Code is hereby adopted, as set forth in Exhibit A and as incorporated herein.

Section 6. Chapter 17.28 of the Bainbridge Island Municipal Code is hereby amended as set forth in Exhibit B and as incorporated herein.

Section 7. Table 18.12.020-1, *Flexlot Subdivision Dimensional Standards for Residential Zone Districts*, is hereby repealed.

Section 8. Chapter 18.12.040 of the Bainbridge Island Municipal Code is hereby amended as follows.

A. Permitted Setback/Height Modifications. Minimum and maximum setbacks and maximum heights established in Tables 18.12.020-1, 18.12.020-2, and 18.12.020-3 and in BIMC 18.12.030 may be encroached as set forth in Table 18.12.040 and may also be modified by applicable provisions of adopted fire codes, the shoreline master program, and/or the building code. These modifications are not permitted in required perimeter or roadside buffers.

Section 9. Section 18.15.005 of the Bainbridge Island Municipal Code is hereby amended as follows.

G. ~~Chapter BIMC 17.12 BIMC-.030, flexible lot design open space/cluster general subdivision~~ standards; BIMC 17.20.020, dedication of land for parks and open space facilities;

Section 10. Table 18.15.010-1, *Landscape Requirements by Zone District*, of the Bainbridge Island Municipal Code is hereby amended as follows.

Landscape Requirements for Land Uses and Districts	Significant Tree and Tree Stand Retention	Perimeter Landscape	Roadside Buffer	Parking Lot Landscaping	Total Site Tree Unit Requirements	Planting Requirements	Irrigation	Maintenance
Single-Family Residential Short Plats and Subdivisions	X	X (Cluster Subdivisions Only)	X	-	-	X	X	X

Section 11. Table 18.15.010-3, *Perimeter Landscaping Requirements by Land Use and Zoning District*, of the Bainbridge Island Municipal Code is hereby amended as follows.

Abutting Zoning or Land Use District	Perimeter Landscape Type	Perimeter Width (ft.)	Minimum Perimeter Width (ft.)
Short Plats and Subdivisions in Residential Zoning Districts [1]			
Residential subdivision in the R-0.4, R-1, and R-2 districts (cluster option only)	Edge Planting Standard	25	25
Multifamily subdivision in the R-2, R-1, and R-0.4 zoning districts (cluster option only)	Full Screen	25	25
Park and conservation land buffer: applies to all single-family subdivisions (OS) [2]	Edge Planting Standard	25	25
Winslow Town Center Mixed Use District [3] [1]			
Non-B/I	Full Screen [4] [2]	50	35
[1] Properties with less than one acre being subdivided are not subject to perimeter buffer requirements.			

Abutting Zoning or Land Use District	Perimeter Landscape Type	Perimeter Width (ft.)	Minimum Perimeter Width (ft.)
<p>[2] (OS) indicates that the buffer may be calculated in the required open space area for the subdivision.</p> <p>[3] [1] For perimeter landscaping requirements in the ferry terminal district transition area, north of Winslow Way, reference BIMC 18.12.030.C.</p> <p>[4] [2] This perimeter buffer applies even when a private access road separates a B/I property from non-B/I property.</p>			

Section 12. Section 18.15.010.D. of the Bainbridge Island Municipal Code is hereby amended as follows.

3. ~~Perimeter Buffers in Residential Cluster Short Subdivisions, Cluster Long Subdivisions, and Multifamily Subdivisions in the R-2, R-1, and R-0.4 Zoning Districts.~~ for residential and commercial subdivisions are required pursuant to BIMC 17.12.060.N. The buffers shall be pursuant to the standards set forth in subsection D.4 of this section. The tree retention, replacement, and protection standards of subsection C of this section apply to perimeter buffers for residential and commercial subdivisions.

- ~~a. When the cluster development option is selected pursuant to BIMC [17.12.030.B](#) for property with a gross area of one acre or more and that is located in the R-0.4, R-1, R-2 and R-2.9 districts, a 25-foot wide, edge planting standard landscape perimeter shall be required along the subdivision boundary.~~
- ~~b. When the cluster development option is selected pursuant to BIMC [17.12.030.B](#) for property with a gross area of one acre or more and that is located in the R-3.5, R-4.3, R-5, R-6, R-8, and R-14 zone districts, a 10-foot wide, edge planting standard landscape perimeter shall be required along the subdivision boundary.~~
- ~~c. In order to buffer the visual impact of the proposed subdivision and protect off-site views, additional landscaping shall be planted within landscape perimeter buffers where mature trees and shrubs cannot provide such screening, pursuant to subsection D.4 of this section.~~
- ~~d. Required landscape buffer width may be reduced through buffer averaging in accordance with the criteria in subsection D.5 of this section, perimeter landscape requirements. For example, buffers may be adjusted when such adjustments contribute to the neighborhood character by incorporating significant trees and native vegetation, incorporate a unique landscape feature, or accommodate a unique situation that allows~~

continuation of an existing use, such as a utility or other easement providing continued use.

~~e. Landscape buffers may be included in the required open space calculations for a subdivision as noted in Table 18.15.010-3. Table 18.15.010-3 depicts the landscape buffer requirements for subdivisions by zoning district and denotes when the buffer may be included in the open space calculations. These standards apply unless alternative buffers are required pursuant to critical area review, the requirements of the Shoreline Management Act, conditioned by SEPA review, or required for public health or safety reasons.~~

~~f. When a multifamily subdivision is created within the R-2, R-1, and R-0.4 zoning districts, a 25-foot wide, full screen landscape perimeter shall be required along the subdivision boundary~~

Section 13. Section 18.15.010.E. of the Bainbridge Island Municipal Code is hereby amended as follows.

2. Roadside Buffers for Residential and Commercial Subdivisions are required pursuant to BIMC 17.12.070.O. ~~Roadside buffers are required for both residential and commercial subdivisions—see Table 18.15.010-4. The type and width of the required buffer varies by the type of roadway the subdivision is adjacent to, as well as the condition of the existing roadside vegetation. The buffers shall be pursuant to the standards set forth in subsection D.4 of this section and Table 18.15.010-4. The tree retention, replacement, and protection standards of subsection C of this section apply to roadside buffers for residential and commercial subdivisions.~~ These requirements do not apply to projects involving only interior renovations of existing buildings.

~~a. Roadside Buffer General Requirements. All residential subdivisions and short subdivisions subject to landscape buffering requirements shall comply with the standards in this subsection, including those in Table 18.15.010-4.~~

~~b. Roadside Buffers in Residential Short Subdivisions.~~

~~i. Except for properties containing a gross area of less than one acre, on a property located adjacent to public roads that are designated as collector or arterial roads on the adopted road classification map, a 25-foot wide vegetative buffer shall be maintained. However, in the R-3.5, R-4.3, R-5, R-6, R-8 and R-14 districts a roadside buffer is not required unless it is determined that a landscape buffer is necessary to maintain the character of the neighborhood or to reflect neighboring development patterns.~~

~~ii. Where there are no mature trees and shrubs that contribute to the existing forested character of these roads, the character of the neighborhood shall be maintained by establishing building setbacks equal to or greater than the existing building setbacks on the~~

adjacent properties. At no point shall the building setback be less than requirements in this title.

iii. To accommodate an existing house that is located within 25 feet of the property line adjacent to a collector or arterial road, the roadside buffer area width shall be reduced to the width adjoining the existing home between the existing house and the property line adjacent to the collector or arterial road.

~~c. Roadside Buffers in Residential Long Subdivisions.~~

~~i. For subdivisions located in the R 0.4, R 1, R 2 and R 2.9 districts located adjacent to public roads that are designated as collector or arterial roads on the adopted road classification map, a 25-foot wide vegetative buffer shall be maintained. In the R 3.5, R 4.3, R 5, R 6, R 8, and R 14 districts a roadside buffer is not required unless it is determined that a landscape buffer is necessary to maintain the character of the neighborhood or to reflect neighboring development patterns.~~

~~ii. For property with a gross area of one acre or more and that is located in districts R 0.4, R 1, R 2 and R 2.9, where there is no existing vegetation that contributes to the existing vegetation character of the roads, a 25-foot full screen landscape buffer shall be planted consistent with the requirements of subsection D.4.a of this section, except as noted below in this subsection.~~

~~iii. To accommodate an existing house that is located within 25 feet of the property line adjacent to a collector or arterial road (or within 25 feet of such a property line if subsection E.2.c.ii of this section applies), and to maintain the character of the neighborhood and reflect neighboring development patterns, the roadside buffer area width shall be reduced to the width adjoining the existing home between the existing house and the property line adjacent to the collector or arterial road. At no point shall the building setback be less than requirements in this title.~~

~~iv. For subdivisions designating open space that is intended for agricultural use and would be adversely impacted by the addition of screening landscaping, a 25-foot roadside buffer as prescribed in subsection E.2.c.ii of this section shall not be required.~~

~~d. Roadside Buffers in Multifamily and Commercial Subdivisions. A minimum 50-foot vegetative buffer shall be established adjacent to all designated scenic roads. The buffer shall be consistent with the requirements for a full screen buffer, pursuant to subsection D.4.a of this section.~~

~~e. Multiple Street Frontages. For properties subject to the roadside buffers requirement along two property boundaries, the roadside buffer abutting the street with the lower classification may be reduced to 25 feet in width. For properties that abut more than two streets requiring roadside~~

buffers or in situations where both abutting streets are of the same road classification, one roadside buffer of the full required width shall be required and all other roadside buffers may be reduced to 25 feet; provided, that the full required width buffer is located where a greater number of significant trees can be incorporated into the buffer.

Section 14. Table 18.15.010-4, *Roadside Buffer Requirements by District and Land Use*, of the Bainbridge Island Municipal Code is hereby amended as follows.

Existing Zoning/Use	Adjacent Right-of-Way Type	
	Right-of-Way (not including Highway 305)	Highway 305
Residential Subdivision in the R-0.4, R-1, R-2, and R-2.9 Districts [4]	25' Full Screen or maintain existing vegetation within 25' buffer (OS) [5][6]; Applies only to collectors and arterial roads	
Residential Subdivision in the R-3.5, R-4.3, R-5, R-6, R-8, and R-14 Districts [4]	No requirement unless necessary to reflect neighboring development patterns (OS) [5]; Applies only to collectors and arterial roads	

- [1] All roadside buffers ~~must~~ shall be planted if not already existing.
- [2] For perimeter landscaping requirements in the ferry terminal district transition area, north of Winslow Way, reference BIMC [18.12.030.C](#).
- [3] Beginning 100' north of Winslow Way.
- [4] ~~Properties being subdivided with less than one acre are not subject to roadside buffer requirements.~~
- [5] ~~(OS) indicates that the buffer may be calculated in the required open space area for open space subdivision.~~
- [6] ~~Existing vegetation must remain in the 25-foot buffer area. When existing vegetation does not constitute a full screen, the applicant will not be required to plant a full screen. If existing vegetation within the 25-foot buffer area does constitute a full screen, but dense vegetation is not part of the neighborhood character, then the applicant may choose between maintaining a 25-foot full screen roadside buffer, or averaging that buffer to retain trees and vegetation elsewhere on the property and eliminating the roadside buffer.~~

Section 15. Section 18.15.020.D. of the Bainbridge Island Municipal Code is hereby amended as follows.

3. Parking spaces serving dwelling units shall be located on the same lot with the building they serve, except in subdivisions where parking spaces may be located on a separate lot or tract. In the central core, gateway, and ferry terminal districts, one parking space per unit shall ~~must~~ be located on site and any additional spaces may be located off site. All off-site spaces shall ~~must~~ be within a 1,000-foot radius of the edge of the development parcel and shall ~~must~~ be acquired through fee-in-lieu, fee simple ownership, or a leasehold permanently linked to the unit.

Section 16. Section 18.18.030 of the Bainbridge Island Municipal Code is hereby amended as follows.

~~A. Detached Single Family Residential Developed Using the R-8SF Urban Single Family Overlay District. Detached single family residential developed in accordance with the R-8SF urban single family overlay district transfer of development rights program shall comply with those regulations contained in “Design Guidelines for R-8SF Urban Single Family Overlay District” if they want to develop at overlay zone densities. Residential subdivision development in all zoning districts except the Neighborhood Center and Mixed Use Town Center districts shall comply with those regulations contained in “Design Guidelines for Residential Subdivisions,” as set forth in Exhibit C and incorporated herein.~~

Section 17. If any section, subsection, paragraph, sentence, clause, or phrase of this ordinance is declared invalid or unconstitutional for any reason, such decision shall not affect the validity of the remaining portions of this ordinance.

Section 18. This ordinance shall take effect and be in force five (5) days after its passage, approval, and publication as required by law.

PASSED by the City Council this ___ day of _____, 2019.

APPROVED by the Mayor this ___ day of _____, 2019.

Kol Medina, Mayor

ATTEST/AUTHENTICATE:

Christine Brown, City Clerk

FILED WITH THE CITY CLERK: March 15, 2019
PASSED BY THE CITY COUNCIL: _____, 2019
PUBLISHED: _____, 2019
EFFECTIVE DATE: _____, 2019
ORDINANCE NUMBER: 2019-03

Chapter 17.12

SUBDIVISION STANDARDS

17.12.010 Applicability.

This chapter sets forth standards for short subdivisions, long subdivisions, large lot subdivisions, and nonresidential and multifamily subdivisions. Specific requirements relevant to each individual type of subdivision are provided throughout various chapters of this title.

17.12.020 Subdivision Design Guidelines.

All residential subdivisions outside the Neighborhood Center and Mixed Use Town Center zoning districts shall comply with those design guidelines contained in “Design Guidelines for Residential Subdivisions” set forth in BIMC 18.18 and its reference documents, which are adopted as part of this title by reference.

The purpose of subdivision design guidelines is to define the qualities of subdivisions that meet the guiding principles, goals, and policies of the city’s Comprehensive Plan and to serve as a tool for guiding individual projects to meet those expectations through the city’s land use review procedures. The design guidelines offer reference points for the public to participate in discussions of new subdivisions, and they allow applicants flexibility in meeting development standards and zoning requirements. An applicant may be granted a departure from the **development standards** by demonstrating that an alternative design better meets the intent of the design guidelines.

1

17.12.030 Four-Step Design Process

The city’s approach to planning for subdivisions requires a four-step process that gives the highest priority to identification and conservation of **resources**. This process reverses the conventional site planning approach, which typically begins by laying out the streets, lot lines and building footprints. Instead of first identifying the areas to be cleared for development, the design process begins by analyzing on-site resources and the site’s relationship to surrounding properties, in order to identify what resources are most worthy of preservation and what areas can best accommodate development.

2

This design process is required for all residential subdivisions. The process is further defined in BIMC 2.16.125.D; it consists of four steps: 1) Delineate Natural Area; 2) Locate Homesites and Community Space; 3) Define Access; and, 4) Draw Lot Lines.

17.12.040 Administrative Departures

A. A departure from existing subdivision standards may be requested by an applicant or required by the City to allow use of an alternative standard not listed among the applicable requirements of BIMC 17.12.050 through BIMC 17.12.070. Departures are not variances and are not required to meet the criteria associated with a variance application. Rather, departures allow adjustment of existing standards to achieve better outcomes in cases where strict application of the existing standard would result in an inferior subdivision design.

B. Departures from the subdivision standards in BIMC 17.12.050 through BIMC 17.12.070, may be permitted as part of the subdivision review process. In order for such a departure to be allowed, it must satisfy the intent of the

four-step design process, and the resulting development design must better serve the public interest. A departure shall not be allowed from the following standards:

1. Natural area
2. Community space
3. Homesite size

C. Any request for one or more departures shall be made at the Design Guidance Review Meeting as part of the pre-application phase of the project. Departures shall be reviewed concurrently with an application for subdivision. It must be shown that the proposal is consistent with the following criteria:

3

1. Because of unusual shape, exceptional topographic conditions, environmental constraints or other extraordinary situation or condition in connection with a specific piece of property, strict adherence to the existing standard would create undue hardship or result in an undesirable plat; or

2. The granting of the departure results in better plat and/or lot design. Better plat and/or lot design means situations such as creating plats that result in greater natural resource conservation value, less adverse impact to adjoining properties, or more practical design because of topography, critical area, or other extenuating circumstance; and

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~~3. All possible efforts to comply with the standard or minimize potential harm or adverse impacts have been undertaken. Economic consideration may be taken into account but shall not be the overriding factor in approval; and~~

4. The departure is consistent with other applicable regulations and standards; and

5. The granting of any departure will not be unduly detrimental to the public welfare nor injurious to the property or improvements in the vicinity in which the property is located.

5

D. Upon affirmative recommendations by the Design Review Board and the Planning Commission, the director shall review the record and render a decision on the specified departure(s), subject to review by the hearing examiner. A departure from subdivision standards BIMC 17.12.050 through BIMC 17.12.070 may be granted if it is shown that the departure meets the criteria in 17.12.040 (C).

17.12.050 Natural Area and Community Space.

A. Natural Area Required. All residential subdivisions shall provide natural area consistent with BIMC 17.28, Definitions, Table 17.12.070-1, and the following standards:

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1. Natural Area Objectives. The natural area(s) shall support one or more of the following objectives:

- a. Conservation of natural resources, including wildlife habitat;
- b. Protection of groundwater recharge;
- c. Conservation of native soils;
- d. Expansion or enhancement of the value to adjacent or neighboring open space, parks, forested areas, conservation easements, shorelines, or critical areas;
- e. Preservation of unique natural land or rock features;
- f. Preservation of visual appeal along highway, road and street corridors or scenic vistas.

2. Amount of Natural Area Required. The minimum natural area shown in Table 17.12.070-1 shall be provided and shall be depicted on the face of the plat.

3. Designation of Natural Area. The natural area(s) shall be designated as the first step in the four-step design process defined in BIMC 2.16.125.D. Natural areas consist of primary and secondary natural areas. If the primary natural areas make up less than the required percentage of the total site natural area, the balance of the required natural area shall consist of secondary natural areas.

a. Primary Natural Areas (PNA). PNAs form the core of the natural area to be protected. PNA's include the following:

- i. Critical areas other than critical aquifer recharge areas;
- ii. Critical area buffers;
- iii. Aquifer recharge protection area as required by BIMC 16.20.100,

b. Secondary Natural Areas (SNA). SNAs are locally noteworthy or significant features of the natural landscape. SNA's include the following:

- i. Mature woodlands;
- ii. Freestanding significant trees;
- iii. Wildlife corridors;
- iv. Greenways and trails;
- v. Scenic viewsheds;
- vi. Mature vegetation on ridgelines

c. Aquifer Recharge Protection Area (ARPA). Subdivisions in the R-0.4, R-1, and R-2 zoning districts shall include designation of an ARPA in accordance with BIMC 16.20.100 and the following standards:

- i. If a proposed subdivision includes more than one parcel, the ARPA shall be calculated based on the total square footage of all parcels;
- ii. If the required ARPA is greater than the required natural area, the natural area shall be increased to achieve the required ARPA area;
- iii. If the required ARPA is less than the required natural area, the natural area shall include other SNAs to achieve the required natural area.

4. Natural Area Configuration. Designated natural areas shall be configured in a manner that enhances and promotes the natural character of the island and natural resource characteristics of the property and surrounding area. Natural area configuration shall satisfy the following guidelines:

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- a. Natural area should be concentrated in large, consolidated areas; and
- b. Natural area should connect to any adjacent off-site open space areas, designated wildlife corridors and trails, and/or critical areas; and
- c. Natural area should be designed to preserve views from off site of the subject property; and
- d. Natural area should be delineated with a low perimeter-to-area ratio with a minimum width of fifty (50) feet; and
- e. Natural area may be included as a portion of one or more lots or may be contained in a separate tract.

5. Natural Area Fencing and Signage. Fences and/or signs delineating the boundary of natural areas are required. The director shall determine which option (fence or sign) is required, based on the recommendations from the Design Guidance Review Meeting.

8

- a. If fencing is required:
 - i. Low-impact fences are preferred and must be constructed in accordance with the definition in BIMC 17.28.020; and
 - ii. Fencing is not required at the exterior boundary of the subdivision; and
 - iii. Gaps in fencing not exceeding five (5) feet are permitted, as are gates
- b. If signs are required:

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- i. They shall be constructed in accordance with the definition in BIMC 17.28.020; and
 - ii. Typically, they shall be spaced at intervals of 50 feet, allowing for variation due to reasons such as topography, configuration of natural area open space, distance from other features, etc.
- c. If signage is required and encroachments into the designated natural area occur, the director may require that the owner install fencing and/or additional signage to prevent future encroachments. Required fencing and signs shall be maintained in good repair, with repair or replacement to occur within 60 days.

6. Natural Area Ownership. Ownership of natural area shall be established consistent with one of the following forms of ownership:

- a. Private Ownership. Natural areas may be held in private ownership if established by easements, restrictive covenants, the natural area management plan, or similar legal means; or
- b. Common Ownership. Natural areas may be held in common by a home or property owners' association or other similar organization. For the purposes of this title, if a land trust or a similar conservancy maintains ownership or a conservation easement, that shall be considered common ownership. If this ownership pattern is selected, covenant, conditions, and/or restrictions shall be required; or
- c. Public Ownership. Designated natural areas shall not be required to be dedicated to the city or other public agency, and the owner shall not be required to permit public access to designated natural areas. However, if the owner offers to dedicate, the city or other public agency may choose to accept ownership of natural areas. Consequently, upon approval and acceptance by the city council, the natural areas shall be dedicated to the public.

7. Natural Area Maintenance. An applicant shall submit a draft natural area management plan (NAMP) as described in the Bainbridge Island administrative manual, for review as part of the preliminary plat application. Final approval of the NAMP will occur at the time of final plat approval. The natural area management plan shall include:

- a. A list of all approved uses for the natural areas. Where uses in separate natural areas vary, the specific location of each use shall be depicted graphically.
- b. A maintenance plan for natural areas, that clearly describes the frequency and scope of maintenance activities for natural areas and that meets all requirements set forth in subsection 7 herein, and in the Bainbridge Island administrative manual.
- c. The approved NAMP must be filed with the Kitsap County Auditor. In the event that the natural area is not maintained consistent with the NAMP, the city shall have the right to enter the property for necessary maintenance, with the cost of such maintenance assessed against the landowner or, in the case of a homeowner's association, the owners of the properties within the subdivision and shall, if unpaid, become a tax lien on such property or properties.

8. Allowed Uses in Natural Area. Allowed uses within natural areas include:

- a. Installation and care of native plants.
- b. Maintenance pruning of trees and shrubs provided the structural integrity and long-term health of the vegetation is preserved.
- c. Wildfire mitigation activities, other than tree removal, within a 30-foot defensible space around a primary structure, in accordance with the Bainbridge Island community wildfire protection plan and as described by Section 603 of the International Wildland Urban Interface Code.
- d. Removal of invasive plant species.
- e. Passive recreation, including pervious trails.
- f. Potable water wells and well houses.
- g. Low impact fencing or signs marking the natural area boundary.
- h. On-site sewage drainfield facilities, if construction of the system will not require the use of heavy equipment or removal of significant trees.
- i. Storm drainage facilities if the applicant can demonstrate that (i) the system meets the low impact design (LID) standards of Chapter 15.20 BIMC, and (ii) construction of the system will not require the use of heavy equipment or removal of significant trees.
- j. Accessory solar panels, small wind energy generators, composting bins, rainwater harvesting barrels, and cisterns, as defined in Chapter 18.36 BIMC.
- k. Other structures or hard surfaces with a total footprint no greater than 200 square feet.

