CITY OF
BAINBRIDGE ISLAND

STUDY SESSION

TUESDAY, SEPTEMBER 5, 2017

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

AGENDA
(TIMES LISTED ON THE AGENDA ARE APPROXIMATE)

1. CALL TO ORDER / ROLL CALL- 7:00 PM

Mayor:	Val Tollefson	
Deputy Mayor:	Sarah Blossom	
Councilmembers:	Ron Peltier	Michael Scott
	Kol Medina	Roger Townsend
	Wayne Roth	

2. ACCEPTANCE OR MODIFICATION OF AGENDA / CONFLICT OF INTEREST DISCLOSURE

3. PUBLIC COMMENT ON AGENDA ITEMS

4. PRESENTATIONS

A. 7:05 PM Proclamation Declaring September 11, 2017 as a National Day of Service and Remembrance, AB 17-154 - Mayor Tollefson (Pg. 3)

5. UNFINISHED BUSINESS

A. 7:15 PM Infrastructure Ballot Measure Task Force Appointment, AB 17-097 – Councilmembers Scott and Medina (Pg. 6)

B. 7:20 PM Critical Areas Ordinance – Geologically Hazardous Areas and General Regulations, AB 17-135 – Planning (Pg. 9)

C. 7:40 PM Discuss Resolution No. 2017-18 Adopting the Community Forest Management Plan (2006), AB 17-142 - Executive (Pg. 86)

6. NEW BUSINESS

A. 7:50 PM Optional Joint Shoreline Master Program Amendment Review Process, AB 17-151 - Planning (Pg. 139)

B. 8:00 PM Ordinance No. 2017-20 Relating to Bainbridge Island Balloon Ban, AB 17-152, Councilmember Scott (Pg. 155)

C. 8:10 PM 2018 Storm and Surface Water Management Utility Rate Discussion, AB 17-149 - Finance (Pg. 160)

D. 8:30 PM Appointments to Cultural Funding Advisory Committee (CFAC), AB 17-103 - Mayor Tollefson (Pg. 167)

E. 8:40 PM Resolution No. 2017-20 Affirming the City of Bainbridge Island's Commitment to Meet or Exceed Goals Established in the Paris Climate Agreement, AB 17-156 – Mayor Tollefson (Pg. 232)

7. FOR THE GOOD OF THE ORDER - 8:50 PM

8. ADJOURNMENT - 8:55 PM

Americans with Disabilities Act (ADA) accommodations provided upon request. Those requiring special accommodations, please contact the City Clerk at 206-842-2545 (cityclerk@bainbridgewa.gov) by noon on the day preceding the Meeting.

City of Bainbridge Island
City Council Agenda Bill

CITY OF BAINBRIDGE ISLAND

PROCESS INFORMATION	
Subject: 7:05 PM Proclamation Declaring September 11, 2017 as a National Day of Service and Remembrance, AB 17-154 - Mayor Tollefson (Pg. 3)	Date: 9/5/2017
Agenda Item: PRESENTATIONS	Bill No.: 17-154
Proposed By: Mayor Tollefson	Referrals(s):

BUDGET INFORMATION		
Department: Executive	Fund:	
Expenditure Req:	Budgeted?	Budget Amend. Req?

REFERRALS/REVIEW		
:	Recommendation:	
City Manager:	Legal:	Finance:

DESCRIPTION/BACKGROUND

The attached proclamation declares September 11, 2017 as a National Day of Service and Remembrance in the City of Bainbridge Island.

RECOMMENDED ACTION/MOTION

I move to authorize the Mayor to sign the Proclamation Declaring September 11, 2017 a National Day of Service and Remembrance in the City of Bainbridge Island.

ATTACHMENTS:

Description	Type
Proclamation	Backup Material

CITY OF
BAINBRIDGE ISLAND

PROCLAMATION

WHEREAS, on September 11, 2001, the American people endured with courage and heroism the worst terrorist attack on U.S. soil in the nation' s history; and

WHEREAS, in response to this tragedy, Americans across the country came together in a remarkable spirit of patriotism and unity and carried out countless acts of kindness, generosity, and compassion; and

WHEREAS, community organizations and family members of 9/11 victims began observing the anniversary of September 11th as a charitable service day to honor the memory of those who were lost and those who united in response to the tragedy, including first-responders and volunteers; and

WHEREAS, the Edward M. Kennedy Serve America Act, approved by Congress and enacted into law on April 21, 2009, directed September 11th to be observed and recognized as an annual "National Day of Service and Remembrance" and charged the Corporation for National and Community Service with leading this nationwide effort; and

WHEREAS, participating in service and remembrance activities on September 11th is a positive and respectful way to remember the lives of those lost, pay tribute to those who rose in service, and honor those who continue to serve our country today, including veterans, soldiers, military families, and first responders; and

WHEREAS, on September 11, 2017, and on the days leading up to and following this day, citizens of Bainbridge Island have an opportunity to participate in activities that honor 9/11 victims and heroes by joining together in service projects to meet community needs; and

WHEREAS, the Bainbridge Island American Legion Colin Hyde Post 172 will observe this day with a ceremony beginning at 8:30 a.m. on September 11 at the Legion Hall on Bucklin Hill Road, to which the public is invited;

NOW, THEREFORE, I, Val Tollefson, Mayor of the City of Bainbridge Island, on behalf of the City Council, do hereby proclaim September 11, 2017 as

A DAY OF SERVICE AND REMEMBRANCE

in the City of Bainbridge Island and call upon the people of Bainbridge Island to honor the lives and memories of those lost through participation in community service and remembrance ceremonies on this day and throughout the year.

DATED this 5th day of September, 2017

____

Val Tollefson, Mayor

City of Bainbridge Island
City Council Agenda Bill

PROCESS INFORMATION	
Subject: 7:15 PM Infrastructure Ballot Measure Task Force Appointment, AB 17-097 – Councilmembers Scott and Medina (Pg. 6)	Date: 9/5/2017
Agenda Item: UNFINISHED BUSINESS	Bill No.: 17-097
Proposed By: Councilmembers Medina and Scott	Referrals(s):

BUDGET INFORMATION		
Department: Executive	Fund: N/A	
Expenditure Req:	Budgeted?	Budget Amend. Req?

REFERRALS/REVIEW		
Business Meeting: 8/22/2017	Recommendation: Consider appointment at the September 5, 2017 Study Session.	
City Manager:	Legal:	Finance:

DESCRIPTION/BACKGROUND

On June 16, 2017, the City Council approved appointments to the Infrastructure Ballot Measure Task Force.

The Task Force is in need of an additional local architect representative. Priscilla Zimmerman is being recommended to fill that vacancy.

RECOMMENDED ACTION/MOTION

I move to appoint Priscilla Zimmerman to the Infrastructure Ballot Measure Task Force.

ATTACHMENTS:

Description	Type
Zimmerman Application	Backup Material

From:	noreply@civicplus.com
To:	Roz Lassoff
Subject:	Online Form Submittal: Citizen Advisory Group Application
Date:	Monday, August 21, 2017 2:52:32 PM

Citizen Advisory Group Application

Step 1

Please complete the form below if you are interested in serving on a committee or commission. Once completed, this form will become part of the City's Volunteer Roster. Please note: once submitted, this application becomes a public record. Your address and contact information will not be shared.

Applicant Name	Priscilla zimmerman
Email	
Phone	
Address	
City	Bainbridge island
State	Wa
Zip	98110
Current Employer	Self
Current Position	Architect/ planner
I am interested in serving on one of the following advisory groups (select all that apply):	Infrastructure Ballot Measure Task Force

Experience & Qualifications

Have you served on any city advisory groups in the past?	Yes
If so, please indicate which groups:	*Field not completed.*
Please share your qualifications for this appointment (skills,	Masters degree in architecture and community and regional planning. 35+ Years of experience

activities, training, education) if any:	
Please share your community interests (groups, committees, organizations) if any:	Sustainable planning and development. Sustainable communities.
Feel free to attach your resume (optional):	*Field not completed.*
Type the Year	2017
How did you hear about the volunteer opportunity?	*Field not completed.*
Other	*Field not completed.*

Email not displaying correctly? [View it in your browser.]

City of Bainbridge Island
City Council Agenda Bill

PROCESS INFORMATION	
Subject: 7:20 PM Critical Areas Ordinance – Geologically Hazardous Areas and General Regulations, AB 17-135 – Planning (Pg. 9)	Date: 9/5/2017
Agenda Item: UNFINISHED BUSINESS	Bill No.: 17-135
Proposed By: Planning and Community Development	Referrals(s):

BUDGET INFORMATION		
Department: Planning	Fund:	
Expenditure Req:	Budgeted?	Budget Amend. Req?

REFERRALS/REVIEW		
:	Recommendation:	
City Manager: Yes	Legal:	Finance:

DESCRIPTION/BACKGROUND

The Growth Management Act of Washington (GMA) requires cities to periodically review and evaluate comprehensive plans and development regulations (RCW 36.70A.130). Following adoption of the Comprehensive Plan, the City's development regulations need to be updated to support the goals and policies articulated in the plan. The City's review of development regulations includes the Critical Areas Ordinance (CAO) update pursuant to state law that requires cities to designate and adopt regulations for the protection of critical areas. The City's CAO is codified in Bainbridge Island Municipal Code (BIMC) Chapter 16.20. Critical areas include:

- Aquifer recharge areas
- Fish and wildlife habitat conservation areas
- Frequently flooded areas
- Geologically hazardous areas
- Wetlands

The September 5, 2017 meeting will include a discussion on proposed revisions to regulations related to geologically hazardous areas (BIMC 16.20.130) and general regulations including:

- 16.20.010 Purpose
- 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
- 16.20.160 Performance and maintenance surety
- 16.20.170 Compliance and enforcement
- 16.20.180 Critical area reports
- 16.20.190 Definitions

BIMC citations above refer to the current draft critical areas ordinance, not the existing code. The entire draft critical areas ordinance is included in the background materials.

RECOMMENDED ACTION/MOTION
Discussion only.

ATTACHMENTS:

	Description	Type
🗋	Draft Critical Areas Ordinance -- September 5, 2017	Backup Material

Chapter 16.20

CRITICAL AREAS

Notes:

1. Legend to changes:
   Yellow highlighted changes reflect input from geotechnical technical consultant.
   Green highlighted changes reflect input from Councilmembers.
   Blue highlighted changes reflect input from staff.
2. Grammatical fixes, typos and internal references not highlighted.

16.20.010 Purpose and intent.

A. The purpose of this chapter is to designate and classify ecologically sensitive and hazardous areas as critical areas and 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.

B. This chapter is intended to implement the goals, policies, guidelines, and requirements of the city comprehensive plan and the Growth Management Act (Chapter 36.70A RCW).

C. Critical areas provide a variety of valuable and beneficial biological and physical functions that benefit the city and its residents. Critical areas may also, ~~and/or may~~ pose a threat to human safety or to public and private property. The beneficial functions and values provided by critical areas include, but are not limited to, water quality protection and enhancement, fish and wildlife habitat, food chain support, flood storage, conveyance and attenuation of flood waters, ground water recharge and discharge, erosion control, wave attenuation, and protection from hazards and the impacts of climate change. Groundwater recharge is of particular concern for the city because the Island's drinking water is supplied solely by a sole source aquifer.

D. By limiting adverse impacts to and alteration of critical areas, this chapter seeks to accomplish the following goals:

1. To conserve the biodiversity of plant and animal species, protect, maintain and restore healthy, functioning ecosystems through the protection of unique, fragile, and valuable elements of the environment, including, but not limited to, ground and surface waters, wetlands, fish and wildlife and their habitats;

2. Direct development, uses and activities to less environmentally sensitive sites and mitigate unavoidable impacts to critical areas by regulating alterations in and adjacent to critical areas;

3. Prevent cumulative adverse environmental impacts to water quality, water quantity, wetlands, and fish and wildlife habitat, and the overall net loss of wetlands, frequently flooded areas, aquifer recharge, and habitat conservation areas;

4. Protect members of the public and public resources and facilities from injury, loss of life, or property damage due to landslides and steep slope failures, erosion, seismic events, or flooding; and

5. Alert owners, potential purchasers, real estate agents, appraisers, lenders, builders, developers and other members of the public to natural conditions that pose a hazard or otherwise limit development.

E. This chapter is to be administered with flexibility and attention to site-specific characteristics. It is not the intent of this chapter to make a parcel of property unusable by denying its owner reasonable use of the property or to prevent the provision of public facilities and services necessary to support existing development.

16.20.020 Applicability

This chapter applies to all development, uses and activities within areas or adjacent to areas designated as critical areas unless identified as exempt in BIMC 16.20.040. No action shall be taken by any person, company, agency, governmental body (including the city), or applicant, which results in any alteration of a critical area except as consistent with the purposes, intent, requirements, development standards and goals of this chapter.

16.20.030 Protection of Critical Areas

A. All proposed development, uses and activities subject to this chapter shall utilize mitigation sequencing as follows:

1. Avoid the impact altogether by not taking a certain action or parts of an action;

2. Minimize impacts by limiting the degree or magnitude of the action and its implementation by using appropriate technology or by taking affirmative steps to avoid or reduce impacts;

3. Rectify the impact by repairing, rehabilitating, or restoring the affected environment;

4. Reduce or eliminate the impact over time by preservation and maintenance operations during the life of the action;

5. Compensate for the impact by replacing, enhancing, or providing substitute resources or environments, and;

6. Monitor the impact and take appropriate corrective measures.

B. The precautionary principle shall be applied in the review of any action, taken or proposed, that does not conform to the requirements of this chapter. The burden of proof that the action will cause no net loss or harm to persons or property falls on the applicant or the property owner.

16.20.040 Exemptions

A. Exempt activities are those that will not have a significant impact on a critical area's structure and function and most are expected to be very short term. All exempt activities shall use reasonable methods to avoid potential impacts to critical areas. Exempt activities do not grant permission to degrade a critical area or ignore risk from natural hazards. Any incidental damage to, or alteration of, a critical area that is not a necessary outcome of the exempt activity shall be considered a violation of this chapter and subject to enforcement and restoration under BIMC 16.20.170.

The following activities are exempt from the requirements of this chapter and do not require a critical areas permit and are not subject to any review or approval process except where noted:

1. Emergency activities necessary to prevent an unanticipated and immediate threat to public health, safety or welfare or an immediate risk of danger to property which requires action within a time frame too short to allow compliance with this chapter. The person or agency undertaking such action shall notify the director within one working day following commencement of the emergency activity. Within 30 days, the director shall determine if the action taken was within the scope of the emergency actions allowed in this subsection. If the director determines that the action taken, or any part of the action taken, was beyond the scope of an allowed emergency action, then enforcement provisions of BIMC 16.20.XX shall apply.

   After the emergency, the person or agency undertaking the action shall fully fund and conduct necessary restoration and/or mitigation for any impacts to the critical area and buffers resulting from the emergency action in accordance with an approved critical areas report and mitigation plan. Restoration and/or mitigation activities must be initiated within one year of the date of the emergency and completed in a timely manner.

2. Existing and ongoing agricultural activities. For the purpose of this chapter, "existing and ongoing" means the activity has been conducted and/or maintained within the past five years under a farm management plan or other best management practices not resulting in a net loss of critical area functions and values.

