



CITY OF  
BAINBRIDGE ISLAND

Environmental Technical Advisory  
Committee Special Meeting Thursday  
April 20, 2023, 3:00 PM  
Chamber Conference Room, City Hall  
280 Madison Ave N  
Bainbridge Island, WA

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The Environmental Technical Advisory Committee will hold this meeting in person, in the City Hall Chamber Conference Room, 280 Madison Ave N, Bainbridge Island, WA

It is recommended that attendance be in person, but it is also accessible via the Zoom meeting platform.

Please click the link below to join the webinar:

<https://bainbridgewa.zoom.us/j/89038010400>

Webinar ID: 890 3801 0400

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### **Agenda for April 20, 2023, ETAC Regular Meeting**

#### **Call to Order / Roll Call / Conflict of Interest Disclosure**

**Members:**

Dylan Frazer	Ben Harrison
Melanie Keenan	Malcolm Gander
Charlie Kratzer	Brian Harmon

**Council Liaison:** Jon Quitslund

**COBI Staff:** Patty Charnas, Director, Planning & Community Development; Renee Argetsinger - PCD Administrative Specialist and Daria Hansen – Public Records Analyst

**Approval of Agenda** – April 20, 2023

**Approval of Minutes** – March 16, 2023 (5 min)

**Council Liaison Report** – Jon Quitslund (10 min)

**Chair Report** – substitute Melanie Keenan / Malcolm Gander (5 min)

**COBI Staff Comments** - (5 min)

**Review ETAC 2022-23 Workplan Final, Schedule CC presentation/approval** – All (5 min)

**Discussion ETAC Role for GWMP, review outline, review draft emailed to ETAC**– All (15 min)

**Discussion GWMP draft section for CARA Critical Aquifer Recharge Areas, Aquifer Conservation Zones, BIMC-Chapter 16.20 CRITICAL AREAS, Kitsap County Chapter 19.600 CRITICAL AQUIFER RECHARGE AREAS, Advisory input for next meeting. See attachments** - (25 min)

**Discussion Shoreline Management Program schedule and references** - (5 min)

**Public Comment** - (5 min)

**Adjournment** – 4:30 pm



CITY OF  
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**Environmental Technical Advisory Committee  
Regular Meeting Minutes  
Thursday, March 16, 2023  
City Hall Chamber Conference Room**

**Call to Order (Attendance, Agenda, Ethics)**  
**Approval of Meeting Minutes from February 16, 2023**  
**Council Liaison Report**  
**Chair Report**  
**Discussion of ETAC Workplan 2023**  
**Call for Public Comment**  
**Adjournment**

**Members Present:**

Charlie Kratzer, Melanie Keenan, Malcolm Gander, Ben Harrison, and Dylan Frazer

**Members Absent:** Brian Harmon, (3 vacant positions)

**COBI Staff and City Council Present:**

Patty Charnas (Director, Planning & Community Development), Jon Quitslund (Council Liaison), Renee Argetsinger (PCD Administrative Specialist) and Daria Hansen (Public Records Analyst)

**Meeting called to order at 3:17 pm**

**Approval of March 16, 2023, Agenda** – Approved, no changes.

**Review & Approve Minutes** – February 16, 2023

**Motion:** I'll make a motion to approve the February 16, 2023, minutes as written.

**Keenan/Harrison:** Passed Unanimously

**Council Liaison Report (Jon Quitslund):**

Councilman Quitslund provided information regarding the Housing Action Plan (HAP), the upcoming City Council Study Session and the Winslow Subarea Plan. Councilman Quitslund advised ETAC to collaborate with both the Utility Advisory Committee (UAC) and the Climate Change Advisory Committee (CCAC).

**Chair Report (Charlie Kratzer):**

Chair Kratzer reported that Public Works received two proposals. Discussion followed with a recommendation to follow-up with Chris Wierzbicki regarding ETAC involvement.



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**Environmental Technical Advisory Committee  
Regular Meeting Minutes  
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Discussion about recruiting efforts to fill the three vacant positions on ETAC.

**COBI Staff Comments:**

Director Charnas provided information on the status of the Shoreline Management Plan (SMP) and the Comprehensive Plan Amendment (CPA). Discuss by all regarding the Winslow Subarea Plan followed.

**Discussion of ETAC Role in Stormwater Treatment and Reuse Relative to the GWMP Process:**

Discussion of potential partnerships and next steps.

**Discussion of ETAC Workplan for 2023:**

**Motion: I approve the 2023 ETAC Work Plan with agreed upon edits incorporated.**

**Keenan/Kratzer: Passed Unanimously**

**ETAC member Malcolm Gander to be substitute Chair for the April meeting in the absence of Charlie Kratzer.**

**Call for Public Comment – No public comment.**

**Meeting adjourned at 4:49 p.m.**

## ETAC 2022-23 Workplan Final

### MEMORANDUM

**TO:** COBI City Council, City Manager, PW Director, Planning Director

**FROM:** Environmental Technical Advisory Committee (ETAC)

**DATE:** March 18, 2023

**SUBJECT:** Report on ETAC's 2022 Activities and 2023 Work Plan

**STATUS:** Approved unanimously (4-0) at March 16, 2023 ETAC meeting. Requesting inclusion as an agenda item for a Council meeting in May 2023 (for Council approval).

### 2022 Activities

1. GWMP process
  - Starting in November 2021, ETAC subcommittee (Charlie, Melanie, and Malcolm) joined UAC (Andy Maron and Ted Jones) and CCAC (Mike Cox and Deb Rudnick) in monthly meetings with Maureen Whalen (group is called the GWMP working group).
  - ETAC members attended the 3/2/22 GWMP Kickoff Meeting via Zoom.
  - Monthly GWMP Working Group meetings were suspended in July 2022 after departure of COBI Hydrogeologist Maureen Whalen.
2. Review Habitat Management Plans (HMPs)
  - No HMPs were submitted to ETAC for review in 2022.
3. Review Shoreline Management Program (SMP)
  - No review was requested of ETAC in 2022.
4. Provide information on stormwater management and treatment (if requested by the Council) -- *Provide technical information pursuant to COBI studies/projects related to stormwater management and treatment on BI, with the goal of keeping more stormwater on BI to recharge the aquifers and to remove contaminants from stormwater before it recharges or discharges to Puget Sound.*

- No request was made by Council
5. Provide information on tertiary wastewater management and treatment (if requested by the Council) -- *Provide technical information pursuant to COBI studies/projects related to tertiary wastewater management and treatment on BI, with the goal of removing contaminants as necessary to reclaim wastewater for irrigation or recharge on BI or before discharging to Puget Sound.*
    - No request was made by Council in 2022.
  6. Review Suzuki plans (if requested by the Council) -- *Provide reviews of Suzuki development plans as requested by the Council, especially as follow-up to past ETAC work on Suzuki environmental issues.*
    - No reviews of Suzuki plans were requested by Council in 2022.
  7. Provide technical environmental support for any projects as requested by Council (or as deemed appropriate by ETAC)
    - No other projects were submitted to ETAC by Council for technical environmental support or review in 2022.