B. Community Space Required. All residential subdivisions, except short subdivisions, shall provide community space consistent with BIMC 17.28, Definitions, Table 17.12.070-1, and the following standards:

1. Community Space Objectives. Community space shall accomplish one or more of the following objectives:

- a. Provide a place for residents to gather in shared space.
- b. Provide common buildings, open space, or gardens.
- c. Provide space for unstructured recreation.
- d. Enhance a felt and actual sense of security, identity, and community.
- e. Provide a protected, traffic-free environment.

2. Amount of Community Space Required. The minimum community space shown in Table 17.12.070-1 shall be provided and shall be depicted on the face of the plat.

3. Community Space Configuration. Community space should adjoin the largest practicable number of lots within the development. Non-adjoining lots shall be provided with safe and convenient pedestrian access to community space.

4. Community Space Ownership. Ownership of community space shall be established consistent with one of the forms of ownership set forth in BIMC 17.12.050.A.5.

5. Community Space Maintenance. An applicant shall submit a draft community space management plan (CSMP) as described in the Bainbridge Island administrative manual, for review as part of the preliminary plat application. Final approval of the CSMP will occur at the time of final plat approval. The community space management plan shall include:

- a. A list of all approved uses for the community space. Where uses in separate community spaces vary, the specific location of each use shall be depicted graphically.
- b. A maintenance plan for community space that clearly describes the frequency and scope of maintenance activities, and that meets all requirements set forth in subsection 5 herein and the Bainbridge Island administrative manual.
- c. The approved CSMP must be filed with the Kitsap County Auditor within thirty (30) days of final plat approval. In the event that the community space is not maintained consistent with the CSMP, the city shall have the right to enter the property for necessary maintenance, with the cost of such maintenance assessed against the landowner or, in the case of a homeowner's association, the owners of the properties within the subdivision and shall, if unpaid, become a tax lien on such property or properties.

6. Allowed Uses in Community Space. Community space may include uses such as crop and animal agriculture, meadows, orchards, pastures, turf fields, and common buildings. Prohibited and allowed uses within community space shall be included in the draft terms, conditions, covenants, and agreements proposed for the subdivision, which shall be submitted with the preliminary subdivision application. Final terms, conditions, covenants, and agreements must be filed with the Kitsap County Auditor within thirty (30) days of final plat approval.

17.12.060 Homesites. All single-family residential subdivisions require homesites located and designed consistent with BIMC 17.28, Definitions, Table 17.12.070-1, and the following standards:

A. Homesite Area.

1. A homesite area no greater than the maximum area shown in Table 17.12.070-1 shall be provided for each lot and shall be depicted on the face of the plat.
2. The homesite area shall include the primary residential dwelling, accessory buildings, and on-site parking, if provided for each lot within the subdivision.
3. Other allowed uses and structures include residential landscaping, pathways, turf, and fences; individual water, stormwater, and septic infrastructure.

4. Homesites shall not contain any critical areas or their buffers or setbacks, shoreline buffers, or any portion of required natural areas. Homesites may include critical aquifer recharge areas.

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B. Homesite Clustering. Clustering is the preferred design model for all single-family subdivisions. The purpose of clustering is to facilitate the efficient use of land by limiting areas of disturbance, impervious surfaces, utility extensions, and roadways.

The four-step design process outlined in Section 17.12.030 BIMC is intended to allow the characteristics of the land to determine the most suitable location of homesites. Section 17.12.040 BIMC also provides for departures from certain standards, if it is found that the adjustment achieves a better outcome.

1. Homesite cluster groups shall be located to minimize adverse impacts to adjacent, previously existing residential development.
2. Homesite cluster groups are not required to be located near any existing home on the property.
3. Homesite cluster groups shall be configured to maintain the natural features of the site and minimize topographic alteration and clearing of existing vegetation.

17.12.070 General residential subdivision standards.

A. Constrained lots. If, due to site or design constraints, no homesite with supporting infrastructure can be located on a subject property, no division of land is permitted.

B. Preexisting lots. Lots that have previously received final approval from the city, or that have previously received final approval from Kitsap County prior to inclusion within the city boundaries, and that do not comply with standards of this chapter shall be considered existing nonconforming lots, but any future resubdivision of any such lots shall comply with the requirements of this title.

C. Platted lots. The platted lot defines the extent of private ownership of land within the subdivision. The size, shape and potential uses of a lot depend on many factors that will be considered in the subdivision design process. Establishing lot lines is the last step in the design process, but a desired result will affect decisions throughout the process, and the physical characteristics of the entire property will present both constraints and opportunities. Standards applicable to lots are found in BIMC 17.12.070 and Table 17.12.070-1.

D. The short subdivision process shall not be used, either by a person alone or by persons acting together, at one time or over a period of time, to circumvent compliance with the more stringent requirements that control the subdivision of land into five or more lots. When an application for a short subdivision is filed within five years after the approval of a short subdivision on a contiguous land parcel, presumption of an attempt to circumvent short subdivision requirements may be invoked by the director as a basis for further investigation, to assure compliance with the intent of this provision and the requirements of a long subdivision.

D. Remaining area. Any area not designated as public or private access, buffers, lots, or utility tracts shall be designated as either natural area or community space, in accordance with the objectives in either BIMC 17.12.050.A.1 or 17.12.050.B.1.

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E. Site Disturbance. The extent of land disturbing activities, as defined in BIMC 15.20.020.22, shall be limited to the minimum required for site preparation and construction.

F. Compatibility with Adjacent Development

1. Subdivisions shall be designed and located to ensure compatibility with existing adjacent development.
2. Views of house lots from exterior roads and abutting properties shall be minimized by preserving the natural topography and existing vegetation to the greatest extent possible.

G. Dimensional standards. Table 17.12.070-1 sets forth certain minimum and maximum dimensional standards. Where a property is located in more than one zone district, units permitted by density calculations within each zone

district must be constructed on the portion of the property located within that district and required setbacks for each zone district must be met. Permitted densities are not “blended” across the zone district line.

H. Septic Systems. Locations of individual or community drainfields and associated reserve drainfields shall comply with all applicable standards established by the Kitsap Public Health District or Washington Department of Health. Reserve drainfield areas shall remain undisturbed until such time as their use is required. This standard shall be noted on the face of the preliminary and final plat.

I. Streets and Vehicle Access. Subdivisions shall comply with the following standards unless modified by the City Engineer:

1. Subdivisions shall comply with all applicable standards of the “City of Bainbridge Island Design and Construction Standards and Specifications,” as amended. Deviations from the “City of Bainbridge Island Design and Construction Standards and Specifications” may be granted by the City Engineer upon evidence that such deviations are in the public interest and that they are based on sound engineering principles and practices. All requirements for safety, function, appearance and maintainability must be fully met. Desired deviations must be requested at the Design Guidance Review Meeting during the pre-application phase of the project.
2. Each lot in a residential subdivision shall have direct access to a public or private street, except for those with shared driveways or alternative lot designs that provide shared or clustered parking outside of individual lots.
3. The street system of a proposed subdivision shall be designed to connect with any existing, proposed, or planned streets outside of the subdivision or to create a connection beneficial to the overall circulation of the surrounding area, as determined by the City Engineer.
4. Interior street layout shall be oriented on the east/west axis if feasible, to maximize active and passive solar access.
5. To minimize impervious surfaces, all public rights-of-way, access easements, private streets, and driveways shall not be greater than the minimum dimensions required to meet standards.
6. Street names and traffic regulatory signs shall be provided, and their locations shall be indicated on the plat/plan. The locations of mailboxes and traffic regulatory signs are only required on the plat/plan when other public improvements are required.
7. Transit stops shall be provided as recommended by Kitsap Transit.

J. Parking and Garages.

1. Parking shall be provided consistent with BIMC 18.15.020, except as modified by this subsection.
2. Parking spaces provided on individual lots must be located within the designated homesite.
3. Parking spaces may be located outside of individual lots, consolidated in a remote or satellite parking area, or in individual or shared garages.
4. Consolidated parking areas shall be landscaped in accordance with BIMC 18.15.010.F.
5. Shared garages are limited to five vehicle spaces and shall not exceed 60 feet in length or 1440 square feet total.
6. Garages, including detached garages, located on individual homesites facing a public street shall be:
 - a. Limited to two vehicles; and
 - b. Either accessed from the side or rear or set back from the most front-facing exterior wall of habitable space a minimum of five feet unless the house is not visible from the public street.

K. Circulation and Access.

1. All subdivisions shall include a circulation and access system of walkways, paths, or trails that interconnect lots, natural area, community space, and adjacent access facilities. Trails that provide connection to streets, public areas or other trails through the subdivision boundaries shall provide public access.
2. Multi-modal facilities shall be consistent with the applicable standards of the “City of Bainbridge Island Design and Construction Standards and Specifications.”
3. Subdivisions may be required to provide dedicated access easements if one or more “trail connection zones” are located on the site as shown on Map C and D (Non-Motorized System Plan) of the Island-Wide Transportation Plan, as amended.
4. Pursuant to RCW 58.17.110(1) sidewalks or other planning features shall be provided to assure safe walking conditions for students who walk to and from school.

L. Fencing.

1. Sight obscuring fencing is prohibited at the exterior boundary of a subdivision along a public right of way.
2. Fencing at the exterior boundary of a subdivision along a public right of way shall not exceed 3 feet, 6 inches in height.
3. Fencing at the exterior boundary of a subdivision along a public right of way is prohibited within the roadside buffer or at the edge of right of way.
4. Fencing around surface stormwater ponds shall not exceed 3 feet, 6 inches in height unless required by the City Engineer for safety reasons.

13 **M. Landscaping.** Individual homeowners are responsible for the maintenance and modification of landscaping on their lots, subject to any rules and guidelines established by a homeowners’ association or similar body. Native vegetation on the site should be retained and maintained where possible and landscaping should be responsive to the natural contours of the lot.

N. Perimeter Buffers. The intent of perimeter buffers is to visually and physically separate adjacent land uses, when necessary, to minimize impacts of new development on adjacent properties.

1. Perimeter buffers shall be provided at the exterior boundary of all subdivisions. The minimum width of perimeter buffers shall equal the minimum homesite boundary to exterior plat boundary required in accordance with Table 17.12.070-1.

14 2. Perimeter buffers shall be shown on the face of the preliminary plat. No structures, buildings, or parking facilities may be located within perimeter buffers, except that, **public and private streets**, utility lines, and trails may be located within perimeter buffers provided no significant trees are removed.

3. Existing, native vegetation, including significant trees and tree stands, shall be preserved within perimeter buffers. The tree retention, protection, and replacement requirements of BIMC 18.15.010.C apply to perimeter buffers unless modified by this section.

4. If existing vegetation provides an effective visual screen, no additional planting is required. If existing vegetation does not provide an effective year-round visual screen, additional plant material shall be installed, consistent with the following:

- a. Additional plant material shall be installed to achieve the full screen landscape standard provided in BIMC 18.15.010.D.4.a.. Any additional plant material shall be native species and no turf or lawn is permitted.
- b. In the R-0.4, R-1, and R-2 zoning district, additional plant material is not required if:
 - i. The perimeter buffer meets natural area designation objectives and designation standards in BIMC 17.12.050.1 and 17.12.050.3 or;
 - ii. The nearest structure within the subdivision is located a distance at least two times the required homesite boundary to exterior plat boundary dimension provided in Table 17.12.070-1.

5. Perimeter buffers may be included as a portion of one or more lots or may be contained in a separate tract.
6. Perimeter buffers may be included as a portion of the natural area required in BIMC 17.12.050.A if the buffer meets the standards of that subsection.
7. The performance and maintenance assurances requirements of BIMC 18.15.010.H apply to perimeter buffers.
8. The irrigation and maintenance standards of BIMC 18.15.010 apply to perimeter buffers.

O. Roadside Buffers. The intent of roadside buffers is to enhance or retain Island character through the minimization of disturbance of existing roadside vegetation and screen new development from more highly traveled roads.

1. Roadside buffers are required for all subdivisions along collector or arterial roads in the R-0.4, R-1, and R-2 zoning designation. The minimum width of roadside buffers is 25 feet.
2. Roadside buffers shall be shown on the face of the preliminary plat. Roadside buffers may not be part of individual lots and must be contained in a separate tract.
3. No structures, buildings, or parking facilities may be located within perimeter buffers, except that, utility lines and boxes and entry signs may be located within roadside, and driveways and trails may cross roadside buffers, provided no significant trees are removed.
4. Existing, native vegetation, including significant trees and tree stands, shall be preserved within roadside buffers. Tree retention, protection, and replacement requirements in BIMC 18.15.010.C apply to roadside buffers.
5. If existing vegetation provides an effective visual screen, or is consistent with existing roadside character, no additional planting is required. If existing vegetation does not provide an effective year-round visual screen, additional plant material shall be installed, consistent with the following:
 - a. Additional plant material shall be installed to achieve the full screen landscape standard provided in BIMC 18.15.010.D.4.a. Any additional plant material shall be native species and no turf or lawn is permitted;
 - b. Additional plant material is not required if mature forest or other dense vegetation is not part of the existing roadside character.
6. Roadside buffers may not be included as a portion of the natural area or community space required in BIMC 17.12.050.
7. The performance and maintenance assurances requirements of BIMC 18.15.010.H apply to perimeter buffers.
8. The irrigation and maintenance standards of BIMC 18.15.010 apply to perimeter buffers.
9. For subdivisions designating community space that is intended for agricultural use and would be adversely impacted by the addition of screening landscaping, a roadside buffer shall be required to use screening landscaping that does not adversely impact the proposed agricultural use.
10. To accommodate an existing house that is located within 25 feet of the subdivision boundary adjacent to a collector or arterial road, the roadside buffer width shall be reduced to the width adjoining the existing home between the existing house and the subdivision boundary adjacent to the collector or arterial road.

P. Design Diversity. Subdivision designs shall avoid monotonous rows of duplicative dwelling by incorporating measures that promote design diversity, including:

1. Providing a mixture of lot sizes and/or front setbacks; and/or

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2. Providing a variety of floor plans and façade treatments.

Q. No City Maintenance of Streets in Short Subdivisions. Streets within a short subdivision shall not be maintained by the city unless such streets have been dedicated as a right-of-way, improved to current city standards, and accepted as part of the approved short subdivision. Therefore, unless accepted, the responsibility for maintenance shall lie with the owners of the lots.

17.12.080 Multifamily and nonresidential subdivisions. Subdivisions established for multifamily and nonresidential uses shall comply with all provisions of BIMC Title 18 (Zoning) applicable to the zone district where the property is located, and for the type of development anticipated. This requirement shall include, without limitation, compliance with design guidelines and standards for lot areas, dimensions, mobility and access, landscaping, screening, and vegetative buffers.

17.12.090 Special requirements for critical areas and shoreline.

A. Critical Areas. Any portion of a short or long subdivision, large lot subdivision, nonresidential or multifamily subdivision that contains a critical area as defined in Chapter 16.12 BIMC must conform to all requirements of that chapter.

B. Shoreline. Any portion of a short or long subdivision, large lot subdivision, nonresidential or multifamily subdivision located within the jurisdiction of the shoreline master program, as defined in Chapter 16.12 BIMC, must conform to all requirements of that chapter.

Table 17.12.070-1 Subdivision Dimensional Standards

[Numbers in brackets indicate additional requirements listed at the end of the table.]

ZONING DISTRICT DIMENSIONAL STANDARD	R-0.4	R-1	R-2	R-2.9	R-3.5	R-4.3	R-5	R-6	R-8	R-14	NC	MUTC
MINIMUM LOT AREA												
Short and Long Subdivision	If the site is not served by a public sewer system, the minimum individual lot area shall be determined by the Kitsap Public Health District in accordance with Section 15 of the Kitsap County Board of Health Ordinance 2008A-01, Amended June 7, 2011, <i>Onsite Sewage System and General Sewage Sanitation Regulations</i> , as amended. If the site is served by a public sewer system, there is no minimum lot area. Individual lots may contain portions of natural and community space and access easements.											
Large Lot Subdivision	5 ac or 1/128th of a section, whichever is smaller.	N/A										
MINIMUM LOT AREA 17												
Note: Subdivisions containing irregularly shaped lots and lots containing critical areas may not be permitted to achieve maximum density. Additional regulations on density may apply pursuant to BIMC 16.20.												
Short, Long and Large Lot Subdivisions	The maximum number of lots permitted shall be calculated by dividing the total lot area of the property (without deducting areas to be dedicated as public rights-of-way or areas to be encumbered by private road easements) by the minimum lot area for standard lots in the zone district.											
Minimum Lot Area	100,000 sq. ft.	40,000 sq. ft.	20,000 sq. ft. [1]	15,000 sq. ft.	12,500 sq. ft.	10,000 sq. ft.	8,500 sq. ft.	7,260 sq. ft.	5,400 sq. ft.	3,100 sq. ft.	8,500 sq. ft.	See FAR table
Minimum Lot Area pursuant to BIMC 18.12.030.A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3,630 sq. ft.	2,074 sq. ft.	N/A	N/A
NATURAL AREA												
Minimum percentage of total site	55%	45%	30%	25%	25%	20%	15%	N/A	10%	5%	15%	5%
Minimum width	50 ft.											
COMMUNITY SPACE [x] [x] Instead of providing the required 5% community space, that area may be added to the required natural area if it can be demonstrated that greater conservation area can be achieved.												
Minimum percentage of total site	5% [x]	7.5%	10%	15%						10%	15%	10%

ZONING DISTRICT	R-0.4	R-1	R-2	R-2.9	R-3.5	R-4.3	R-5	R-6	R-8	R-14	NC	MUTC
HOMESITE	18											
Note: Refer to definition of homesite and standards for homesites.												
Maximum size	10,000 sq. ft.	7,500 sq. ft.	6,500 sq. ft.	5,500 sq. ft.	4,500 sq. ft.	3,500 sq. ft.	3,500 sq. ft.	N/A	3,000 sq. ft.	2,250 sq. ft.	3,500 sq. ft.	2,250 sq. ft.
HOME SIZE												
Maximum size	N/A							1,600 sq. ft.				
MAXIMUM LOT COVERAGE [3]												
Short and Long Subdivision	Same as applied to the entire property that is the subject of the subdivision application, a portion of which shall be assigned to each lot at the time of preliminary plat approval.											
Large Lot Subdivision	10%	15%	20%	N/A	N/A	N/A	N/A	N/A	25%	40%	N/A	N/A
MINIMUM SETBACKS												
Note: Additional setbacks may be required by:												
(a) Chapter 16.08 or 16.12 BIMC, or												
(b) Chapter 16.20 BIMC, Critical Areas, or												
(c) BIMC 16.28.040, mining regulations, or												
(d) BIMC 18.09.030, Use-specific standards, or												
<input checked="" type="checkbox"/> Attached or zero lot line allowed in all districts but R-0.4 if building is 1,600 sf or less												
<input type="checkbox"/> ADUs do not need to meet TOTAL building to homesite boundary setback – only minimum setback; must be located within homesite.												
Building to homesite boundary Net building size 1,600 sq. ft. or less Minimum/total [x] [y]	5 ft. min., 10 ft. total						3 ft. min., 10 ft. total					
Building to homesite boundary Net building size 1,601 sq. ft. or more Minimum/total	15 ft. min., 50 ft. total	10 ft. min., 25 ft. total	5 ft. min., 20 ft. total		10 ft. min., 20 ft. total	5 ft. min., 20 ft. total	5 ft. min., 20 ft. total	N/A	5 ft. min., 10 ft. total		3 ft. min., 10 ft. total	
Building outside homesite to exterior plat boundary line Net building size 200 sq. ft. or less	50 ft.	25 ft.		10 ft.		5 ft.						
Building outside homesite to exterior plat boundary line Net building size 200 sq. ft. or more	50 ft.	25 ft.		10 ft.		10 ft.				5 ft.		

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ZONING DISTRICT DIMENSIONAL STANDARD	R-0.4	R-1	R-2	R-2.9	R-3.5	R-4.3	R-5	R-6	R-8	R-14	NC	MUTC
Homesite to exterior plat boundary line	50 ft.	25 ft.		10 ft.		5 ft.						
Any building to SR 305 right-of-way	75 ft.	75 ft.	75 ft.	N/A	25 ft.	N/A	N/A	N/A	25 ft.	N/A	25 ft.	25 ft.
Homesite to edge of arterial and collector right-of-way	25 ft.			10 ft.								
Building outside homesite to edge of arterial and collector right-of-way	25 ft.			10 ft.								
Any building to all other streets	10 ft.						5 ft.					
Building to trail, natural or community space or access easement (except for natural areas that are also perimeter buffers)	10 ft.					5 ft.					10 ft.	5 ft.
Shoreline Jurisdiction	See Table 16.12.030-2, Dimensional Standards Table, and BIMC 18.12.030.F, Shoreline Structure Setbacks. For properties abutting the shoreline, dimensional standards in BIMC 16.12 replace the zoning setbacks along the water.											
GARAGE DIMENSIONAL STANDARDS												
Shared garage to internal access	20 0 feet											
Shared garage to shared garage	10 feet											
Shared garage maximum size	60 feet long or 1440 square feet total											
MAXIMUM BUILDING HEIGHT												
Note: Bonus may not be available in the shoreline jurisdiction												
Short, Long, and Large Lot Subdivisions	Height requirements for standard lots apply pursuant to BIMC Table 18.12.020-2.											

[1] The base density for that parcel in the Lynwood Center special planning area designated as R-2 is one unit per 20,000 sq. ft., but may be increased up to 3 units per acre; provided, that a public access easement is granted for that portion of the parcel that lies to the south of Point White Drive along the waters of Rich Passage. The base density of some parcels in the Fort Ward historic overlay district may be increased as shown in BIMC 18.24.070.

Chapter 17.28

DEFINITIONS

Sections:

- 17.28.010 Rules of construction.
17.28.020 Definitions.

17.28.010 Rules of construction.

Rules of construction shall be those listed in BIMC 18.36.010. (Ord. 2011-02 § 2 (Exh. A), 2011)

17.28.020 Definitions.

1. “Arterial” means an arterial road as defined in the City of Bainbridge Island Islandwide Transportation Plan, major thoroughfare used mainly for through traffic rather than access to nearby property. Arterials have greater traffic carrying capacity than collector or local streets and are designed for continuously moving traffic.

~~2.~~ “Block” means a group of lots, tracts or parcels within well defined and fixed boundaries.

~~3.~~ “Buffer” means as defined in Chapter 18.36 BIMC.

~~4.~~ “Circle template” means as defined in Chapter 18.36 BIMC.

~~5.~~ “Cluster development” means a group of adjoining homesite areas situated in a suitable area of a property, designed in such a manner that facilitates the efficient use of land by reducing disturbed areas, impervious surfaces, utility extensions and roadways, while providing for the protection of valued open space features.

~~6.~~ “Cluster grouping” means a grouping of two or more homesite areas for short subdivisions and a grouping of ~~four or more~~ homesites for long within a subdivision to facilitate the efficient use of land by limiting areas of disturbance, impervious surfaces, utility extensions and roadways. s regulated by BIMC 17.12.030.B.

~~7.~~ “Code” means the City of Bainbridge Island Municipal Code.

~~8.~~ “Collector” means a collector road as defined in the ~~e~~City of Bainbridge Island ~~comprehensive plan~~ Islandwide Transportation Plan.

~~9.~~ “Community space” means the portion of a subdivision maintained in perpetuity and designated for the common use and enjoyment of property owners within the subdivision.