3. Normal and routine repair and maintenance of existing structures~~, landscaping and vegetation~~ that will not further impact or alter critical areas or buffers.

4. Normal and routine yard and garden activities including, but not limited to, cutting and mowing lawns, weeding, removal of noxious and invasive species, harvesting and replanting of garden plants and crops, incidental vegetable gardening, pruning and planting of noninvasive ornamental vegetation, intended to maintain the general condition and extent of such areas; provided, that such activities are limited to legally existing yard and garden areas, do not further expand into critical areas or associated buffers, do not significantly alter topography, and do not diminish water quality or quantity. Normal and routine activities cannot result in the location, size at the ground level or configuration of existing yard and garden areas. Normal and routine activities do not include tree and vegetation activities pursuant to BIMC 16.20.090.B that require a critical area permit and city pre-approval.

5. Normal and routine repair, maintenance and operation of existing retention/detention facilities, biofilters and other stormwater management facilities, irrigation and drainage ditches, and fish ponds; provided, that such activities shall not involve conversion of any

wetland not currently being used for such activity. Any maintenance of ponds located in stream habitat areas shall require approval from the Washington Department of Fish and Wildlife.

6. Normal and routine repair and maintenance of existing utility structures within a right-of-way or existing utility corridor or easement, including the cutting, removal and/or mowing of vegetation above the ground that utilizes best management practices and does not expand the use, activity or structure further into any critical area.

7. Class I, II and III forest practices regulated pursuant to Chapter 76.09 RCW.

8. Minor site investigative work. Work necessary for land use review submittals, such as surveys, soil logs, percolation tests, and other related activities, where such activities do not require construction of new roads or significant amounts of clearing or excavation. In every case, impacts to the critical area shall be minimized and disturbed areas shall be immediately restored. Minor site investigative work may include educational and scientific research activities.

9. Activities within the improved right-of-way. Replacement, modification, installation, or construction of utility facilities, lines, pipes, mains, equipment, or appurtenances, when such facilities are located within the improved portion of the public right-of-way or easement of a private street, except those activities that alter a wetland or watercourse, such as culverts or bridges, or result in the transport of sediment or increased storm water.

10. The construction of low impact fencing within critical area buffers provided the location does not result in restricting wildlife movement, the location and installation is the least impactful to the critical area and buffer as possible, and there is no alternative to fencing to achieve the purpose of the fence.

11. Signs for marking critical area boundaries, interpretive signs and survey markers or property boundaries.

B. The following uses and activities qualify as exempt activities only after review and authorization by the city. These exempt activities do not require a critical areas permit. Review and authorization may occur over-the-counter and will require a written letter of approval.

1. Activities within a portion of a wetland buffer or fish and wildlife habitat conservation area buffer separated from the critical area by an existing permanent substantial development, use or activity which serves to eliminate or greatly reduce the impact of the proposed activity on the critical area are exempt from establishing the full required buffer width; provided, that impacts to the critical area do not increase. The director shall review the proposal to determine the likelihood of associated impacts and may require the applicant to provide a critical areas report prepared by a qualified professional that

demonstrates through a site assessment or functional analysis that the interrupted buffer area is functionally isolated from the critical area. The director shall consider the hydrologic, geologic, and/or biological habitat connection potential and the extent and permanence of the physical separation.

2. Fish, Wildlife and Wetland Restoration Activities. Fish, wildlife, and/or wetland restoration or enhancement activities not required as project mitigation; provided, that the project is approved by the jurisdictional agency (Washington State Department of Fish and Wildlife, U.S. Army Corps of Engineers, or other appropriate local, state, federal, or tribal jurisdiction).

16.20.050 Standards for existing development

A. Existing structures and related improvements. Structures and related improvements that were legally built or vested prior to the effective date of Ordinance No. 2017-17 that do not meet the requirements of this chapter may continue to exist in their present form, and may be altered, including remodeled, reconstructed, or expanded, if such alteration complies with the provisions of this Section and all other applicable sections of this Chapter.

B. Existing structures that were legally built or vested prior to the effective date of Ordinance No. 2017-17 may be altered ~~if only one alteration is allowed~~ only one time within the lifetime of the ~~development~~ structure and:

1. The expansion of the footprint is outside a landslide hazard area or landslide hazard area setback unless required for safety or seismic upgrades;

2. Any expansion of the footprint is located only within a critical area buffer. No expansion of the footprint is allowed within a wetland or fish and wildlife habitat conservation area;

3. The expansion of the footprint at ground level does not exceed 500 square feet;

4. Any expansion of the footprint is used only as indoor living space or to accommodate accessibility;

5. Any expansion of the footprint is no closer to the critical area than the existing footprint; and

6. Reconstruction must comply with the requirements of BIMC 18.30.030, Nonconforming structures and buildings.

C. Existing property improvements other than structures, including driveways, parking areas, yards and landscaped areas, play areas, storage areas, and similar improvements that were legally established or vested prior to the effective date of Ordinance No. 2017-XX may be altered if:

1. There is no change in the location of the improvement;

2. Any expansion of the footprint is located only within the required buffer. No expansion of the footprint is allowed within the critical area itself; and

3. Any expansion of the footprint is no closer to the critical area than the existing footprint.

D. Buffer modifications pursuant to BIMC 16.20.110 and 16.20.140 shall not be granted for existing development.

E. Alterations permitted by this Section must comply with other applicable city code or land use review requirements and require submittal of a critical areas permit application in accordance with the permit and review procedures required for the affected critical area(s).

16.20.060 Administration

A. Interpretation. The provisions of this chapter shall be held to be minimum requirements in their interpretation and application and shall be liberally construed to serve the purposes of this chapter.

B. Procedures. The director is authorized to adopt written procedures for the purpose of carrying out the provisions of this chapter.

C. Inventory of Critical Areas. This chapter shall apply to all critical areas located within the jurisdiction of the city. The approximate location and extent of these areas on Bainbridge Island is displayed on various inventory maps available at the city's Department of Planning and Community Development. Maps and inventory lists are guides to the general location and extent of critical areas. Critical areas not shown are presumed to exist on Bainbridge Island and are protected under all the provisions of this chapter. In the event that any of the designations shown on the maps or inventory lists conflict with the site-specific conditions, site-specific conditions shall control.

D. Suspension – Revocation. In addition to other penalties provided for elsewhere, the director may suspend or revoke a permit if it is found that the applicant or permittee has not complied with any or all of the conditions or limitations set forth in accordance with this chapter, has exceeded the scope of work set forth in the permit, or has failed to undertake the project in the manner set forth in the approved application.

E. Inadvertent discovery. Whenever a critical area or critical area buffer is discovered in the process of development, work on that portion of the development site shall be stopped immediately and the land owner shall report the discovery to the city as soon as possible. The city shall conduct a site investigation to verify the presence of a critical area or its buffer. Based upon the findings of the site investigation, the director may require submittal and approval of the applicable critical area permit, or may allow stopped work to resume. If required to approve the critical area permit, the landowner shall fully fund and conduct necessary restoration and/or mitigation for any impacts to the critical area and buffers resulting from the development activity in accordance with an approved critical areas report and mitigation plan. Restoration and/or mitigation activities must be initiated within one year of the date of the discovery and completed in a timely manner.

F. Assessment relief. The City of Bainbridge Island, in imposing special assessments, shall take into account the easements or perpetual conservation restrictions in critical areas.

G. Other laws and regulations. No permit granted pursuant to this chapter shall remove an applicant's obligation to comply in all respects with the applicable provisions of any other federal, state, or local law or regulation.

H. Conflict.

1. General. When any provision of any other chapter of the BIMC conflicts with this chapter (or any existing regulations, easements, covenants, or deed restrictions), that which provides more protection to critical areas shall apply.

2. Shoreline Master Program. In case of conflict between the provisions of this chapter and the provisions of the Shoreline Master Program, Chapter 16.12 BIMC, the provisions of the Shoreline Master Program, Chapter 16.12 BIMC, shall prevail unless the Critical Areas Ordinance provides greater protection for critical areas. However, the classification or designation of any of the shoreline of Bainbridge Island shall not change from what it is under the Shoreline Master Program as a result of any provisions of the Critical Areas Ordinance.

I. Severability. If any clause, sentence, paragraph, section or part of this chapter or the application thereof to any person or circumstances shall be adjudged by any court of competent jurisdiction to be invalid, such order or judgment shall be confined in its operation to the controversy in which it was rendered and shall not affect or invalidate the remainder of any part thereof to any other person or circumstances and to this end the provisions of each clause, sentence, paragraph, section or part of this law are hereby declared to be severable.

16.20.070 Review procedures

A. Permit required. Any proposal to alter any critical area and/or required buffer including, but not limited to, earthwork including grade and fill activity, alteration of site hydrology including water temperature and characteristics of water sources, removal or alteration of vegetation, and construction or siting of buildings, structures, facilities, utilities, hard surfaces and other related infrastructure, shall require a critical area permit unless it qualifies as an exempt activity, as provided in BIMC 040.

B. Applications for critical area permits, unless otherwise provided for in this chapter, shall be reviewed and approved, approved with conditions, or denied pursuant to the administrative review procedures in BIMC 2.16.030 unless a Reasonable Use Exception is requested. Critical area permit applications shall be reviewed based on the proposal's ability to comply with all of the following criteria:

1. The proposal minimizes the impact on critical areas in accordance with mitigation sequencing (BIMC 16.20.030.A);

2. The proposal does not pose an unreasonable threat to the public health, safety, or welfare on or off the development proposal site;

3. The proposal is consistent with the general purposes of this chapter and the public interest;

4. Any alterations permitted to the critical area are mitigated in accordance with mitigation requirements in BIMC 16.20.030.A;

5. The proposal protects the critical area functions and values consistent with best available science and results in no net loss of critical area functions and values;

6. The proposal addresses cumulative impacts of the action; and

7. The proposal is consistent with other applicable regulations and standards.

C. The city may condition the proposed activity as necessary to mitigate impacts to critical areas and to conform to the standards required by this chapter.

D. Except as provided for by this chapter, any project that cannot adequately mitigate its impacts to critical areas in the sequencing order of preferences in BIMC 16.20.030.A shall be denied.

E. Application required. Any application for land use or development proposals within critical areas or their buffers, unless an exempt activity pursuant to BIMC 16.20.040, requires submittal of the city's Master Land Use Application (P100) to the Department of Planning and Community Development in accordance with the requirements outlined in the city's Administrative Manual for Land Use Permits. The applicant shall not be granted any approval or permission to conduct development or land use in a critical area or its buffer prior to fulfilling the requirements of this chapter.

F. Support Information Requirements. A critical area permit application shall include the following:

1. A site plan drawn to scale identifying locations of critical areas and their buffers, location of proposed development, uses and activities, location and estimated quantity of

earthwork and vegetation clearing and location and type of drainage features or infrastructure.

2. Any critical area report or study required by this chapter. Such reports or studies shall be prepared by qualified professionals in the area of concern as defined in BIMC 16.20.XX (Definitions), and in accordance with the requirements provided in BIMC 16.20.XX (Critical Areas Reports) as follows:

   a. Aquifer recharge study: Hydrogeologist;

   b. Geological hazard assessment: Engineering geologist; geotechnical engineer, provided that:

   i. An engineering geologist may provide a study, including interpretation, evaluation, analysis, and application of geological information and data and may predict potential or likely changes in types and rates of surficial geologic processes due to proposed changes to a location, provided it does not contain recommended methods for mitigating identified impacts, other than avoidance, structural impacts to, or suitability of civil works; and

   ii. Engineering geologists may not provide engineering recommendations or design recommendations, but may contribute to a complete geotechnical report that is co-sealed by a geotechnical engineer.

   c. Stream buffer enhancement plan: Biologist with stream ecology expertise; fish or wildlife biologist; a civil engineer may provide studies for drainage, surface and subsurface hydrology, and water quality;

   d. Wetland buffer enhancement plan, wetland critical area report, wetland mitigation plan: Wetlands specialist.

   e. Habitat Management Plan~~s~~: Wildlife biologist and/or fisheries biologist.

   f. The director is authorized to retain experts at the applicant's expense and request review from other jurisdictional agencies to assist in the review of application materials; and

3. Any additional information determined as relevant by the director.

G. Notice on Title

1. The owner of any property with field-verified presence of critical area or buffer on which a development proposal is submitted shall file for record with the Kitsap County auditor a notice approved by the director in a form substantially as set forth in Subsection 2 of this Section. Such notice shall provide notice in the public record of the presence of a critical

area and buffer, the application of this chapter to the property, and that limitations on actions in or affecting such areas may exist. The applicant shall submit proof that the notice has been filed for record before the city shall approve any development proposal for such site. The notice shall run with the land and failure to provide such notice to any purchaser prior to transferring any interest in the property shall be in violation of this chapter.

2. Form of Notice.

Critical Areas
and/or
Critical Areas Buffer Notice

Legal Description:____
Present owner:
____
NOTICE: This property contains critical areas or their buffers as defined by the City of Bainbridge Island Ordinance No. __________. The property ____ was the subject of a development proposal for
____
(type of permit) application # __________________ filed on ___(date)___. Restrictions on use or alteration of the critical areas or their buffers may exist due to natural conditions of the property and resulting regulations. Review of such application has provided information on the location of critical areas or critical area buffers and restrictions on their use through setback areas. A copy of the plan showing such setback areas and other restrictions or required enhancements is attached hereto.
Signature of owner____

STATE OF WASHINGTON)
COUNTY OF ___________)
On this day personally appeared before me to me known to be the individual(s) described in and who executed the within and foregoing instrument and acknowledged that they signed the same as their free and voluntary act and deed for the uses and purposes therein stated.
Given under my hand and official seal this ____ day of _______________, _______.
NOTARY PUBLIC in and for the state of Washington, residing at ____________.

16.20.080 Reasonable use exceptions

A. Applicability and Intent. The purpose of the reasonable use exception (RUE) process is to allow reasonable use of property and explore alternatives to development that would be permitted in accordance with the underlying zoning designation and standards. An applicant may request an RUE pursuant to this Section when a site assessment review pursuant to BIMC 15.20 or a pre-application conference demonstrates that:

1. The subject property is encumbered to such an extent by critical areas and/or critical area buffers that application of this chapter would deny all reasonable use of the subject property;

2. Reasonable use of the subject property cannot be achieved through Buffer Modification (BIMC 16.20.XX) or a Habitat Management Plan (BIMC 16.20.XX); and

3. Alternatives to development through an RUE are not available or acceptable.

B. During the pre-application process, the city may:

1. Determine whether the property qualifies for inclusion in any program that would eliminate the need for an RUE including, but not limited to, transfer or purchase of development rights, mitigation banking, and open space acquisition or other conservation mechanism. If the property qualifies for inclusion in one or more of such programs, the director shall notify the applicant in writing of such qualification and of the applicable rules and regulations, and shall send an application form for inclusion in such program(s). If the property is included in one or more of such programs, an RUE application is not required; or

2. Determine to offer to purchase the development rights rather than grant an RUE, and the applicant, at his/her sole discretion, may agree to sell said development rights rather than pursue an RUE.