## 2023 Workplan

1. GWMP process
  - ETAC subcommittee (Charlie and Melanie) will continue to participate in the monthly meetings of the GWMP working group with UAC (Andy Maron and Ted Jones) and CCAC (Mike Cox and Deb Rudnick). The working group met on 1/31/23 to discuss the RFQ for a consultant to finish the GWMP. Subsequently, COBI staff received two responses to the RFQ in March 2023.
  - Work with Council and COBI staff to facilitate the development of the GWMP (as requested per Council resolution).
2. Review Habitat Management Plans (HMPs)
  - Coordinate with COBI planning staff to provide outside reviews through the ETAC subcommittee on HMP reviews (as requested).
3. Review Shoreline Management Program (SMP)
  - Provide reviews of the SMP (as requested).
4. Provide information on stormwater management and treatment (as requested by Council) – *Provide environmental technical information pursuant to COBI studies/projects related to stormwater management and treatment on BI, with the goal of keeping more stormwater on BI to recharge the aquifers and to remove contaminants from stormwater before it recharges to aquifers or discharges to Puget Sound.*
5. Provide environmental information on tertiary wastewater management and treatment (as requested by Council) -- *Provide technical information pursuant to COBI studies/projects related to tertiary wastewater management and treatment on BI, with the goal of removing contaminants as necessary to reclaim wastewater for irrigation or recharge on BI or before discharging to Puget Sound.*
6. Review and Advise on the Comprehensive Plan update per COBI schedule.
  - Including the Environmental, Water Resources, Land Use, and Utility Elements, plus other elements as deemed necessary (as requested).
  - Including the Winslow Sub-Area Plan, low impact development, and housing pilot projects.

7. Review Suzuki plans -- *Provide reviews of Suzuki development plans as requested by the Council, especially as follow-up to past ETAC work on Suzuki environmental issues.*
8. Provide technical environmental support for any projects as requested by Council. ETAC will study other potential projects as time permits and as deemed appropriate.
9. Recruit new ETAC members and work with the Council and COBI staff to revise the BIMC ordinance governing the makeup and duties of ETAC.
  - Change/delete reference in BIMC to supporting only the Planning Dept, to facilitate environmental advisory considerations for various COBI activities and projects, regardless of COBI department. For example, in recent workplans we have reviewed HMPs (Planning Dept) and worked extensively on the GWMP (PW Dept).
  - Revise BIMC to indicate that ETAC primarily advises Council, with a lesser role in advising COBI staff.

Sections from July 2022 Draft GWMP sent to ETAC via COBI email from ES on 12-06-2023.

#### 4.4.1 City of Bainbridge Island Climate Action Plan

The City's Climate Action Plan, adopted in November 2020, sets three goals in response to direction given in the Comprehensive Plan to reduce greenhouse gas emissions and increase the Island's climate resilience. These three goals are:

1. Mitigation: Reduce greenhouse gas emissions by 90% by 2045 compared to 2014 levels with interim milestones of 25% reduction by 2025 and 60% by 2035 compared to 2014 levels.
2. Adaptation: Bainbridge Island is climate savvy and can withstand the impacts of climate change.
3. Community Engagement: COBI inspires community action and partners with local and regional organizations to take meaningful and equitable climate change mitigation and adaptation actions.

The Climate Action Plan recognizes several climate impacts that are relevant to groundwater management, including rising sea levels, increased erosion, potential saltwater intrusion, changes to timing, extent of groundwater recharge and interaction with surface water. About water resources, the plan sets the following goals:

1. Steward natural resources to function as healthy, resilient ecosystems
2. Protect and maintain integrity of island's surface and groundwater resources in the face of climate change
3. By 2023, the City will adopt a Groundwater Management Plan that accounts for climate change in its projections, policies, and guidance
4. Steward shorelines to allow for resilience

#### 4.4.2 City of Bainbridge Island Municipal Code

Title 16 Environment of the City's Municipal Code provides for groundwater protection mainly via Chapter 16.20 Critical Areas. This chapter requires designation of ecologically sensitive and hazardous areas including areas protective of water quality and groundwater recharge to "...protect, maintain and restore these areas and achieve no net loss of their functions and values and allow for reasonable use of public and private property."

Chapter 16.20.100 Aquifer Recharge Areas recognizes that WAC 365-190-100 classifies the entire Island as an aquifer recharge area. The purpose of this classification is to preserve the volume of recharge and to protect the groundwater from contamination. Activities meeting certain criteria (i.e. potential to generate pollutants identified as a potential source of drinking water contamination) require a hydrogeologic assessment, designation of Aquifer Recharge Protection Area (ARPA) within the project boundary and if necessary, a mitigation plan.

#### 4.4.3 Kitsap County Code

To give context to the regional approach, it is worth noting that the Kitsap County Critical Areas Recharge Ordinance 19.600 provides policy support to identify, preserve, and protect these critical areas, to recognize the connection between surface water and groundwater and to prioritize potable water resource areas per WAC 365-190-100 when undertaking land use planning and regulation. Finally, the ordinance seeks to balance competing needs for water supply while preserving natural functions and processes.

Ordinance 19.600 provides for two categories of Critical Aquifer Recharge Areas. Category I Critical Recharge Areas are defined by the time it takes water to travel from the ground surface to the water



supply well (either 5-years or 10-years if the well takes water from an aquifer at or above sea level with no intervening protective impermeable layer). Category I areas also include significant recharge areas identified as having special circumstances or significant potable supply that is susceptible to groundwater contamination.

Category II Critical Recharge Areas provide recharge to aquifers that are currently or potentially will become potable water supplies and are vulnerable to contamination based on land use.

Bainbridge Island contains both Category I and II Critical Recharge Areas. Category I areas have been delineated for the COBI, Kitsap Public Utility District (PUD) and Group A water suppliers. Most of the remaining area on Bainbridge Island is included in Category II Critical [\[TJ1\]](#) [\[MW2\]](#) Aquifer Recharge Areas.

Inclusion in Category I or II indicates that certain land use that can potentially negatively impact groundwater quality are either prohibited (Category I) or restricted (Category II). A hydrogeologic assessment may be required.