~~10.~~ “Comprehensive plan” means as defined in Chapter 18.36 BIMC.

~~11.~~ “Contiguous land” means land adjoining and touching other land regardless of whether or not portions of the parcels have separate tax numbers, or were purchased at different times, in different sections, are in different government lots or are separated from each other by public or private easement or right-of-way.

~~12.~~ “Critical areas,” as used in this title, means critical areas, and their protective buffers, and aquifer recharge protection areas as described by Chapter 16.20 BIMC.

~~13.~~ “Dedication” means the deliberate assignment of land by an owner for any general and public uses, reserving to the owner no other rights than such as are compatible with the full exercise and enjoyment of the public uses to which the property has been devoted. The intention to dedicate shall be evidenced by the owner by the presentment for filing of a final plat of a short or long subdivision, a large lot subdivision, or a nonresidential or multifamily subdivision showing the dedication. Acceptance of the filing shall be by approval of the final plat by the city.

~~14.~~ “Department” means as defined in Chapter 18.36 BIMC.

~~15.~~ “Director” means as defined in Chapter 18.36 BIMC.

~~1345.~~ “Division” means a portion of property within an approved preliminary subdivision that is authorized to be recorded separately by the specific terms and conditions of the preliminary and/or final subdivision approval.

~~1446.~~ “Easement” means a right of use granted by a property owner to specific persons or to the public for use of land for a specific purpose.

~~1547.~~ “Effective visual screen” means a sight-obscuring barrier provided by: (a) a topographic variation, (b) a physical condition, such as an existing native forest, or (c) installed vegetation that provides a visual barrier within five years of planting.

~~1647.~~ “Farms” and “farmland” mean land used for crop agriculture or livestock agriculture, as those terms are defined in Chapter 18.36 BIMC.

~~1748.~~ “Final subdivision” or “final plat” means the final drawing of the subdivision and dedication prepared for filing for record with the county auditor and containing all elements and requirements set forth in Chapter 58.17 RCW or its successors and the Bainbridge Island Municipal Code.

~~19.~~ “Flexible lot design” is the design process the city uses that permits flexibility in lot development and encourages a more creative approach than traditional lot by lot subdivision. The flexible lot design process includes lot design standards for the placement of buildings, use of open spaces and circulation that best addresses site characteristics. This design process permits clustering of lots, with a variety of lot sizes, to provide open space, maintain Island character and protect the island’s natural systems.

~~1820.~~ “Footprint” means a building footprint as defined in BIMC 18.12.050.

~~1924.~~ “Greenway” means a system composed of land areas and connector links. The land areas include, but are not limited to: large open areas, public lands, farmlands, critical areas, forests, shoreline areas, and parks. The features of the connector links include trail systems, riparian areas, visual or scenic views of ridgelines, wildlife corridors or any combination of these.

~~2022.~~ “Health district” means the Kitsap Public Health District ~~County health district~~.

~~2123.~~ “Hearing examiner” means the official designated as the hearing examiner for the city pursuant to BIMC Title

~~2224.~~ “Homesite area” means the area that portion of a lot depicted on the face of a plat that is intended for development of the primary residential dwelling and accessory buildings and necessary infrastructure within a cluster subdivision.

~~2325.~~ “Island character” is the term used to describe the special character of the island – winding, narrow and vegetated roadways and forested areas, meadows, farms, areas that contain much of the island’s wetlands and streams, aquifer recharge areas and fish and wildlife habitat areas. For the purposes of this title, it does not refer to a level of service, or type of development, or measure of development intensity.

~~24.~~ “Landscaping” means as defined in Chapter 18.36 BIMC.

~~2526.~~ Large Lot Subdivision. A “large lot subdivision” means the division or redivision of land into two or more lots for the purpose of sale, lease or transfer of ownership where each lot is not smaller than five acres or 1/128th of a section (whichever is smaller); provided, that this shall not include division or redivision of land where all parcels are greater than 20 acres or 1/32nd of a section.

~~2627.~~ “Laws of descent” means the rules of inheritance law established by the state of Washington and the federal government that apply in cases where there is no will naming the persons to receive the possessions of a person who has died.

~~2728.~~ “Long subdivision” means the division or redivision of land into five or more lots, tracts (except tracts specifically reserved as ~~open space natural area~~), parcels, sites or divisions for the purpose of sale, lease or transfer of ownership, but shall not include a short subdivision.

~~2829~~. “Lot” means a lot as defined in Chapter 18.36 BIMC.

~~2930~~. “Low-impact fencing” means a fence designed to preserve views into an area and wildlife access to and from the area while providing a physical barrier to prevent livestock or humans from easily or inadvertently entering the area. Low-impact fencing includes without limitation two- or three-tier split-rail or horse-rail fencing not exceeding five feet in height, four-inch by four-inch wooden posts with two or three strands of cable in between, or other fencing with similar visual, barrier, and access characteristics as determined by the director.

~~3031~~. “Mature vegetation on ridgelines” means as defined in Chapter 18.36 BIMC.

~~3132~~. “Meadow” means an open, nonforested area formed by the land’s natural features and events of nature.

~~3233~~. “Native forest” means established forest areas primarily consisting of native trees and plants.

~~3334~~. “Native vegetation” means as defined in Chapter 18.36 BIMC.

34. “Natural area” means the undeveloped portion of a subdivision that contains natural resources features such as critical areas, significant tree stands, forested areas, native vegetation, and designated wildlife corridors, that is preserved in perpetuity designated or reserved for public use or enjoyment, or used for the private use and enjoyment of property owners within the subdivision.

35. “Off-site views” or “views from off site” means as defined in Chapter 18.36 BIMC.

~~36. “Open space” means any area of land that is predominantly undeveloped and that provides physical and/or visual relief from the developed environment in perpetuity, that is generally unimproved and set aside, designated or reserved for public use or enjoyment, or used for the private use and enjoyment of property owners. Open space may consist of undeveloped areas, such as pastures and farmlands, woodlands, greenbelts, critical areas, pedestrian corridors and other natural areas that provide recreational opportunity and visual relief from developed areas. Open space excludes tidelands, areas occupied by buildings, and any other developed areas such as driveways, all rights-of-way and any other impervious surfaces not incidental to open space purposes.~~

~~3637~~. “Open space Natural area sign” means a sign used to delineate the boundaries of designated open space, critical areas, and/or their buffers. Open space/critical areas signs shall be made of metal or similar durable material and shall be between 64 and 144 square inches in size.

~~3738~~. “Orchard” means as defined in Chapter 18.36 BIMC.

~~3839~~. “Pasture” means land used for grazing.

39. “Perimeter buffer” means a vegetated space retained or established at the exterior plat boundary of a subdivision that provides an effective visual screen between, and minimizes potentially adverse impacts to, adjacent properties.

40. “Phasing” means the use of limits on construction, permitting or occupancy to reduce the immediacy or severity of impacts of the subdivision on the environment or to better achieve the requirements of state law for the concurrence of the facilities and services with the needs generated by development.

41. “Plat” is a map or representation of a subdivision, showing thereon the division of a tract or parcel of land into lots, blocks, streets and alleys, or other divisions and dedications.

42. “Planning commission” means the Bainbridge Island planning commission, as described in BIMC 2.14.020.

43. “Platted lot” means a fractional part of divided lands having fixed boundaries, being of sufficient area and dimension to meet minimum zoning requirements for width and area and the flexible lot development standards contained within this title. The term includes tracts or parcels.

44. “Preliminary plat” is a drawing of a proposed subdivision showing the general layout of streets and alleys, lots, blocks, and other elements of a subdivision consistent with the requirements of this title. The preliminary plat shall be the basis for the approval or disapproval of the layout of a subdivision.

45. “Public way” means a dedicated street, easement allowing public access, and other forms of access open to the public.
46. “Right-of-way” means 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.
47. “Road” means as defined in Chapter 12.38 BIMC.
48. “Roadside buffer” means a vegetated space retained or established that provides an effective visual screen of new development or preserves existing roadside character, forested character, or scenic views.
- ~~4948.~~ “Short plat” means the map or representation of a short subdivision.
- ~~5049.~~ “Short subdivision” is the division or redivision of land into four or fewer lots, tracts (except tracts specifically reserved as open space natural area), parcels or sites, for the purpose of sale, lease or transfer of ownership, ~~except that the division or redivision of two or more existing lots into up to nine lots consistent with the procedures and standards contained in BIMC 17.12.030.A shall constitute a short subdivision if an applicant dedicates additional open space area pursuant to BIMC 17.12.030.A.5.~~
- ~~5150.~~ “Significant tree” shall have the meaning defined in Chapter 18.36 BIMC.
- ~~5251.~~ “Stormwater” shall have the meaning defined in Chapter 15.20 BIMC.
- ~~5352.~~ “Street” shall have the meaning defined in Chapter 18.36 BIMC.
- ~~5453.~~ “Testamentary provisions” means provisions of a last will or testament of a person who has died concerning land or property owned or controlled by that person, which provisions are generally carried out by an executor appointed by a court or public official on behalf of the deceased.
- ~~5554.~~ “Wetland” shall have the meaning defined in Chapter 16.20 BIMC. (Ord. 2017-02 § 21, 2017; Ord. 2011-02 § 2 (Exh. A), 2011)

Exhibit C
BIMC 18.18 -- Design Guidelines for Residential Subdivisions

Topic	Design Guideline
	Words/phrases in bold will have a definition in Title 17.
Island Character	<p>Intent: Preserve and maintain Island character.</p> <p>Guideline: Subdivisions should reflect the special character of the island which includes downtown Winslow's small town atmosphere and function, neighborhood centers, historic buildings, extensive forested areas, meadows, farms, marine views and access, and scenic and winding roads supporting all forms of transportation.</p> <p>**Subsequent discussion that this guideline would be too challenging to implement.</p>
Neighborhood Context	<p>Intent: To reflect and/or enhance the context provided by existing roadway character and neighboring properties.</p> <p>Guideline: Site design should support the purpose of the zoning district in which the development is located, complement the existing character of specific neighborhoods, provide continuity with adjoining properties and, where necessary, provide transition between land uses and protect privacy of residents on adjacent properties.</p>
Natural Area	<p>Intent: To incorporate forested and/or other natural areas into site design in such a way that ecological and aesthetic integrity, qualities, and values are preserved or restored.</p> <p>Guideline: The required natural area shall be treated as a feature intrinsic to the subdivision design in order to maintain existing on- and off-site ecological processes and provide an asset of value to subdivision residents.</p>
Natural Site Conditions	<p>Intent: To preserve and integrate existing natural site patterns and features throughout the site.</p> <p>Guideline: Site development should be designed to preserve and integrate the natural conditions of the site, including existing topography, native trees and vegetation, drainage patterns, and ecological features based on an inventory and analysis of existing conditions. Homesite and infrastructure placement should complement natural topography and retain native vegetation to the maximum extent feasible.</p>
Historic and Cultural Resources	<p>Intent: To preserve important historic and cultural resources.</p> <p>Guideline: Site design should maximize opportunities for preserving historic and cultural structures, and retain historic landscape features and connections.</p>
Stormwater	<p>Intent: Integrate stormwater facilities in site design with emphasis on infiltration and dispersion practices.</p> <p>Guideline: Stormwater facilities shall utilize existing drainage patterns and be designed as a site amenity, where feasible. Low impact development practices shall be used throughout the site to minimize the size of ponds or vaults. Open stormwater facilities (ponds and bioswales) shall</p>

Topic	Design Guideline
	provide a natural appearance through layout, design and landscape treatment, including shallow side slopes, curvilinear configuration, and use of native vegetation.
Septic Systems	<p>Intent: To minimize impact of septic facilities.</p> <p>Guideline: Design and locate sewage facilities to minimize site disturbance and native vegetation removal and utilize shared systems where feasible.</p>
Water Conservation	<p>Intent: To protect the Island's finite groundwater resources and adapt to the impacts of a changing climate.</p> <p>Guideline: Water conservation measures shall be considered in site design including use of native and drought tolerant vegetation, rainwater capture, and water reuse.</p>
Community Space	<p>Intent: To promote a shared sense of community.</p> <p>Guideline: Community spaces should function as an integral part of the development and be located adjacent to as many homesites as is feasible.</p>
Cluster Homesites	<p>Intent: To promote interaction within the community and facilitate the efficient use of land by reducing disturbed areas, impervious surfaces, utility extensions and roadways.</p> <p>Guideline: The preferred design for homesites is to cluster them and, to the extent feasible, to locate infrastructure efficiently to maximize the undeveloped area.</p>
Solar Access	<p>Intent: To provide solar access for wellbeing and energy production.</p> <p>Guideline: Site design, including street, lot, and homesite layout and orientation, should allow for passive and active solar access. Massing of buildings, tree retention, and introduced vegetation should take into account the effects of shade.</p>
Access and Circulation	<p>Intent: To provide a practical and pleasant network of multi-modal circulation.</p> <p>Guideline: Adequate provisions for pathways and other pedestrian/bicycle amenities connecting various parts of the development, the surrounding road or trail network, and adjacent parcels should be included in site design.</p>
Motor Vehicles	<p>Intent: To minimize the prominence of motor vehicle use and storage.</p> <p>Guideline: Site design and features related to motor vehicle use and storage should be minimized. Site design shall consider shared driveways, minimum road widths, traffic calming measures such as Woonerfs and chicanes, and shared or clustered parking areas or structures.</p>
Homesite Design	<p>Intent: To efficiently configure building footprint(s) and allowed uses within a homesite.</p> <p>Guideline: Homesite configuration should consider compact and energy-efficient home and site design with massive houses on small lots strongly discouraged.</p>
Diversity in House Design	<p>Intent: To provide a range of home sizes and designs to achieve diversity in visual appearance and affordability.</p> <p>Guideline: House designs should be varied in size, massing, and frontage character using methods such as varied floor plans, staggered front yard setbacks, building modulation, and</p>

Topic	Design Guideline
	changes in exterior materials. Houses should display shared architectural features to establish continuity and harmony.
Facing Public Streets	<p>Intent: To reinforce neighborliness of homes along a public street.</p> <p>Guideline: Houses along interior public streets should orient the entry toward the street and avoid the use of solid walls and fences. Garages along the front façade should be de-emphasized by recessing vehicular entrances or locating the garage behind or on the side of the house.</p>

CALL TO ORDER – Call to Order, Agenda Review, Conflict Disclosure
REVIEW OF MINUTES – January 24, 2019
PUBLIC COMMENT – Accept public comment on off agenda items
ISLAND CENTER SUBAREA PLANNING PROCESS – Briefing
SUBDIVISION UPDATE – Presentation
ORDINANCE 2019-03 SUBDIVISION UPDATE – Public Hearing and Discussion
NEW/OLD BUSINESS
ADJOURN

CALL TO ORDER – Call to Order, Agenda Review, Conflict Disclosure

Chair William Chester called the meeting to order at 6:33 PM. Commissioners in attendance were J. Mack Pearl, Jon Quitslund, Kimberly McCormick Osmond, Don Doman and Joe Paar. Lisa Macchio was absent and excused. City Staff present were Planning Director Gary Christensen, Long Range Senior Planners Jennifer Sutton and Christy Carr and Administrative Specialist Jane Rasely who monitored recording and prepared minutes.

Chair Chester welcomed Joe Paar as the newest Planning Commissioner.

The agenda was reviewed. There were not any conflicts noted.

REVIEW OF MINUTES – January 24, 2019

Motion: I move approval of the minutes for meeting on January 24, 2019 as distributed.

Quitslund/Pearl: Passed Unanimously

PUBLIC COMMENT – Accept public comment on off agenda items

None.

ISLAND CENTER SUBAREA PLANNING PROCESS – Briefing

Senior Planner Jennifer Sutton provided an overview of the “Existing Conditions Report” and “Draft Goals” from the Island Center Subarea Planning Process Steering Committee.

SUBDIVISION UPDATE – Presentation

Senior Planner Christy Carr provided an overview that was given to City Council in January 2019.

ORDINANCE 2019-03 SUBDIVISION UPDATE – Public Hearing and Discussion

The public hearing was opened at 7:09 PM.

Public comment was transcribed verbatim at Chair William Chester’s request.

David Dunn, Citizen – “Hi, my name is David Dunn. I live in Fort Ward. I own two parcels down there that are zoned R-6 and I am currently building a house on Ridge Lane on 5 acres that’s zoned R-1. I appreciate the opportunity to talk with you this evening. First and foremost, I want to call out the fearmongering that was presented just now showing the development on Wyatt Way and discussing property zoned R-4.3 and trying to compare that with property that is zoned R-1 or R-4. I think that’s pretty disingenuous and it’s a development on the island that a large number of islanders think is ugly but that we as an island, have to take ownership of because we’ve made the building process so difficult the only people that are willing to take the risk are the “Quadrants” who know to the penny how much development’s going to cost. As it relates to clustering on R-.4 and R-1, I’m a 5th generation Bainbridge Islander, my family’s been here since 1853. My kids are the 6th generation and probably will be the last. I find as a kid growing up on this island, most of my friends grew up on 2 and a half acre lots. I ran around in the woods. They had privacy and that’s what their families sought on this island. As a homeowner, when I bought my property, my 5 acres on Ridge Lane, I sought the ability to have privacy on my lot and to eventually subdivide it as a retirement property and either give my children 1 or 2 acre lots on the southern portion of my property or to retain some value from that. The clustering is wholesale theft. Is, and nothing more than that. If you require people to build smaller homes on smaller lots and then devote the remainder of it to open space, you are requiring them to create a public park, essentially. You are not allowing them full use of their land. The City’s already stolen my property through ARPA and the CAO and now they’re trying to take even more from myself and other landowners. The rural character of Bainbridge Island is not cul-de-sacs in R-.4. That is not rural character putting 4 homes on a 10-acre lot right next to the road and I can guarantee you that if you pass this and you force clustering, Quadrant’s going to love that because they know exactly what they have to do. They’re going to put in a 100-foot road, they’re going to cluster 4 homes. They know exactly what they’re cost is to build that. Putting in a 150-foot driveway that’s 10 feet wide on an R-.4, that’s, you’re looking at a 115,000 square foot lot, right? You put in a 150-foot driveway, that’s 1500 square foot of driveway; it’s 1%, just over 1% of the total surface area. Are we really impacting the aquifer in any appreciable way? I don’t think so and what – please show me on this island where in a rural area we’ve done this and how it is in any way keeping with the character on this island. People buy those parcels because they want privacy and they want space. People do not wholesalesly clear cut their properties on this island. It doesn’t happen, that is, it’s a false narrative that is not occurring on this island and I would just implore you to respect the land rights particularly as it relates to R-.4, R-1 and R-2. People, those are not small lots. You can put a 2,000 square foot footprint, a 4,000 square foot house on R-1 and that’s 4% of the total surface area of that lot. You’re not, it’s not a monstrosity and I’m not advocating for 4,000 square foot homes but trying to build these tiny villages is absolutely not in keeping with the rural character of this island. Granted, I’m sure people that own 15-acre parcels that have 10-acres of wetland garbage love it because they can cluster them all up next to the road and make some money off it but for people that own buildable land and for families that want that, this is, this is just, it’s wrong. It’s

morally and ethically wrong to do this to people and I hope you see through the lies that you were told and the lies in that presentation because for, that, that slide is not true, and it should be called out. Thank you.

Brian Wilkinson, Citizen – Hello, Planning Commission, my name is Brian Wilkinson. I live in Fort Ward. I built our timber frame home out there. I've got three lots out there in Fort Ward. I've got 15-acres on High School Road zoned R-0.4. Currently, I've got the two tax parcels of just over 7-acres each zoned, or it's set aside in the forestry, small family forestry with one acre on each tax parcel for me to build on. My dreams were to build our family home out there because as time has gone by and I've saved my money and worked hard serving our country and working as a public servant to serve you as a first responder, I've put every penny I've ever made back into this property for the hopes that I could secure a footprint for my children. And with that being said, I have no ambition of having my children live 25 feet away from my house. I don't want our homes to be clustered as we grow out. My idea of the rural character of Bainbridge Island, is driving down the road you got beautiful trees, beautiful scenery, rolling hills, zoned R-0.4, which is the largest zoning on Bainbridge Island, two and a half acre parcels. I don't mind seeing one home and a shop on two and a half acres. Another 300 feet down the road, there might be another house and another shop. My 15-acres has no critical areas on it. For the last year, as I've been sleeping with one eye open because I'm paranoid that somebody's coming to take away my property, it's been very hard. And now reading this clustering is, is concerning. I don't want to see it on the island, and I don't trust the concept of clustering here because when I see it, Winslow Grove, the, the development on Winslow Grove, the development off of Finch, so I can speak to it in three different ways. As a first responder, I don't like it because it's, there's, it's a – it's not very safe for the public. There's no sidewalks, there's no curb and gutter, there's no street lamps. Why didn't we require that wealthy builder to put in the infrastructure? Because we wanted to preserve the rural character of Bainbridge Island when we didn't have sidewalks or curb and gutter? It just makes no sense to me. It's absolutely absurd. Somebody walks their dog at three o'clock in the morning and they can't do it on a sidewalk in town. I just don't get it. And then we want to cram that in the R-0.4 areas? I'm sorry, but that becomes very attractive to developers because their footprint, where they're going to build, it's economical. They're not spread out. They don't have to come up with a robust landscaping plan. They love it. You're only allowing them 10% of the footprint on that building lot with homes 25 feet from each other and then -- let's back up a little bit to remote parking. So, as a native from here, 5th generation just, just off the island, right? I've got a boat on a boat trailer. I like to fish and remote park? Where am I going to put that stuff? I've got two and a half acres and I'm supposed to have remote parking? I mean, please, step outside of Winslow condominiumized lifestyle and realize that we have a rural element to this community that responsible people, responsible citizens like David, myself, the Blossoms are trying to preserve because what you are doing is making me look at the Excel spreadsheets that these people with finances, that are financially wise, they come to me, they're like, "Look at this, Brian. Look at the economics of this. The CAO. If you clear cut 500,000 board feet of timber and put \$500,000

in your pocket, you take the six-year moratorium, you already increased the value of your land because now you got sunny lots. Nobody else can have sunny lots on Bainbridge Island.” So, I put \$500,000 in my pocket, sit on it for six years and then short plat it, subdivide it, don’t care about your clustering, let Quadrant do whatever they’re going to do. So, you are manifesting exactly what you don’t want. I don’t want to sell, but this CAO land grab, 6.2-billion-dollar land grab, as soon as I pull a permit for my property, I have to sign 10-acres of it against my deed of trust? I have no critical areas on my property, people. I looked for a long time so I could buy a very nice piece of property so that I could manage responsibly, but shame on me, because I’m displacing 19 families on this island. I’m a public servant. I’m a firefighter. I came on the island, lived in an ADU after I got out of the military. ADU’s? That’s a whole other topic that’s going to be coming. Don’t get rid of ADU’s. That’s essential to affordable housing. I think I’m done here, but what I’m getting at is I’m the epitome of what we’re trying to save and what we want here, I believe. My family, my kids are 6th generation. I’m trying to create a footprint for them. One home, two and a half acres. I’m not asking for any exemptions. I don’t want to up zone. I’m not trying to do anything crazy. Don’t force crazy condominiumization down my throat, please. Thanks.

The public hearing was continued to February 28, 2019.

Further discussion was held by the Planning Commissioners.