C. RUE Request and Review Process. An application for an RUE shall include the city's Master Land Use Application; a critical area report or Habitat Management Plan, including mitigation plan, if necessary; and any other relevant information and reports that are necessary, as determined by the director, to process and prepare the recommendation on the application, such as permit applications to other agencies, special studies, and environmental documents prepared pursuant to the State Environmental Policy Act, Chapter 43.21C RCW (SEPA documents).

D. The director shall prepare a recommendation to the Hearing Examiner based on review of the submitted information and reports, a site inspection, and the proposal's compliance with the criteria in Subsection (E), below.

E. Hearing Examiner Review. The hearing examiner shall review the RUE application and conduct a public hearing pursuant to the provisions of the BIMC 2.16.100. The Hearing Examiner shall approve, approve with conditions, or deny the request based on the proposal's compliance with all of the RUE review criteria in Subsection (F), below.

F. Reasonable Use Review Criteria. Criteria for review and approval of reasonable use exceptions are as follows:

1. The application of this chapter would deny all reasonable use of the property;

2. There is no reasonable alternative to the proposal with less impact to the critical area or its required buffer;

3. The proposal minimizes the impact on critical areas in accordance with mitigation sequencing (BIMC 16.20.XX);

4. The proposed impact to the critical area is the minimum necessary to allow reasonable use of the property;

5. The inability of the applicant to derive reasonable use of the property is not the result of actions by the applicant, or of the applicant's predecessor, that occurred after February 20, 1992;

6. The proposed total lot coverage does not exceed 1,200 square feet for residential development;

7. The proposal does not pose an unreasonable threat to the public health, safety, or welfare on or off the property;

8. Any alterations permitted to the critical area are mitigated in accordance with mitigation requirements in BIMC 16.20.XX and 16.20.XX;

9. The proposal protects the critical area functions and values consistent with the best available science and results in no net loss of critical area functions and values;

10. The proposal addresses cumulative impacts of the action; and

11. The proposal is consistent with other applicable regulations and standards.

G. Burden of Proof. The burden of proof shall be on the applicant to bring forth evidence in support of the application and to provide sufficient information on which any decision has to be made on the application. The standard for the burden of proof shall be clear and convincing evidence.

16.20.090 Trees and vegetation

Standards and review procedures for trees and vegetation within critical areas and their buffers are necessary to maintain or improve the functions and values of critical areas, implement the city's comprehensive plan, provide for reasonable maintenance or enhancement of views, and allow for appropriate vegetation maintenance and hazard tree removal. Tree or vegetation removal, coppicing or pruning is prohibited within critical areas and their buffers unless allowed pursuant to BIMC 16.20.090 (A) through (D) or approved by the director as provided in BIMC 16.20.0090.F. ~~only when no net loss to critical area functions and values can be demonstrated.~~

A. The following tree and vegetation activities do not require review or approval:

1. Pruning of trees and shrubs provided:

    a. No live branch or stem or portion of live branch or stem greater than 6 inches in diameter is removed;
    b. Pruning activities conform to applicable practices of ANSI A300 (Part 1 – 2017) Tree, Shrub and Other Woody Plant Management – Standard Practices (Pruning), as amended.
    c. Trees and shrubs are not located in or overhanging a Type F stream;
    d. Pruning operations do not remove greater than 10 percent of live canopy within any three-year period, provided that up to 25 percent may be removed with a certified arborist on site; and
    e. The practice known as topping – the reduction of tree size by cutting live branches and leaders to stubs, without regard to long-term tree health or structural is prohibited.

2. The removal of the following vegetation with hand labor or hand-held equipment provided: (a) the area of work is under 2,500 square feet in area and (b) any area of bare ground is planted with native species within the first appropriate growing season or otherwise protected by acceptable temporary erosion and sedimentation control strategies:

    a. Plants on the Kitsap County or Washington State Noxious Weed Control Board list of noxious weeds;
    b. English ivy (*Hedera helix*) from tree trunks or ground surface;
    c. Himalayan blackberry (*Rubus discolor, R. procerus*);
    d. Evergreen blackberry (*Rubus laciniatus*);
    e. English/Portuguese laurel (*Prunus laurocerasus/lusitanica*)
    f. English holly (*Ilex aquifolium*); and
    g. Scotch broom (*Cytisus scoparius*).
    h. English hawthorne (*Crataegus laevigata*)
    i. Poison oak (*Toxicodendron diversilobum*)

B. The following tree and vegetation activities require city review and pre-approval:

1. Any tree or vegetation activity not included in BIMC 16.20.090.A.

2. Hazard trees.

a. Hazard tree removal or wildlife snag creation not within erosion and landslide hazard areas or a landslide hazard area buffer at the top of slope is allowed provided that it shall comply with the following standards and submittal requirements ~~and city approval~~:

   i. A report from an International Society of Arboriculture (ISA) Tree Risk Assessment Qualified (TRAQ) arborist that documents the hazard and provides a replanting plan for replacement trees;
   ii. Land owners are encouraged, but not required, to retain all or portions of removed hazard trees on site to provide wildlife habitat;
   iii. The land owner shall replace any trees that are removed with new trees at a minimum ratio of two replacement trees for each tree removed (2:1) within the first appropriate growing season in accordance with an approved planting plan. Replacement trees may be planted at a different, nearby location if it can be determined that planting in the same location would create a new hazard or potentially damage the critical area. Replacement trees shall be species that are native and indigenous to the site and a minimum of one inch in diameter at (4-1/2 feet high) for deciduous trees and a minimum of six feet in height for evergreen trees as measured from the top of the root ball;
   iv. If a tree to be removed provides critical habitat, such as an eagle perch, a qualified wildlife biologist shall be consulted to determine timing and methods of removal that will minimize impacts; and
   v. Hazard trees determined to pose an imminent threat or danger to public health or safety, to public or private property, or of serious environmental degradation may be removed or pruned by the land owner prior to receiving approval from the city; provided, that within 14 days following such action, the land owner shall submit the report required by Section (i) directly above and a planting plan that demonstrates compliance with the provisions of this title.

b. Hazard tree removal within erosion and landslide hazard areas and their buffers at the top of slope is allowed provided that it shall comply with the ~~following~~ standards and submittal requirements of both BIMC 16.20.090.B.1 and B.2:

   i. The standards and review procedures in BIMC 16.20.XX;
   ii. No root disturbance or stump removal is permitted;
   iii. Tree trunks, branches and stems may be left on the slope provided vegetative material does not result in a net increase in geological instability or create dangers to life or property.
   iv. When removing more than one hazard tree, or more than two within a five-year period, the applicant shall demonstrate compliance with development standards in BIMC 16.20.130.D(1) as documented by a geotechnical engineer licensed in the State of Washington.

3. Other tree or vegetation activities.

   a. The coppicing of any species listed in BIMC 16.20.090.A(2) is allowed, provided:
      i. No ground or root disturbance occurs as part of the cutting;
      ii. Trees or shrubs are less than 6 inches in diameter at 4-1/2 feet high; and
      iii. Coppicing may only occur once every three years.

   b. The removal of any species listed in BIMC 16.20.090.A(2) in an area greater than 2,500 square feet shall:
      i. Demonstrate compliance with development standards in BIMC 16.20.130.D(1) as documented by a geotechnical engineer licensed in the State of Washington if located within erosion and landslide hazard areas and their buffers at the top of the slope; and
      ii. Include submittal of a replanting plan for city review and approval for any areas of bare ground.

C. Seasonal limitations. No vegetation removal, unless required to conduct a risk inspection by a certified arborist, is allowed in erosion and landslide hazard areas and their buffers at the top of the slope between October 1 and April 1 unless (i) a waiver is granted by the director or (ii) it is required due to an emergency involving immediate danger to life or property.

D. Any tree or vegetation activity requiring a critical area permit pursuant to BIMC 16.20.090.B must:

1. Be performed by a licensed contractor, forester, or certified arborist in the State of Washington who has submitted a signed “Statement of Tree and Vegetation Standards and Requirements Acknowledgment” in accordance with BIMC 16.20.090.F prior to start of work; and

2. Conform to applicable practices of ANSI A300 (Part 1 – 2017) Tree, Shrub and Other Woody Plant Management – Standard Practices (Pruning), as amended.

E. In order to assure compliance with the standards and requirements of this chapter, arborists, foresters and contractors or others involved in tree or vegetation operations in critical areas shall be required to sign and submit a “Statement of Tree and Vegetation Standards and Requirements Acknowledgment” to the city. This statement shall attest such professional’s knowledge of the City of Bainbridge Island’s tree and vegetation protection requirements. This statement shall be required in conjunction with normal city licensing requirements for persons performing work in the City of Bainbridge Island. The required statement shall be in substantially the following form:

> “I, ______________________, a duly licensed professional contractor in the State of Washington, or forester or certified arborist, hereby attest that I have

read and am knowledgeable of BIMC 16.20.090, "Trees and Vegetation", of the City of Bainbridge Island.

"I further attest that, as a professional doing tree and/or vegetation work in the City of Bainbridge Island, I am accountable for following the city's tree and vegetation standards and requirements, including obtaining a critical area permit, if required, prior to performing tree and/or vegetation work, as defined by BIMC 16.20.090, as well as following all conditions and requirements of said permit.

"I attest that if I fail to follow tree and vegetation requirements of BIMC 16.20.090, I will be in violation of BIMC 16.20.090 and thereby subject to a fine as specified in BIMC 16.20.170 and I will be held jointly responsible with the landowner for any restitution required as a result of environmental damage determined by the city to be the result of improper tree and/or vegetation activities at the site. This may result in monetary penalties as allowed by this chapter or State law."

Private arborists, foresters and contractors or others ~~professionals~~ involved in tree or vegetation operations who do not provide the above statement shall be prohibited from performing tree or vegetation services within critical areas and their buffers within the City of Bainbridge Island. Said professionals who do not provide this statement and perform tree or vegetation services in the City of Bainbridge Island shall be considered in violation of this chapter and will may be prosecuted under this chapter, the city's civil penalties ordinance, or as otherwise provided by law. All foresters, arborists, or contractors involved in tree or vegetation operations shall be jointly responsible with the landowner for any tree or vegetation violation and restitution required at a site as a result of tree or vegetation activity.

F. Permit and review procedures

1. Any tree or vegetation activity shall require a critical area permit unless it does not require city review and approval, as provided in BIMC 16.20.090.A or BIMC 16.20.090.C.

2. Applications for critical area permits for tree or vegetation activities shall include:

    a. City of Bainbridge Island Master Land Use Application (hyperlink);
    b. A letter or report from an International Society of Arboriculture (ISA) certified arborist except for invasive species removal;
    c. Documentation in letter format by a geotechnical engineer licensed in the State of Washington if required pursuant to BIMC 16.20.090.B(2) or C(2).
    d. A letter or report from an International Society of Arboriculture (ISA) Tree Risk Assessment Qualified (TRAQ) arborist for removal of any hazard tree; ~~and~~
    e. A replanting plan if required pursuant to BIMC 16.20.090.C(2); and
    f. Any additional information required by other application Sections of this Chapter.

3. The director may not approve a critical area permit if the tree or vegetation activity would create or result in a net loss to one or more critical area functions or values. The city may request technical review from qualified professionals or other agencies at the applicant's expense to ensure no net loss in critical area functions and values.

16.20.100 Aquifer recharge areas.

A. Applicability.

1. This Section applies to:

    a. Any development or re-development proposing activities with the potential to generate a pollutant identified by the U.S. EPA as a potential source of drinking water contamination (Appendix A – Washington State Critical Aquifer Recharge Area Guidance Document) or known to be deleterious to the environment or human health; and

    b. All designated aquifer recharge areas pursuant to BIMC 16.20.100.B.

    ~~c. Any development or redevelopment exceeding regulated activity thresholds established under BIMC 15.20.040.~~

2. This Section does not apply to areas located within the city's shoreline jurisdiction, which are regulated by the city's shoreline master program (BIMC 16.12).

B. Classification. To support the city's Comprehensive Plan land use concept and maximize recharge opportunities, the entirety of Bainbridge Island outside of Designated Centers is classified as critical aquifer recharge area for the Island's aquifer system.

C. Permit review and procedures

1. Any development, use or activity shall require a critical area permit unless this Section does not apply pursuant to BIMC 16.20.090.A.b, Applicability.

2. Critical area permits shall be reviewed pursuant to the criteria in BIMC 16.20.XX.

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

    a. City of Bainbridge Island Master Land Use Application (hyperlink); and

    b. Site Assessment meeting the requirements of BIMC 16.20.XX, Critical area reports.

        i. All proposed new and redevelopment activities shall require a site assessment identifying all potential impacts of the proposed land use or activity to groundwater or surface water quality and quantity as described in

16.20.170.X. If the applicant has completed a Site Assessment Review (SAR) in accordance with Chapter 15.19 BIMC that includes those elements listed in 16.20.170.X, the SAR will suffice to fulfill this requirement. Additional in-depth site assessment elements as detailed in 16.20.170.X may be required upon review of the site assessment.

ii. All site assessments must be prepared and stamped by a professional hydrogeologist licensed in Washington State in accordance with RCW 18.220 and WAC 308-15. Affected public water purveyors (Group A & B), affected Tribes, and the Kitsap Public Health District will be notified and invited to comment on all site assessments. The city will consider all recommendations submitted by these entities when considering permit conditions.

iii. The city may require third-party independent review by a professional hydrogeologist of any required application materials; and

c. Aquifer recharge mitigation plan, meeting the requirements of BIMC 16.20.170, Critical area reports, if aquifer recharge impacts are identified in the site assessment.

D. Prohibited Activities and Uses. The following activities and uses are prohibited 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 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.

E. Development standards

1. All proposals for new development or redevelopment shall incorporate low impact development techniques or other best management practices into the site design in order to disperse and/or infiltrate stormwater runoff to ensure that there is no net loss of ~~replace to the maximum extent practical any~~ infiltration ~~to be lost~~ as a result of the development or redevelopment.

2. No development, use or activity may exceed water or sediment quality standards or otherwise violate the anti-degradation requirements specified in WAC Chapters 173-200, 173-201A, and 173-204.

3. Critical area permit approvals shall include conditions designed to prevent significant degradation of groundwater and surface water quality or quantity, if the site assessment review determines it is necessary.

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 BIMC 16.20.110.B except those located within the city's shoreline jurisdiction, which are regulated by the city's shoreline master program (BIMC 16.12).

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.XX (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.XX (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 City of Bainbridge Island.

3. Areas that contain habitats and species of local importance.

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 Section 16.20.110.B, 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 (provide hyperlink) 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 (hyperlink);
   b. Habitat Management Plan (HMP), prepared in accordance with BIMC 16.20.180, if a fish and wildlife habitat area described in BIMC 16.20.110.B.2 through 4 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 a 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 X. Buffers shall remain as undisturbed native 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 revegetated pursuant to an approved Buffer Enhancement Plan meeting the requirements of BIMC 16.20.160.XX. 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 X 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 X. 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 monitor 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 fifteen 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 such intrusions will not 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 Section 16.20.XX (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.XX.

   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 the 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 (BIMC 16.20.160.XX-XX) 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.XX. Buffer enhancement plans shall be reviewed pursuant to the criteria in BIMC 16.20.XX.