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## Bainbridge Island Municipal Code - Chapter 16.20 CRITICAL AREAS

<https://www.codepublishing.com/WA/Bainbridgeland/html/Bainbridgeland16/Bainbridgeland1620.html#16.20.100>

Sections:

[16.20.010 Purpose and intent.](#)

[16.20.020 Applicability.](#)

[16.20.030 Protection of critical areas.](#)

[16.20.040 Exemptions.](#)

[16.20.050 Standards for existing development.](#)

[16.20.060 Administration.](#)

[16.20.070 Review procedures.](#)

[16.20.080 Reasonable use exceptions.](#)

[16.20.090 Trees and vegetation.](#)

[16.20.100 Aquifer recharge areas.](#)

16.20.110 Fish and wildlife habitat conservation areas.

16.20.120 Frequently flooded areas.

16.20.130 Geologically hazardous areas.

16.20.140 Wetlands.

16.20.150 The Winslow ravine – Special rules in mixed use town center.

16.20.160 Performance and maintenance surety.

16.20.170 Compliance and enforcement.

16.20.180 Critical area reports.

16.20.190 Definitions.

**16.20.100 Aquifer recharge areas.**

A. Applicability. Aquifer recharge areas are areas that have a critical recharging effect on groundwater used for potable water supplies and/or that demonstrate a high level of susceptibility or vulnerability to groundwater contamination from land use activities. In accordance with WAC [365-190-100](#), the entirety of Bainbridge Island is classified as an aquifer recharge area to preserve the volume of recharge available to the aquifer system and to protect groundwater from contamination.

B. Permit Review and Procedures

1. Any development, use or activity described in subsection B.3.b or c of this section shall require a critical area permit.

2. Critical area permits shall be reviewed pursuant to the criteria in BIMC [16.20.070](#).

3. Applications for critical area permits for aquifer recharge areas shall include:

a. City of Bainbridge Island master land use application

(<http://www.bainbridgewa.gov/161/Documents-Forms-Applications>); and

b. Proposals for any development, use or activity not associated with permitted principal and accessory residential uses pursuant to BIMC [18.09.020](#) that has the potential to generate a pollutant identified as a potential source of drinking water contamination (either in Appendix A of the Washington State Critical Aquifer Recharge Area Guidance Document or on the North

American Industry Classification System as used by the city's department of public works) or known to be deleterious to the environment or human health shall require submittal of a hydrogeologic assessment, as set forth in BIMC [16.20.180.A](#). If the applicant has completed a site assessment review (SAR) in accordance with Chapter [15.19](#) BIMC that includes sufficient information to address the elements listed in BIMC [16.20.180.A](#), the SAR will suffice to fulfill this requirement. Additional in-depth site assessment elements as detailed in BIMC [16.20.180.A](#) may be required by the city or if requested by affected public water purveyors (Group A and B), affected tribes, or the Kitsap Public Health District upon review of the SAR.

c. Proposals requiring designation of an aquifer recharge protection area pursuant to subsection E.1 of this section shall require submittal of a site assessment review application.

C. Prohibited Activities and Uses. The following activities and uses are prohibited within critical aquifer recharge areas due to the probability or potential magnitude of their adverse effects on groundwater:

1. Landfills. Landfills, including hazardous or dangerous waste, municipal solid waste, special waste, wood waste, and inert and demolition waste landfills;
2. Underground Injection Wells. Class I, III, and IV wells and subclasses 5F01, 5D03, 5F04, 5W09, 5W10, 5W11, 5W31, 5X13, 5X14, 5X15, 5W20, 5X28, and 5N24 of Class V wells;
3. Chemical wood preservation and/or treatment facilities;
4. Storage, Processing, or Disposal of Radioactive Substances. Facilities that store (other than minor sources such as medicinal uses or industrial testing devices), process, or dispose of radioactive substances;
5. Hazardous liquid transmission pipelines;
6. Commercial mining and chemical washing of metals, hard rock, sand, and gravel;
7. Hydrocarbon extraction, reprocessing, refinement, and storage;
8. Electroplating/metal finishing;
9. Facilities that treat, store, process, or dispose of hazardous waste; and
10. Other Prohibited Uses or Activities.

- a. Activities that would significantly reduce the recharge to aquifers currently or potentially used as a potable water source; and
- b. Activities that would significantly reduce the recharge to aquifers that are a source of significant baseflow to a stream.

D. Development Standards – General.

1. No development, use or activity may exceed water quality standards or otherwise violate the antidegradation requirements specified in Chapter [173-200](#) WAC.
2. Any development or activity that is not exempt or excluded by subsection E.1 of this section shall ensure sufficient groundwater recharge, defined as maintaining 100 percent of the annual average pre-construction groundwater recharge volume for the site. The primary means to ensure sufficient groundwater recharge shall be through the designation of an aquifer recharge protection area in accordance with subsection E of this section.

E. Development Standards – Aquifer Recharge Protection Area (ARPA).

1. Any proposed development or activity requiring a site assessment review (SAR) pursuant to Chapters [15.19](#) and [15.20](#) BIMC located within the R-0.4, R-1 or R-2 zoning designations requires designation of an ARPA; except, designation of an ARPA is not required for the following:
  - a. Removal of invasive species;
  - b. Construction of public trails provided the standards set forth in BIMC [16.20.110](#).G.5.a through e are met;
  - c. Replacement of hard surfaces; and
  - d. Development and activities located on properties protected in perpetuity by a legal instrument acceptable to the city attorney wherein at least 65 percent of the site meets the development standards for aquifer recharge protection areas of this section.

2. ARPA General Requirements.

- a. The location and configuration of the ARPA shall be determined through completion of a site assessment review (SAR) in accordance with Chapter [15.19](#) BIMC. The city may require a professional forester, ISA-certified arborist or landscape architect to determine the location

and configuration of the ARPA if needed to ensure the ARPA design standards set forth in subsections E.3.a through c of this section are met;

b. The ARPA shall include all existing native vegetation on a site, up to a maximum of 65 percent of the total site area. A lower percentage is allowed if necessary to achieve a development area of at least 12,500 square feet on a parcel;

c. The maximum area of the required ARPA may be reduced to 50 percent for public schools and public parks allowed in the underlying zoning district;

d. The location and configuration of the ARPA may change over time; however, the total area required pursuant to subsection E.2.b of this section shall be retained once established. Any alteration to the location or configuration of the ARPA shall be approved by the director and documented on a site plan included with a notice to title in accordance with BIMC [16.20.070](#).G. The city may require an ARPA stewardship plan prior to approving a change to the location and configuration of the ARPA.