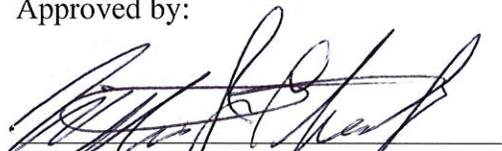
NEW/OLD BUSINESS

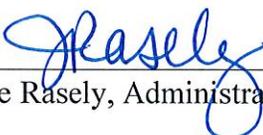
Planning Director Gary Christensen presented a draft Planning Commission Recorded Motion (see attached) and project schedule.

ADJOURN

The meeting was adjourned at 8:40 PM.

Approved by:


William Chester, Chair


Jane Rasely, Administrative Specialist



February 13, 2019

The following topics/questions were identified by Planning Commissioners and/or limited public comment prior to the February 13, 2019 public hearing.

Purpose statement

- Add language -- ... *"and also respects the culture of Bainbridge Island as a unique island community."*

Natural area

- Trails – *If provided, trails should be required to be accessible to the public.*

Community space

- Configuration – *Should community space be located to be accessible to largest number of lots, or would some types of community space (e.g., agriculture) be better located away from lots?*

General residential standards

- Percentages for turf grass and native vegetation – *Are they necessary? Is there a better way to discourage lawns and encourage retention or planting of natives? Should they be the same or different for individual lots and community space?*
- Design diversity – *Should require a mixture of home sizes, not lot sizes*
- Fencing – *Should taller, solid fences be allowed if there is vegetative screening in front?*
- Homesite clustering – *Disagree with mandatory clustering for low density areas, especially R-0.4 (Note: departure may be requested)*

Dimensional standards

- Attached or zero lot line allowance – *Should be allowed in all zones, including R-0.4. Exception for R-0.4 not necessary or wise, project should be judged on its merits.*
- Homesite cluster group separation – *Minimum or maximum? Minimum will achieve visual separation; is maximum needed?*
- Homesite separation -- *Homesite separation within a cluster should not exceed 25'*

Buffers

- Perimeter buffers in multifamily subdivisions – *Current draft does not propose different buffers for multifamily vs. single-family subdivisions*
- Roadside buffers with agriculture in community space – *Should roadside buffer be required? Or modify requirements to minimize shading?*
- Roadside buffers – *Roadside buffers should be counted in the natural area if they meet the 50-foot minimum width*

Other policy questions identified in draft ordinance (blue text)

- Further limiting site disturbance
- Entry signs/treatment limited/prohibited

Chapter 17.12
SUBDIVISION STANDARDS

Note: ****Blue text**** highlights concepts and policy questions under consideration for which specific regulatory language is not yet drafted.

17.12.010 Applicability.

This section sets forth standards for short subdivisions, long subdivisions, large lot subdivisions, and nonresidential and multifamily subdivisions. Specific requirements relevant to each individual type of subdivision are provided throughout various chapters of this title.

17.12.020 Subdivision Design Guidelines.

All residential subdivisions outside the Neighborhood Center and Mixed Use Town Center zoning districts shall comply with those design guidelines contained in "Design Guidelines for Residential Subdivisions" set forth in BIMC 18.18 and its reference documents, which are adopted as part of this title by reference.

The purpose of subdivision design guidelines is to define the qualities of subdivisions that meet the guiding principles, goals, and policies of the city's Comprehensive Plan and to serve as a tool for guiding individual projects to meet those expectations through the city's land use review procedures. The design guidelines offer a forum for the public to participate in discussions about new subdivisions in their neighborhood, and as a means of allowing flexibility in the application of development standards and zoning requirements. An applicant may be granted a departure from the design guidelines by demonstrating that an alternative design better meets the intent of the design guidelines.

17.12.030 Four-Step Design Process

The city's subdivision approach requires a four-step system that places the identification and conservation of resources as the primary and leading goal. This approach reverses the conventional site planning approach which typically begins by laying out the streets, lot lines and building footprints as the first part of the process. Instead of first identifying development areas, the design process begins by analyzing on-site resources and the site's connections to surrounding resources to identify what areas are best for preserving and those areas of the site that can best accommodate development.

The four-step design process is required for all residential subdivisions except the division or redivision of land into two lots. The process, further defined in BIMC 2.16.125.D, consists of four steps: 1) Delineate Natural Area; 2) Locate Homesites and Community Space; 3) Define Access; and, 4) Draw Lot Lines.

17.12.040 Administrative Departures

A. A departure is a request by the applicant to meet or exceed a particular subdivision standard through the use of a technique or alternative standard not otherwise listed under the applicable requirements of BIMC 17.12.050 through BIMC 17.12.070. Departures are not variances and are not required to meet the criteria associated with a variance application. Rather, departures allow adjustment of standards to achieve better outcomes in cases where strict application of the standard would result in an inferior subdivision design.

B. Departures from the subdivision standards BIMC 17.12.050 through BIMC 17.12.090, may be permitted as part of the subdivision review process. In order for a departure from subdivision standards to be allowed, an applicant must demonstrate that the overall development, including departures from the standards, would better serve the

public interest, and a finding shall be made in the affirmative that each proposed departure meets or exceeds the intent of the respective standard as compared to a strict application of the established standard.

C. Any request for one or more departures shall be made at the Design Guidance Review Meeting as part of the pre-application phase of the project. Departures shall be reviewed concurrently with an application for subdivision.

D. Upon affirmative recommendation of approval from the Planning Commission, the hearing examiner may grant a departure from the subdivision standards BIMC 17.12.050 through BIMC 17.12.090 if it is shown that the proposal is consistent with the following criteria:

1. Because of unusual shape, exceptional topographic conditions, environmental constraints or other extraordinary situation or condition in connection with a specific piece of property, strict adherence to the standard would create undue hardship or result in an undesirable plat; or
2. The granting of the departure results in better plat and/or lot design. Better plat and/or lot design means situations such as creating plats that result in greater natural resource conservation value, less adverse impact to adjoining properties, or more practical design because of topography, critical area, or other extenuating circumstance; and
3. All possible efforts to comply with the standard or minimize potential harm or adverse impacts have been undertaken. Economic consideration may be taken into account but shall not be the overriding factor in approval; and
4. The departure is consistent with other applicable regulations and standards; and
5. The granting of any departure will not be unduly detrimental to the public welfare nor injurious to the property or improvements in the vicinity in which the property is located.

17.12.050 Natural Area and Community Space.

A. Natural Area Required. All residential subdivisions shall provide natural area consistent with BIMC 17.28, Definitions, Table 17.12.070-1, and the following standards:

1. Natural Area Objectives. Natural areas shall accomplish one or more of the following objectives:
 - a. Conservation natural resources, including wildlife habitat;
 - b. Protection of groundwater recharge;
 - c. Conservation of native soils;
 - d. Expansion or enhancement of the value to adjacent or neighboring open space, parks, forested areas, conservation easements, shorelines, or critical areas;
 - e. Preservation of unique natural land or rock features;
 - f. Preservation of visual qualities along highway, road and street corridors or scenic vistas.
2. Amount of Natural Area Required. The minimum natural area shown in Table 17.12.070-1 shall be provided and shall be depicted on the face of the plat.
3. Designation of Natural Area. Natural area shall be designated as the first step in the four-step design process defined in BIMC 2.16.125.D. Natural areas are made up of primary and secondary natural areas. If the primary natural areas make up less than the required percentage of natural area, the balance of the required natural area shall be made up of secondary natural areas.
 - a. Primary Natural Areas (PNA). PNAs form the core of the natural area to be protected. PNA's include the following:
 - i. Critical areas other than critical aquifer recharge areas;
 - ii. Critical area buffers;
 - iii. Aquifer recharge protection area as required by BIMC 16.20.100;

b. Secondary Natural Areas (SNA). SNAs are locally noteworthy or significant features of the natural landscape. SNA's include the following:

- i. Mature woodlands;
- ii. Freestanding significant trees;
- iii. Wildlife corridors;
- iv. Greenways and trails;
- v. Scenic viewsheds;
- vi. Mature vegetation on ridgelines

c. Aquifer Recharge Protection Area (ARPA). Subdivisions in the R-0.4, R-1, and R-2 zoning districts shall include designation of an ARPA in accordance with BIMC 16.20.100 and the following standards:

- i. If a proposed subdivision includes more than one parcel, the ARPA shall be calculated based on the total square footage of all parcels;
- ii. If the required ARPA is greater than the required natural area, the natural area shall be increased to achieve the required ARPA area;
- iii. If the required ARPA is less than the required natural area, the natural area shall include other PNAs or SNAs to achieve the required natural area.

4. Natural Area Configuration. Designated natural areas shall be configured in a manner that enhances and promotes the natural character of the island and natural resource characteristics of the property and surrounding area. Natural area configuration shall satisfy the following guidelines:

- a. Natural area should be concentrated in large, consolidated areas; and
- b. Natural area should connect to adjacent off-site open space areas, designated wildlife corridors and trails, and/or critical areas; and
- c. Natural area should be designed to preserve views from off site of the subject property; and
- d. Natural area should be delineated with a low perimeter-to-area ratio with a minimum width of fifty (50) feet; and
- e. Natural area may be included as a portion of one or more lots or may be contained in a separate tract.

5. Natural Area Fencing and Signage. Either fences and/or signs delineating the boundary of natural areas are required. The director shall determine which option (fence or sign) is required, based on the recommendations from the Design Guidance Review Meeting.

- a. If fencing is required:
 - i. Low-impact fences are preferred and must be constructed in accordance with the definition in BIMC 17.28.020; and
 - ii. Fencing is not required at the exterior boundary of the subdivision; and
 - iii. Gaps in fencing not exceeding five (5) feet are permitted.
- b. If signs are required:
 - i. They shall be constructed in accordance with the definition in BIMC 17.28.020; and
 - ii. They shall be generally spaced at intervals of 50 feet, unless otherwise approved by the director due to reasons such as topography, configuration of open space, distance from other features, etc.
- c. If signage is required and encroachments into the designated natural area occur, the director may require that the owner install fencing and/or additional signage to prevent future encroachments. Required fencing and signs must be maintained in good repair, with repair or replacement to occur within 60 days of notification from the city that repair or replacement is required.

6. Natural Area Ownership. Ownership of natural area shall be established consistent with one of the following forms of ownership:

- a. Private Ownership. Natural area may be held in private ownership if established by easements, restrictive covenants, natural area management plan, or other similar legal means; or
- b. Common Ownership. Natural areas may be held in common by a home or property owners' association or other similar organization. For the purposes of this title, ownership of and/or conservation easement being held by a land trust, or other similar conservancy organization, shall be considered common ownership. If this ownership pattern is selected, covenant, conditions, and/or restrictions shall be required; or
- c. Public Ownership. Designated natural areas shall not be required to be dedicated to the city or other public agency, and the owner shall not be required to permit public access to designated natural areas. However, if the owner offers to dedicate, the city or other public agency may choose to accept ownership of natural areas. Consequently, upon approval and acceptance by the city council, natural areas shall be dedicated to the public.

Commented [KM1]: Trails should be accessible to the public to achieve circulation goals discussed later.

7. Natural Area Maintenance. An applicant shall submit a draft natural area management plan (NAMP) as described in the Bainbridge Island administrative manual, for review as part of the preliminary plat application. Final approval of the NAMP will occur at the time of final plat approval. The natural area management plan shall include:

- a. A list of all approved uses for the natural areas. Where uses in separate natural areas vary, the specific location of each use shall be depicted graphically.
- b. A maintenance plan for natural areas that clearly describes the frequency and scope of maintenance activities for natural areas and that meets all requirements set forth in subsection 7 herein and the Bainbridge Island administrative manual.
- c. The approved NAMP must be filed with the Kitsap County Auditor. In the event that the natural area is not maintained consistent with the NAMP, the city shall have the right to enter the property for necessary maintenance, with the cost of such maintenance assessed against the landowner or, in the case of a homeowner's association, the owners of the properties within the subdivision and shall, if unpaid, become a tax lien on such property or properties.

8. Allowed Uses in Natural Area. Allowed uses within natural areas include:

- a. Installation of native plants.
- b. Maintenance pruning of trees and shrubs provided the structural integrity and long-term health of the vegetation is preserved.
- c. Wildfire mitigation activities, other than tree removal, within a 30-foot defensible space around a primary structure, in accordance with the Bainbridge Island community wildfire protection plan and as described by Section 603 of the International Wildland Urban Interface Code.
- d. Removal of invasive plant species.
- e. Passive recreation, including pervious trails.
- f. Potable water wells and well houses.
- g. Low impact fencing or signs marking the natural area boundary.
- h. On-site sewage drainfield facilities, if construction of the system will not require the use of heavy equipment or removal of significant trees.
- i. Storm drainage facilities if the applicant can demonstrate that (i) the system meets the low impact design (LID) standards of Chapter 15.20 BIMC, and (ii) construction of the system will not require the use of heavy equipment or removal of significant trees.
- j. Accessory solar panels, small wind energy generators, composting bins, rainwater harvesting barrels, and cisterns, as defined in Chapter 18.36 BIMC.
- k. Other structures or hard surfaces with a total footprint of no greater than 200 square feet.

B. Community Space Required. All residential subdivisions shall provide community space consistent with BIMC 17.28, Definitions, Table 17.12.070-1, and the following standards:

1. Community Space Objectives. Community space shall accomplish one or more of the following objectives:

- a. Provide a place for residents to gather in shared space.
- b. Provide common buildings, open space, or gardens.
- c. Provide space for unstructured recreation.
- d. Enhance a felt and actual sense of security, identity, and community.
- e. Provide a protected, traffic-free environment.

2. Amount of Community Space Required. The minimum community space shown in Table 17.12.070-1 shall be provided and shall be depicted on the face of the plat.

3. Community Space Configuration. Community space shall adjoin the largest practicable number of lots within the development. Non-adjoining lots shall be provided with safe and convenient pedestrian access to community space.

Commented [KM2]: Why? Limits uses such as agricultural which may not be desirable in close proximity to adjoining lots/homesites.

4. Community Space Ownership. Ownership of community space shall be established consistent with one of the forms of ownership set forth in BIMC 17.12.050. A.5.

5. Community Space Maintenance. An applicant shall submit a draft community space management plan (CSMP) as described in the Bainbridge Island administrative manual, for review as part of the preliminary plat application. Final approval of the CSMP will occur at the time of final plat approval. The community space management plan shall include:

- a. A list of all approved uses for the community space. Where uses in separate community spaces vary, the specific location of each use shall be depicted graphically.
- b. A maintenance plan for community space that clearly describes the frequency and scope of maintenance activities and that meets all requirements set forth in subsection 5 herein and the Bainbridge Island administrative manual.
- c. The approved CSMP must be filed with the Kitsap County Auditor within thirty (30) days of final plat approval. In the event that the community space is not maintained consistent with the CSMP, the city shall have the right to enter the property for necessary maintenance, with the cost of such maintenance assessed against the landowner or, in the case of a homeowner's association, the owners of the properties within the subdivision and shall, if unpaid, become a tax lien on such property or properties.

6. Allowed Uses in Community Space. Community space may include uses such as crop and animal agriculture, meadows, orchards, pastures, turf fields, and common buildings. Prohibited and allowed uses within community space shall be included in the draft terms, conditions, covenants, and agreements proposed for the subdivision, which shall be submitted with the preliminary subdivision application. Final terms, conditions, covenants, and agreements must be filed with the Kitsap County Auditor within thirty (30) days of final plat approval.

Commented [KM3]: See above comment about requirement for close proximity to largest practical number of lots

17.12.060 Homesites. All single-family residential subdivisions require homesites located and designed consistent with BIMC 17.28, Definitions, Table 17.12.070-1, and the following standards:

A. Homesite Area.

1. A homesite area with the maximum area shown in Table 17.12.070-1 shall be provided for each lot and shall be depicted on the face of the plat.
2. The homesite area shall include the primary residential dwelling, accessory buildings, and on-site parking, if provided for each lot within the subdivision.
3. Other allowed uses and structures include residential landscaping, pathways, and turf; individual water, stormwater, and septic infrastructure; and fences.
4. Homesites shall not contain any critical areas, except for critical aquifer recharge areas, or their buffers or setbacks, shoreline buffers, or any portion of required natural areas.

Commented [KM4]: Does the "except" apply to the rest of the sentence or just to critical aquifer recharge areas? Suggest clarifying the sentence.

B. Homesite Clustering. All single-family subdivisions resulting in four or more lots require homesite clustering. The purpose of clustering is to facilitate the efficient use of land by reducing disturbed areas, impervious surfaces, utility extensions, and roadways. Homesites shall be located in cluster groups and the efficient location of infrastructure shall be used to maximize the undeveloped area.

Commented [KM5]: Disagree with mandatory application to low density areas of the island, especially R-.04. Would like to see an exception to allow different designs. Does a "departure" provide that exception to mandatory application of clustering?

1. Cluster groups shall be a minimum of four homesites.
2. No more than three cluster groups are allowed within any subdivision.
3. All homesites in a cluster grouping shall adjoin or be located a maximum of 50 feet from another homesite. ****Is additional language needed to prevent "daisy-chaining"??****
4. Homesite cluster groups shall be located to minimize adverse impacts to adjacent, previously existing residential development.
5. The location of homesite cluster groups is not required to be located near any existing home on the property.
6. Homesite cluster groups shall be configured to maintain the natural features of the site and minimize topographic alteration and clearing of existing vegetation.

17.12.070 General residential subdivision standards.

A. Constrained lots. If, due to site or design constraints, no homesite with supporting infrastructure can be located on a subject property, no division of land is permitted.

B. Preexisting lots. Lots that have previously received final approval from the city, or that have previously received final approval from Kitsap County prior to inclusion within the city boundaries, and that do not comply with standards of this chapter shall be considered existing nonconforming lots, but any future resubdivision of any such lots shall comply with the requirements of this title.

C. Short subdivisions shall not be used, either by a person alone or by persons acting together, at one time or over a period of time, as a means to circumvent compliance with the more stringent subdivision requirements that control the subdivision of land into five or more lots. When an application for a short subdivision is filed within five years after the approval of a short subdivision on a contiguous land parcel, a presumption of an attempt to circumvent short subdivision requirements may be invoked by the director as a basis for further investigation to assure compliance with the intent of this provision.

D. Remaining area. Any area not designated as public or private access, lots, or utility tracts shall be designated as either natural area or community space, in accordance with the objectives in either BIMC 17.12.050.A.1 or 17.12.050.B.1.

Commented [KM6]: What does this mean? Would it have to be included in the NAMP? What is the relationship between "lots" and "homesites" for purposes of this provision?

E. Site Disturbance. Land disturbing activities, as defined in BIMC 15.20.020.22 shall be limited to the maximum extent feasible. ****Can site disturbance be further limited, e.g., site disturbance cannot exceed 10 percent greater than homesite area (depending on where utilities are)?****

F. Compatibility with Adjacent Development

1. Subdivisions shall be designed and located to ensure compatibility with existing adjacent development.
2. Views of house lots from exterior roads and abutting properties shall be minimized by preserving the natural topography and existing vegetation to the furthest extent possible.
3. An alternative design of portions of the site plan may be required in order to fulfill subsections 1 and 2 above.

Commented [KM7]: What does this mean and who decides?

G. Dimensional standards. Table 17.12.070-1 sets forth required dimensional standards. Where a property is located in more than one zone district, units permitted by density calculations within each zone district must be constructed on the portion of the property located within that zone district and required setbacks for each zone district must be met. Permitted densities are not "blended" across the zone district line.

H. Septic Systems. Locations of individual or community drainfields and associated reserve drainfields shall comply with all applicable standards established by the Kitsap Public Health District or Washington Department of Health.

Reserve drainfield areas shall remain undisturbed until such time their use is required. This standard shall be noted on the face of the preliminary and final plat.

I. Streets and Vehicle Access. Subdivisions shall comply with the following standards unless modified by the City Engineer:

1. Subdivisions shall comply with all applicable standards of the “City of Bainbridge Island Design and Construction Standards and Specifications,” as amended. Deviations from the “City of Bainbridge Island Design and Construction Standards and Specifications” may be granted by the City Engineer upon evidence that such deviations are in the public interest and that they are based on sound engineering principles and practices. All requirements for safety, function, appearance and maintainability must be fully met. Desired deviations must be requested at the Design Guidance Review Meeting during the pre-application phase of the project.
2. Each lot in a residential subdivision shall have direct access to a public or private street, except for those with shared driveways or alternative lot designs that provide shared or clustered parking outside of individual lots.
3. The street system of proposed subdivisions shall be designed to connect with existing, proposed, and planned streets outside of the subdivision to the maximum extent feasible or to create a connection beneficial to the overall circulation of the surrounding area, as determined by the City Engineer.
4. Interior street layout shall be oriented on the east/west axis, if feasible, to maximize active and passive solar access.
5. To minimize impervious surfaces, public rights-of-way, access easements, private streets, and driveways shall not be greater than the minimum dimensions required to meet standards.
6. Street names and traffic regulatory signs shall be provided, and their locations shall be indicated on the plat/plan. The location of mailboxes and traffic regulatory signs is only required to be indicated on the plat/plan when other public improvements are required.
7. Transit stops shall be provided as recommended by Kitsap Transit.

Commented [KM8]: We should strive to achieve the same goals for trails.

J. Parking and Garages.

1. Parking shall be provided consistent with BIMC 18.15.020, except as modified by this subsection.
2. Parking spaces provided on individual lots must be located within the designated homesite.
3. Parking spaces may be located outside of individual lots, consolidated in a remote or satellite parking area, or in individual or shared garages.
4. Consolidated parking areas shall be landscaped in accordance with BIMC 18.15.010.F.
5. Shared garages are limited to five vehicle spaces and shall not exceed 60 feet in length or 144 square feet total.
6. Garages, including detached garages, located on individual homesites facing a public street shall be:
 - a. Limited to two vehicles; and
 - b. Either accessed from the side or rear or set back from the most front-facing exterior wall of habitable space a minimum of five feet unless the house is not visible from the public street.

K. Circulation and Access.

1. All subdivisions shall include a circulation and access system of walkways, paths, sidewalks, or trails that interconnect lots, natural area, community space, and adjacent access facilities.
2. Multi-modal facilities shall be consistent with the applicable standards of the “City of Bainbridge Island Design and Construction Standards and Specifications.”

Commented [KM9]: Trails need to be public access to make this effective.

3. Subdivisions may be required to provide dedicated access easements if one or more “trail connection zones” are located on the site as shown on Map C and D (Non-Motorized System Plan) of the Island-Wide Transportation Plan.
4. Pursuant to RCW 58.17.110(1) sidewalks or other planning features shall be provided to assure safe walking conditions for students who walk to and from school.

Commented [KM10]: Does this limit new trail circulation? How current are Maps C and D in the Non-Motorized System Plan? How about new trail access that is not on a map or in a “trail connection zone”?

L. Fencing.

1. Sight obscuring fencing is prohibited at the exterior boundary of a subdivision along a public right of way.
2. Fencing at the exterior boundary of a subdivision along a public right of way shall not exceed 3 feet, 6 inches in height. ****option for higher fences to be set back minimum 5 feet from edge of ROW and planted in front****
3. Fencing at the exterior boundary of a subdivision along a public right of way is prohibited within the roadside buffer or at the edge of right of way.
4. Fencing around surface stormwater ponds shall not exceed 3 feet, 6 inches in height unless required by the City Engineer for safety reasons.

Commented [KM11]: Basis for this height? Why would it need to be higher?