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 non-compensatory enhancement, requires a Reasonable Use Exception pursuant to BIMC 16.20.XX.

E. 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 USC 668) to avoid impacting eagles and their habitat.

F. 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 BIMC 15.16, 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 area 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 non-conforming 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. Agricultural Restrictions. New agricultural activities and new structures accessory to agriculture use are prohibited in fish and wildlife habitat conservation areas and their buffers. Existing, ongoing agricultural activities shall utilize best management practices so as not to result in a net loss of the functions and values of wetlands. Existing, ongoing agriculture shall avoid impacts to streams by either:

   a. Implementation of a farm resource conservation and management plan agreed upon by the Kitsap Conservation District and agriculture operator to protect and enhance water quality; or
   b. Installation of fencing no closer to the stream than the outer edge of its required buffer.

6. Trails and Trail-Related Facilities. Construction of public and private trails and trail-related facilities, such as benches, interpretive centers, and viewing platforms, may be allowed in fish and wildlife conservation area or their buffers if there are no reasonable alternatives for meeting 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 and 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 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 one hundred (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.XX to first avoid siting trail and trail-related facilities within fish and wildlife habitat conservation areas and their required buffers.
   e. Trails shall be limited to non-motorized use. Trail width shall not exceed five 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.

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

   a. Construction of utilities may be permitted in fish and wildlife conservation area 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 area 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 requirement of this Section. Joint use of the sewer utility may be allowed.
   c. New utilities shall not be allowed in fish and wildlife conservation area 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 area 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 pre-construction 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 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.

8. 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 non-structural methods should be the first option for protection. Structural methods, or hard stabilization, may only be utilized where it can be demonstrated that an existing primary residential structure 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.

9. 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 ~~to~~ for the buffer.

10. 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.

11. 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.; and
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.
e. Construction time limits shall be determined in consultation with Washington Department of Fish and Wildlife in order to ensure habitat protection.

16.20.120 Frequently flooded areas.

A. Designation and mapping. Frequently flooded areas include all areas of special flood hazard as mapped within the city, and other areas that could be threatened by flooding. The city uses Chapter 15.16, Flood Damage Prevention, adopted herein by reference, which provides the basis for establishing areas of special flood hazard.

B. Development in frequently flooded areas shall be subject to the provisions in Chapter 15.16, Flood Damage Prevention. Areas within the city's shoreline jurisdiction are regulated by the city's shoreline master program (Chapter 16.12).

16.20.130 Geologically hazardous areas.

A. Applicability.

1. This chapter applies to all geologically hazardous areas classified pursuant to BIMC 16.20.130.B except as specified in subsection (2) of this section.

2. This section does not apply to geologically hazardous areas located within the city's shoreline jurisdiction, which are regulated by the city's shoreline master program (BIMC 16.12).

B. Classification.

1. Geologically hazardous areas include erosion hazard areas, landslide hazard areas, and seismic hazard areas (including fault and liquefaction hazard areas). Zone of influence areas are not considered geologically hazardous areas.

2. Geologically hazardous areas shall be classified based upon landslide history and the presence of unstable soils, steepness of slopes, erosion potential, and seismic hazards. Areas in this category are a potential threat to public health, safety, and welfare when construction is allowed. While some potential risk due to construction can be reduced through ~~structural~~ engineering design, construction in these areas should be avoided when the potential risk cannot be reduced to a level

comparable to the risk if the site were initially stable prior to construction. Classification and rating shall be based upon the risk to the environment and to development in geologically hazardous areas.

C. Permit and review procedures.

1. Any development, use or activity proposed on a site containing any geologically hazardous area or a landslide hazard area buffer shall require a critical area permit unless it qualifies as an exempt activity, as provided in BIMC 16.20.XX or is allowed without review pursuant to BIMC 16.20.090.

2. Critical area permits shall be reviewed pursuant to the criteria in BIMC 16.20.XX.

3. Applications for critical area permits for geologically hazardous areas shall include:

   a. City of Bainbridge Island Master Land Use Application (hyperlink); and
   b. Indemnification. An indemnification or hold harmless agreement shall be required for all projects in geologically hazardous areas, except erosion hazard areas ~~and tsunami hazard areas,~~ and landslide hazard area setbacks~~buffers~~. The form of the agreement shall be approved by the city and executed prior to the commencement of construction or any land disturbing activity~~site alteration~~.
   c. Notice. A notice of intent to construct on a landslide hazard area or reduce the minimum buffer in a landslide hazard area shall be given pursuant to BIMC 2.16.085.C.2. The notice of intent shall be issued within 14 days of a complete application pursuant to BIMC 2.16.055. The notice shall include a 21-day comment period and no permits or approval of reduced buffers shall be issued before the end of the comment period.
   d. Geological Hazards Assessment. A geological hazards assessment is required for all projects in geologically hazardous areas and landslide hazard area setbacks ~~buffers~~ in accordance with BIMC 16.20.180, Critical area reports. To protect public health, safety and welfare, the director may require third party review of any geological hazards assessment or geotechnical report in cases where there may be potential for substantial damage to life, property or the environment should the proposed engineering solution fail. When a third-party review is required, costs incurred for a qualified third party geologist or geotechnical engineer to perform the review shall be borne by the applicant.

D. Development Standards – General. The following development standards apply to all activities within any geologically hazardous area or associated landslide hazard area buffer:

1. The proposed activity shall not create a net increase in geological instability, either on- or off-site, which is defined as follows:

   a. The subject parcel shall not be less stable after the planned development than before; and
   b. The adjacent parcels shall not have greater risk or be less stable after the planned development than before.

2. The proposed activity shall not increase the risk of life safety due to geological hazards above professionally acceptable levels.

3. The proposed activity shall not increase the risk due to geological hazards above professionally acceptable levels for:

   a. Property loss of any habitable structures or their necessary supporting infrastructure on-site or;
   b. Risk to any off-site structures or property of any kind; and

4. Proposed buildings shall be constructed using appropriate engineering methods that respond to the geologic characteristics specific to the site in order to achieve a high standard of safety and meet professional practice standards and codes~~the highest standard of safety feasible~~.

5. The proposed activity shall not further degrade the values and functions of the associated critical areas.

6. Unless allowed pursuant to BIMC 16.20.090 or as part of an approved building permit, removal of vegetation from an erosion or landslide hazard area or buffer is prohibited.

E. Development Standards -- Landslide Hazard Areas. The following requirements shall apply to any land disturbing activity or construction within a landslide hazard area or its setback ~~buffer~~ as described herein:

1. Prohibited activities. Development of habitable structures and critical facilities is prohibited in landslide hazard areas and ~~on slopes forty (40) percent or greater and~~ landslide hazard area setbacks.

2. Allowed activities. The following minor development may be allowed in landslide hazard areas on slopes forty (40) percent or greater and landslide hazard area setbacks if the development standards of this Section are met:

   i. Surface water management, including outfalls
   ii. Septic facilities, including drainfields

iii. Trails and stairs
iv. Cable lifts and trams
v. Public or private utilities or streets
vi. Seismic or other safety upgrades to existing habitable structures
vii. Other non-habitable structures

3. Any land disturbing activity or construction within a landslide hazard area or its setback ~~buffer~~ shall meet the following requirements:

    i. All development proposals shall be designed to avoid impacts to geologically hazardous areas. The development shall be designed to minimize the footprint of building in other disturbed areas, minimize removal of vegetation, minimize topographic change, and retain open space to the maximum extent practicable;
    ii. Development design shall utilize clustering, under-structure parking, multi-level construction, and tiered foundations to the extent feasible to minimize impervious lot coverage, slope disturbance, and changes to the natural topography;
    iii. Access shall be in the least sensitive part of the site, and common access drives and utility corridors are required to the extent feasible;
    iv. Roads, walkways and parking areas shall be designed to parallel the natural contours to the extent feasible;
    v. Cut and fill slopes shall be prepared and maintained to control against erosion and instability; and
    vi. Drainage and stormwater designs in zones of influence shall incorporate elements of low impact design, add examples to the extent feasible, and shall be designed in such a manner that stormwater outlet discharges do not create additional impacts.

4. Factors of safety. Factors of safety in accordance with Table X are required. Analysis of dynamic conditions shall be based on the minimum horizontal acceleration for the probabilistic maximum considered earthquake as established by the currently adopted version of the International Building Code.

Table X. Factors of safety and setbacks

Structure, use or activity	Static factor of safety	Dynamic (seismic) factor of safety	Standard setback
Habitable structure	1.5	1.0~~1~~	Top of slope: Height of slope up to maximum of 75 feet Bottom of slope: Height of slope ~~Minimum setback 20~~

			~~feet at top and bottom of slope.~~
High-risk non-habitable structure	1.3	~~1.0/TBD~~ As determined by geological hazards assessment.	~~TBD~~ Top of slope: Height of slope up to maximum of 75 feet Bottom of slope: Height of slope ~~No minimum setback.~~
Lower-risk non-habitable structures	As determined by geological hazards assessment.	As determined by geological hazards assessment.	Height of slope up to 75 feet. ~~No minimum setback.~~
Other structure or use	As determined by geological hazards assessment.	As determined by geological hazards assessment.	Height of slope up to 75 feet. ~~No minimum setback.~~
Tree and vegetation activities in accordance with BIMC 16.20.090	n/a	n/a	25 feet only from top of slope.

5. Setback requirement. Setbacks from landslide hazard areas ~~in accordance with Table X~~ are required. A setback shall be established from all edges of a landslide hazard area as follows:

   i. A standard setback in accordance with Table X~~equal to the height of the slope up to a maximum of seventy-five (75) feet~~; or
   ii. A setback established by the findings of a geological hazards assessment prepared by a licensed geologist or geotechnical engineer that protects and minimizes the risk of property damage, death or injury resulting from a potential landslide impact. The geological hazards assessment shall require a third-party independent review by a qualified geologist or geotechnical engineer at the cost to the applicant;
   iii. A setback less than 20 feet is prohibited for habitable structures;
   iv. The setback for tree and vegetation activities in accordance with BIMC 16.20.090 is 25 feet only from the top of slope.
   v. No setback is required for slopes forty (40) percent or greater with a vertical elevation change of up to twenty (20) feet, if compliance with development standards in BIMC 16.20.130.(D) and (E) is documented by a geotechnical engineer licensed in the State of Washington;
   vi. The setback may be increased beyond that specified in subsection (i) above if the director determines a larger buffer is necessary to prevent risk of damage to proposed adjacent development and the associated critical areas.

6. For the purposes of establishing the factors of safety and setback using Table X, the following categories shall apply:

   i. Habitable structure: residences, accessory dwelling units, garages;
   ii. High-risk non-habitable structure: decks, patios, pool/hot tub, driveways, trams, cable lifts, carports;
   iii. Lower-risk habitable structure: storage shed, boathouse, stairs, pathways, structures intended for short-term use;
   iv. Other structures or uses: septic facilities including drainfields, drainage outfalls, bulkheads, landscape walls, other utilities; and
   v. If a proposed structure, use or activity is not included in BIMC 16.20.130.E.6(i) through (iv), the category shall be determined by the City Engineer.

7. Zone of influence. A zone of influence shall be established 300 feet upslope from slopes greater than 40 percent and 200 feet upslope from slopes greater than 15 percent but less than 40 percent that are determined to be geologically hazardous areas to assess changes in land use and hydrology that may affect the stability of the geologically hazardous area.

   i. The applicant shall have the stormwater pollution prevention plan (erosion control plan) for the project reviewed by a geotechnical engineer to determine if there are any potentially adverse impacts to the landslide hazardous area. The report shall contain recommendations to avoid adverse impacts to the geologically hazardous area. Concentrated discharge of stormwater shall only be allowed where specifically recommended in the report and authorized by the City Engineer.

   ii. If the geotechnical engineer or the City Engineer determines that there are potential adverse impacts, the applicant shall provide a geotechnical analysis containing information specified by the City Engineer which analyzes the potential impacts to the geological hazard from the proposed development in the zone of influence and meets the standards of this section.

8. Field marking requirements. Proposed clearing and work limit lines and landslide hazard buffers shall be marked in the field for inspection and approval by the city prior to start of any land disturbing activity. Field marking shall remain in place until construction is completed and final inspection is completed by the city.

16.20.140 Wetlands.

A. Applicability

1. This chapter applies to:

   a. All wetlands designated pursuant to BIMC 16.20.140.B except as specified in subsection (2) of this Section.
   b. All wetland buffers as shown in the tables in BIMC 16.20.140.XX.

2. This Section does not apply to wetlands located within the city's shoreline jurisdiction, which are regulated by the city's shoreline master program (BIMC 16.12).

B. Identification and designation.

1. Identification of wetlands and delineation of their boundaries pursuant to this chapter shall be done in accordance with the federal wetland delineation manual and applicable regional supplements (as updated), as required by WAC 173-22-035. All areas within the city meeting the wetland designation criteria, regardless of any formal delineation, are hereby designated as wetlands and are subject to provisions of this chapter unless specified in BIMC 16.20.XX.

2. A wetland delineation must be conducted by a qualified professional, in accordance with BIMC 16.20.XX.

3. The wetland boundary shall be marked in the field and surveyed by a licensed surveyor. The surveyed wetlands shall be sized and mapped on a scaled site plan. The director may require the wetland delineation to be verified in the field by the Army Corps of Engineers or the Washington State Department of Ecology when there is uncertainty in the wetland boundary or there was unauthorized wetland disturbance. The requirement for a licensed surveyor to survey the wetland boundaries may be waived in limited circumstances, such as when there is no access to the wetland property or there is no proposed impact to the wetland and wetland buffer, with authorization from the director.

4. Wetland delineations shall be valid for five years from the date of the delineation.

C. Wetland Categories. Wetlands shall be rated according to the Washington State Wetland Rating System for Western Washington – 2014 Update (Ecology Publication No. 14-06-029, October 2014), as revised. The wetland categories determined by the rating are as follows:

1. Category I wetlands are:

   a. Relatively undisturbed estuarine wetlands larger than one acre;
   b. Wetlands that are, or may be in the future, identified by scientists of the Washington Natural Heritage Program/Department of Natural Resources as wetlands of high conservation value;
   c. Bogs;
   d. Mature forested wetlands larger than one acre;

e. Wetlands in coastal lagoons; and
f. Wetlands that perform many functions well and score 23 points or more in the wetland rating. These wetlands are those that represent a unique or rare wetland type, are more sensitive to disturbance than most wetlands, or are relatively undisturbed and contain ecological attributes that are impossible to replace within one human lifetime.

2. Category II wetlands are:

   a. Wetlands with a moderately high level of functions and score 20 to 22 points in the wetland rating.
   b. Estuarine wetlands smaller than one acre or disturbed estuarine wetlands larger than one acre.

3. Category III wetlands are:

   a. Wetlands with a moderate level of functions and score between 16 to 19 points in the wetland rating.

4. Category IV wetlands are:

   a. Wetlands with a low level of functions, scoring less than 16 points in the wetland rating.

5. Date of Wetland Rating. The wetland rating categories in this Section shall be applied to wetland studies including but not limited to delineations, on or after the date of adoption of the ordinance codified in this chapter. The wetland rating shall be valid for five years unless the state rating system changes or the wetland and/or the wetland buffer have been altered since the rating.