### 3. ARPA Design Standards.

a. Healthy, existing trees and vegetation should be retained to the maximum extent possible. Healthy significant trees shall be priority trees for retention. Trees shall be retained in one or more stands or clusters.

b. The ARPA shall be delineated to include:

i. A low perimeter-to-area ratio;

ii. A minimum width of 12 feet; and

iii. The critical root zone of all significant trees.

c. The ARPA shall be contiguous with abutting, off-site areas of other ARPAs, open space or critical areas to the extent feasible.

d. The ARPA may include landscaping or open space requirements pursuant to BIMC [18.15.010](#).D and E and Chapter [17.12](#) BIMC, respectively, and other critical areas and their buffers or setbacks pursuant to other sections of this chapter.

### 4. ARPA Use Standards. The following developments and activities are allowed within a designated ARPA:

- a. Any structure or activity as long as the new structure or activity is shown to not negatively impact the amount of groundwater recharge on the site. Specifically, any structure or activity is allowed as long as the structure or activity (including mitigation measures, if any are needed) maintains 100 percent of the annual average groundwater recharge volume that existed on the site prior to the structure or activity as demonstrated by the 2012 Western Washington Hydrology Model (WWHM2012) recharge module, as amended.
- b. Tree and vegetation activities specified in BIMC [16.20.090](#).
- c. Installation of native plants.
- 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 ARPA 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.
- l. Driveways may be allowed to pass through the ARPA if (i) siting of the driveway within the ARPA is determined by the director to be necessary to achieve greater native vegetation retention and use of nonstructural low impact design practices, (ii) site utilities are installed within the footprint of the driveway, (iii) siting of the driveway avoids removal of significant trees to the maximum extent feasible and (iv) the total area required pursuant to subsection E.1 of this section is achieved, which may require replanting of areas comprised of nonnative vegetation.

m. Removal of any significant tree, other than hazard tree removal, with city review and preapproval of an aquifer recharge protection area stewardship plan prepared in accordance with BIMC [16.20.180](#).H.

5. ARPA Protection.

a. The ARPA, including the critical root zone of significant trees, shall be protected during construction as provided in BIMC [18.15.010](#).C.4 or as specified by an ISA-certified arborist.

b. The ARPA shall be documented on a site plan included with a notice to title in accordance with BIMC [16.20.070](#).G. (Ord. 2018-01 § 2 (Exh. A), 2018)

**16.20.110 Fish and wildlife habitat conservation areas.**

A. Applicability. This section applies to all fish and wildlife habitat conservation areas as classified in subsection B of this section except those located within the city's shoreline jurisdiction, which are regulated by the city's shoreline master program (Chapter [16.12](#) BIMC).

B. Fish and wildlife habitat conservation areas include:

1. Streams. Within the city of Bainbridge Island, streams shall include those areas which meet the definitions in BIMC [16.20.190](#) (Definitions). Streams shall be classified in accordance with the Washington Department of Natural Resources water typing system (WAC [222-16-030](#)), which is hereby adopted in its entirety by reference and summarized as follows:

a. Type F: streams which contain fish habitat pursuant to BIMC [16.20.190](#) (Definitions);

b. Type Np: perennial non-fish habitat streams; and

c. Type Ns: seasonal non-fish habitat streams.

2. Habitats recognized by federal or state agencies for federal- and/or state-listed endangered, threatened, sensitive and candidate/monitored species which presence is documented in maps or databases available to the city of Bainbridge Island.

3. Areas That Contain Habitats and Species of Local Importance. Any person may nominate for designation a species or habitat of local importance. Nominations will be processed pursuant to definitions in BIMC [16.20.190](#) and nomination criteria developed by the director.

4. Biodiversity areas and corridors as defined in the 2008 Washington Department of Fish and Wildlife Priority Habitat and Species List, or as amended.

5. All areas within the city of Bainbridge Island meeting one or more of the preceding criteria in this subsection B of this section, regardless of any formal identification or mapping, are hereby designated critical areas and are subject to the provisions of this chapter and shall be managed consistent with the best available science, such as the Washington Department of Fish and Wildlife's most recent management recommendations for priority habitat and species.

C. Mapping. The location and extent of all mapped critical areas shown on the city of Bainbridge Island critical area maps are approximate and shall be used as a general guide only. The type, extent and boundaries shall be determined in the field by a qualified professional according to the requirements of this chapter. The critical area maps (<http://www.bainbridgewa.gov/196/GIS-Mapping-Map-Gallery>) are adopted as part of this chapter and are incorporated herein by this reference. Washington Department of Natural Resource (DNR) and Washington Department of Fish and Wildlife maps are not the only source of data. Any request to change the city's existing map shall be accompanied by a report from a qualified professional that includes a description of the critical area and a summary of how it meets the definitions in BIMC [16.20.190](#). The inventory and cited resources are to be used as a guide for the city, project applicants, and/or property owners and may be continuously updated as new or altered critical areas are identified.

D. Permit and Review Procedures.

1. Any development, use or activity within any fish and wildlife habitat conservation area shall require a critical area permit unless it qualifies as an exempt activity, as provided in BIMC [16.20.040](#).

2. Critical area permits shall be reviewed pursuant to the criteria in BIMC [16.20.070](#) and any applicable state or federal management recommendations.

3. Applications for critical area permits for fish and wildlife habitat conservation areas shall include:

a. City of Bainbridge Island master land use application

(<http://www.bainbridgewa.gov/161/Documents-Forms-Applications>);

b. Habitat management plan (HMP), prepared in accordance with BIMC [16.20.180](#), if a fish and wildlife habitat area described in subsections B.2 through 4 of this section occurs within or adjacent to the project site; and

c. Buffer enhancement plan, prepared in accordance with BIMC [16.20.180](#), if only stream buffer modification is requested.



4. The city may request technical review of an HMP from other agencies to ensure consistency with state, federal or tribal management recommendations.

E. Development Standards – Streams.

1. All designated streams require a buffer pursuant to Table 1 of this section. Buffers shall remain as undisturbed or enhanced vegetation areas for the purpose of protecting the integrity, function, and value of stream resources. Any buffer modification proposed shall be through an approved buffer enhancement plan. No uses or activities shall be allowed within the buffer unless allowed by this section. If the buffer has previously been disturbed, the director may require the disturbed buffer area be enhanced, including revegetation with native plant species, pursuant to an approved buffer enhancement plan meeting the requirements of BIMC [16.20.180](#). No refuse, including but not limited to household trash, yard waste and commercial/industrial refuse, shall be placed in the buffer.

2. The required minimum buffers listed in Table 1 of this section are based on the assumption that the buffer is well vegetated with native species appropriate to the site. If the buffer does not consist of vegetation adequate to provide stream protection and buffer functions, the director may require that the buffer be planted to achieve such protection and function.

**Table 1: Stream Buffers**

Stream Type	Buffer Width
F	200
Np	100
Ns (connected to F or Np)	75
Ns (not connected to F, Np)	50

3. Buffer distances shall be measured from the ordinary high water mark (OHWM) or from the top of each bank where the OHWM cannot be identified.