M. Landscaping

1. Turf grass shall be limited to ≤ 20 percent of individual homesite areas. Turf grass is not permitted on individual lots outside of homesites.
2. Landscaping on individual lots shall include at least 60 percent native vegetation.
3. Landscaping within community space shall:
 - a. Be limited to ≤ 30 percent turf grass; and
 - b. ~~Include at least 40 percent native vegetation; except that, plants and vegetation used for gardening or agriculture shall are not required to be native vegetation.~~

Commented [KM12]: Seems inconsistent with following requirements for community space. Why a higher percentage of turf grass allowed in community space?

Commented [KM13]: Why not less than 20 percent to be consistent with homesites?

Commented [KM14]: Why not 60 percent to be consistent with homesites?

N. Perimeter Buffers. The intent of perimeter buffers is to visually and physically separate adjacent land uses, when necessary, to minimize impacts of new development on adjacent properties.

1. Perimeter buffers shall be provided at the exterior boundary of all subdivisions. The minimum width of perimeter buffers shall equal the minimum homesite boundary to exterior plat boundary required in accordance with Table 17.12.070-1.
2. Perimeter buffers shall be shown on the face of the preliminary plat. No structures, buildings, or parking facilities may be located within perimeter buffers, except that, public and private streets, utility lines, and trails may be located within perimeter buffers provided no significant trees are removed.
3. Existing, native vegetation, including significant trees and tree stands, shall be preserved within perimeter buffers. The tree retention, protection, and replacement requirements of BIMC 18.15.010.C apply to perimeter buffers unless modified by this section.
4. If existing vegetation provides an effective visual screen, no additional planting is required. If existing vegetation does not provide an effective year-round visual screen, additional plant material shall be installed, consistent with the following:
 - a. Additional plant material shall be installed to achieve the full screen landscape standard provided in BIMC 18.15.010.D.4.a.. Any additional plant material shall be native species and no turf or lawn is permitted.
 - b. In the R-0.4, R-1, and R-2 zoning district, additional plant material is not required if:
 - i. The perimeter buffer meets natural area designation objectives and designation standards in BIMC 17.12.050.1 and 17.12.050.3 or;
 - ii. The nearest structure within the subdivision is located a distance at least two times the required homesite boundary to exterior plat boundary dimension provided in Table 17.12.070-1.

Commented [KM15]: Why this number?

5. Perimeter buffers may be included as a portion of one or more lots or may be contained in a separate tract.
6. Perimeter buffers may be included as a portion of the natural area required in BIMC 17.12.050.A if the buffer meets the standards of that subsection.
7. The performance and maintenance assurances requirements of BIMC 18.15.010.H apply to perimeter buffers.
8. The irrigation and maintenance standards of BIMC 18.15.010 apply to perimeter buffers.

O. Roadside Buffers. The intent of roadside buffers is to enhance or retain Island character through the minimization of disturbance of existing roadside vegetation and screen new development from more highly traveled roads.

1. Roadside buffers are required for all subdivisions along collector or arterial roads in the R-0.4, R-1, and R-2 zoning designation. The minimum width of roadside buffers is 25 feet.
2. Roadside buffers shall be shown on the face of the preliminary plat. Roadside buffers may not be part of individual lots and must be contained in a separate tract.
3. No structures, buildings, or parking facilities may be located within perimeter buffers, except that, public and private streets, utility lines and boxes, and trails may be located within roadside buffers provided no significant trees are removed. ****Entry signs/treatment – limited/prohibited****
4. Existing, native vegetation, including significant trees and tree stands, must be preserved within roadside buffers. Tree retention, protection, and replacement requirements in BIMC 18.15.010.C apply to roadside buffers.
5. If existing vegetation provides an effective visual screen, or is consistent with existing roadside character, no additional planting is required. If existing vegetation does not provide an effective year-round visual screen, additional plant material shall be installed, consistent with the following:
 - a. Additional plant material shall be installed to achieve the full screen landscape standard provided in BIMC 18.15.010.D.4.a. Any additional plant material shall be native species and no turf or lawn is permitted;
 - b. Additional plant material is not required if mature forest or other dense vegetation is not part of the existing roadside character.
6. Roadside buffers may not be included as a portion of the natural area or community space required in BIMC 17.12.050.
7. The performance and maintenance assurances requirements of BIMC 18.15.010.H apply to perimeter buffers.
8. The irrigation and maintenance standards of BIMC 18.15.010 apply to perimeter buffers.

Commented [KM16]: How does this affect homesites?

Commented [KM17]: How does this meet the intent of roadside buffers to enhance or retain Island character through the minimization of disturbance of existing roadside vegetation and screen new development from more highly traveled roads?

9. For subdivisions designating community space that is intended for agricultural use and would be adversely impacted by the addition of screening landscaping, a roadside buffer shall not be required.

Commented [KM18]: Why would a roadside buffer not be required? Tree height could be limited to avoid shade impacts.

10. To accommodate an existing house that is located within 25 feet of the subdivision boundary adjacent to a collector or arterial road, the roadside buffer width shall be reduced to the width adjoining the existing home between the existing house and the subdivision boundary adjacent to the collector or arterial road.

Commented [KM19]: Why?

P. Design Diversity. Subdivisions shall avoid monotonous rows of duplicative dwellings and incorporated measures that promote design diversity by:

1. Providing a mixture of lot sizes and/or front setbacks; and/or
2. Providing a diversity of floor plans and façade treatments.

Q. No City Maintenance of Streets in Short Subdivisions. Streets within a short subdivision shall not be maintained by the city unless such streets have been dedicated as a right-of-way, improved to current city standards, and accepted as part of the approved short subdivision. Therefore, unless accepted, the responsibility for maintenance shall lie with the owners of the lots.

R. Improvements.

1. Where the buildout of a subdivision is divided into phases, land dedications and infrastructure development will be required on a pro rata basis as each phase is developed unless the applicant negotiates an alternative phasing schedule with the city. This will be required to be documented on a plat note.
2. On any approved large lot, no further lot divisions shall be approved until the required improvements are installed by the applicant and approved by the city.
3. All large lot subdivisions shall have the following improvements developed and/or installed prior to recording:
 - a. Streets shall be cleared, grubbed, and rocked or graveled to provide adequate year-round passage.
 - b. Appropriate drainage, including erosion control, facilities shall be provided consistent with a plan approved by the city engineer prior to clearing and construction of any plat improvements.

Commented [KM20]: Why only large lots?

Commented [KM21]: Why only large lots?

17.12.080 Multifamily and nonresidential subdivisions.

A. Subdivisions established for multifamily and nonresidential shall comply with all provisions of BIMC Title 18 (Zoning) applicable to the zone district where the property is located and the type of development anticipated. This requirement shall include, without limitation, compliance with lot areas, dimensions, and design, mobility and access, landscaping, screening, and vegetative buffers.

17.12.090 Special requirements for critical areas and shoreline.

A. Critical Areas. Any portion of a short or long subdivision, large lot subdivision, nonresidential or multifamily subdivision that contains a critical area as defined in Chapter 16.12 BIMC must conform to all requirements of that chapter.

B. Shoreline. Any portion of a short or long subdivision, large lot subdivision, nonresidential or multifamily subdivision located within the jurisdiction of the shoreline master program, as defined in Chapter 16.12 BIMC, must conform to all requirements of that chapter.

Table 17.12.070-1 Subdivision Dimensional Standards

[Numbers in brackets indicate additional requirements listed at the end of the table.]

ZONING DISTRICT DIMENSIONAL STANDARD	R-0.4	R-1	R-2	R-2.9	R-3.5	R-4.3	R-5	R-6	R-8	R-14	NC	MUTC
MINIMUM LOT AREA												
Short and Long Subdivision	If the site is not served by a public sewer system, the minimum individual lot area shall be determined by the Kitsap Public Health District in accordance with Section 15 of the Kitsap County Board of Health Ordinance 2008A-01, Amended June 7, 2011, <i>Onsite Sewage System and General Sewage Sanitation Regulations</i> , as amended. If the site is served by a public sewer system, there is no minimum lot area. Individual lots may contain portions of natural and community space and access easements.											
Large Lot Subdivision	5 ac or 1/128th of a section, whichever is smaller.	N/A										
MAXIMUM DENSITY (Minimum lot area per dwelling unit)												
Note: Subdivisions containing irregularly shaped lots and lots containing critical areas may not be permitted to achieve maximum density. Additional regulations on density may apply pursuant to BIMC 16.20.												
Short, Long and Large Lot Subdivisions	The maximum number of lots permitted shall be calculated by dividing the total lot area of the property (without deducting areas to be dedicated as public rights-of-way or areas to be encumbered by private road easements) by the minimum lot area for standard lots in the zone district.											
Base Density (minimum lot area)	100,000 sq. ft.	40,000 sq. ft.	20,000 sq. ft. [1]	15,000 sq. ft.	12,500 sq. ft.	10,000 sq. ft.	8,500 sq. ft.	7,260 sq. ft.	5,400 sq. ft.	3,100 sq. ft.	8,500 sq. ft.	See FAR table
Bonus Density pursuant to BIMC 18.12.030.A (minimum lot area)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3,630 sq. ft.	2,074 sq. ft.	N/A	N/A
NATURAL AREA												
Minimum percentage of total site	55%	45%	30%	25%	25%	20%	15%	N/A	10%	5%	15%	5%
Minimum width	50 ft.											
COMMUNITY SPACE												
Instead of providing the required 5% community space, that area may be added to the required natural area if it can be demonstrated that greater conservation area can be achieved.												
Minimum percentage of total site	5% [x]	7.5%	10%	15%				10%	15%	10%		

ZONING DISTRICT DIMENSIONAL STANDARD	R-0.4	R-1	R-2	R-2.9	R-3.5	R-4.3	R-5	R-6	R-8	R-14	NC	MUTC
HOMESITE												
Note: Refer to definition of homesite and standards for homesites.												
Maximum size	10,000 sq. ft.	7,500 sq. ft.	6,500 sq. ft.	5,500 sq. ft.	4,500 sq. ft.	3,500 sq. ft.	3,500 sq. ft.	N/A	3,000 sq. ft.	2,250 sq. ft.	3,500 sq. ft.	2,250 sq. ft.
Maximum separation – homesite	25 ft.											
Maximum separation – homesite cluster group	50 ft.											
HOME SIZE												
Maximum size	N/A								1,600 sq. ft.			
MAXIMUM LOT COVERAGE [3]												
Short and Long Subdivision	Same as applied to the entire property that is the subject of the subdivision application, a portion of which shall be assigned to each lot at the time of preliminary plat approval. **May want to consider eliminating maximum lot coverage, particularly in higher density zones. Homesite requirement lessens need for lot coverage standard.**											
Large Lot Subdivision	10%	15%	20%	N/A	N/A	N/A	N/A	N/A	25%	40%	N/A	N/A
MINIMUM SETBACKS												
Note: Additional setbacks may be required by:												
(a) Chapter 16.08 or 16.12 BIMC, or												
(b) Chapter 16.20 BIMC, Critical Areas, or												
(c) BIMC 16.28.040, mining regulations, or												
(d) BIMC 18.09.030, Use-specific standards, or												
<i>[x] Attached or zero lot line allowed in all districts but R-0.4 if building is 1,600 sq. ft. or less</i>												
<i>[y] ADUs do not need to meet TOTAL building to homesite boundary setback – only minimum setback; must be located within homesite.</i>												
Building to homesite boundary Net building size 1,600 sq. ft. or less Minimum/total [x] [y]	5 ft. min., 10 ft. total								3 ft. min., 10 ft. total			
Building to homesite boundary Net building size 1,601 sq. ft. or more Minimum/total	15 ft. min., 50 ft. total	10 ft. min., 25 ft. total	5 ft. min., 20 ft. total		10 ft. min., 20 ft. total	5 ft. min., 20 ft. total	5 ft. min., 15 ft. total	N/A	5 ft. min., 10 ft. total		3 ft. min., 10 ft. total	

ZONING DISTRICT DIMENSIONAL STANDARD	R-0.4	R-1	R-2	R-2.9	R-3.5	R-4.3	R-5	R-6	R-8	R-14	NC	MUTC
Building outside homesite to exterior plat boundary line Net building size 200 sq. ft. or less	50 ft.	25 ft.	10 ft.	5 ft.								
Building outside homesite to exterior plat boundary line Net building size 200 sq. ft. or more	50 ft.	25 ft.	10 ft.	10 ft.						5 ft.		
Homesite to exterior plat boundary line	50 ft.	25 ft.	10 ft.	5 ft.								
Any building to SR 305 right-of-way	75 ft.	75 ft.	75 ft.	N/A	25 ft.	N/A	N/A	N/A	25 ft.	N/A	25 ft.	25 ft.
Homesite to edge of arterial and collector right-of-way	25 ft.		10 ft.									
Building outside homesite to edge of arterial and collector right-of-way	25 ft.		10 ft.									
Any building to all other streets	10 ft.						5 ft.					
Building to trail, natural or community space or access easement (except for natural areas that are also perimeter buffers)	10 ft.					5 ft.				10 ft.	5 ft.	
Shoreline Jurisdiction	See Table 16.12.030-2, Dimensional Standards Table, and BIMC 18.12.030.F, Shoreline Structure Setbacks. For properties abutting the shoreline, dimensional standards in BIMC 16.12 replace the zoning setbacks along the water.											
GARAGE DIMENSIONAL STANDARDS												
Shared garage to public ROW	0 feet											
Private garage to public ROW	10 feet											
Garage to private access	0 feet											
Shared garage to shared garage	10 feet											
Shared garage maximum size	60 feet long or 144 square feet total											
MAXIMUM BUILDING HEIGHT												
Note: Bonus may not be available in the shoreline jurisdiction												
Short, Long, and Large Lot Subdivisions	Height requirements for standard lots apply											

[1] The base density for that parcel in the Lynwood Center special planning area designated as R-2 is one unit per 20,000 sq. ft., but may be increased up to 3 units per acre; provided, that a public access easement is granted for that portion of the parcel that lies to the south of Point White Drive along the waters of Rich Passage. The base density of some parcels in the Fort Ward historic overlay district may be increased as shown in BIMC 18.24.070.

A few comments on the DRAFT of BIMC 17.12:

17.12.040 "Administrative Departures" provides a lot of leeway, and I hope it doesn't set us up for extensive haggling with applicants, first at the DRB and then again in PC review. Some leeway will be needed, and I think the criteria are well drafted, with first place given to "exceptional topographic conditions, etc." On balance I think this will solve more problems than it creates.

In 17.12.050, I like the additional detail provided in A. #3 (Designation of Natural Area), and #5 (Fencing and Signage). I see that #4 in the earlier draft (Prioritization) has been set aside – Designation of Natural Area says it better.

In 17.12.060.A(1), I think my suggestion in the marked-up draft is better: "A homesite no greater than the zone-specific maximum area . . ." Some other small modifications in the marked-up draft may also help, but forget the insertion of "unless . . . infeasible," because .040 (Departures) takes care of that. In .060.B(3) I guess that "daisy-chaining" means alignment in straight rows. The problem is inherent with clustering; it is dealt with elsewhere in the requirement of "Design Diversity" (bottom of p. 9). My problem is with "a maximum of 50 feet": wouldn't "no more than" be better?

I see a number of changes to "General residential subdivision standards" in this draft. In some places, suggestions in my marked-up version are still relevant. On p. 6, G (Dimensional standards), in place of "required" I suggest "certain minimum and maximum".

On p. 8, M (Landscaping), those percentages for turf grass and native vegetation are apt to be flak-catchers, or at least irritants. This looks like nannying. Is there a better way to discourage lawns and encourage retention or planting of natives?

For P (bottom of p. 9), which was K on p. 9 of the other draft, I suggest "by incorporating measures that promote design diversity: 1) By providing . . ." etc.

On p. 8 of the other draft, under Landscaping, #4 addressed Perimeter Buffers in Multifamily Subdivisions, and I don't find equivalent language in the latest version. I have heard opinions pro and con, and perhaps you are planning for discussion of this. Jonathan Davis has pointed out that Bethany Lutheran wants to build affordable housing on their land, and a similar proposal might come from Grace Episcopal some day. In the Table, on p. 12, "Attached or zero lot line allowed in all districts but R-0.4," and I tend to agree with Jonathan that an exception for R-0.4 is not necessary, not wise. Any duplex or multi-family project should be judged on its merits.

Back on p. 5, in Community Space Objectives, I **especially like** "Enhance a felt and actual sense of security, identity, and community."

PLANNING COMMISSION RECORDED MOTION

Planning Commission Meeting Date:	
Project Proposal Name and Number:	
Documents available at:	
Public Hearing Date:	
Decision Maker:	Director or Examiner

Purpose: The purpose of the Planning Commission's review and recommendation is to determine if a proposed project is consistent with the comprehensive plan and applicable design guidelines, BIMC Titles 17 and 18.

Consideration: The Planning Commission shall consider the project application at a public meeting where public comment will be taken. The Planning Commission shall recommend approval, approval with conditions, or denial of the proposed project.

The Planning Commission will adopt written findings of facts and conclusions and determine if the project is consistent with Bainbridge Island Municipal Code and the comprehensive plan. This motion will be included in the staff report transmitted to the reviewing bodies and decision maker.

Findings of Fact and Reasons for Action

1. The project, as conditioned, is found to meet all the applicable decision criteria.
2. The project, as conditioned, is found to be compliant and consistent with the comprehensive plan.
3. The project, as conditioned, is found to meet all other applicable laws.
4. The project is either :

_____ Found to meet the recommendations by the Design Review Board; **OR**

_____ Recommended for deviation from the Design Review Board's recommendation for the following reasons:

- a.
- b.
- c.



PLANNING COMMISSION RECORDED MOTION

Recommendation:

The Planning Commission recommends the **Director/Hearing Examiner:**

- _____ Approve the proposal as recommended.
- _____ Approve the proposal with the following changes:
 - a.
 - b.
 - c.
- _____ Deny the proposal for the following reasons:
 - a.
 - b.
 - c.

Recorded motion on **date of meeting:**

Planning Commission Record of Vote:

Commissioner	Support	Oppose	Absent	Abstain
Chester				
McCormick Osmond				
Pearl				
Quitslund				
Macchio				
Doman				
Paar				
Total				

CITY OF BAINBRIDGE ISLAND PLANNING COMMISSION

Chair

Date: _____

Administrative Specialist, Planning and Community Development

Date: _____

PUBLIC PARTICIPATION MEETING – Hyla Middle School ([PLN51288 PRE](#))
CALL TO ORDER – Call to Order, Agenda Review, Conflict Disclosure
REVIEW OF MINUTES – November 10, 2016, November 29, 2018 and December 13, 2018
PUBLIC COMMENT – Accept public comment on off agenda items
ORDINANCE 2019-03 - SUBDIVISION STANDARDS UPDATE – Public Hearing and
Recommendation
NEW/OLD BUSINESS
ADJOURN

PUBLIC PARTICIPATION MEETING – Hyla Middle School ([PLN51288 PRE](#))

Chair William Chester opened the public participation meeting at 6:01 PM. Senior Planner Kelly Tayara facilitated the meeting and Brandon Hogg from Studio Hamlet Architects presented the project.

The public participation meeting was over at 6:25 PM and a recess until 7:00 PM occurred.

SPECIAL MEETING CALL TO ORDER – Call to Order, Agenda Review, Conflict Disclosure

Chair William Chester called the meeting to order at 7:00 PM. Planning Commissioners in attendance were J. Mack Pearl, Jon Quitslund, Kimberly McCormick Osmond, Don Doman and Joe Paar. Lisa Macchio was absent and excused. City Staff present were Planning Director Gary Christensen, Long Range Senior Planner Christy Carr and Administrative Specialist Jane Rasely who monitored recording and prepared minutes.

The agenda was reviewed. There were not any conflicts noted.

REVIEW AND APPROVE MINUTES – February 13, 2019

Motion: I move the approval of minutes from our meeting of February 13th as distributed.

Quitslund/Paar: Passed Unanimously

PUBLIC COMMENT – Accept public comment on off agenda items

Michael Zigich, Citizen – Asked for an update on the approved amendments to the SMP.

Rosalyn Renouard, Citizen – Spoke about the increased traffic congestion on Madison Avenue.

ORDINANCE 2019-03 - SUBDIVISION STANDARDS UPDATE – Public Hearing and Recommendation

The public hearing was opened at 7:16 PM.

Brian Wilkinson, Citizen – Asked for an exemption for the R-0.4 Zone and spoke against the currently proposed ordinance.

Larry Lewis Knight, Citizen – Said he was there because he read a newspaper article and wanted to find out what the Planning Commission was considering especially as regarded “clustering” as that was not what he was used to considering rural in character.

Charlie Wenzlau, Consultant – Said he had spoken incorrectly at the last meeting and said the Planning Commission could correct his statement about the subdivision size to which these regulations would apply.

The public hearing was closed at 7:34 PM.

8:33 PM Motion: I move to adopt the comments and recommendations from Planning Commission Subdivision Standards Subcommittee Exhibit A with the following changes: Section 17.12.030 Four-Step Design Process, second paragraph, first sentence we’ll remove the words except the redivision of land into two lots. Section 17.12.050 Natural Area and Community Space, Subsection B, Community Space Required, after all residential subdivisions, add the words except short subdivisions. Table 17.12.070-1, Subdivision Dimensional Standards, under Garage Dimensional Standards, change “shared garage to public right of way,” to “shared garage internal access.” [Ms. Carr asked to have the error in Garage Dimensional Standards – Shared garage maximum size corrected from “60 feet long or 144 square feet total” to 60 feet long or 1440 square feet total” to which Commissioner McCormick Osmond replied, “Yes, please.”] And I further move to adopt the comments and recommendations from Planning Commission Subdivision Standards Subcommittee Exhibit B. And I further move to adopt comments and recommendations from Planning Commission Subdivision Standards Subcommittee Exhibit C.

McCormick Osmond/Pearl: Passed Unanimously

Motion: I move that we forward to the Council with our recommendation Ordinance number 2019-03 with its exhibits as amended in the previous motion. Quitslund/Paar: Passed Unanimously

NEW/OLD BUSINESS

Planning Director Gary Christensen reviewed the *Public Hearing Opening Statement, Protocols and Procedures* as it would be used by the Planning Commission.

Projects for the next meeting were reviewed.

ADJOURN

The meeting was adjourned at 8:56 PM.

Approved by:

William Chester, Chair

Jane Rasely, Administrative Specialist

DRAFT

COMMENTS AND RECOMMENDATIONS FROM
PLANNING COMMISSION SUBDIVISION STANDARDS SUBCOMMITTEE

**Chapter 17.12
SUBDIVISION STANDARDS**

Note: ~~Blue text**~~ highlights concepts and policy questions under consideration for which specific regulatory language is not yet drafted.**

17.12.010 Applicability.

This ~~chapter~~~~section~~ sets forth standards for short subdivisions, long subdivisions, large lot subdivisions, and nonresidential and multifamily subdivisions. Specific requirements relevant to each individual type of subdivision are provided throughout various chapters of this title.

17.12.020 Subdivision Design Guidelines.

All residential subdivisions outside the Neighborhood Center and Mixed Use Town Center zoning districts shall comply with ~~these~~ design guidelines contained in “Design Guidelines for Residential Subdivisions,” set forth in BIMC 18.18 and its reference documents, which are adopted as part of this title by reference.

The purpose of subdivision design guidelines is to define the qualities of subdivisions that meet the guiding principles, goals, and policies of the city’s Comprehensive Plan, and to serve as a tool for guiding individual projects to meet those expectations through the city’s land use review procedures. The design guidelines offer ~~reference points~~~~a forum~~ for the public to participate in discussion ~~of~~~~s about~~ new subdivisions ~~in their neighborhood~~, and ~~they as a means of~~ allow ~~applicant~~~~sing~~ flexibility in ~~meeting response to design~~~~the application of development~~ development standards and zoning requirements. An applicant may be granted a departure from the ~~development standards design guidelines~~ by demonstrating that an alternative design better meets the intent of the design guidelines.