6. Illegal modifications. Wetland rating categories shall not change due to illegal modifications.

D. 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 (provide hyperlink) are adopted as part of this chapter and are incorporated herein by this reference. In addition, the National Wetlands Inventory and Soil Maps produced by the U.S. Department of Agriculture, National Resources Conservation Service may be useful in helping to identify potential wetland areas. The inventory and cited resources are to be used as a guide for the city, project applicants, and property owners, and may be continuously updated as new or altered critical areas are identified.

E. Protection of Wetlands

1. Any action taken pursuant to this chapter shall result in equivalent or greater functions and values of the wetlands and wetland buffers associated with the proposed action, as determined by the best available science. All actions and developments shall be designed and constructed in accordance with mitigation sequencing as described in BIMC 16.20.XX and WAC 197-11-768.

2. Applicants must first demonstrate an inability to avoid or reduce impacts, before compensation of impacts will be allowed. No activity or use shall be allowed that results in a net loss of the functions or values of critical areas.

3. Permanent protection of critical areas that are part of an approved mitigation plan or buffer enhancement plan shall be achieved through a Notice to Title recorded at the Kitsap County Auditor's Office, or similar means of protection in perpetuity.

F. Permit and review procedures

1. Any development, use or activity within any wetland and/or its required buffer shall require a critical area permit unless it qualifies as an exempt activity, as provided in BIMC 16.20.XX.

2. Critical area permits shall be reviewed pursuant to the criteria in BIMC 16.20.XX.

3. Applications for critical area permits for wetlands shall include:

   a. City of Bainbridge Island Master Land Use Application (hyperlink); and
   b. Wetland critical areas report prepared in accordance with BIMC 16.20.XX if wetland or buffers occur within or adjacent to the project site; and
   c. Wetland mitigation report, prepared in accordance with BIMC 16.20.XX, if wetland and buffer impacts are anticipated; or
   d. Buffer enhancement plan, prepared in accordance with BIMC 16.20.XX, if only buffer modification is requested.

G. Prohibited activities

1. The following development, uses and activities are prohibited in all wetlands:

   a. Draining, excavation, placement of fill material and flooding not associated with an exempt or regulated use
   b. Forest Practices – Class IV General or Conversion Option Harvest Plan
   c. New or expanded agriculture
   d. On-site sewage facility

2. The following development, uses and activities are prohibited in Category I and II wetlands:

   a. Fish hatchery
   b. Golf course
   c. Mineral extraction
   d. Public facility
   e. Public communications tower
   f. New public road/street
   g. New private access road or driveway
   h. Stormwater retention/detention facility
   i. Primary utility

H. Standards for specific development, uses and activities**.** The following development, uses and activities may be allowed within wetlands and their required buffers. Any proposal for the following development, uses and activities requires a critical area permit pursuant to BIMC 16.20.140.F and shall comply with the standards of this Section and other applicable state, federal and local regulations.

1. Agricultural restrictions. New agricultural activities and new structures accessory to agriculture use are prohibited in wetlands and their buffers. Existing, ongoing agricultural activities shall utilize best management practices so as not to result in a net loss of the functions or values of wetlands. Existing, ongoing agriculture uses other than those occurring in grazed wet meadows shall avoid impacts to wetlands by either:

   a. Implementation of a farm resource conservation and management plan agreed upon by the Kitsap Conservation District and agriculture operator to protect and enhance water quality; or
   b. Installation of fencing no closer to the wetland than the outer edge of its required buffer.

2. Road/street repair and construction: Any private or public road or street repair, maintenance, expansion or construction may be allowed within a wetland or its required buffer only when all of the following conditions are met:

   i. No other reasonable or practicable alternative exists and the road or street crossing serves multiple properties whenever possible;
   ii. Publicly owned or maintained road or street crossings should provide for other purposes, such as utility crossings, pedestrian or bicycle easements, viewing points, etc.; and
   iii. The road or street repair and construction are the minimum necessary to provide safe roads and streets.

iv. Mitigation shall be performed in accordance with specific project mitigation plan requirements.

3. Land Divisions and Land Use Permits. All land divisions and land uses proposed on a site that includes regulated wetlands shall comply with the procedures and standards listed below. When a parcel contains a wetland, city policy shall always be to primarily protect the functions and values of the wetland, while recognizing the value of the development rights provided to the property by its zoning.

   i. Density Calculation.

      i. The actual density that will allowed to be built upon a parcel containing a wetland shall ultimately be determined during the site specific review of the parcel's planned development.
      i. In determining the actual density of a parcel based on a specific site plan, the site plan shall locate all buildings outside of any wetland and its required buffers;
      ii. The number of development rights allowed for any residentially-zoned parcel shall be its size in square feet divided by the number of square feet per home that is required by its zoning;
      iii. If the land can be subdivided such that all setbacks, buffers, and other zoning requirements can be observed, and no zoning variances are requested, the density from the wetland, except the area with permanent open water, can be transferred within the property;
      iv. To the extent that the number of allowable development rights cannot be used on-site, they may be sold, traded, or transferred by the property owner through the transfer of development rights program pursuant to Chapter 18.37 BIMC;
      v. Property owners may voluntarily extinguish development rights that are provided by the underlying zoning, but the city shall not extinguish any of these rights outside the aforementioned transactions.

   b. Land division approvals shall be conditioned to require that wetlands and wetland buffers be designated as an easement or covenant encumbering the wetland and wetland buffer. Such easement or covenant shall be recorded together with the land division and represented on the final plat or binding site plan, and title.

   c. In order to implement the goals and policies of this chapter, to accommodate innovation, creativity, and design flexibility, and to achieve a level of environmental protection that would not be possible by typical lot-by-lot development, the use of the clustered development or similar innovative site planning is strongly encouraged for projects with regulated wetlands on the site.

4. Surface Water Management. Surface water structures or discharges from stormwater facilities may be allowed within wetlands and their required buffers only when the

applicant has an approved Site Assessment Review (SAR) pursuant to the requirements of BIMC 15.20 and the proposal meets criteria in Appendix I-D, Guidelines for Wetlands when Managing Stormwater, from Washington State Department of Ecology's 2012 Stormwater Management Manual for Western Washington, as amended in 2014.

5. Trails and Trail-Related Facilities. Construction of public and private trails and trail-related facilities, such as benches and viewing platforms, may be allowed in wetlands or wetland buffers only when the following standards are met:

   i. 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 trail planning objectives.
   ii. Trails and related facilities shall be planned to minimize removal of trees, soil disturbance, and maintain existing hydrological characteristics, shrubs, snags, and important wildlife habitat.
   iii. Viewing platforms and benches, and access to them, shall be designed and located to minimize disturbance of wildlife habitat and/or critical characteristics of the affected wetland. Viewing platforms shall be limited to one hundred (100) square feet in size, unless demonstrated through a wetland critical areas report and mitigation plan that a larger structure will not result in a net loss of wetland functions.
   iv. Trail planning shall utilize mitigation sequencing in BIMC 16.20.XX to first avoid siting trail and trail-related facilities within wetlands and their required buffers. Trails and trail-related facilities may be allowed within wetlands or wetland buffers if there are no reasonable alternatives for meeting trail planning objectives and it is demonstrated through a wetland critical areas report and mitigation plan that the proposal will not result in a net loss of wetland functions.
   v. Trails shall be limited to non-motorized use. Trail width shall not exceed five 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. Installation of utilities within wetlands or their required buffers may be allowed when the following standards are met:

   i. Construction of new utilities outside the road right-of-way or an existing utility corridor may be permitted in wetlands or wetland buffers, only when no reasonable alternative location is available and the utility meets the requirements for installation, replacement of vegetation and maintenance outlined below, and as required in the filing and approval of applicable permits and special reports required by this chapter.
   ii. Sewer or On-site Sewage Utility. Construction of sewer lines or on-site sewage systems may be permitted in wetland buffers only when:

i. The applicant demonstrates it is necessary to meet state and/or local health code minimum design standards (not requiring a variance for either horizontal setback or vertical separation); and/or

ii. There are no other practicable or reasonable alternatives available and construction meets all other applicable requirements of this Section. Joint use of the sewer utility corridor by other utilities may be allowed.

c. New utilities shall not be allowed when the wetland or buffer has known locations of federal or state listed endangered, threatened, monitored or sensitive species, heron rookeries or nesting sites of raptors which are listed as species of concern, except in those circumstances where an approved Habitat Management Plan indicates that the utility corridor will not significantly impact the wetland or wetland buffer;

d. New utility construction and maintenance shall protect the wetland and buffer environment by utilizing the following methods:

iii. New utilities shall be aligned to avoid tree removal to the greatest extent practicable.

iv. Any area of disturbance resulting from installation of a utility shall be revegetated with appropriate native or equivalent vegetation at preconstruction densities or greater, immediately upon completion of construction, or as soon thereafter as possible, if due to seasonal growing constraints. The utility or landowner responsible for installation shall ensure that such vegetation survives.

v. Any access for maintenance shall be provided as much as 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 wetland. Mitigation will be required for any additional access through restoration of vegetation in disturbed areas.

vi. The director may require additional mitigation measures.

vii. Utility maintenance shall include the following measures to protect the wetland and buffer environment:

A. Painting of utility equipment such as power towers shall not be sprayed or sandblasted. Lead-based paints are prohibited~~.~~

B. No pesticides, herbicides or fertilizers may be used in wetland areas or their buffers except those approved by the U.S. Environmental Protection Agency (EPA) and Washington Department of Ecology and applied by a licensed applicator in accordance with the safe application practices on the label.

7. Parks. Development of public park and recreation facilities may be allowed; provided, that no alteration of wetlands or wetland buffers is allowed except as allowed in BIMC 16.20.040 (Exemptions) and BIMC 16.20.140.H (Standards for specific development, uses and activities).

I. Wetland Buffers

1. Buffers shall remain as undisturbed native vegetation areas for the purpose of protecting the integrity, function, and value of wetland resources. Any buffer modification proposed shall be through an approved Buffer Enhancement Plan meeting the requirements of BIMC 16.20.180. No uses or activities shall be allowed within the buffer unless allowed by this Section. If a buffer on a site subject to land use review or a building permit application has previously been disturbed, the director may require the disturbed buffer area be revegetated 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.

b. All regulated wetlands shall be surrounded by a buffer, based upon *Appendix 8-C, Section 8C.2.3 of Wetlands in Washington State – Volume 2: Guidance for Protecting and Managing Wetlands* (Ecology Publication #05-06-008), as amended. Standard buffer widths are shown in Tables 1 through 4. If a wetland meets more than one of the criteria listed in each table, the buffer needed to protect the wetland is the widest one.

c. Standard buffer widths are based on impact of land use, which is categorized as follows:

    i. High impact land use includes commercial development, industrial development, institutional development, residential (all residential zoning classifications other than R-0.4, R-1 and R-2) development, new agriculture (high-intensity such as dairies, nurseries, greenhouses, raising and harvesting crops requiring annual tilling, raising and maintaining animals), forestry activities, and high-intensity recreation such as golf courses and ballfields.
    ii. Moderate impact land use includes residential development (R.0-4, R-1 and R-2 residential zoning classifications), new agriculture (moderate-intensity such as orchard and hay fields), paved trails, and construction of temporary logging roads.
    iii. Low impact land use includes low-intensity open space such as passive recreation, natural resources preservation, and unpaved trails.

d. The required minimum buffers listed in Tables 1 through 4 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 wetland protection and buffer functions, the director may require that the buffer be planted to achieve such protection and function.

Table 1: Category I Wetlands - Buffers

Wetland Characteristics	Impact of Land Use	Buffer Width	Other Protection
Natural Heritage	Low	125 ft	No additional discharge of surface water.

Wetland Characteristics	Impact of Land Use	Buffer Width	Other Protection
Wetlands	Moderate High	190 ft 250 ft	No septic systems within 300 ft. Restore degraded parts of the buffer
Bogs	Low Moderate High	125 ft 190 ft 250 ft	No additional surface discharges. Restore degraded parts of the buffer.
Forested	Low Moderate High	125 ft 190 ft 250 ft	If forested wetland scores high for habitat, maintain connectivity to other natural areas.
Estuarine	Low Moderate High	100 ft 150 ft 200 ft	N/A
Wetlands in Coastal Lagoon	Low Moderate High	100 ft 150 ft 200 ft	N/A
High level of function for habitat (score for habitat is 8-9 pts.)	Low Moderate High	150 ft 225 ft 300 ft	Maintain connectivity to other natural areas. Restore degraded parts of the buffer.
Moderate level of function for habitat (score for habitat is 5-7pts.)	Low Moderate High	75 ft 110 ft 150 ft	N/A
High level of function for water quality improvement and low for habitat (score for water quality pts.; habitat less than 5 pts.)	Low Moderate High	50 ft 75 ft 100 ft	No additional discharges of untreated runoff.
Not meeting any of the above criteria.	Low Moderate High	50 ft 75 ft 100 ft	N/A

Table 2: Category II Wetlands - Buffers

Wetland Characteristics	Impact of Land Use	Buffer Width	Other Protection
High level of function for habitat (score for habitat is -9 pts.)	Low Moderate High	150 ft 225 ft 300 ft	Maintain connectivity to other natural areas.
Moderate level of function for habitat (score for habitat	Low Moderate	75 ft 110 ft	N/A

is 5-7pts.)	High	150 ft	
Estuarine	Low Moderate High	75 ft 110 ft 115 ft	N/A
Not meeting any of the above criteria	Low Moderate High	50 ft 75 ft 100 ft	N/A

Table 3: Category III Wetlands - Buffers

Wetland Characteristics	Impact of Land Use	Buffer Width	Other Protection
Moderate level of function for habitat (score for habitat is 5-7pts.)	Low Moderate High	75 ft 110 ft 150 ft	N/A
Not meeting above criterion	Low Moderate High	40 ft 60 ft 80 ft	N/A

Table 4: Category IV Wetlands - Buffers

Wetland Characteristics	Impact of Land Use	Buffer Width	Other Protection
All	Low Moderate High	25 ft 40 ft 50 ft	N/A

e. Buffer Measurement. All buffers shall be measured on a horizontal plane from the delineated wetland edge as marked in the field a qualified professional.

f. Fencing and Signs. This section applies to those wetlands and their buffers that are within 200 feet of regulated development activities.

   i. Wetland buffers shall be temporarily fenced or otherwise suitably marked between the area where the construction activity occurs and the buffer. Fences shall be made of a durable protective barrier and shall be highly visible. Silt fences and plastic construction fences may be used to prevent encroachment on wetlands or their buffers by construction. Temporary fencing shall be removed after the site work has been completed and the site is fully stabilized per city approval.

ii. The director may require that permanent signs and/or fencing be placed on the common boundary between a wetland buffer and the adjacent land. Such signs will identify the wetland buffer. The director may approve an alternate method of wetland and buffer identification, if it provides adequate protection to the wetland and buffer.

g. Structure or hard surface setback. A structure or hard surface setback line of fifteen feet is required from the edge of any wetland 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 such intrusions will not adversely impact the wetland. 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 Section 16.20.XX (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.XX.