4. The buffer width shall be increased to include streamside wetlands which provide overflow storage for stormwater, feed water back to the stream during low flow, or provide shelter and food for fish. In braided channels, the ordinary high water mark or top of bank shall be defined to include the entire stream feature.

5. Streams in Ravines – Buffers. For streams in ravines outside the mixed use town center with ravine sides 10 feet or greater in height, the buffer width shall be the greater of:

- a. The buffer width required for the stream type; or
- b. A buffer width which extends 25 feet beyond the top of the ravine.

6. Increased Buffer Provisions. The director may increase buffer widths up to 50 percent greater than the applicable buffer set in this chapter for critical areas with known locations of endangered, threatened, or state monitored or priority species for which a habitat management plan indicates a larger buffer is necessary to protect habitat values for such species. Such determination shall be based on site-specific and project-related conditions.

7. Structure or Hard Surface Setback. A structure or hard surface setback line of 15 feet is required from the edge of any stream buffer. Minor structural or impervious surface intrusions into the areas of the setback, such as but not limited to fire escapes, open/uncovered porches, landing places, outside walkways, outside stairways, retaining walls, fences and patios, may be permitted if the department determines upon review of an analysis of buffer functions submitted by the applicant that construction and/or maintenance of such intrusions will not encroach into the stream buffer or adversely impact the stream. The functional analysis shall include a functional methodology supported by best available science. The setback shall be identified on a site plan and filed as an attachment to the notice on title as required by BIMC [16.20.070.G](#) (Notice on Title).

8. Buffer Modification. On each site, only one of the following modifications to buffer widths may be allowed provided the applicant demonstrates the need for modification through mitigation sequencing pursuant to BIMC [16.20.030](#).

a. Buffer Width Averaging. The width of a required buffer may be averaged if the applicant can demonstrate that averaging can provide equal or greater functions and values as would be provided under the required buffer and all of the following conditions are met:

- i. The total area of buffer after averaging is equal to the area required without averaging.
- ii. Averaging cannot result in any portion of the buffer being reduced more than 25 percent of its required width.

b. Buffer Width Reduction. The width of a required buffer may be reduced if the applicant can demonstrate that the reduction will provide equal or greater functions and values as would be provided under the required buffer and all of the following conditions are met:

i. The buffer may not be reduced more than 25 percent of its required width.

ii. Native vegetation on other portions of the site is retained in order to offset habitat loss from buffer reduction.

c. Any request for buffer modification outlined above shall be reviewed in conjunction with the underlying land use or construction permit. A critical area permit is not required. Requests for buffer averaging or buffer reduction shall include a buffer enhancement plan prepared by a qualified consultant that meets the requirements of BIMC [16.20.180](#). Buffer enhancement plans shall be reviewed pursuant to the criteria in BIMC [16.20.070](#).

d. The city may request technical review of a buffer enhancement plan from other agencies to ensure consistency with state, federal or tribal management recommendations.

e. Any other buffer modification, other than noncompensatory enhancement, requires a reasonable use exception pursuant to BIMC [16.20.080](#).

#### F. Development Standards – Other Fish and Wildlife Habitat Conservation Areas.

1. All development, uses and activities within known fish and wildlife habitat conservation areas require submittal and approval of a habitat management plan (HMP) as specified in BIMC [16.20.180](#), Critical area reports. The HMP shall consider measures to retain and protect the fish and wildlife habitat and shall consider the effects of land use intensity, buffers, setbacks, impervious surfaces, erosion control and retention of existing native vegetation.

2. In the case of bald eagles, the HMP shall comply with the federal Bald and Golden Eagle Protection Act ([16 U.S.C. 668](#)) to avoid impacting eagles and their habitat.

G. Standards for Specific Development, Uses and Activities. The following development, uses and activities may be allowed within fish and wildlife habitat conservation areas and their buffers. Any proposal for the following development, uses and activities requires a critical area permit pursuant to BIMC [16.20.070](#) and shall comply with the standards of this section and other applicable state, federal and local regulations. The director may waive the requirement for a HMP when project impacts are demonstrated to be de minimis through mitigation sequencing pursuant to BIMC [16.20.030](#).

1. Stream Crossings. Any private or public road or driveway expansion or construction proposed to cross streams classified within this chapter shall comply with the following minimum development standards. All other state and local regulations regarding water crossing structures shall apply, and the use of the Water Crossing Design Guidelines (WDFW, 2013), or as amended, is encouraged.

- a. Bridges or bottomless culverts shall be required for all Type F streams. Other alternatives may be allowed upon (i) submittal of a habitat management plan which demonstrates that other alternatives would not result in significant impacts to the fish and wildlife conservation area and (ii) as determined through the hydraulic project approval (HPA) process administered by the Washington Department of Fish and Wildlife. The plan must demonstrate that fish habitat will not be reduced in area or function;
- b. Crossings shall not occur in fish-bearing streams unless no other feasible crossing site exists. For new development proposals, if existing crossings are determined to adversely impact salmon spawning or passage areas, new or upgraded crossings shall be located as determined necessary through coordination with Washington Department of Fish and Wildlife;
- c. Bridge piers or abutments shall not be placed in either the floodway or between the ordinary high water marks unless no other feasible alternative placement exists;
- d. Crossings shall not diminish flood carrying capacity;
- e. Crossings shall serve multiple properties whenever possible;
- f. Where there is no reasonable alternative to providing a conventional culvert, the culvert shall be the minimum length necessary to accommodate the permitted activity.

2. Stream Relocations. Stream relocations may be allowed only for the purpose of flood protection and/or fisheries restoration and only when consistent with a Washington Department of Fish and Wildlife hydraulic project approval (HPA) process and the following minimum performance standards:

- a. The channel, bank, and buffer areas are replanted with native or equivalent vegetation that replicates a natural, undisturbed riparian condition;
- b. For those waters designated as frequently flooded areas pursuant to Chapter [15.16](#) BIMC, a professional engineer licensed in the state of Washington provides information demonstrating that the equivalent base flood storage volume and function will be maintained; and

c. Relocated stream channels are designed to meet or exceed the functions and values of the stream to be relocated.

3. Pesticides, Fertilizers and Herbicides. No pesticides, herbicides or fertilizers may be used in fish and wildlife conservation areas or their buffers, except those approved by the U.S. Environmental Protection Agency (EPA) and approved under a Washington Department of Ecology water quality modification permit for use in fish and wildlife conservation area environments and applied by a licensed applicator in accordance with the safe application practices on the label.