17.12.030 Four-Step Design Process

The city’s ~~subdivision~~ approach ~~to planning for subdivisions~~ requires a four-step ~~process~~~~system~~ that ~~gives places~~ the ~~highest priority to~~ identification and conservation of resources. ~~on an undeveloped area of the site as the primary and leading goal~~. This ~~process approach~~ reverses the conventional site planning approach, which typically begins by laying out the streets, lot lines and building footprints ~~as the first part of the process~~. Instead of first identifying ~~the development~~ areas ~~to be cleared for development~~, the design process begins by analyzing on-site resources and the site’s ~~relationship connections~~ to surrounding ~~properties, in order~~resources to identify what ~~resource areas~~ are ~~most worthy of best for~~ preservation~~ing~~ and ~~what those~~ areas ~~of the site that~~ can best accommodate development.

~~This~~ ~~four step~~ design process is required for all residential subdivisions except the division or redivision of land into two lots. The process ~~is~~, further defined in BIMC 2.16.125.D: ~~it~~, consists of four steps: 1) Delineate Natural Area; 2) Locate Homesites and Community Space; 3) Define Access; and, 4) Draw Lot Lines.

17.12.040 Administrative Departures

A. A departure ~~from existing subdivision standards may be requested by an applicant or required by the City to allow use of an~~ ~~is a request by the applicant to meet or exceed a particular subdivision standard through the use of a technique or~~ alternative standard not ~~otherwise~~ listed ~~among~~ ~~under~~ the applicable requirements of BIMC 17.12.050 through BIMC 17.12.0970~~(?)~~. Departures are not variances and are not required to meet the criteria associated with a variance application. Rather, departures allow adjustment of ~~existing~~ standards to achieve better outcomes in cases where strict application of the ~~existing~~ standard ~~is not feasible due to physical characteristics of the property, or~~ would result in an inferior subdivision design.

B. Departures from the subdivision standards in BIMC 17.12.050 through BIMC 17.12.090⁽²⁾, may be permitted as part of the subdivision review process. ~~In order for such a departure from subdivision standards to be allowed, it an applicant must demonstrate that the must satisfy the intent of the four step design process, and the resulting development design must better serve the public interest. resulting overall development, including departures from the standards, would better serve the~~

~~public interest. A departure shall not be allowed from the following standards; and a finding shall be made in the affirmative that each proposed departure meets or exceeds the intent of the respective standard as compared to a strict application of the established standard.~~

~~1. Natural area~~

~~2. ~~ete~~ Community space~~

~~3. Homesite size~~

C. Any request for one or more departures shall be made at the Design Guidance Review Meeting as part of the pre-application phase of the project. Departures shall be reviewed concurrently with an application for subdivision. It must be shown that the proposal is consistent with the following criteria:

1. Because of unusual shape, exceptional topographic conditions, environmental constraints or some other extraordinary characteristics of the property, strict adherence to the existing standard would create undue hardship or result in an undesirable plat; or

2. The granting of the departure results in better plat and/or lot design, such as a plat with greater natural resource conservation value, less adverse impact to adjoining properties, or homes designed to be better suited to the site's topography and other features; and

~~3. All possible efforts to comply with the standard or minimize potential harm or adverse impacts have been undertaken. Economic considerations may be taken into account but shall not be the overriding factor in approval; and~~

4. The departure is consistent with other applicable regulations and standards; and

5. The granting of any departure will not be unduly detrimental to the public welfare nor injurious to the property or improvements in the vicinity in which the property is located.

D. Upon affirmative recommendations ~~by the Design Review Board and of approval from~~ the Planning Commission, the director shall review the record and render a decision on the specified departure(s), subject to review by the hearing examiner. ~~may grant a~~ departure from the subdivision standards BIMC 17.12.050 through BIMC 17.12.090 ~~may be granted~~ if it is shown that the ~~departure meets the criteria in 17.12.040 (C).~~ proposal is consistent with the following criteria:

~~1. Because of unusual shape, exceptional topographic conditions, environmental constraints or other extraordinary situation or condition in connection with a specific piece of property, strict adherence to the standard would create undue hardship or result in an undesirable plat; or~~

~~2. The granting of the departure results in better plat and/or lot design. Better plat and/or lot design means situations such as creating plats that result in greater natural resource conservation value, less adverse impact to adjoining properties, or more practical design because of topography, critical area, or other extenuating circumstance; and~~

~~3. All possible efforts to comply with the standard or minimize potential harm or adverse impacts have been undertaken. Economic consideration may be taken into account but shall not be the overriding factor in approval; and~~

~~4. The departure is consistent with other applicable regulations and standards; and~~

~~5. The granting of any departure will not be unduly detrimental to the public welfare nor injurious to the property or improvements in the vicinity in which the property is located.~~

17.12.050 Natural Area and Community Space.

A. Natural Area Required. All residential subdivisions shall provide natural area consistent with BIMC 17.28, Definitions, Table 17.12.070-1, and the following standards:

1. Natural Area Objectives. ~~The n~~Natural area(s) shall support ~~accomplish one or more of~~ the following objectives:

a. Conservation of natural resources, including wildlife habitat;

BIMC Chapter 17.12 SUBDIVISION STANDARDS

- b. Protection of groundwater recharge;
- c. Conservation of native soils;
- d. Expansion or enhancement of the value to adjacent or neighboring open space, parks, forested areas, conservation easements, shorelines, or critical areas;
- e. Preservation of unique natural land or rock features;
- f. Preservation of visual appealqualities along highway, road and street corridors or scenic vistas.

2. Amount of Natural Area Required. The ~~zone specific~~ minimum natural area shown in Table 17.12.070-1 shall be provided and shall be depicted on the face of the plat.

3. Designation of Natural Area. ~~The n~~Natural area(s) shall be designated as the first step in the four-step design process defined in BIMC 2.16.125.D. Natural areas ~~consistare made up~~ of primary and secondary natural areas. If the primary natural areas make up less than the required percentage of the total site natural area, the balance of the required natural area shall ~~consistbe made up~~ of secondary natural areas.

a. Primary Natural Areas (PNA). PNAs form the core of the natural area to be protected. PNA's include the following:

- i. Critical areas other than critical aquifer recharge areas;
- ii. Critical area buffers;
- iii. Aquifer recharge protection area as required by BIMC 16.20.100.;

b. Secondary Natural Areas (SNA). SNAs are locally noteworthy or significant features of the natural landscape. SNA's include the following:

- i. Mature woodlands;
- ii. Freestanding significant trees;
- iii. Wildlife corridors;
- iv. Greenways and trails;
- v. Scenic viewsheds;
- vi. Mature vegetation on ridgelines.

c. Aquifer Recharge Protection Area (ARPA). Subdivisions in the R-0.4, R-1, and R-2 zoning districts shall include designation of an ARPA in accordance with BIMC 16.20.100 and the following standards:

i. If a proposed subdivision includes more than one parcel, the ARPA shall be calculated based on the total square footage of all parcels;

ii. If the required ARPA is greater than the required natural area, the natural area shall be increased to achieve the required ARPA area;

iii. If the required ARPA is less than the required natural area, the natural area shall include other SNAs ~~other PNAs or SNAs~~ to achieve the required natural area.

4. Natural Area Configuration. Designated natural areas shall be configured in a manner that enhances and promotes the ~~+~~natural character of the island and ~~+~~natural resource characteristics of the property and surrounding area. Natural area configuration shall satisfy the following guidelines:

- a. Natural area should be concentrated in large, consolidated areas; and
- b. Natural area should connect to any adjacent off-site open space areas, designated wildlife corridors and trails, and/or critical areas; and
- c. Natural area should be designed to preserve views from off site of the subject property; and
- d. Natural area should be delineated with a low perimeter-to-area ratio, with a minimum width of fifty (50) feet; and
- e. Natural area may be included as a portion of one or more lots, or may be contained in a separate tract.

5. Natural Area Fencing and Signage. ~~FEither~~ fences and/or signs delineating the boundary of natural areas are required. The director shall determine which option (fence or sign) is required, based on the recommendations from the Design Guidance Review Meeting.

- a. If fencing is required:
 - i. Low-impact fences are preferred and must be constructed in accordance with the definition in BIMC 17.28.020; and
 - ii. Fencing is not required at the exterior boundary of the subdivision; and
 - iii. Gaps in fencing not exceeding five (5) feet are permitted, as are gates.
- b. If signs are required:
 - i. They shall be constructed in accordance with the definition in BIMC 17.28.020; and
 - ii. Typically, they shall be ~~generally~~ spaced at intervals of 50 feet, allowing for variation unless otherwise approved by the director due to ~~reasons such as~~ topography, configuration of open space, distance from other features, etc.
- c. If signage is required and encroachments into the designated natural area occur, the director may require that the owner install fencing and/or additional signage to prevent future encroachments. Required fencing and signs shall must be maintained in good repair, with repair or replacement to occur within 60 days, ~~of notification from the city that repair or replacement is required?~~

6. Natural Area Ownership. Ownership of natural area shall be established consistent with one of the following forms of ownership:

- a. Private Ownership. Natural area may be held in private ownership if ~~so~~ established by easements, restrictive covenants, the natural area management plan, or ~~other~~ similar legal means; or
- b. Common Ownership. Natural areas may be held in common by a home or property owners' association or other similar organization. For the purposes of this title, if a land trust or a similar conservancy maintains ownership ~~of and/or a~~ conservation easement ~~being held by a land trust, or other similar conservancy organization,~~ that shall be considered common ownership. If this ownership pattern is selected, covenant, conditions, and/or restrictions shall be required; or
- c. Public Ownership. Designated natural areas shall not be required to be dedicated to the city or other public agency, and the owner shall not be required to permit public access to designated natural areas. However, if the owner offers to dedicate, the city or other public agency may choose to accept ownership of natural areas. Consequently, upon approval and acceptance by the city council, the natural areas shall be dedicated to the public.

7. Natural Area Maintenance. An applicant shall submit a draft natural area management plan (NAMP) as described in the Bainbridge Island administrative manual, for review as part of the preliminary plat application. Final approval of the NAMP will occur at the time of final plat approval. The natural area management plan shall include:

- a. A list of all approved uses for the natural areas. Where uses in separate natural areas vary, the specific location of each use shall be depicted graphically.
- b. A maintenance plan for natural areas, stipulating that clearly describes the frequency and scope of maintenance activities for natural areas, and meeting that meets all requirements set forth in subsection 7 herein, and in the Bainbridge Island administrative manual.
- c. The approved NAMP must be filed with the Kitsap County Auditor. In the event that the natural area is not maintained consistent with the NAMP, the city shall have the right to enter the property for necessary maintenance, with the cost of such maintenance assessed against the landowner or, in the case of a homeowner's association, the owners of the properties within the subdivision, and - ~~This assessment and-~~ shall, if unpaid, become a tax lien on such property or properties.

8. Allowed Uses in Natural Area. Allowed uses within natural areas include:

- a. Installation and care of native plants.
- b. Maintenance pruning of trees and shrubs, provided the structural integrity and long-term health of the vegetation is preserved.
- c. Wildfire mitigation activities, other than tree removal, within a 30-foot defensible space around a primary structure, in accordance with the Bainbridge Island community wildfire protection plan and as described by Section 603 of the International Wildland Urban Interface Code.
- d. Removal of invasive plant species.
- e. Passive recreation, including pervious trails.
- f. Potable water wells and well houses.
- g. Low impact fencing or signs marking the natural area boundary.
- h. On-site sewage drainfield facilities, if construction of the system will not require the use of heavy equipment or removal of significant trees.
- i. Storm drainage facilities if the applicant can demonstrate that (i) the system meets the low impact design (LID) standards of Chapter 15.20 BIMC, and (ii) construction of the system will not require the use of heavy equipment or removal of significant trees.
- j. Accessory solar panels, small wind energy generators, composting bins, rainwater harvesting barrels, and cisterns, as defined in Chapter 18.36 BIMC.
- k. Other structures or hard surfaces with a total footprint ~~of~~ no greater than 200 square feet.

B. Community Space Required. All residential subdivisions shall provide community space consistent with BIMC 17.28, Definitions, Table 17.12.070-1, and the following standards:

1. Community Space Objectives. Community space shall accomplish one or more of the following objectives:

- a. Provide a place for residents to gather in shared space.
- b. Provide common buildings, open space, or gardens.
- c. Provide space for unstructured recreation.
- d. Enhance a felt and actual sense of security, identity, and community.
- e. Provide a protected, traffic-free environment.

2. Amount of Community Space Required. The minimum community space shown in Table 17.12.070-1 shall be provided and shall be depicted on the face of the plat.

3. Community Space Configuration. Community space ~~shall~~ should adjoin the largest practicable number of lots within the development. Non-adjoining lots shall be provided with safe and convenient pedestrian access to community space.

4. Community Space Ownership. Ownership of community space shall be established consistent with one of the forms of ownership set forth in BIMC 17.12.050.A.5.

5. Community Space Maintenance. An applicant shall submit a draft community space management plan (CSMP) as described in the Bainbridge Island administrative manual, for review as part of the preliminary plat application. Final approval of the CSMP will occur at the time of final plat approval. The community space management plan shall include:

- a. A list of all approved uses for the community space. Where uses in separate community spaces vary, the specific location of each use shall be depicted graphically.
- b. A maintenance plan for community space that clearly describes the frequency and scope of maintenance activities, and that meets all requirements set forth in subsection 5 herein and the Bainbridge Island administrative manual.
- c. The approved CSMP must be filed with the Kitsap County Auditor within thirty (30) days of final plat approval. In the event that the community space is not maintained consistent with the CSMP, the city shall have the right to enter the property for necessary maintenance, with the cost of such maintenance assessed against the landowner or, in the case of a homeowner's association, the owners of the properties within the subdivision and shall, if unpaid, become a tax lien on such property or properties.

6. Allowed Uses in Community Space. Community space may include uses such as crop and animal agriculture, meadows, orchards, pastures, turf fields, and common buildings. Prohibited and allowed uses within community space shall be included in the draft terms, conditions, covenants, and agreements proposed for the subdivision, which shall be submitted with the preliminary subdivision application. Final terms, conditions, covenants, and agreements must be filed with the Kitsap County Auditor within thirty (30) days of final plat approval.

17.12.060 Homesites. All single-family residential subdivisions require homesites located and designed consistent with BIMC 17.28, Definitions, Table 17.12.070-1, and the following standards:

A. Homesite Area.

1. A homesite area ~~no greater than~~ with the maximum area shown in Table 17.12.070-1 shall be provided for each lot and shall be depicted on the face of the plat.

2. The homesite area shall include the primary residential dwelling, accessory buildings, and on-site parking, if provided for each lot within the subdivision.

3. Other allowed uses and structures include residential landscaping, pathways, ~~and~~ turf, and fences; individual water, stormwater, and septic infrastructure; ~~and fences.~~

4. Homesites shall not contain any critical areas, ~~except for critical aquifer recharge areas,~~ or their buffers or setbacks, shoreline buffers, or any portion of required natural areas. Homesites may include critical aquifer recharge areas.

B. Homesite Clustering. ~~Clustering is the preferred design model for all single family subdivisions. In All single family subdivisions resulting in four or more lots require homesite clustering, clustering of homesites is the preferred design model.~~ -The purpose of clustering is to facilitate the efficient use of land by ~~limiting~~~~reducing~~ ~~disturbed~~ areas ~~of disturbance~~, impervious surfaces, utility extensions, and roadways. ~~Homesites shall be located in cluster groups and the efficient location of infrastructure shall be used to maximize the undeveloped area.~~

~~The four-step design process outlined in section 17.12.030 BIMC is intended to allow the characteristics of the land to determine the most suitable location of homesites. Section 17.12.040 BIMC also provides for departures from certain standards, if it is found that the adjustment achieves a better outcome.~~

- ~~1. Cluster groups shall be a minimum of four homesites.~~
- ~~2. No more than three cluster groups are allowed within any subdivision.~~
- ~~3. All homesites in a cluster grouping shall adjoin or be located no more than a maximum of 50 feet from another homesite. ~~**Is additional language needed to prevent “daisy chaining”?*~~~~
4. Homesite cluster groups shall be located to minimize adverse impacts to adjacent, previously existing residential development.
5. ~~The location of~~ homesite cluster groups ~~are~~ is not required to be located near any existing home on the property.
6. Homesite cluster groups shall be configured to maintain the natural features of the site and minimize topographic alteration and clearing of existing vegetation.

17.12.070 General residential subdivision standards.

A. Constrained lots. If, due to site or design constraints, no homesite with supporting infrastructure can be located on a subject property, no division of land is permitted.

B. Preexisting lots. Lots that have previously received final approval from the city, or that have previously received final approval from Kitsap County prior to inclusion within the city boundaries, and that do not comply with standards of this chapter shall be considered existing nonconforming lots, but any future resubdivision of any such lots shall comply with the requirements of this title.

~~C. Platted lots. The platted lot defines the extent of private ownership of land within the subdivision. The size, shape and potential uses of a lot depend on many factors that will be considered in the subdivision design process. Establishing lot lines is the last step in the design process, but a desired result will affect decisions throughout the process, and the physical characteristics of the entire property will present both constraints and opportunities. Standards applicable to lots are found in BIMC 17.12.070 and Table 17.12.070-1.~~

~~D. The s~~ Short subdivision ~~process~~ shall not be used, either by a person alone or by persons acting together, at one time or over a period of time, ~~as a means~~ to circumvent compliance with the more stringent ~~subdivision~~ requirements that control the subdivision of land into five or more lots. When an application for a short subdivision is filed within five years after the approval of a short subdivision on a contiguous land parcel, ~~a~~ presumption of an attempt to circumvent short subdivision requirements may be invoked by the director as a basis for further investigation, ~~to assure compliance with the intent of this provision~~ ~~and the requirements of a long subdivision.~~

D. Remaining area. Any area not designated as public or private access, ~~buffers~~, lots, or utility tracts shall be designated as either natural area or community space, in accordance with the objectives in either BIMC 17.12.050.A.1 or ~~17.12.050 B.1.~~ ~~17.12.050.B.1.~~

E. Site Disturbance. ~~The extent of~~ ~~it~~ and disturbing activities, as defined in BIMC 15.20.020.22, shall be limited to the ~~minimum required for site preparation and construction.~~ ~~maximum extent feasible.~~ ~~**Can site disturbance be further limited; e.g., site disturbance cannot exceed 10 percent greater than homesite area (depending on where utilities are)?**~~

F. Compatibility with Adjacent Development

BIMC Chapter 17.12 SUBDIVISION STANDARDS

1. Subdivisions shall be designed and located to ensure compatibility with existing adjacent development.
2. Views of house lots from exterior roads and abutting properties shall be minimized by preserving the natural topography and existing vegetation to the greatest furthest extent possible.
- ~~3. An alternative design of portions of the site plan may be required in order to satisfy fulfill subsections 1 and 2 above.~~

G. Dimensional standards. Table 17.12.070-1 sets forth certain minimum and maximum~~required~~ dimensional standards. Where a property is located in more than one zone district, units permitted by density calculations within each zone district must be constructed on the portion of the property located within that ~~zone~~ district, and required setbacks for each zone district must be met. Permitted densities are not “blended” across the zone district line.

H. Septic Systems. Locations of individual or community drainfields and associated reserve drainfields shall comply with all applicable standards established by the Kitsap Public Health District or Washington Department of Health.

Reserve drainfield areas shall remain undisturbed until such time as their use is required. This standard shall be noted on the face of the preliminary and final plat.

I. Streets and Vehicle Access. Subdivisions shall comply with the following standards unless modified by the City Engineer:

1. Subdivisions shall comply with all applicable standards of the “City of Bainbridge Island Design and Construction Standards and Specifications,” as amended. Deviations from the “City of Bainbridge Island Design and Construction Standards and Specifications” may be granted by the City Engineer upon evidence that such deviations are in the public interest and that they are based on sound engineering principles and practices. All requirements for safety, function, appearance and maintainability must be fully met. Desired deviations should must be requested at the Design Guidance Review Meeting during the pre-application phase of the project.

2. Each lot in a residential subdivision shall have direct access to a public or private street, except for those with shared driveways or alternative lot designs that provide shared or clustered parking outside of individual lots.

3. The street system of a proposed subdivisions shall be designed to connect with any existing, proposed, or planned streets outside of the subdivision ~~to the maximum extent feasible or~~ to create a connection beneficial to the overall circulation of the surrounding area, as determined by the City Engineer. ~~{Delete “to the maximum extent . . .” to end of sentence?}~~

4. Interior street layout shall be oriented on the east/west axis; if feasible, to maximize active and passive solar access.

5. To minimize impervious surfaces, all public rights-of-way, access easements, private streets, and driveways shall not be greater than the minimum dimensions required to meet standards.

6. Street names and traffic regulatory signs shall be provided, and their locations shall be indicated on the plat/plan. The locations of mailboxes and traffic regulatory signs are only required ~~to be indicated~~ on the plat/plan when other public improvements are required.

7. Transit stops shall be provided as recommended by Kitsap Transit.

J. Parking and Garages.

1. Parking shall be provided consistent with BIMC 18.15.020, except as modified by this subsection.
2. Parking spaces provided on individual lots must be located within the designated homesite.
3. Parking spaces may be located outside of individual lots, consolidated in a remote or satellite parking area, or in individual or shared garages.
4. Consolidated parking areas shall be landscaped in accordance with BIMC 18.15.010.F.
5. Shared garages are limited to five vehicle spaces and shall not exceed 60 feet in length or 144 square feet total.
6. Garages, including detached garages, located on individual homesites facing a public street shall be:
 - a. Limited to two vehicles; and
 - b. Either accessed from the side or rear or set back from the most front-facing exterior wall of habitable space a minimum of five feet unless the house is not visible from the public street.

K. Circulation and Access.

1. All subdivisions shall include a circulation and access system of walkways, paths, ~~sidewalks,~~ or trails that interconnect lots, natural area, community space, and adjacent access facilities. Trails that provide connection to streets, public areas or other trails contribute to a network beyond through the subdivision boundaries shall provide public access.
2. Multi-modal facilities shall be consistent with the applicable standards of the “City of Bainbridge Island Design and Construction Standards and Specifications.”

3. Subdivisions may be required to provide dedicated access easements if one or more “trail connection zones” are located on the site as shown on Map C and D (Non-Motorized System Plan) of the Island-Wide Transportation Plan, as amended.
4. Pursuant to RCW 58.17.110(1), sidewalks or other planning features shall be provided to assure safe walking conditions for students who walk to and from school.

L. Fencing.

1. Sight obscuring fencing is prohibited at the exterior boundary of a subdivision along a public right of way.
2. Fencing at the exterior boundary of a subdivision along a public right of way shall not exceed 3 feet, 6 inches in height. ****option for higher fences to be set back minimum 5 feet from edge of ROW and planted in front****
3. Fencing at the exterior boundary of a subdivision along a public right of way is prohibited within the roadside buffer or at the edge of right of way.
4. Fencing around surface stormwater ponds shall not exceed 3 feet, 6 inches in height unless required by the City Engineer for safety reasons.

M. Landscaping

Individual homeowners are responsible for the maintenance and modification of landscaping on their lots, subject to any rules and guidelines established by a homeowners’ association or similar body. Native vegetation on the site should be retained and maintained where possible and landscaping should be responsive to the natural contours of the lot.