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 the 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 this will improve the protection of wetland functions 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. The required buffer widths for proposed land uses with high-intensity impacts to wetlands may be reduced to those required for moderate-intensity impacts under the following conditions:

i. For wetlands that score moderate or high for habitat (5 points or more for the habitat function), the width of the buffer may be reduced if both of the following criteria are met:

ii. A relatively undisturbed, vegetated corridor at least 100-feet wide is provided if the wetland contains any priority habitats as defined by the Washington Department of Fish and Wildlife. "Relatively undisturbed" and "vegetated corridor" are defined in the Western Washington Wetland Rating System. The corridor must be protected for the entire distance between the wetland and the priority habitat by some type of legal protection, such as a Notice to Title.

iii. Measures to minimize the impacts of different land uses on wetlands, such as the examples in Table 5, are applied.

iv. For wetlands that score less than 5 points for habitat, the buffer width may be reduced to that required for moderate land use impacts by applying measures to minimize the impacts of different land uses on wetlands, such as the examples in Table 5.

d. Any request for buffer modification outlined above (BIMC 16.20.XX-XX) 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 professional that meets the requirements of BIMC 16.20.XX. Buffer enhancement plans shall be reviewed pursuant to the criteria in BIMC 16.20.XX.

e. Any other buffer modification resulting in a reduced buffer area, other than non-compensatory enhancement, requires a Reasonable Use Exception pursuant to BIMC 16.20.080.

Table 5: Examples of measures to minimize impacts to wetlands from different types of activities.

Examples of Disturbance	Examples of Measures to Minimize Impacts	Activities that Cause the Disturbance
Lights	• Direct lights away from wetland.	Parking lots, warehouses, manufacturing, residential
Noise	• Locate activity that generates noise away from wetland. • If warranted, enhance existing buffer with native vegetation plantings adjacent to noise source. • For activities that generate relatively continuous, potentially disruptive noise,	Manufacturing, residential

	such as heavy industry or manufacturing, establish an additional 10-foot heavily vegetated buffer strip immediately adjacent to the outer wetland buffer.	
Toxic runoff*	• Route all new runoff away from wetland. • Establish covenants limiting use of pesticides within 150 feet of wetland. • Apply integrated pest management.	Parking lots, roads, manufacturing, residential areas, application of agricultural pesticides, landscaping
Stormwater runoff	• Retrofit stormwater detention and treatment for roads and existing adjacent development. • Prevent channelized flow from lawns that directly enters the buffer. • Use Low Impact Development techniques consistent with BIMC 15.20.	Parking lots, roads, manufacturing, residential areas, landscaping
Change in water regime	Infiltrate or treat, detain, and disperse new runoff into buffer.	Impermeable surfaces, lawns, tilling
Pets and human disturbance	• Plant buffer with dense, impenetrable native vegetation appropriate for region. • Install low impact fencing at buffer perimeter. • Place wetland and its buffer in separate open space tract or protect with conservation easement.	Residential areas
Dust	Utilize best management practices to control dust.	Tilled fields
* These examples are not necessarily adequate to meet the rules for minimizing toxic runoff if threatened or endangered species are present at the site.		

J. Wetland mitigation requirements.

1. Mitigation sequencing. All development, uses and activities proposed to impact wetlands shall be mitigated according to this Section and the mitigation sequencing steps outlined in BIMC 16.20.010.XX. The applicant shall demonstrate to the satisfaction of the director that each step of mitigation sequencing has been adequately addressed prior to approval of impacts to wetlands.

2. Compensatory mitigation shall be required for development, uses or activities that result in the loss of wetland acreage or in the reduction of wetland functions or values.

3. Mitigation report. Where mitigation is required under the sequencing in subsection (1), a mitigation plan is a required component of a critical areas report meeting the requirements in BIMC 16.20.XX, Critical area reports.

4. Wetland replacement.

   a. The ratios shown in Table X shall be used to determine the required amount of wetland mitigation. The first number specifies the amount of wetland area to be restored, rehabilitated, created or enhanced, and the second number specifies the amount of wetland area lost. The director may decrease these ratios when there are findings of special studies coordinated with agencies with expertise which demonstrate that no net loss of wetland function or value is attained under the decreased ratio.
   b. Mitigation requirements may also be determined using the credit/debit tool described in Calculating Credits and Debits for Compensatory Mitigation in Wetlands of Western Washington: Final Report (Ecology Publication #10-06-011, March 2012*)*, or as revised) consistent with Table X.

Table X: Replacement Ratios for Wetlands

Category and Type	Re-establishment or Creation	Rehabilitation	1:1 Re-establishment or Creation (R/C) and Enhancement (E)	Enhancement Only
I – Mature Forested	6:1	12:1	1:1 R/C and 10:1 E	24:1
I – Highly functioning	4:1	8:1	1:1 R/C and 6:1 E	16:1
I – Bog	Not possible	6:1 of a Bog	Case by Case	Case by Case
I - Estuarine	Case by Case	6:1 - Estuarine	Case by Case	Case by Case
II - Estuarine	Case by Case	4:1 - Estuarine	Case by Case	Case by Case
II - Others	3:1	8:1	1:1 R/C and 4:1 E	12:1
III	2:1	4:1	1:1 R/C and 2:1 E	8:1
IV	1.5:1	3:1	1:1 R/C and 2:1 E	6:1

5. Approaches to compensatory mitigation.

   a. Compensatory mitigation may occur at the site of the allowed impacts or at an off-site location. Considerations for determining whether off-site mitigation is preferable include, but are not limited to one or more of the following:

      i. On-site conditions do not favor mitigation success due to soil conditions, hydrology or adverse impacts of adjacent land uses;
      ii. On-site conditions are isolated from other aquatic or riparian habitats;
      iii. An off-site location is beneficial to larger ecosystem or watershed functions;
      iv. An off-site location has greater likelihood of success or will provide greater functional benefits;
      v. The proposal for an off-site location uses a watershed approach consistent with Selecting Wetland Mitigation Sites Using a Watershed Approach (Western Washington) (Ecology Publication #09-06-32, December 2009).

   b. Off-site compensatory mitigation may include the use of a wetland mitigation bank or an in-lieu fee program, if such instruments are available within the city limits.
   c. Advanced mitigation. Compensatory mitigation in advance of proposed impacts may be allowed on a case-by-case basis for projects with pre-identified impacts consistent with Interagency Regulatory Guide: Advance Permittee-Responsible Mitigation (Ecology Publication #12-06-015, December 2012).

6. Monitoring requirements. The city shall require monitoring reports on an annual basis for a minimum of five years and up to ten years, or until the director determines the mitigation project has met the performance standards specified in the wetland mitigation plan. The wetland mitigation plan shall provide specific performance standards for monitoring the mitigation project. Performance standards shall be project-specific and use best available science to aid the director in evaluating whether or not the project has achieved success.

16.20.150 The Winslow Ravine – Special Rules in Mixed Use Town Center.

A portion of the "Winslow Ravine" which contains a ravine, a Type F stream, and several wetlands, is located in the Mixed Use Town Center (MUTC) zoning designation. In order to accommodate more dense development within the MUTC, and recognizing the significant distance from the top of the ravine to the stream and its adjacent wetlands, in lieu of the buffer and setback rules provided for streams (BIMC 16.20.100) and wetlands (BIMC 16.20.130), an applicant may select the prescriptive option or the mitigated option with respect to the Winslow Ravine within the MUTC as described below:

A. "Option A" - Prescriptive Standards.

CATEGORIES	BUFFER WIDTH STANDARD	MINIMUM STRUCTURE AND HARD SURFACE SETBACK	OTHER DEVELOPMENT STANDARDS
Streams and wetlands associated with the Winslow Ravine within the MUTC	50 feet measured from the top of the Winslow Ravine	15 feet beyond the buffer	No development, uses or activities are allowed within the buffer. Refuse, including but not limited to household trash, yard waste and commercial/industrial refuse, shall not be located in the buffer and shall be removed if present.

B. "Option B" - Mitigated Standards. The applicant shall demonstrate by submittal of necessary studies and proposed mitigation, that measures can and will be taken to ensure that the functions and values provided by the buffers prescribed under "Option A" are retained or improved.

CATEGORIES	BUFFER WIDTH STANDARD	MINIMUM STRUCTURE AND HARD SURFACE SETBACK	OTHER DEVELOPMENT STANDARDS
Streams and wetlands associated with the Winslow Ravine within the MUTC	25 feet measured from the top of the Winslow Ravine	15 feet beyond the buffer	No development, uses or activities are allowed within the buffer. If the buffer has previously been disturbed, the disturbed buffer area shall be revegetated pursuant to an approved Buffer Enhancement Plan meeting the requirements of BIMC 16.20.XX. Refuse, including but not limited to household trash, yard waste and commercial/industrial refuse, shall not be located in the buffer and shall be removed if present.

C. Permit and review procedures

1. Any development, use or activity within the Winslow Ravine shall require a critical area permit unless it qualifies as an exempt activity, as provided in BIMC 16.20.XX.

2. Critical area permits shall be reviewed pursuant to the criteria in BIMC 16.20.XX.

3. Applications for critical area permits for the Winslow Ravine shall include:

   a. City of Bainbridge Island Master Land Use Application (hyperlink); and
   b. Buffer enhancement plan, prepared in accordance with BIMC 16.20.XX, if Option B pursuant to BIMC 16.20.XX is proposed.

16.20.160 Performance and maintenance surety.

A. Performance Surety. The director shall decide when a performance surety is required of an applicant, and the acceptable form of such surety. The amount and the conditions of the surety shall be consistent with the purposes of this chapter; provided, that the minimum amount of the surety, when required, shall be 125% of the estimated cost of performance. A performance surety shall not be required when the actual cost of performance, as documented in a form acceptable to the director, is less than $1,000. The director shall release the surety upon determining that:

1. All activities, including any required compensatory mitigation, have been completed in compliance with the terms and conditions of the permit and the requirements of this chapter;

2. A maintenance surety has been posted by the applicant, where deemed appropriate by the director.

3. Until such written release of the surety, the principal or surety cannot be terminated or canceled.

B. Maintenance Surety. When a maintenance surety is required, the holder of a development permit issued pursuant to this chapter shall post a surety for an amount and in a form acceptable to the director, with conditions sufficient to guarantee that maintenance of structures, improvements, and mitigation required by the permit or by this chapter perform satisfactorily for a minimum of two years after they have been completed. The director shall release the maintenance surety upon determining that performance standards established for evaluating the effectiveness and success of the structures, improvements, and/or compensatory mitigation have been satisfactorily met for the required period. For compensation projects, the performance standards shall be those contained in the mitigation plan developed and approved during the review process. The maintenance surety applicable to a compensation project shall not be released until the director determines that performance standards established for evaluating the effect and success of the project have been met.

C. Deposit Instruments. The deposit instrument for the performance or warranty deposit shall be cash, a non-revocable letter of credit, an assignment of funds, bond or other readily accessible source of funds approved by the director. The deposit instruments shall be on a form acceptable to the director. Any issuer of a deposit instrument shall pay invoices presented by the city pursuant to this chapter within 45 days. A bond will be accepted only for amounts over $1,000.00 or when State Law requires a bond. Interest on deposited funds will accrue to the benefit of the depositor, except that any interest earned on a cash deposit will be retained by the city for account administration.

D. Default on deposit.

1. If the work covered by the deposit is not completed within the time specified in the notice given under this chapter, the city shall obtain the proceeds of the deposit and do the work covered by the deposit. The city may either have its employees or a contractor do the work.

2. If, at any time, the director determines that actions or inactions associated with permit work have created an emergency situation endangering public health, safety, or welfare, creating a potential liability for the city, or such an emergency precludes the notification of applicants as provided in this chapter while still minimizing or avoiding the effects of the emergency, the city may use the deposit to cover costs incurred by the city to correct the emergency situation. The city may either have employees of the city or a contractor do the work. If the city uses the deposit as provided by this Section, the applicant shall be notified in writing within four working days of the commencement of emergency work. The notice must state the work that was completed and the nature or timing of the emergency that necessitated the use of the deposit without prior notification.

3. The permittee is responsible for all costs incurred by the city in doing the work covered by the deposit. The city shall release or refund any proceeds of a deposit remaining after subtracting all costs incurred. The permittee shall reimburse the city for any amount expended by the city that exceeds the deposit.

4. If the city uses any of the deposit it shall, within 30 days, provide the owner of the permit an itemized statement of all proceeds and funds used.

16.20.170 Compliance and enforcement.

A. It is a violation of this chapter for any person to fail to comply with a requirement of this chapter. It is further a violation of this chapter for any person to:

1. Initiate or maintain, or cause to be initiated or maintained, the use, construction, placement, alteration, or demolition of any structure, land, or property within the city

without first obtaining permits or authorizations required by this chapter, or in a manner that violates the terms or conditions of such permits or authorizations;

2. Misrepresent any material fact in any application, plans or other information submitted to obtain permits or authorizations under this chapter; or

3. Remove or deface any sign, notice, complaint, or order required by or posted in accordance with this chapter.

B. When a critical area or its buffer has been altered in violation of this chapter, all ongoing development work shall stop and the critical area shall be restored. The city shall have the authority to issue a stop work order to cease all ongoing development work, and order restoration, rehabilitation, or replacement measures at the owner's or other responsible party's expense to compensate for violation of provisions of this chapter.

C. Restoration plan required. All development work shall remain stopped until a restoration plan is prepared and approved by the director. Such a plan shall be prepared by a qualified professional using the best available science and shall describe how the actions proposed meet the minimum requirements described in Subsection (D) below. The director shall, at the violator's expense, seek expert advice in determining the adequacy of the plan. Inadequate plans shall be returned to the applicant or violator for revision and resubmittal.

D. Minimum performance standard for restoration.

1. For alterations to critical aquifer recharge areas, frequently flooded areas, wetlands, and habitat conservation areas, the following minimum performance standards shall be met for the restoration of a critical area; provided, that if the violator can demonstrate that greater critical area function~~al and~~ or ~~habitat~~ values can be obtained through the application of different standards, these standards may be modified:

   a. The historic structural and functional values shall be restored, including water quality and habitat functions;
   b. The historic soil types and configuration shall be replicated;
   c. The critical area and buffers shall be replanted with native vegetation that replicates the vegetation historically found on the site in species types, sizes, and densities. The historic functions and values should be replicated at the location of the alteration; and
   d. Information demonstrating compliance with the requirements in Section BIMC 16.20.110 shall be submitted to the director.

2. For alterations to flood and geological hazard areas, the following minimum performance standards shall be met for the restoration of a critical area; provided, that if the violator can demonstrate that greater safety can be obtained, these standards may be modified:

a. The hazard shall be reduced to a level equal to, or less than, the pre-development hazard;
b. Any risk of personal injury resulting from the alteration shall be eliminated or minimized; and
c. The hazard area and buffers shall be replanted with native vegetation sufficient to minimize the hazard.

3. All restoration plans shall include a detailed estimate of the cost for implementation of the restoration plan.

E. Site investigations. The director is authorized to make site inspections and take such actions as are necessary to enforce this chapter. The director shall present proper credentials and make a reasonable effort to contact any property owner before entering onto private property.