4. Land Divisions and Land Use Permits. All land divisions and land uses proposed on a site that includes fish and wildlife habitat conservation areas shall comply with the following procedures and development standards:

a. The open water area of lakes, streams, and tidal lands shall not be permitted for use in calculating minimum lot area.

b. Land division approvals shall be conditioned so that all required buffers are designated as an easement or covenant encumbering the buffer. Such easement or covenant shall be recorded together with the land division and represented on the final plat, short plat or binding site plan.

c. In order to avoid the creation of nonconforming lots, each new lot shall contain at least one building site that meets the requirements of this chapter, including buffer requirements for fish and wildlife habitat conservation areas. Each lot must also have access and a sewage disposal system location that are suitable for development that do not adversely impact the fish and wildlife conservation area.

d. After preliminary approval and prior to final land division approval, the director may require that the common boundary between a required buffer and the adjacent lands be identified using permanent signs. In lieu of signs, alternative methods of buffer identification may be approved when such methods are determined by the director to provide adequate protection to the aquatic buffer.

5. Trails and Trail-Related Facilities. Construction of public and private trails and trail-related facilities, such as benches, interpretive centers, and viewing platforms, are allowed in fish and wildlife conservation areas or their buffers when the following standards are met:

- a. Trails and related facilities shall be placed on existing road grades, utility corridors, or any other previously disturbed areas if present at the site and consistent with an applicant's trail planning objectives;
- b. Trails and related facilities shall be planned to minimize removal of trees, shrubs, snags and important wildlife habitat and disturbance to soil and existing hydrological characteristics;
- c. Viewing platforms, interpretive centers, benches and access to them, shall be designed and located to minimize disturbance of wildlife habitat and/or critical characteristics of the affected conservation area. Viewing platforms shall be limited to 100 square feet in size, unless demonstrated that a larger structure will not result in a net loss of fish and wildlife habitat functions;
- d. Trail planning shall utilize mitigation sequencing in BIMC [16.20.030](#) to first avoid siting trail and trail-related facilities within fish and wildlife habitat conservation areas and their required buffers. Trails and trail-related facilities are allowed in fish and wildlife conservation areas or their buffers if there are no reasonable alternatives for meeting the applicant's trail planning objectives and it is demonstrated through a habitat management plan that the proposal will not result in a net loss of critical area functions;
- e. Trails shall be limited to nonmotorized use. Trail width shall not exceed six feet unless there is a demonstrated need, subject to review and approval by the director. Trails shall be constructed with pervious materials unless otherwise approved by the director.

6. Utilities. Placement of utilities within designated fish and wildlife conservation areas may be allowed pursuant to the following standards:

- a. Construction of utilities may be permitted in fish and wildlife conservation areas or their buffers, only when no practicable or reasonable alternative location is available and the utility meets the requirements for installation, replacement of vegetation and maintenance outlined below.
- b. Sewer or On-Site Sewage Utility. Construction of sewer lines or on-site sewage systems may be permitted in fish and wildlife conservation areas or their buffers when the applicant demonstrates it is necessary to meet state and/or local health code requirements; there are no other practicable alternatives available; and construction meets the requirements of this section. Joint use of the sewer utility may be allowed.

c. New utilities shall not be allowed in fish and wildlife conservation areas with known locations of federal- or state-listed endangered, threatened or sensitive species, heron rookeries or nesting sites of raptors which are listed as state candidates except in those circumstances where an approved habitat management plan indicates that the utility will not significantly impact the conservation area.

d. New Utility Construction. Utility construction and maintenance shall protect the environment of fish and wildlife conservation areas and their buffers.

i. New utilities shall be aligned whenever possible to avoid cutting or root damage to trees greater than 12 inches in diameter at breast height (four and one-half feet) measured on the uphill side.

ii. Any area of disturbance shall be revegetated with appropriate native or equivalent vegetation at not less than preconstruction vegetation densities or greater, immediately upon completion of construction or as soon thereafter as possible due to seasonal growing constraints. The utility or landowner responsible for installation shall ensure that such vegetation survives.

iii. Any additional access for maintenance shall be provided wherever possible at specific points rather than by parallel roads. If parallel roads are necessary, they shall be of a minimum width but no greater than 15 feet; and shall be contiguous to the location of the utility corridor on the side away from the conservation area.

e. Utility maintenance shall include the following measures to protect the environment of regulated fish and wildlife habitat conservation areas.

i. Utility towers shall not be sandblasted or spray-painted. Lead-based paint is prohibited.

ii. Pesticides, Fertilizers and Herbicides. No pesticides, herbicides or fertilizers may be used in fish and wildlife habitat conservation areas or their buffers, except those applied by a licensed applicator in accordance with the safe application practices on the label.

## 7. Bank Stabilization.

a. A stream channel and bank may be stabilized when naturally occurring earth movement threatens existing structures (defined as requiring a building permit pursuant to the applicable building code), public improvements, unique natural resources, public health, safety or

welfare, or the only feasible access to property, and, in the case of streams, when such stabilization results in maintenance of fish and wildlife habitat, flood control, and improved water quality.

b. Where bank stabilization is determined to be necessary, bioengineering or other nonstructural methods should be the first option for protection. Structural methods, or hard stabilization, may only be utilized where it can be demonstrated by a professional engineer licensed in the state of Washington that an existing primary residential structure or essential public facility cannot be safely maintained without such measures, and that the resulting hard stabilization is the minimum length necessary to provide a stable building area for the structure. The director may require that bank stabilization be designed by a professional engineer licensed in the state of Washington with demonstrated expertise in hydraulic actions of shorelines. Bank stabilization projects may also require a city of Bainbridge Island clearing or grading permit and hydraulic project approval from the Washington Department of Fish and Wildlife.

c. Nonstructural streambank protective techniques are preferred to bulkheads or other types of streambank armoring. Nonstructural techniques include but are not limited to vegetation plantings and bioengineering.

8. Fencing and Signs. Prior to approval or issuance of permits for land divisions or other new development, the director may require that the common boundary between a required buffer and the adjacent lands be identified using fencing or permanent signs. In lieu of fencing or signs, alternative methods of buffer identification may be approved when such methods are determined by the director to provide adequate protection for the buffer.

9. Forest Practice, Class IV General and Conversion Option Harvest Plans (COHPs). All timber harvesting and associated development activity, such as construction of roads, shall comply with the provisions of this chapter, and the stormwater management standards in Chapters [15.20](#) and [15.21](#) BIMC, including the maintenance of buffers, where required.