- ~~1. Turf grass shall be limited to ≤ 20 percent of individual homesite areas. Turf grass is not permitted on individual lots outside of homesites.~~
- ~~2. Landscaping on individual lots shall include at least 60 percent native vegetation.~~
- ~~3. Landscaping within community space shall:
a. Be limited to ≤ 30 percent turf grass; and
b. Include at least 40 percent native vegetation; except that, plants and vegetation used for gardening or agriculture shall are not required to be native vegetation.~~

N. Perimeter Buffers. The intent of perimeter buffers is to visually and physically separate adjacent land uses, when necessary, to minimize impacts of new development on adjacent properties.

1. Perimeter buffers shall be provided at the exterior boundary of all subdivisions. The minimum width of perimeter buffers shall equal the minimum homesite boundary to exterior plat boundary required in accordance with Table 17.12.070-1.
2. Perimeter buffers shall be shown on the face of the preliminary plat. No structures, buildings, or parking facilities may be located within perimeter buffers, except that, public and private streets, utility lines, and trails may be located within perimeter buffers provided no significant trees are removed.
3. Existing, native vegetation, including significant trees and tree stands, shall be preserved within perimeter buffers. The tree retention, protection, and replacement requirements of BIMC 18.15.010.C apply to perimeter buffers unless modified by this section.
4. If existing vegetation provides an effective visual screen, no additional planting is required. If existing vegetation does not provide an effective year-round visual screen, additional plant material shall be installed, consistent with the following:
 - a. Additional plant material shall be installed to achieve the full screen landscape standard provided in BIMC 18.15.010.D.4.a.. Any additional plant material shall be native species and no turf or lawn is permitted.
 - b. In the R-0.4, R-1, and R-2 zoning district, additional plant material is not required if:
 - i. The perimeter buffer meets natural area designation objectives and designation standards in BIMC

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17.12.050.1 and 17.12.050.3 or;

- ii. The nearest structure within the subdivision is located a distance at least two times the required homesite boundary to exterior plat boundary dimension provided in Table 17.12.070-1.

5. Perimeter buffers may be included as a portion of one or more lots or may be contained in a separate tract.
6. Perimeter buffers may be included as a portion of the natural area required in BIMC 17.12.050.A if the buffer meets the standards of that subsection.
7. The performance and maintenance assurances requirements of BIMC 18.15.010.H apply to perimeter buffers.
8. The irrigation and maintenance standards of BIMC 18.15.010 apply to perimeter buffers.

O. Roadside Buffers. The intent of roadside buffers is to enhance or retain Island character through the minimization of disturbance of existing roadside vegetation and screen new development from more highly traveled roads.

1. Roadside buffers are required for all subdivisions along collector or arterial roads in the R-0.4, R-1, and R-2 zoning designation. The minimum width of roadside buffers is 25 feet.
2. Roadside buffers shall be shown on the face of the preliminary plat. Roadside buffers may not be part of individual lots and must be contained in a separate tract.
3. No structures, buildings, or parking facilities may be located within perimeter buffers, except that, ~~public and private streets,~~ utility lines and boxes and entry signs, may be located within roadside buffers, and driveways and trails may be located within roadside buffers, provided no significant trees are removed. ~~**Entry signs/treatment—limited/prohibited**~~
4. Existing, native vegetation, including significant trees and tree stands, ~~shall~~ must be preserved within roadside buffers. Tree retention, protection, and replacement requirements in BIMC 18.15.010.C apply to roadside buffers.
5. If existing vegetation provides an effective visual screen, or is consistent with existing roadside character, no additional planting is required. If existing vegetation does not provide an effective year-round visual screen, additional plant material shall be installed, consistent with the following:
 - a. Additional plant material shall be installed to achieve the full screen landscape standard provided in BIMC 18.15.010.D.4.a. Any additional plant material shall be native species and no turf or lawn is permitted;
 - b. Additional plant material is not required if mature forest or other dense vegetation is not part of the existing roadside character.
6. Roadside buffers may not be included as a portion of the natural area or community space required in BIMC 17.12.050.
7. The performance and maintenance assurances requirements of BIMC 18.15.010.H apply to perimeter buffers.
8. The irrigation and maintenance standards of BIMC 18.15.010 apply to perimeter buffers.
9. For subdivisions designating community space that is intended for agricultural use and would be adversely impacted by the addition of screening landscaping, a roadside buffer shall ~~not~~ be required to use screening landscaping that does not adversely impact the proposed agricultural use.
10. To accommodate an existing house that is located within 25 feet of the subdivision boundary adjacent to a collector or arterial road, the roadside buffer width shall be reduced to the width adjoining the existing home between the existing house and the subdivision boundary adjacent to the collector or arterial road.

P. Design Diversity. Subdivision designs shall avoid monotonous rows of duplicative dwellings ~~by~~ and incorporating measures that promote design diversity, ~~including:~~ by:

1. Providing a mixture of lot sizes and/or front setbacks; and/or

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2. Providing a ~~variety~~^{diversity} of floor plans and façade treatments.

Q. No City Maintenance of Streets in Short Subdivisions. Streets within a short subdivision shall not be maintained by the city unless such streets have been dedicated as a right-of-way, improved to current city standards, and accepted as part of the approved short subdivision. Therefore, unless accepted, the responsibility for maintenance shall lie with the owners of the lots.

~~R. Improvements.~~

- ~~1. Where the buildout of a subdivision is divided into phases, land dedications and infrastructure development will be required on a pro rata basis as each phase is developed unless the applicant negotiates an alternative phasing schedule with the city. This will be required to be documented on a plat note.~~
- ~~2. On any approved large lot, no further lot divisions shall be approved until the required improvements are installed by the applicant and approved by the city.~~
- ~~3. All large lot subdivisions shall have the following improvements developed and/or installed prior to recording:
 - ~~a. Streets shall be cleared, grubbed, and rocked or graveled to provide adequate year round passage.~~
 - ~~b. Appropriate drainage, including erosion control, facilities shall be provided consistent with a plan approved by the city engineer prior to clearing and construction of any plat improvements.~~~~

17.12.080 Multifamily and nonresidential subdivisions.

~~A.~~ Subdivisions established for multifamily and nonresidential uses shall comply with all provisions of BIMC Title 18 (Zoning) applicable to the zone district where the property is located, and for the type of development anticipated. This requirement shall include, without limitation, compliance with design guidelines and with standards for lot areas, dimensions, ~~and design~~, mobility and access, landscaping, screening, and vegetative buffers.

17.12.090 Special requirements for critical areas and shoreline.

A. Critical Areas. Any portion of a short or long subdivision, large lot subdivision, nonresidential or multifamily subdivision that contains a critical area as defined in Chapter 16.12 BIMC must conform to all requirements of that chapter.

B. Shoreline. Any portion of a short or long subdivision, large lot subdivision, nonresidential or multifamily subdivision located within the jurisdiction of the shoreline master program, as defined in Chapter 16.12 BIMC, must conform to all requirements of that chapter.

Table 17.12.070-1 Subdivision Dimensional Standards

[Numbers in brackets indicate additional requirements listed at the end of the table.]

ZONING DISTRICT DIMENSIONAL STANDARD	R-0.4	R-1	R-2	R-2.9	R-3.5	R-4.3	R-5	R-6	R-8	R-14	NC	MUTC
MINIMUM LOT AREA												
Short and Long Subdivision	If the site is not served by a public sewer system, the minimum individual lot area shall be determined by the Kitsap Public Health District in accordance with Section 15 of the Kitsap County Board of Health Ordinance 2008A-01, Amended June 7, 2011, <i>Onsite Sewage System and General Sewage Sanitation Regulations</i> , as amended. If the site is served by a public sewer system, there is no minimum lot area. Individual lots may contain portions of natural and community space and access easements.											
Large Lot Subdivision	5 ac or 1/128th of a section, whichever is smaller.	N/A										
MAXIMUM DENSITY - (MINIMUM LOT AREA/Minimum lot area per dwelling unit)												
Note: Subdivisions containing irregularly shaped lots and lots containing critical areas may not be permitted to achieve maximum density. Additional regulations on density may apply pursuant to BIMC 16.20.												
Short, Long and Large Lot Subdivisions	The maximum number of lots permitted shall be calculated by dividing the total lot area of the property (without deducting areas to be dedicated as public rights-of-way or areas to be encumbered by private road easements) by the minimum lot area for standard lots in the zone district.											
Minimum Lot Area Base Density - (minimum lot area)	100,000 sq. ft.	40,000 sq. ft.	20,000 sq. ft. [1]	15,000 sq. ft.	12,500 sq. ft.	10,000 sq. ft.	8,500 sq. ft.	7,260 sq. ft.	5,400 sq. ft.	3,100 sq. ft.	8,500 sq. ft.	See FAR table
Minimum Lot Area - Bonus Density - pursuant to BIMC 18.12.030	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3,630 sq. ft.	2,074 sq. ft.	N/A	N/A
NATURAL AREA												
Minimum percentage of total site	55%	45%	30%	25%	25%	20%	15%	N/A	10%	5%	15%	5%
Minimum width	50 ft.											
COMMUNITY SPACE [x] [x] Instead of providing the required 5% community space, that area may be added to the required natural area if it can be demonstrated that greater conservation area can be achieved.												
Minimum percentage of total site	5% [x]	7.5%	10%	15%						10%	15%	10%

ZONING DISTRICT	R-0.4	R-1	R-2	R-2.9	R-3.5	R-4.3	R-5	R-6	R-8	R-14	NC	MUTC
DIMENSIONAL STANDARD												
HOMESITE												
Note: Refer to definition of homesite and standards for homesites.												
Maximum size	10,000 sq. ft.	7,500 sq. ft.	6,500 sq. ft.	5,500 sq. ft.	4,500 sq. ft.	3,500 sq. ft.	3,500 sq. ft.	N/A	3,000 sq. ft.	2,250 sq. ft.	3,500 sq. ft.	2,250 sq. ft.
Maximum separation—homesite	25 ft.											
Maximum separation—homesite-cluster group	50 ft.											
HOME SIZE												
Maximum size	N/A								1,600 sq. ft.			
MAXIMUM LOT COVERAGE [3]												
Short and Long Subdivision	Same as applied to the entire property that is the subject of the subdivision application, a portion of which shall be assigned to each lot at the time of preliminary plat approval. **May want to consider eliminating maximum lot coverage, particularly in higher density zones. Homesite requirement lessens need for lot coverage standard.**											
Large Lot Subdivision	10%	15%	20%	N/A	N/A	N/A	N/A	N/A	25%	40%	N/A	N/A
MINIMUM SETBACKS												
Note: Additional setbacks may be required by:												
(a) Chapter 16.08 or 16.12 BIMC, or												
(b) Chapter 16.20 BIMC, Critical Areas, or												
(c) BIMC 16.28.040, mining regulations, or												
(d) BIMC 18.09.030, Use-specific standards, or												
[x] Attached or zero lot line allowed in all districts but R-0.4 if building is 1,600 sf or less												
[y] ADUs do not need to meet TOTAL building to homesite boundary setback – only minimum setback; must be located within homesite.												
Building to homesite boundary Net building size 1,600 sq. ft. or less Minimum/total [x] [y]	5 ft. min., 10 ft. total								3 ft. min., 10 ft. total			
Building to homesite boundary Net building size 1,601 sq. ft. or more Minimum/total	15 ft. min., 50 ft. total	10 ft. min., 25 ft. total	5 ft. min., 20 ft. total		10 ft. min., 20 ft. total	5 ft. min., 20 ft. total	5 ft. min., 15- 20 ft. total	N/A	5 ft. min., 10 ft. total		3 ft. min., 10 ft. total	

ZONING DISTRICT	R-0.4	R-1	R-2	R-2.9	R-3.5	R-4.3	R-5	R-6	R-8	R-14	NC	MUTC
DIMENSIONAL STANDARD												
Building outside homesite to exterior plat boundary line Net building size 200 sq. ft. or less	50 ft.	25 ft.		10 ft.		5 ft.						
Building outside homesite to exterior plat boundary line Net building size 200 sq. ft. or more	50 ft.	25 ft.		10 ft.		10 ft.				5 ft.		
Homesite to exterior plat boundary line	50 ft.	25 ft.		10 ft.		5 ft.						
Any building to SR 305 right-of-way	75 ft.	75 ft.	75 ft.	N/A	25 ft.	N/A	N/A	N/A	25 ft.	N/A	25 ft.	25 ft.
Homesite to edge of arterial and collector right-of-way	25 ft.			10 ft.								
Building outside homesite to edge of arterial and collector right-of-way	25 ft.			10 ft.								
Any building to all other streets	10 ft.						5 ft.					
Building to trail, natural or community space or access easement (except for natural areas that are also perimeter buffers)	10 ft.					5 ft.				10 ft.	5 ft.	
Shoreline Jurisdiction	See Table 16.12.030-2, Dimensional Standards Table, and BIMC 18.12.030.F, Shoreline Structure Setbacks. For properties abutting the shoreline, dimensional standards in BIMC 16.12 replace the zoning setbacks along the water.											
GARAGE DIMENSIONAL STANDARDS												
Shared garage to public ROW	0 feet											
Private garage to public ROW	10 feet											
Garage to private access	0 feet											
Shared garage to shared garage	10 feet											
Shared garage maximum size	60 feet long or 144 square feet total											
MAXIMUM BUILDING HEIGHT												
Note: Bonus may not be available in the shoreline jurisdiction												
Short, Long, and Large Lot Subdivisions	Height requirements for standard lots apply <u>C. Carr to provide code citation</u>											

[1] The base density for that parcel in the Lynwood Center special planning area designated as R-2 is one unit per 20,000 sq. ft., but may be increased up to 3 units per acre; provided, that a public access easement is granted for that portion of the parcel that lies to the south of Point White Drive along the waters of Rich Passage. The base density of some parcels in the Fort Ward historic overlay district may be increased as shown in BIMC 18.24.070.

COMMENTS AND RECOMMENDATIONS FROM
PLANNING COMMISSION SUBDIVISION STANDARDS SUBCOMMITTEE

Chapter 17.28

DEFINITIONS

Sections:

- 17.28.010 Rules of construction.
- 17.28.020 Definitions.

17.28.010 Rules of construction.

Rules of construction shall be those listed in BIMC 18.36.010. (Ord. 2011-02 § 2 (Exh. A), 2011)

17.28.020 Definitions.

1. “Arterial” means an arterial road as defined in the City of Bainbridge Island Islandwide Transportation Plan, major thoroughfare used mainly for through traffic rather than access to nearby property. Arterials have greater traffic carrying capacity than collector or local streets and are designed for continuously moving traffic.

~~2. “Block” means a group of lots, tracts or parcels within well defined and fixed boundaries.~~

~~23. “Buffer” means as defined in Chapter 18.36 BIMC.~~

~~4. “Circle temple” means as defined in Chapter 18.36 BIMC.~~

~~5. “Cluster development” means a group of adjoining home site areas situated in a suitable area of a property, designed in such a manner that facilitates the efficient use of land by reducing disturbed areas, impervious surfaces, utility extensions and roadways, while providing for the protection of valued open space features.~~

36. “Cluster grouping” means a grouping of two or more homesite areas for short subdivisions and a grouping of four or more homesites for long within a subdivision to facilitate the efficient use of land by limiting areas of disturbance, impervious surfaces, utility extensions and roadways. s regulated by BIMC 17.12.030.B.

47. “Code” means the City of Bainbridge Island Municipal Code.

~~58. “Collector” means a collector road as defined in the eCity of Bainbridge Island comprehensive plan Islandwide Transportation Plan.~~

6. “Community space” means the portion of a subdivision maintained reserved in perpetuity and designated for the common use and enjoyment of property owners within the subdivision.

~~79. “Comprehensive plan” means as defined in Chapter 18.36 BIMC.~~

~~840. “Contiguous land” means land adjoining and touching other land regardless of whether or not portions of the parcels have separate tax numbers, or were purchased at different times, in different sections, are in different government lots or are separated from each other by public or private easement or right-of-way.~~

~~94+. “Critical areas,” as used in this title, means critical areas, their protective buffers, and aquifer recharge protection areas as described by Chapter 16.20 BIMC.~~

~~1042. “Dedication” means the deliberate assignment of land by an owner for any general and public uses, reserving to the owner no other rights than such as are compatible with the full exercise and enjoyment of the public uses to which the property has been devoted. The intention to dedicate shall be evidenced by the owner by the presentment for filing of a final plat of a short or long subdivision, a large lot subdivision, or a nonresidential or multifamily subdivision showing the dedication. Acceptance of the filing shall be by approval of the final plat by the city.~~

BIMC Chapter 17.28 DEFINITIONS

~~1143.~~ “Department” means as defined in Chapter 18.36 BIMC.

~~1244.~~ “Director” means as defined in Chapter 18.36 BIMC.

~~1315.~~ “Division” means a portion of property within an approved preliminary subdivision that is authorized to be recorded separately by the specific terms and conditions of the preliminary and/or final subdivision approval.

~~1416.~~ “Easement” means a right of use granted by a property owner to specific persons or to the public for use of land for a specific purpose.

~~1517.~~ “Effective visual screen” means a sight-obscuring barrier provided by: (a) a topographic variation, (b) a physical condition, such as an existing native forest, or (c) installed vegetation that provides a visual barrier within five years of planting.

~~1617.~~ “Farms” and “farmland” mean land used for crop agriculture or livestock agriculture, as those terms are defined in Chapter 18.36 BIMC.

~~1718.~~ “Final subdivision” or “final plat” means the final drawing of the subdivision and dedication prepared for filing for record with the county auditor and containing all elements and requirements set forth in Chapter 58.17 RCW or its successors and the Bainbridge Island Municipal Code.

~~19.~~ “Flexible lot design” is the design process the city uses that permits flexibility in lot development and encourages a more creative approach than traditional lot by lot subdivision. The flexible lot design process includes lot design standards for the placement of buildings, use of open spaces and circulation that best addresses site characteristics. This design process permits clustering of lots, with a variety of lot sizes, to provide open space, maintain Island character and protect the island’s natural systems.

~~1820.~~ “Footprint” means a building footprint as defined in BIMC 18.12.050.

~~1921.~~ “Greenway” means a system composed of land areas and connector links. The land areas include, but are not limited to: large open areas, public lands, farmlands, critical areas, forests, shoreline areas, and parks. The features of the connector links include trail systems, riparian areas, visual or scenic views of ridgelines, wildlife corridors or any combination of these.

~~2022.~~ “Health district” means the Kitsap Public Health District ~~County health district~~.

~~2123.~~ “Hearing examiner” means the official designated as the hearing examiner for the city pursuant to BIMC Title

~~2224.~~ “Homesite area” means ~~the area that portion~~ of a lot depicted on the face of a plat that is intended for development of the primary residential dwelling, onsite parking, and accessory buildings and necessary infrastructure. Individual stormwater and septic also is allowed within a cluster subdivision.

~~2325.~~ “Island character” is the term used to describe the special character of the island – winding, narrow and vegetated roadways and forested areas, meadows, farms, areas that contain much of the island’s wetlands and streams, aquifer recharge areas and fish and wildlife habitat areas. For the purposes of this title, it does not refer to a level of service, or type of development, or measure of development intensity.

24. “Landscaping” means as defined in Chapter 18.36 BIMC.

~~2526.~~ Large Lot Subdivision. A “large lot subdivision” means the division or redivision of land into two or more lots for the purpose of sale, lease or transfer of ownership where each lot is not smaller than five acres or 1/128th of a section (whichever is smaller); provided, that this shall not include division or redivision of land where all parcels are greater than 20 acres or 1/32nd of a section.

~~2627.~~ “Laws of descent” means the rules of inheritance law established by the state of Washington and the federal government that apply in cases where there is no will naming the persons to receive the possessions of a person who has died.

~~2728.~~ “Long subdivision” means the division or redivision of land into five or more lots, tracts (except tracts specifically reserved as open space-natural area), parcels, sites or divisions for the purpose of sale, lease or transfer of ownership, but shall not include a short subdivision.

~~2829. “Lot” or “platted lot” means a fractional part of divided lands having fixed boundaries, being of sufficient area and dimension to meet minimum zoning requirements for width and area and the development standards contained within this title. The term includes tracts or parcels. means a lot as defined in Chapter 18.36 BIMC.~~

2930. “Low-impact fencing” means a fence designed to preserve views into an area and wildlife access to and from the area while providing a physical barrier to prevent livestock or humans from easily or inadvertently entering the area. Low-impact fencing includes without limitation two- or three-tier split-rail or horse-rail fencing not exceeding five feet in height, four-inch by four-inch wooden posts with two or three strands of cable in between, or other fencing with similar visual, barrier, and access characteristics as determined by the director.

~~3031. “Mature vegetation on ridgelines” means as defined in Chapter 18.36 BIMC.~~

~~3132. “Meadow” means an open, nonforested area formed by the land’s natural features and events of nature.~~

~~3233. “Native forest” means established forest areas primarily consisting of native trees and plants.~~

~~3334. “Native vegetation” means as defined in Chapter 18.36 BIMC.~~

34. “Natural area” means the undeveloped portion of a subdivision that contains natural resources features such as critical areas, significant tree stands, forested areas, native vegetation, and designated wildlife corridors, that is ~~maintained~~preserved in perpetuity and designated or reserved ~~for public use or enjoyment, or used~~ for the private use and enjoyment of property owners within the subdivision. Natural area also may be designated or reserved for public use or enjoyment pursuant to Chapter 17.12 BIMC.

35. “Off-site views” or “views from off site” means as defined in Chapter 18.36 BIMC.

~~36. “Open space” means any area of land that is predominantly undeveloped and that provides physical and/or visual relief from the developed environment in perpetuity, that is generally unimproved and set aside, designated or reserved for public use or enjoyment, or used for the private use and enjoyment of property owners. Open space may consist of undeveloped areas, such as pastures and farmlands, woodlands, greenbelts, critical areas, pedestrian corridors and other natural areas that provide recreational opportunity and visual relief from developed areas. Open space excludes tidelands, areas occupied by buildings, and any other developed areas such as driveways, all rights-of-way and any other impervious surfaces not incidental to open space purposes.~~

~~3637. “Open space Natural area sign” means a sign used to delineate the boundaries of designated natural areas, open space, critical areas, and/or their buffers. Open space/critical areas signs shall be made of metal or similar durable material and shall be between 64 and 144 square inches in size.~~

~~3738. “Orchard” means as defined in Chapter 18.36 BIMC.~~

~~3839. “Pasture” means land used for grazing.~~

39. “Perimeter buffer” means a vegetated space retained or established at the exterior plat boundary of a subdivision that provides an effective visual screen between and minimizes potentially adverse impacts to adjacent properties.

40. “Phasing” means the use of limits on construction, permitting or occupancy to reduce the immediacy or severity of impacts of the subdivision on the environment or to better achieve the requirements of state law for the concurrence of the facilities and services with the needs generated by development.

41. “Plat” is a map or representation of a subdivision, showing thereon the division of a tract or parcel of land into lots, blocks, streets and alleys, or other divisions and dedications.

42. “Planning commission” means the Bainbridge Island planning commission, as described in BIMC 2.14.020.

~~43. “Platted lot” means a fractional part of divided lands having fixed boundaries, being of sufficient area and dimension to meet minimum zoning requirements for width and area and the flexible lot development standards contained within this title. The term includes tracts or parcels.~~

44. “Preliminary plat” is a drawing of a proposed subdivision showing the general layout of streets and alleys, lots,

blocks, and other elements of a subdivision consistent with the requirements of this title. The preliminary plat shall be the basis for the approval or disapproval of the layout of a subdivision.