F. Penalties. Any development carried out contrary to the provisions of this chapter shall constitute a public nuisance and may be enjoined as provided by the statutes of the State of Washington. Enforcement of this chapter and the imposition of penalties for violations of this chapter shall be as provided for in Chapter 1.26 BIMC; provided, that in addition to the civil penalties provided for in BIMC 1.26.090, an additional penalty shall be imposed on any person, party, firm, corporation, property owner, or other legal entity who fails to complete a required restoration plan, ~~or~~ who conducts any ~~willful~~ disturbance (including cutting vegetation) of a critical area or its associated buffer in violation of this chapter, or who is otherwise in violation of this chapter, including a violation of BIMC 16.20.090.E. For such violations, the additional penalty shall be in the amount equal to 200% of the cost of restoration as approved under a restoration plan pursuant to Subsections (C) and (D) above; provided that the minimum amount of the additional penalty shall be $2,500. Any person, party, firm, corporation, or other legal entity who knowingly and willfully refuses to complete a required restoration pursuant to Subsections (C) and (D) above shall be guilty of a misdemeanor punishable by not more than 30 days in jail and/or not more than a $1,000 fine.

16.20.180 Critical area reports.

A. Aquifer recharge areas site assessment**.**

1. The site assessment shall include:

a. A site map drawn to scale which indicates the location of known or geologically representative wells (abandoned and active), springs, and surface water features within 1,000 feet of the project property boundary;
b. A description of the site-specific hydrogeological characteristics. At a minimum this will include a description of the lithology, depth and static water level of known underlying aquifer(s) and depiction of groundwater flow direction and patterns on the site map;

c. A description of the proposed land use and activities specifically detailing water consumption; an inventory of all chemical use, storage, transportation, production (including process wastewater), and disposal; and any potential pollutant identified by the U.S. EPA as a potential source of drinking water contamination (Appendix A of the Washington State Critical Aquifer Recharge Area Guidance Document) or known to be deleterious to the environment or human health; and
d. A general discussion of surface and groundwater quality and quantity in the area and the identification of the potential adverse quality and quantity impacts to groundwater and surface water features within 1,000 feet of the project.

2. In-depth Site Assessment Elements. The required elements of the in-depth site assessment for a given development or re-development will be based on the initial site assessment review by the city, the Kitsap Public Health District, affected Tribes, and affected public water purveyors.

One or more of the elements listed below may be required based upon the proposed project activity, complexity of underlying hydrogeological conditions, and the perceived potential to adversely impact groundwater or surface water quality or quantity. One or more of these elements may also be required if the applicant chooses to demonstrate that mitigation measures are not necessary to protect the quantity or quality of groundwater or surface water or that the project does not pose a risk of detriment to groundwater or surface water. Additional in-depth site assessment elements include:

a. Lithologic characteristics and stratigraphic relationships of the affected aquifer(s) and overlying geologic units and soil types including thickness, horizontal and vertical extent, permeability, and infiltration rates of surface soils.
b. Delineation of identified structural features such as faults, fractures, and fissures.
c. Aquifer characteristics including determination of recharge and discharge areas, transmissivity, storage coefficient, hydraulic conductivity, porosity, and estimate of groundwater flow direction, velocity and patterns for the affected aquifer(s).
d. Estimate of precipitation and evapotranspiration rates for the project area.
e. Preparation of appropriate hydrogeological cross sections depicting underlying lithology and stratigraphy, aquifer(s), and potential or probable contaminant pathways to both surface and groundwater from a chemical release.
f. Determination of background or existing groundwater quality underlying the project area and water quality of surface water bodies.
g. Contaminant fate and transport including probable migration pathways and travel time of potential contaminant release(s) from the site through the unsaturated zone to the aquifer(s) and through the aquifer(s), and how the contaminant(s) may be attenuated within the unsaturated zone and the aquifer(s) with consideration to advection, dispersion, and diffusion of contaminants in the groundwater.
h. Delineation of areas potentially affected by contaminant migration on the ground surface and/or through potentially affected aquifer(s).

i. Determination of the degree of continuity between groundwater and nearby surface water including potential impacts to baseflow in streams from proposed groundwater withdrawals, and potential impacts to surface water quality from site runoff or contaminated groundwater discharge.
j. Assessment of the potential for pumping-induced seawater intrusion.
k. Nitrate Loading Assessment. For projects that have the potential to adversely impact groundwater quality by nitrate loading, the applicant shall test existing wells and/or required test wells for nitrate as nitrogen and calculate the current and projected future groundwater nitrate concentrations at full project build-out, at appropriate point(s) of compliance, as determined by project characteristics, and in a methodology approved by the city. If the calculated nitrate loading in the intended water supply equals or exceeds 5 milligrams per liter nitrate as nitrogen, the applicant shall develop a mitigation plan with the point(s) of compliance determined based on project characteristics.
l. Multiple-stage (or phased) development must consider impacts of the total build-out of the project to allow for an assessment of the cumulative impacts of the entire development on critical aquifer recharge areas.

B. Aquifer Recharge Mitigation Plan.

For proposals requiring aquifer recharge area impact mitigations, the applicant shall develop for approval by the city a mitigation plan for the proposed development. Affected public water purveyors (Group A & B), affected Tribes, and the Kitsap Public Health District will be notified and invited to comment on all mitigation plans. The city will consider all recommendations submitted by these entities when developing appropriate permit conditions.

The city may, based on performance criteria and monitoring results, require additional amendments to the plan. The city reserves the right to submit mitigation plans for a third-party review at the applicant's expense and to reject any proposed land use or activity that poses significant risk to groundwater or surface water quality or quantity that cannot be satisfactorily mitigated.

1. The mitigation plan shall contain the project's permit conditions and, as applicable:

   a. A description of the mitigation measures to be taken, how they will be implemented, and performance criteria.
   b. A groundwater and surface water monitoring program to measure potential impacts of the development to underlying aquifer(s) and surface water. The monitoring plan will describe monitoring, maintenance, and reporting requirements.
   c. A contingency plan describing spill response and corrective actions to be taken if a release of a pollutant occurs or monitoring results indicate that mitigation measures are not effectively protecting groundwater and surface water resources and human health. The city shall have the authority to impose additional required corrective actions where such measures are necessary to protect groundwater and surface water

resources or human health. Where appropriate contingencies are not feasible and result in an activity posing unacceptable risk to groundwater or surface water resources or human health, the city shall deny the proposal.

d. Multiple-stage (or phased) development must consider mitigation for each phase of development as well as the total build-out of the project to allow for an assessment of the cumulative impacts of the entire development on critical aquifer recharge areas.
e. Conditions that would arise that warrant ceasing the project operation altogether.
f. Wellhead Protection Mitigation. Where a wellhead protection plan addressing the project area exists, the city shall use the recommendations contained in the wellhead protection plan as a basis for formulating required mitigation measures. In the absence of such a mitigation plan, the city shall contact the owner of the public water system (Group A and B) impacted by the proposed project and jointly develop mitigation measures, a summary of which shall be signed by the applicant and recorded with the applicant's property title.

g. Nitrate Loading Mitigation.

i. General Requirements. If a calculated nitrate loading concentration for a project at the designated point(s) of compliance per BIMC 16.20 170.X is equal to or greater than 5 milligrams per liter nitrate as nitrogen, then the applicant shall be required to place a notification on the documents of title for the property affected. A monitoring plan shall be developed to monitor the nitrate level and include a contingency plan to be implemented if the nitrate level exceeds 10 milligrams per liter nitrate as nitrogen.
ii. Land Divisions. If the calculated nitrate loading concentration for a land division at the designated point(s) of compliance per BIMC 16.20 170.X is equal to or greater than 5 milligrams per liter nitrate as nitrogen, then the applicant shall:
(A) Develop a mitigation plan to minimize the nitrate loading rate; and
(B) Develop a contingency plan to be implemented if the nitrate concentration exceeds 10 milligrams per liter nitrate as nitrogen; and
(C) Submit the contingency plan with the final plat application. The contingency plan must be approved by the city, and then recorded with the Kitsap County Auditor as part of the final plat. Conditions of the contingency plan shall be listed on the face of the plat.

iii. Mitigation of nitrate in groundwater from on-site septic systems may include decreasing the density of septic system drainfields.

2. Recording of Mitigation Plan Summaries.

a. General Requirements. The city may require that the applicant record a city-approved summary of the mitigation plan on the property title. A copy of the recorded summary shall be provided to the city in hard copy and electronic format. If a property owner can demonstrate, to the satisfaction of the city, that mitigation measures are no longer necessary, the city shall approve the addition of language on the title for the property nullifying the mitigation requirements.

b. Land Divisions. The mitigation plan must be approved by the city, and then recorded with the Kitsap County Auditor as part of the final plat. Conditions of the mitigation plan shall be listed on the face of the plat.

C. Habitat management plan.

1. A habitat management plan (HMP) is a detailed report that outlines and documents the location of fish and wildlife conservation areas, any planned incursions or habitat impacts and a strategy for limiting impacts.

2. HMP review. All HMPs shall be submitted to the Washington State Department of Fish and Wildlife habitat biologist and to the Suquamish Tribe for review and comment within 14 days of a complete application pursuant to BIMC 2.16.055. If the HMP recommends mitigation involving federally listed threatened or endangered species, migratory waterfowl or wetlands, the U.S. Fish and Wildlife Service shall receive a copy of the draft HMP. Within that same time frame, the city's Environmental Technical Advisory Committee shall be asked to review the HMP and provide comments.

3. Map. The HMP shall contain a map prepared at an easily readable scale, showing:

   a. The location of the proposed development site;
   b. Property boundaries;
   c. The relationship of the site to surrounding topographic and aquatic features and any connectivity to other wildlife habitat and corridors;
   d. Proposed building locations;
   e. A legend which includes acreage of the parcel, scale, north arrow, and date of map revision.

4. Report. The HMP shall contain a report that includes:

   a. A description of the nature and intensity of the proposed development
   b. Identification of existing habitat functions and values;
   c. An analysis of the effect of the proposed development, activity or land use change upon the wildlife species and habitat features and processes identified for protection;
   d. Any review comments received from a habitat biologist from the Washington State Department of Fish and Wildlife, and the Suquamish Tribe and U.S. Fish and Wildlife Service;
   e. Demonstration of consistency with current Washington State Department of Fish and Wildlife Habitat Management Recommendations for the applicable habitat or species. If the recommendations are not followed, the HMP report should identify the best available science guidance that is being followed or applied;

f. A description of proposed seasonal activity restrictions in accordance with the Washington State Department of Fish and Wildlife Habitat Management Recommendations;
g. An analysis of the feasibility to maintain wildlife corridors and connectivity, if applicable;
h. A plan identifying proposed measures to mitigate any adverse impacts to wildlife habitats created by the proposed development. Proposed mitigation measures shall be specific to the affected habitat or species; and
i. A schedule for periodic monitoring, and a contingency plan with corrective actions if conservation or mitigation actions do not lead to the desired outcome.

5. HMP adequacy. If there is a disagreement between the director and the applicant as to the adequacy of the HMP, the issue of plan adequacy shall be resolved by consulting with the Washington Department of Fish and Wildlife. If the Washington Department of Fish and Wildlife is not available to review the HMP in a timely manner, the applicant may choose to have the city refer the HMP to a third party consultant at the expense of the applicant. After consultation with such State departments or third party consultant, the director shall make a final decision on the adequacy of the HMP.

6. Timing. An HMP must be developed and approved prior to issuance of a building permit or underlying land use application and must be implemented before the city grants a certificate of occupancy, as applicable.

7. Performance Surety. The director may require that the applicant provide a performance surety to ensure conformance with mitigation requirements of the habitat management plan pursuant to BIMC 16.20.XX.

D. Buffer Enhancement Plan

1. As part of a buffer modification request, the applicant shall submit a buffer enhancement plan that assesses the functions and values of the buffer and the effects of the proposed modification on those functions and values.

2. The buffer enhancement plan shall clearly demonstrate that equal or greater protection of the functions and values of critical areas and their buffers can be achieved through the buffer modification than could be achieved through providing the required buffer using an appropriate function assessment methodology.

3. The buffer enhancement plan shall identify how the applicant proposes to mitigate any adverse impacts to the critical area or buffer created by the proposed development.

4. The buffer enhancement plan shall be prepared in accordance with the applicable requirements of BIMC 16.20.170.XX, Wetland mitigation plans.

E. Geological Hazards Assessment

1. A geological hazards assessment shall contain the following site- and proposal-related information at a minimum:

   a. Site and Construction Plans. The report shall include a copy of the site plans for the proposal showing:

      i. The type and extent of geologic hazard areas, any other Critical Areas, and buffers on, adjacent to, or within a zone or distance of potential significant influence as determined by a professional engineer/ geologist;
      ii. Proposed development, including the location of existing and proposed structures, fill, storage of materials, and drainage facilities, with dimensions indicating distances to the floodplain, if available;
      iii. The topography, as determined by a professional engineer or geologist, of the project area and all hazard areas addressed in the report; and
      iv. Clearing limits.

   b. Assessment of Geological Characteristics. The report shall include an assessment of the geologic characteristics of the soils, sediments, and/or rock of the project area and potentially affected adjacent properties, and a review of the site history regarding landslides, erosion, and prior grading. Soils analysis shall be accomplished in accordance with accepted classification systems in use in the region. The assessment shall include, but not be limited to:

      i. A description of the surface and subsurface geology, including complexes, hydrology, soils, and vegetation found in the project area and in all hazard areas addressed in the report;
      ii. A detailed overview of the field investigations, published data, and references; data and conclusions from past assessments of the site; and site specific measurements, test, investigations, or studies that support the identification of geologically hazardous areas; and
      iii. A description of the vulnerability of the site to seismic and other geologic events.

   c. Analysis of Proposal. The report shall contain a hazards analysis including a detailed description of the project, its relationship to the geologic hazard(s), and its potential impact upon the hazard area, the subject property, and affected adjacent properties.

   d. Minimum Buffer and Building Setback. The report shall make a recommendation for the minimum no-disturbance buffer and minimum building setback from any geologic hazard based upon the geotechnical analysis. Where the recommended buffers are less than the standard buffers set forth in BIMC 16.20.XX, the rationale and basis for the reduced buffer shall be clearly articulated and demonstrate that the protection standard set forth in that section has been met.

2. Landslide Hazard and Erosion Hazard Areas. In addition to the basic geologic hazards assessment, an assessment for an erosion hazard or landslide hazard area shall include the following information at a minimum:

   a. Erosion Control. An erosion control plan prepared by a civil engineer shall be submitted to the city prior to the issuance of a building permit.
   b. The applicant shall provide a geotechnical analysis containing the following information:
      i. Site Plan. The critical area report shall include a copy of the site plan for the proposal showing:
         A. The height of slope, slope gradient, and cross-section of the project area;
         B. The location of springs, seeps, or other surface expressions of ground water on or a zone or distance of potential significant influence as determined by a professional engineer/ geologist; and
         C. The location and description of surface water run-off features.

      ii. Hazards Analysis. The hazards analysis component of the critical areas report shall specifically include:
         A. A description of the extent and type of vegetative cover;
         B. A description of subsurface conditions based on data from site-specific explorations;
         C. Descriptions of surface and ground water conditions, public and private sewage disposal systems, fills and excavations, and all structural improvements;
         D. An estimate of slope stability and the effect construction and placement of structures will have on the slope over the estimated life of the structure;
         E. An estimate of the bluff retreat rate that recognizes and reflects potential catastrophic events such as seismic activity or a one hundred-year storm event;
         F. Consideration of the run-out hazard of landslide debris and/or the impacts of landslide run-out on down slope properties;
         G. A study of slope stability including an analysis of proposed cuts, fills, and other site grading;
         H. Recommendations for building siting limitations; and
         I. An analysis of proposed surface and subsurface drainage, and the vulnerability of the site to erosion; and
         J. A description of the potential modes of failure.