10. Road/Street Repair and Construction. Any private or public road or street expansion or construction which may be allowed in a fish and wildlife habitat conservation area or its buffer shall comply with the following minimum development standards:

a. No other reasonable or practicable alternative exists and the road or street crossing serves multiple properties whenever possible;



- b. Expansion or construction of any private or public road shall only be allowed when adverse impacts can be avoided;
- c. Public and private roads should provide for other purposes, such as utility crossings, pedestrian or bicycle easements, viewing points, etc.;
- d. The road or street construction is the minimum necessary, as required by the department of public works, and shall comply with the department of public works' guidelines to provide public safety and mitigated stormwater impacts; and
- e. Construction time limits shall be determined in consultation with Washington Department of Fish and Wildlife in order to ensure habitat protection. (Ord. 2018-01 § 2 (Exh. A), 2018)

# KITSAP COUNTY

## Chapter 19.600

### CRITICAL AQUIFER RECHARGE AREAS

<https://www.codepublishing.com/WA/KitsapCounty/html/Kitsap19/Kitsap19600.html>

Sections:

[19.600.605 Purpose.](#)

[19.600.610 Critical aquifer recharge area categories.](#)

[19.600.615 Development standards.](#)

[19.600.620 Activities with potential threat to groundwater quality.](#)

#### **19.600.605 Purpose.**

Potable water is an essential life-sustaining element for people and many other species. The purpose of this chapter is thus to identify and classify aquifer recharge areas in accordance with RCW [36.70A.170](#) and address land use activities that pose a potential to directly or indirectly contaminate or otherwise threaten aquifer water quality and quantity. This chapter does not affect any right to use or appropriate water as allowed under state or federal law. In addition, these requirements do not apply to those activities that have potential contaminant sources below threshold amounts as set forth in applicable statutes of the Revised Code of Washington or local regulations.

It is the policy of Kitsap County to accomplish the following:

- A. Identify, preserve and protect aquifer recharge areas that are susceptible to contamination by preventing degradation of the quality and, if needed, the quantity of potable groundwater;
- B. Recognize the relationship between surface and groundwater resources;
- C. Give priority to potable water resource areas per WAC [365-190-100](#) in the planning and regulation of land uses that may directly or indirectly contaminate or degrade groundwater; and The majority of Kitsap County drinking water comes from groundwater supplies in aquifers. Critical aquifer recharge areas are very important to ensure the quality and quantity of shallow and deepwater aquifers. Once groundwater is contaminated, it is difficult, costly, and sometimes impossible to clean up. Preventing contamination is necessary to avoid exorbitant costs, hardships, and potential physical harm to people and ecosystems. In addition, without replenishment, the amount of water for potable use can be diminished or even depleted. The intent is to
- D. Balance competing needs for water supply while preserving essential natural functions and processes, especially for maintaining critical fish and wildlife habitat conservation areas.

(Ord. 545 (2017) § 5 (Appx. (part)), 2017: Ord. 351 (2005) § 34 (part), 2005)

### **19.600.610 Critical aquifer recharge area categories.**

As defined at Section [19.150.210](#), “critical aquifer recharge areas” means those land areas that contain hydrogeologic conditions that facilitate aquifer recharge and/or transmit contaminants to an underlying aquifer. Critical aquifer recharge areas under this title may be established based on general criteria, specifically designated due to special circumstances, or based on scientific studies and mapping efforts. Factors considered in the identification of critical aquifer recharge areas include depth to water table, presence of highly permeable soils (specifically Group A hydrologic soils), presence of flat terrain, and the presence of more permeable surficial geology.

A. Category I Critical Aquifer Recharge Areas. Category I critical aquifer recharge areas are those areas where the potential for certain land use activities to adversely affect groundwater is high. Category I critical aquifer recharge areas include:

1. Areas inside the five-year time of travel zone for Group A water system wells, calculated in accordance with the Washington State Wellhead Protection Program.
2. Areas inside the ten-year time of travel zones in wellhead protection areas when the well draws its water from an aquifer that is at or above sea level and is overlain by permeable soils without any underlying protective impermeable layer.
3. Areas identified as significant recharge areas due to special circumstances or identified in accordance with WAC [365-190-100](#)(4) as aquifer areas of significant potable water supply with susceptibility to groundwater contamination, including but not limited to the following:
  - a. Hansville Significant Recharge Area. The Hansville aquifer is a significant potable water supply that is highly susceptible to the introduction of pollutants. Additional information regarding this aquifer is available from the Kitsap public utility district.
  - b. Seabeck Significant Recharge Area. The Seabeck aquifer is a significant potable water supply that is being developed for use in central and north Kitsap County. Additional information regarding this aquifer is available from the Kitsap public utility district.
  - c. Island Lake Significant Recharge Area. The Island Lake aquifer is a significant potable water supply for the Silverdale area. Additional information regarding this aquifer is available from the Silverdale water district.
  - d. Gorst Significant Recharge Area. Aquifers in the Gorst basin are highly susceptible to the introduction of pollutants and provide significant potable water supplies for the city of Bremerton.

e. Poulsbo Significant Recharge Area. The Poulsbo aquifer is highly susceptible to the introduction of pollutants and provides a significant potable water supply for the Kitsap public utility district and city of Poulsbo.

4. The department may add, reclassify or remove Category I critical aquifer recharge areas based on additional information about areas of significant potable water supply with susceptibility to groundwater contamination or supply reduction, or based on changes to sole source aquifers or wellhead protection areas as identified in wellhead protection programs.

B. Category II Critical Aquifer Recharge Areas. Category II critical aquifer recharge areas are areas that provide recharge effects to aquifers that are current or potentially will become potable water supplies and are vulnerable to contamination based on the type of land use activity. The general location of these areas is available on the Kitsap County geographic information system. Category II critical aquifer recharge areas include:

1. Highly permeable soils (Group A hydrologic soils). The general location and characteristics of Group A hydrologic soils in Kitsap County are given in the Soil Survey of Kitsap County by the U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS). The soil survey information is available on the Kitsap County geographic information system (GIS).

2. Areas above shallow aquifers or surface areas that are separated from the underlying aquifers by an impermeable layer that provides adequate protection from contamination to the aquifer(s) below. The general location of shallow aquifers in Kitsap County is based upon the professional judgment of licensed hydrogeologists with knowledge of the area. The location of shallow aquifers is available on the Kitsap County geographic information system (GIS).

3. Areas above the Vashon aquifer. Surface areas above the Vashon aquifer that are not separated from the underlying aquifers by a poorly permeable layer that provides adequate protection to preclude the proposed land use from contaminating the Vashon aquifer below. Vashon aquifers in Kitsap County are typically mapped as "Qva" (Vashon advance aquifer) or "Qvr" (Vashon recessional aquifer) on geologic maps. Best available information concerning the location of Vashon aquifers is available on the Kitsap County geographic information system (GIS).

4. Areas with high concentration of potable water supply wells.

5. The department may add, reclassify or remove Category II critical aquifer recharge areas based on additional information about areas of potential potable water supply with susceptibility to groundwater contamination or supply reduction, or based on changes to sole source aquifers or wellhead protection areas as identified in wellhead protection programs.