45. “Public way” means a dedicated street, easement allowing public access, and other forms of access open to the public.

46. “Right-of-way” means 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.

47. “Road” means as defined in Chapter 12.38 BIMC.

48. “Roadside buffer” means a vegetated space retained or established that provides an effective visual screen of new development or preserves existing roadside character, forested character or scenic views..

~~49~~48. “Short plat” means the map or representation of a short subdivision.

~~50~~49. “Short subdivision” is the division or redivision of land into four or fewer lots, tracts (except tracts specifically reserved as open space natural area), parcels or sites, for the purpose of sale, lease or transfer of ownership, ~~except that the division or redivision of two or more existing lots into up to nine lots consistent with the procedures and standards contained in BIMC 17.12.030.A shall constitute a short subdivision if an applicant dedicates additional open space area pursuant to BIMC 17.12.030.A.5.~~

~~51~~50. “Significant tree” shall have the meaning defined in Chapter 18.36 BIMC.

~~52~~51. “Stormwater” shall have the meaning defined in Chapter 15.20 BIMC.

~~53~~52. “Street” shall have the meaning defined in Chapter 18.36 BIMC.

~~54~~53. “Testamentary provisions” means provisions of a last will or testament of a person who has died concerning land or property owned or controlled by that person, which provisions are generally carried out by an executor appointed by a court or public official on behalf of the deceased.

~~55~~54. “Wetland” shall have the meaning defined in Chapter 16.20 BIMC. (Ord. 2017-02 § 21, 2017; Ord. 2011-02 § 2 (Exh. A), 2011)

**COMMENTS AND RECOMMENDATIONS FROM
PLANNING COMMISSION SUBDIVISION STANDARDS SUBCOMMITTEE**

**Exhibit C
BIMC 18.18 -- Subdivision Design Guidelines**

Topic	Design Guideline
	Words/phrases in bold will have a definition in Title 17.
Island Character	<p>Intent: Preserve and maintain Island character.</p> <p>Guideline: Subdivisions should reflect the special character of the island which includes downtown Winslow’s small town atmosphere and function, neighborhood centers, historic buildings, extensive forested areas, meadows, farms, marine views and access, and scenic and winding roads supporting all forms of transportation.</p> <p>**Subsequent discussion that this guideline would be too challenging to implement.</p>
Neighborhood Context	<p>Intent: To reflect and/or enhance the context provided by existing roadway character and neighboring properties.</p> <p>Guideline: Site design should support the purpose of the zoning district in which the development is located, complement the existing character of specific neighborhoods, provide continuity with adjoining properties and, where necessary, provide transition between land uses and protect privacy of residents on adjacent properties.</p>
Natural Area	<p>Intent: To incorporate forested and/or other natural areas into site design in such a way that ecological and aesthetic integrity, qualities, and values are preserved or restored.</p> <p>Guideline: The required natural area shall be treated as a feature intrinsic to the subdivision design in order to maintain existing on- and off-site ecological processes and provide an asset of value to subdivision residents.</p>
Natural Site Conditions	<p>Intent: To preserve and integrate existing natural site patterns and features throughout the site.</p> <p>Guideline: Site development should be designed to preserve and integrate the natural conditions of the site, including existing topography, native trees and vegetation, drainage patterns, and ecological features based on an inventory and analysis of existing conditions. Homesite and infrastructure placement should complement natural topography and retain native vegetation to the maximum extent feasible.</p>
Historic and Cultural Resources	<p>Intent: To preserve important historic and cultural resources.</p> <p>Guideline: Site design should maximize opportunities for preserving historic and cultural structures, and retain historic landscape features and connections.</p>
Stormwater	<p>Intent: Integrate stormwater facilities in site design with emphasis on infiltration and dispersion practices.</p> <p>Guideline: Stormwater facilities shall utilize existing drainage patterns and be designed as a site amenity, where feasible. Low impact development practices shall be used throughout the site to minimize the size of ponds or vaults. Open stormwater facilities (ponds and bioswales) shall</p>

Topic	Design Guideline
	provide a natural appearance through layout, design and landscape treatment, including shallow side slopes, curvilinear configuration, and use of native vegetation.
Septic Systems	<p>Intent: To minimize impact of septic facilities.</p> <p>Guideline: Design and locate sewage facilities to minimize site disturbance and native vegetation removal and utilize shared systems where feasible.</p>
Water Conservation	<p>Intent: To protect the Island’s finite groundwater resources and adapt to the impacts of a changing climate.</p> <p>Guideline: Water conservation measures shall be considered in site design including use of native and drought tolerant vegetation, rainwater capture, and water reuse.</p>
Community Space	<p>Intent: To promote a shared sense of community.</p> <p>Guideline: Community spaces should function as an integral part of the development and be located adjacent to as many homesites as is feasible.</p>
Cluster Homesites	<p>Intent: To promote interaction within the community and facilitate the efficient use of land by reducing disturbed areas, impervious surfaces, utility extensions and roadways.</p> <p>Guideline: <u>The preferred design for homesites is to cluster them and, to the extent feasible, to locate infrastructure efficiently to maximize the undeveloped area. Homesites shall be located in cluster groupings and, to the extent feasible, the efficient location of</u></p>
Solar Access	<p>Intent: To provide solar access for wellbeing and energy production.</p> <p>Guideline: Site design, including street, lot, and homesite layout and orientation, should allow for passive and active solar access. Massing of buildings, tree retention, and introduced vegetation should take into account the effects of shade.</p>
Access and Circulation	<p>Intent: To provide a practical and pleasant network of multi-modal circulation.</p> <p>Guideline: Adequate provisions for pathways and other pedestrian/bicycle amenities connecting various parts of the development, the surrounding road or trail network, and adjacent parcels should be included in site design.</p>
Motor Vehicles	<p>Intent: To minimize the prominence of motor vehicle use and storage.</p> <p>Guideline: Site design and features related to motor vehicle use and storage should be minimized. Site design shall consider shared driveways, minimum road widths, traffic calming measures such as Woonerfs and chicanes, and shared or clustered parking areas or structures.</p>
Homesite Design	<p>Intent: To efficiently configure building footprint(s) and allowed uses within a homesite.</p> <p>Guideline: Homesite configuration should consider compact and energy-efficient home and site design with massive houses on small lots strongly discouraged.</p>
Diversity in House Design	<p>Intent: To provide a range of home sizes and designs to achieve diversity in visual appearance and affordability.</p> <p>Guideline: House designs should be varied in size, massing, and frontage character using methods such as varied floor plans, staggered front yard setbacks, building modulation, and</p>

Topic	Design Guideline
	changes in exterior materials. Houses should display shared architectural features to establish continuity and harmony.
Facing Public Streets	<p>Intent: To reinforce neighborliness of homes along a public street.</p> <p>Guideline: Houses along interior public streets should orient the entry toward the street and avoid the use of solid walls and fences. Garages along the front façade should be de-emphasized by recessing vehicular entrances or locating the garage behind or on the side of the house.</p>



CITY OF
BAINBRIDGE ISLAND

City Council Study Session Agenda Bill

MEETING DATE: April 16, 2019

ESTIMATED TIME: 15 Minutes

AGENDA ITEM: (8:35 PM) Discuss Work Plan for Review and Assessment of Critical Area Regulations, BIMC Chapter 16.20 - Planning,

STRATEGIC PRIORITY: Green, Well-Planned Community

PRIORITY BASED BUDGETING PROGRAM:

AGENDA CATEGORY: Discussion

PROPOSED BY: Planning & Community Development

RECOMMENDED MOTION:

Discussion.

SUMMARY:

The critical area regulations became effective in April, 2018. A post 1 year review and assessment will identify where modifications, revisions, or updates may be needed.

FISCAL IMPACT:

Amount:	
Ongoing Cost:	
One-Time Cost:	
Included in Current Budget?	

BACKGROUND:

ATTACHMENTS:

[20190402 CC Staff Memo.docx](#)

FISCAL DETAILS:

Fund Name(s):

Coding:



Department of Planning and Community Development

Memorandum

Date: April 2, 2019
To: City Council
From: Christy Carr, AICP
Senior Planner
Subject: Critical Areas Ordinance Review and Assessment

The City's update to its critical areas ordinance (CAO) has been in effect since April 23, 2018, almost one year. Since the update included significant additions and revisions to both regulatory and permitting requirements, staff would like to conduct a review and assessment of the CAO to provide an analysis of identified strengths and weaknesses of the CAO and how it is supporting community goals. It is anticipated the review and assessment will evaluate the following:

- Ways in which the CAO is working well;
- Ways in which the CAO is ineffective or difficult to use;
- Alternatives to improve the development review process;
- Consistency with other City policies and regulations; and
- Revisions related to new state guidance.

Citizens and key stakeholders will have opportunities for meaningful input and additional input will be gathered from the City Council, Planning Commission, and permit review staff.

A "do over" of the CAO is not proposed. Staff anticipates any proposed revisions will be specific and targeted rather than broad or policy-oriented and focused largely on implementation effectiveness since not enough time has passed to evaluate effectiveness in terms of critical area protection or function. Specifically, the review and assessment will not include:

- Revisiting best available science
- Revising specific standards (e.g., wetland buffers, landslide hazard setbacks)
- Reporting on status and trends of ecological parameters or critical area functions

A proposed work plan and timeline is provided below.

TASK	TIMELINE
TASK 1: Data gathering	
<ul style="list-style-type: none"> • Code audit • User input – permit review staff and project applicants (survey/interviews) • Technical input as needed • State guidance 	APRIL – MAY 2019
TASK 2: Assessment Report	
<ul style="list-style-type: none"> • Assessment report • Recommended revisions – annotated outline (discussion draft) 	MAY 2019
TASK 3: Planning Commission review	
<ul style="list-style-type: none"> • Study session: Discussion draft • Public hearing • Study session: Recommendation draft 	MAY – JUNE 2019
TASK 4: City Council review	
<ul style="list-style-type: none"> • Study session: Transmittal of PC recommendation • Business meeting • Ordinance approval 	JULY – AUG 2020
TASK 5: Implementation	
<ul style="list-style-type: none"> • Orientation open house • Resource sheets (handouts) • Website update 	SEPT 2020

● Opportunities for public input



CITY OF
BAINBRIDGE ISLAND

City Council Study Session Agenda Bill

MEETING DATE: April 16, 2019

ESTIMATED TIME: 10 Minutes

AGENDA ITEM: (8:50 PM) Future Council Agendas,

STRATEGIC PRIORITY: Good Governance

PRIORITY BASED BUDGETING PROGRAM:

AGENDA CATEGORY: Discussion

PROPOSED BY: Executive

RECOMMENDED MOTION:

Council will review future Council agendas.

SUMMARY:

Council will review future Council agendas.

FISCAL IMPACT:

Amount:	
Ongoing Cost:	
One-Time Cost:	
Included in Current Budget?	

BACKGROUND:

ATTACHMENTS:

[City Council Regular Business Meeting 042319](#)

[Special City Council Meeting 043019](#)

[City Council Study Session 050719](#)

[City Council Regular Business Meeting 051419](#)

[City Council Study Session 052119](#)

FISCAL DETAILS:

Fund Name(s):

Coding:



**CITY OF
BAINBRIDGE ISLAND**

**CITY COUNCIL REGULAR BUSINESS MEETING
TUESDAY, APRIL 23, 2019**

BAINBRIDGE ISLAND CITY HALL
280 MADISON AVENUE N.
BAINBRIDGE ISLAND, WASHINGTON

AGENDA

1. **CALL TO ORDER/ROLL CALL - 6:00 PM**
Councilmember Blossom will be absent.
2. **EXECUTIVE SESSION**
 - 2.A Pursuant to RCW 42.30.110(1)(i), to discuss with legal counsel matters relating to litigation or potential litigation to which the city, the governing body, or a member acting in an official capacity is, or is likely to become, a party, when public knowledge regarding the discussion is likely to result in an adverse legal or financial consequence to the agency 30 Minutes
3. **PLEDGE OF ALLEGIANCE / APPROVAL OF AGENDA / CONFLICT OF INTEREST DISCLOSURE**
4. **PUBLIC COMMENT**
5. **MAYOR'S REPORT**
6. **CITY MANAGER'S REPORT**
7. **PRESENTATION(S)**
 - 7.A Proclamation declaring May 12 - 18, 2019 as "National Police Week" - Interim Chief of Police Jeff Horn 5 Minutes
[2019 Proclamation.docx](#)
 - 7.B Proclamation Declaring the Month of May, 2019 as "Drive the Speed Limit Month" - Councilmember Peltier, 10 Minutes
[Drive the Speed Limit Month Proclamation](#)
 - 7.C Friends of the Farms Annual Report for 2018, 20 Minutes

[Friends of the Farms Annual Farm Report to CoBI 2018](#)

- 7.D (PM) Ethics Board 2018 Annual Report and 2019 Work Plan, 15 Minutes
[Ethics Board 2018 Annual Report and 2019 Work Plan.doc](#)

8. UNFINISHED BUSINESS

- 8.A Workplan for Accomplishing Affordable Housing Task Force Recommendations - Planning, 60 Minutes
[Affordable Housing Task Force Final Report and Appendices](#)
- 8.B Resolution No. 2019-17, Increasing the Size of the Public Safety Committee 15 Minutes

9. NEW BUSINESS

- 9.A Ordinance 2019 - 12, Updating BIMC 3.80 "Public Art Works Program and Fund" to reflect an annual funding approach 15 Minutes
[Ordinance 2019-12 Updating BIMC 3.80 Public Art Works Program and Fund](#)
- 9.B Ordinance No. 2019-11, Adopting an Interim Official Control for Small Wireless Facilities 15 Minutes
- 9.C New Police Station and Municipal Court Professional Services Agreement 10 Minutes
[New Police Station and Municipal Court PSA_April 2019.docx](#)
[COBI Police Courts Schematic_Bid Fee Projection_03212019.pdf](#)
- 9.D No-Match Grant Application for Stabilization and Restoration of the Suyematsu Farmstead Barn - Planning, 10 Minutes
[Attachment E.pdf](#)
[HPC Grant Application FY20 - CLG Suyematsu Barn.pdf](#)

10. CONSENT AGENDA

- 10.A Agenda Bill for Consent Agenda 5 Minutes
- 10.B Accounts Payable and Payroll
- 10.C City Council Regular Business Meeting Minutes, March 26, 2019
- 10.D City Council Study Session Meeting Minutes, April 2, 2019
- 10.E Multi-Modal Transportation Advisory Committee 2018 Annual Report and 2019 Work Plan, 5 Minutes

[MTAC_2018 Accomplishments](#)
[MTAC 2019 Proposed Work Plan_for CC 04092019](#)
[April 9 2019 MTAC Presentation](#)

- 10.F Ordinance No. 2019-08, Amending the 2019 Budget to Provide Funding for Work Funded in 2018 but to be Performed in 2019 - Finance, 5 Minutes
[2018 Budget Carry over into 2019 Transmittal.docx](#)
[ORD 2019-08 Amending the 2019 Budget to Carry Forward 2018 Items](#)
[Ord 2019-08- Attachment A - 2018 carry overs.xlsx](#)

11. COMMITTEE REPORTS

- 11.A Committee Reports 5 Minutes
[Marine Access Committee Meeting Minutes, February 25, 2019](#)
- 11.B (X PM) Regional Committee Reports by Councilmember Liaisons - Mayor Medina, 5 Minutes

12. FOR THE GOOD OF THE ORDER

13. ADJOURNMENT

GUIDING PRINCIPLES

Guiding Principle #1 - Preserve the special character of the Island, which includes downtown Winslow's small town atmosphere and function, historic buildings, extensive forested areas, meadows, farms, marine views and access, and scenic and winding roads supporting all forms of transportation.

Guiding Principle #2 - Manage the water resources of the Island to protect, restore and maintain their ecological and hydrological functions and to ensure clean and sufficient groundwater for future generations.

Guiding Principle #3 - Foster diversity with a holistic approach to meeting the needs of the Island and the human needs of its residents consistent with the stewardship of our finite environmental resources.

Guiding Principle #4 - Consider the costs and benefits to Island residents and property owners in making land use decisions.

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 Principle #6 - Nurture Bainbridge Island as a sustainable community by meeting the needs of the present without compromising the ability of future generations to meet their own needs.

Guiding Principle #7 - Reduce greenhouse gas emissions and increase the Island's climate resilience.

Guiding Principle #8 - Support the Island's Guiding Principles and Policies through the City's organizational and operating budget decisions.



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CITY OF
BAINBRIDGE ISLAND

**SPECIAL CITY COUNCIL MEETING
TUESDAY, APRIL 30, 2019**

BAINBRIDGE ISLAND CITY HALL
280 MADISON AVENUE N.
BAINBRIDGE ISLAND, WASHINGTON

AGENDA

1. **CALL TO ORDER/ROLL CALL - 6:00 PM**
2. **ETHICS WORKSHOP**
3. **ADJOURNMENT - 9:00 PM**

GUIDING PRINCIPLES

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CITY OF
BAINBRIDGE ISLAND

**CITY COUNCIL STUDY SESSION
TUESDAY, MAY 07, 2019**

BAINBRIDGE ISLAND CITY HALL
280 MADISON AVENUE N.
BAINBRIDGE ISLAND, WASHINGTON

AGENDA

1. **CALL TO ORDER / ROLL CALL - 6:00 PM**
2. **APPROVAL OF AGENDA/ CONFLICT OF INTEREST DISCLOSURE**
3. **MAYOR'S REPORT**
4. **PRESENTATIONS**
 - 4.A (PM) Final report from Team of Consulting Arborists - Planning, 45 Minutes
[CC Staff Memo](#)
[COBI Tree Protection Code Review and Recommendations](#)
5. **UNFINISHED BUSINESS**
 - 5.A (X PM) Update on Moratorium - Planning, 10 Minutes
[20190327 Moratorium work program status report.docx](#)
[Ordinance No. 2019-10 Extending the Development Moratorium](#)
[Development Moratorium Summary Effective 20190403.docx](#)
 - 5.B (X PM) Ordinance No. 2019-03 Relating to Subdivision Update - Planning, 2 Hours
[20190402 CC Staff Memo Ordinance 2019-03.docx](#)
[BLR_2014 Dwelling Unit Potential.pdf](#)
[Subdivision Potential -- Low Density Residential -- Vacant Parcels.pdf](#)
[Subdivision Potential High Density -- map.docx](#)
[Subdivision Potential High Density -- table.docx](#)
[20190319 CC Staff Memo](#)
[Attachment A -- Ordinance No. 2019-03 Subdivision Update - Draft 031519](#)
[Attachment A -- Ord 2019-03 Exhibit A 20190228 PC Recommendation with Notes.docx](#)
[Attachment A -- Ord 2019-03 Exhibit B 20190228 PC Recommendation.docx](#)
[Attachment A -- Ord 2019-03 Exhibit C 20190228 PC Recommendation.docx](#)
[Attachment B -- Planning Commission Minutes 021319.pdf](#)
[Attachment B -- Planning Commission Minutes DRAFT 022819.docx](#)

[Attachment C -- Subcommittee Comments - Exhibit A.pdf](#)
[Attachment C -- Subcommittee Comments - Exhibit B.pdf](#)
[Attachment C -- Subcommittee Comments - Exhibit C.pdf](#)
[Subdivisions - Meeting Presentation Materials](#)

5.C Ordinance No. 2019-04, Updating the City's Sign Code - Planning, 45 Minutes

6. NEW BUSINESS

7. CITY COUNCIL DISCUSSION

8. FUTURE COUNCIL AGENDAS

8.A Future Council Agendas, 10 Minutes

9. FOR THE GOOD OF THE ORDER

10. ADJOURNMENT

GUIDING PRINCIPLES

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CITY OF
BAINBRIDGE ISLAND

**CITY COUNCIL REGULAR BUSINESS MEETING
TUESDAY, MAY 14, 2019**

BAINBRIDGE ISLAND CITY HALL
280 MADISON AVENUE N.
BAINBRIDGE ISLAND, WASHINGTON

AGENDA

1. **CALL TO ORDER/ROLL CALL/PLEDGE OF ALLEGIANCE - 6:00 PM**
2. **APPROVAL OF AGENDA / CONFLICT OF INTEREST DISCLOSURE**
3. **PUBLIC COMMENT**
4. **MAYOR'S REPORT**
5. **CITY MANAGER'S REPORT**
6. **PRESENTATION(S)**
 - 6.A Police Swearing-in Ceremony 15 Minutes
 - 6.B (x PM) Marine Access Committee 2018 Annual Report and 2019 Work Plan - Executive, 15 Minutes
[Marine Access Committee 2018 Annual Report](#)
[Marine Access Committee 2019 Work Plan](#)
7. **PUBLIC HEARING(S)**
 - 7.A Ordinance No. 2019-XX Relating to Changes to Water and Sewer Utility Fees - Public Works 30 Minutes
8. **UNFINISHED BUSINESS**
 - 8.A Set Public Hearing on Ordinance No. 2019-04, Updating the City's Sign Code - Planning (Placeholder) 10 Minutes

- 8.B (8:00 PM) Ordinance No. 2019-13, Adopting Kitsap Humane Society’s Recommended Updates to the City’s Animal Control Code 20 Minutes
[Kitsap Humane Society's Animal Control Code Recommendations](#)

9. NEW BUSINESS

- 9.A Youth Mental Health Workshop Update, 20 Minutes
[Youth Mental Health Summit Proposal](#)

10. CITY COUNCIL DISCUSSION

11. CONSENT AGENDA

- 11.A Agenda Bill for Consent Agenda 5 Minutes

- 11.B Accounts Payable and Payroll

12. COMMITTEE REPORTS

- 12.A Committee Reports 5 Minutes

13. FOR THE GOOD OF THE ORDER

14. ADJOURNMENT

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**CITY OF
BAINBRIDGE ISLAND**

**CITY COUNCIL STUDY SESSION
TUESDAY, MAY 21, 2019**

BAINBRIDGE ISLAND CITY HALL
280 MADISON AVENUE N.
BAINBRIDGE ISLAND, WASHINGTON

AGENDA

1. **CALL TO ORDER / ROLL CALL - 6:00 PM**
Councilmembers Tirman and Schneider absent; may participate via telephone.
2. **APPROVAL OF AGENDA/ CONFLICT OF INTEREST DISCLOSURE**
3. **MAYOR'S REPORT**
4. **PRESENTATIONS**
5. **UNFINISHED BUSINESS**
 - 5.A Police and Municipal Court Funding Options - Executive, 45 Minutes
 - 5.B (X PM) Update on Moratorium - Planning, 10 Minutes
[20190327 Moratorium work program status report.docx](#)
[Ordinance No. 2019-10 Extending the Development Moratorium](#)
[Development Moratorium Summary Effective 20190403.docx](#)
 - 5.C Ordinance 2019-09 Relating to Accessory Dwelling Units (ADUs) Common Ownership Regulation - Planning, 30 Minutes
[DRAFT Ordinance 2019-09](#)
[City Attorney ADU Memo](#)
[Attachement A BIMC 18.09.030.I.5 ADU Use Specific Standards](#)
[Attachment B Sample Owner Occupancy Notice to Title](#)
6. **NEW BUSINESS**
7. **CITY COUNCIL DISCUSSION**
8. **FUTURE COUNCIL AGENDAS**

9. FOR THE GOOD OF THE ORDER

10. ADJOURNMENT

GUIDING PRINCIPLES

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