C. Mapping. Kitsap County, in coordination with water purveyors and other agencies, will produce maps indicating the location of critical aquifer recharge areas and their defining characteristics.

(Ord. 545 (2017) § 5 (Appx. (part)), 2017: Ord. 351 (2005) § 34 (part), 2005)

**19.600.615 Development standards.**

A. Category I Critical Aquifer Recharge Areas.

1. Land uses identified in Table 19.600.620 are prohibited in Category I critical aquifer recharge areas, unless a waiver is granted by the department.

2. Requests for waivers for activities listed in Table 19.600.620 shall include a hydrogeological report (see Chapter [19.700](#), Special Reports) that includes a detailed risk-benefit analysis that considers credible worst-case scenarios. The hydrogeological report shall evaluate potential impacts of a proposed land use or activity on both groundwater and surface water quality and quantity. The waiver will be evaluated and treated as a special use review (Section [19.100.145](#)) and be reviewed by the department, Kitsap public health, affected tribes, and the affected water purveyors.

B. Category II Critical Aquifer Recharge Areas.

1. Land uses identified in Table 19.600.620 that are proposed in a Category II aquifer recharge area may be required to submit a hydrogeological report (see Chapter [19.700](#), Special Reports), as determined in subsection (B)(2) of this section. The scope of the report shall be based on site-specific conditions.

2. The need for a hydrogeological report will be determined by the department, the health district and the affected water purveyor when the proposed land use or activity may impact groundwater and surface water quality and quantity. Based on the results of the report, controls, mitigation, and/or other requirements will be established as a condition of approval.

C. Notification and Review.

1. Affected water purveyors, tribes and Kitsap public health will be notified and invited to comment during the preliminary phases of the county's review of any development application in a critical aquifer recharge area. The purveyor may recommend appropriate mitigation to reduce potential impacts and the department will consider these recommendations to develop appropriate permit conditions.

2. The department will also notify Kitsap public health and affected water purveyors through the environmental review process when those development activities listed in Table 19.600.620 are proposed outside the areas designated critical aquifer recharge areas.

D. Storm Water. Storm water best management practices shall be accomplished in accordance with Title [12](#).

(Ord. 545 (2017) § 5 (Appx. (part)), 2017: Ord. 351 (2005) § 34 (part), 2005)

**19.600.620 Activities with potential threat to groundwater quality.**

**Table 19.600.620  
Activities with Potential Threat to Groundwater Quality**

A.	Above- and Below-Ground Storage Tanks	
	1.	Hazardous and industrial waste treatment
	2.	Hazardous and industrial waste storage
	3.	Hazardous material storage
B.	Animal Feedlots	
C.	Commercial Operations	
	1.	Gas stations/service stations/truck terminals
	2.	Petroleum distributors/storage
	3.	Auto body repair shops/rust proofers
	4.	Auto chemical supply stores/retailers
	5.	Truck, automobile, and combustion engine repair shops
	6.	Dry cleaners
	7.	Photo processors
	8.	Auto washes (if not on a sewer system with a treatment plant)
	9.	Laundromats (if not on a sewer system with a treatment plant)
	10.	Beauty salons (if not on a sewer system with a treatment plant)
	11.	Research or chemical testing laboratories, which handle significant quantities of hazardous materials
	12.	Food processors/meat packers/slaughterhouses
	13.	Airport maintenance/fueling operation areas
	14.	Junk and salvage yards
	15.	Storing or processing manure, feed, or other agricultural byproducts by commercially permitted businesses
	16.	Large-scale storage or use of pesticides, insecticides, herbicides, or fertilizer by commercial or agricultural operations
	17.	Golf courses
	18.	Cemeteries

D.	Deep Injection Wells	
	1.	Wastewater disposal wells (wells that, after treatment, inject water back into the aquifer)
	2.	Oil and gas activity disposal wells
	3.	Mineral extraction disposal wells
E.	Deicing Salts Storage Piles	
F.	Industrial Operations	
	1.	Furniture strippers/painters/finishers
	2.	Concrete/asphalt/tar/coal companies
	3.	Industrial manufacturers: chemicals, pesticides/herbicides, paper, leather products, textiles, rubber, plastic/fiberglass, silicone/glass, pharmaceuticals, electrical equipment
	4.	Metal platers/heat treaters/smelters/annealers/descalers
	5.	Wood preservatives
	6.	Chemical reclamation facilities
	7.	Boat refinishers
	8.	Hydrocarbon extraction
G.	Land Application	
	1.	Wastewater application (spray irrigation)
	2.	Wastewater byproduct (sludge) application
	3.	Petroleum refining waste application
	4.	Hazardous waste applications
H.	Landfills	
	1.	Industrial hazardous and nonhazardous landfill
	2.	Municipal sanitary landfill
I.	Material Transfer Operations	
	1.	Hazardous and industrial waste transfers
	2.	Hazardous material transfers
J.	Materials Stockpiles	
K.	Mining and Mine Drainage	
L.	On-Site Septic Systems (Large On-Site Septic System or LOSS Category)	
M.	Pipelines	
	1.	Hazardous and industrial waste transfer
	2.	Hazardous material transfer
N.	Radioactive Disposal Sites and Processing of Radioactive Wastes	

**RCW 36.70A.550 Aquifer conservation zones.**

<https://app.leg.wa.gov/RCW/default.aspx?cite=36.70A.550>

(1) Any city coterminous with, and comprised only of, an island that relies solely on groundwater aquifers for its potable water source and does not have reasonable access to a potable water source outside its jurisdiction may designate one or more aquifer conservation zones.

Aquifer conservation zones may only be designated for the purpose of conserving and protecting potable water sources.

(2) Aquifer conservation zones may not be considered critical areas under this chapter except to the extent that specific areas located within aquifer conservation zones qualify for critical area designation and have been designated as such under RCW 36.70A.060(2).

(3) Any city may consider whether an area is within an aquifer conservation zone when determining the residential density of that particular area. The residential densities within conservation zones, in combination with other densities of the city, must be sufficient to accommodate projected population growth under RCW 36.70A.110.

(4) Nothing in this section may be construed to modify the population accommodation obligations required of jurisdictions under this chapter. [2007 c 159 § 1.]



COBI Climate Action Website

<https://www.bainbridgewa.gov/1331/Climate-Action>

Climate Action Plan 2022

<https://www.bainbridgewa.gov/DocumentCenter/View/16973/2022-Annual-CAP-Progress-Report?bidId=>

Shoreline Master Program Project Website

<https://wa-bainbridgeisland.civicplus.com/184/Shoreline-Master-Program>

SMP Periodic Review Website – Supporting Documents

<https://cityofbainbridgeisland.civilspace.io/en/projects/smp-periodic-review>