3. Geotechnical Engineering Report. The technical information for a project within a landslide hazard area shall include a geotechnical engineering report prepared by a licensed engineer that presents engineering recommendations for the following:

a. Parameters for design of site improvements including appropriate foundations and retaining structures. These should include allowable load and resistance capacities for bearing and lateral loads, installation considerations, and estimates of settlement performance;
b. Recommendations for drainage and subdrainage improvements;
c. Earthwork recommendations including clearing and site preparation criteria, fill placement and compaction criteria, temporary and permanent slope inclinations and protection, and temporary excavation support, if necessary; and
d. Mitigation of adverse site conditions including slope stabilization measures for seismically unstable soils, surface water management, location and methods of erosion control, a vegetation management and/or replanting plan, and/or other means for maintaining long-term soil stability if appropriate.

4. Seismic Hazards Areas. In addition basic geologic hazards assessment, an assessment for a seismic hazard area shall also meet the following requirements:

   a. Fault Hazard. The applicant shall provide a geologic/geotechnical analysis containing information specified by the City Engineer that documents the presence or absence of any surface deformation on the site in areas mapped by the city. If deformation is located, the applicant shall provide a geotechnical analysis containing information specified by the City Engineer, which concludes that the development proposal as mitigated meets the standards of this section.
   b. Liquefaction Hazard. The applicant shall provide a geotechnical analysis containing information specified by the City Engineer that meets the standards of this section (as mitigated).
   c. Seismic Landslide Hazard. The applicant shall provide the same analysis and plan as required for landslide hazard areas.

5. Tsunami Hazards. The city shall provide applicants for development in low lying shoreline areas and other areas where flood elevation is controlled by tide level with information on tsunami hazards.

F. Wetland critical areas report.

A wetland critical areas report shall include, but not necessarily be limited to, the following:

1. A site plan showing the following:

   a. Surveyed wetland boundaries based upon a delineation by a wetland specialist or wetland boundaries recorded using a differential global positioning system, based upon a delineation by a wetland specialist.
   b. Location of required buffers pursuant to BIMC 16.20.130.XX or as proposed through buffer modification pursuant to BIMC 16.20.130.XX.
   c. Site boundary property lines and roads;

d. Internal property lines, rights-of-way and easements;
e. Existing physical conditions of the site, including buildings, fences and other structures, existing hard surfaces, utilities, etc.
f. Contours at the smallest readily available intervals;
g. Hydrologic mapping showing patterns of surface water movement and known subsurface water movement into, through, and out of the site;
h. Location of all test holes and vegetation sample sites, numbered to correspond with flagging in the field and field data sheets; and
i. An aerial photograph with overlays displaying the site boundaries and wetland delineation.

2. A report including the following:

a. Vicinity map
b. Location information (parcel number and address)
c. General site conditions including topography, size and surface area of all wetlands identified and water bodies within one-quarter mile of the site
d. Analysis of functional values of existing wetlands
e. Summary of proposed development, use or activities and potential impacts to wetlands
a. f.Copies of rating forms and maps from the Wetland Rating System for Western Washington – Revised (2014) or as amended.
f. Required buffers pursuant to BIMC 16.20.130.XX.
g. Complete U.S. Army Corps of Engineers wetland determination data forms
j. National Wetland Inventory map
k. Wetland mitigation plan, if compensatory mitigation is required.

G. Wetland mitigation plan.

1. Compensatory mitigation plans shall be consistent with Wetland Mitigation in Washington State – Part 2: Developing Mitigation Plans – Version 1 (Ecology Publication #06-06-011b, March 2006), as revised, and, if applicable, Selecting Wetland Mitigation Sites Using a Watershed Approach (Western Washington)(Ecology Publication 09-06-032, December 2009) and meet the following standards:

   a. All critical area restoration, creation and/or enhancement projects required pursuant to this chapter either as a permit condition or as a result of an enforcement action shall follow a mitigation plan prepared by an expert approved by the director. The applicant or violator shall receive written approval of the mitigation plan by the director prior to commencement. Compensatory mitigation is not required for allowed activities which utilize best management practices to protect the functions and values of regulated critical areas.
   b. Purpose of Mitigation Plan. The mitigation plan shall provide information on land acquisition, construction, maintenance and monitoring of the replaced critical area.

The mitigation plan shall recreate as nearly as possible the original critical area in terms of its acreage, function, geographic location and setting.

c. Mitigation Plan Submittal Requirements. A complete mitigation plan shall consist of plot plans, a written report, and performance bonds, as required below. The plot plans and written report shall be prepared by qualified professionals approved by the director.

2. Plot Plan Requirements. The following information shall be submitted on one or more plot plans (as determined by the director):

   a. A legal description and a survey (boundary and topography) prepared by a licensed surveyor of the proposed development site, compensation site, and location of existing critical area(s) on each. This shall include wetland delineation and existing wetland acreage.
   b. Scaled plot plan(s) indicating:
      i. Proposed construction;
         a. Zoning setback and critical area buffer requirements;
         b. Construction phasing and sequence of construction;
         c. Site cross-sections, percent slope, existing and finished grade elevations;
         d. Soil and substrate conditions;
         e. Grading and excavation plan, including erosion and sediment control plans needed for construction and long-term survival; substrate stockpiling locations and techniques, and source controls needed for critical area construction and maintenance;
         f. Landscape plans indicating species, types, quantities, locations, size, spacing or density of planting; planting season or timing; planting instructions, watering schedule and nutrient requirements; source of plant materials or seeds; and, where appropriate, measures to protect plants from destruction or predation; and
         g. Water control structures and water-level maintenance practices needed to achieve the necessary hydrocycle/hydroperiod characteristics, etc.

3. Written Report Requirements. A written report shall accompany the plot plan(s) and shall provide the additional information required below. In addition, the report should be used as needed to clarify or explain elements of the plot plan(s).

   a. Baseline Information.
      i. Wetland delineation and existing wetland acreage;
      a. Vegetative, faunal and hydrologic characteristics;
      b. Soil and substrate conditions;
      c. Relationship within watershed and to existing streams, wetlands, ponds, or saltwater;
      d. Existing and proposed adjacent site conditions; and

    e. Existing and proposed ownership.
  b. Environmental Goals and Objectives. The report shall contain a description of the environmental goals and objectives to be met by the compensation plan. The goals and objectives shall be related to the functions and values of the original critical area or, if out-of-kind wetland mitigation, the type of wetland to be emulated. This analysis shall include, but is not limited to the following:
  c. Site selection criteria;
    a. Identification of compensation goals;
    b. Identification of functions and values;
    c. Dates for beginning and completion of the project and compensation plan;
    d. A complete description of the relationship between and among structures and functions sought;
    e. Review of available literature and/or known like-projects to date in restoring or creating the type of critical area proposed;
    f. Likelihood of success of the proposed compensation project at duplicating the original critical area. This shall be based on experiences of comparable projects identified in the literature review or existing projects, if any; and
    g. Likelihood of the ability of the created or restored critical area to provide the functions and values of the original critical area. This shall be based on such factors as surface water and groundwater supply and flow patterns; dynamics of the ecosystem; sediment or pollutant influx and/or erosion, periodic flooding and drought, etc.; presence of invasive flora or fauna; potential human or animal disturbance; and previous comparable projects, if any.
d. Performance Standards. Specific criteria shall be provided for evaluating whether or not the goals and objectives of the project are met and for beginning remedial action or contingency measures. Such criteria may include water quality standards, survival rates of planted vegetation, species abundance, and diversity targets, habitat diversity indices, or other ecological, geological or hydrological criteria.
e. Detailed Specifications. Written specifications and descriptions of compensation techniques shall be provided. These shall include, but not be limited to, items in Subsection C.2 of this Section.
f. Monitoring Program. A program outlining the approach for monitoring construction of the compensation project and for assessing a completed project shall be provided. Monitoring may include, but is not limited to:
    a. Establishing vegetation plots to track changes in plant species composition and density over time;
    b. Using photo stations to evaluate vegetation community response;
    c. Sampling surface and subsurface waters to determine pollutant loading, and changes from the natural variability of background conditions (pH, nutrients, heavy metals);
    d. Measuring base flow rates and storm water runoff to model and evaluate water quality predictions, if appropriate;
    e. Measuring sedimentation rates, if applicable; and

f. Sampling fish and wildlife populations to determine habitat utilization, species abundance and diversity.

c. A protocol shall be included outlining how the monitoring data will be evaluated by agencies that are tracking the progress of the compensation project. A monitoring report shall be submitted annually, at a minimum, documenting milestones, successes, problems, and contingency actions of the compensation project. The compensation project shall be monitored for a period necessary to establish that performance standards have been met, but not for a period less than seven years.

d. Contingency Plan. Identification of potential courses of action, and any corrective measures to be taken when monitoring or evaluation indicates project performance standards are not being met.

A. Performance and Maintenance Surety and Demonstration of Competence. A demonstration of financial resources, administrative, supervisory, and technical competence and scientific expertise to successfully execute the compensation project shall be provided. A compensation project manager shall be named and the qualifications of each team member involved in preparing the mitigation plan and implementing and supervising the project shall be provided, including educational background and areas of expertise, training and experience with comparable projects. In addition, a surety ensuring fulfillment of the compensation project, monitoring program, and any contingency measure shall be posted pursuant to BIMC 16.20.180.

4. City Consultation. The city may consult with and solicit comments from any federal, state, regional, or local agency, including tribes, having any special expertise with respect to any environmental impact prior to approving a mitigation proposal which includes critical areas compensation. The compensation project proponents should provide sufficient information on plan design and implementation in order for such agencies to comment on the overall adequacy of the mitigation proposal.

5. Permit Conditions. Any compensation project prepared pursuant to this section and approved by the director shall become part of the application for the permit.

16.20.180 Definitions.

A. For the purposes of this chapter, the following definitions shall apply:

1. “Accessibility” means the that a building or structure can be independently used by people with a variety of disabilities.
2. “Adverse impact” means a condition that creates, imposes, aggravates, or leads to inadequate, unsafe, or unhealthy conditions on a site.
3. “Agricultural activities” means the normal actions associated with the production of crops such as plowing, cultivating, minor drainage, and harvesting; and/or raising or keeping of livestock, including operation and maintenance, and repair of farm and stock

ponds, drainage ditches, irrigation systems, and normal operation, maintenance, and repair of existing serviceable agricultural structures, facilities, or improved areas.

4. “Alteration” means a human-induced action that changes the existing conditions of a critical area or its buffer and results in the modification of the existing topography, stability, vegetation, hydrology, wildlife or wildlife habitat.
4. “Alteration, structure” means a change, modification or adjustment.
5. “Anadromous fish” means fish whose life cycle includes time spent in both salt and fresh water.
6. “Applicant” means a person, corporation, or organization that files an application for a land use or development permit with the city and that is either the owner of the land on which that proposed activity would be located, or the authorized agent of such a person.
7. “Bank stabilization” means modification used for the purpose of preventing erosion, protecting channels, and retaining uplands.
8. “Biodiversity areas and corridors” means areas of habitat that are relatively important to various species of native fish and wildlife.
   a. Biodiversity areas.
      i. The area has been identified as biologically diverse through a scientifically based assessment conducted over a landscape scale (e.g., ecoregion, county- or city-wide, watershed, etc.). Examples include but are not limited to WDFW Local Habitat Assessments, Pierce County Biodiversity Network, and Spokane County’s Wildlife Corridors and Landscape Linkages; or
      ii. The area is within a city or an urban growth area (UGA) and contains valuable fish or wildlife habitat and is mostly comprised of native vegetation. Relative to other vegetated areas in the same city or UGA, the mapped area is vertically diverse (e.g., multiple canopy layers, snags, or downed wood), horizontally diverse (e.g., contains a mosaic of native habitats), or supports a diverse community of species as identified by a qualified professional who has a degree in biology or closely related field and professional experience related to the habitats or species occurring in the biodiversity area. These areas may have more limited wildlife functions than other priority habitat areas due to the general nature and constraints of these sites in that they are often isolated or surrounded by highly urbanized lands.
   b. Corridors. Corridors are areas of relatively undisturbed and unbroken tracts of vegetation that connect fish and wildlife habitat conservation areas, priority habitats, areas identified as biologically diverse, or valuable habitats within the city.
9. “Best available science” (BAS) means scientifically valid information derived in accordance with WAC 365-195-90~~5~~0 through 925, or as amended, that is used to develop and implement critical areas policies or regulations.
10. “Best management practices” (BMPs) means conservation practices or systems of practices and management measures that:
    a. Control soil loss and protect water quality from degradation caused by nutrients, animal waste, toxins, and sediment;
    b. Minimize adverse impacts to surface water and groundwater flow, and to the chemical, physical, and biological characteristics of critical areas;

c. Protect trees, vegetation and soils designated to be retained during and following site construction and use native plant species appropriate to the site for re-vegetation of disturbed areas; and
d. Provide standards for proper use of chemical herbicides within critical areas.
e. BMPs are defined by the United States Department of Agriculture, the State of Washington Department of Agriculture, the Washington State Department of Ecology, Washington State Department of Health, Kitsap Conservation District, and other professional organizations.

11. "Bog" means a low-nutrient, acidic wetland with organic soils and characteristic bog plants, as described in Washington State Wetland Rating System for Western Washington: 2014 Update (Ecology Publication #14-06-29, October 2014).
12. "Buffer" means a designated area contiguous to a wetland or stream intended to protect the wetland or stream and be an integral part of the wetland or stream ecosystem.
13. "Coppicing" means cutting trees close to ground level with the intention of encouraging regrowth of multiple shoots primarily for invasive or weedy species management.
14. "Critical aquifer recharge area" means areas with a critical recharging affect on aquifers used for potable water, including areas where an aquifer that is a source of drinking water is vulnerable to contamination that would affect the potability of the water, or is susceptible to reduced recharge.
15. "Critical areas" means aquifer recharge areas, fish and wildlife habitat-conservation areas, frequently flooded areas, geologically hazardous areas, and wetlands.
16. "Critical facilities" means facilities that are essential to the health and welfare of the community, including services that protect life and property. Such facilities include, but are not limited to, hospitals, emergency clinics, police and fire stations, emergency vehicle and equipment storage facilities, emergency operations centers, aviation control centers, and utility facilities such as sewage treatment plants and electric transmission substations.
17. "Critical habitat" means a habitat identified by US Fish and Wildlife Service or the National Marine Fisheries Service as habitat necessary for survival of endangered or threatened species.
18. "Cutting, vegetation" means the removal of the main trunk or stem of a small tree for the purposes of controlling aggressive or weedy species.
19. "Designated Centers" means those areas of the Island where the majority of the development and redevelopment should be located over the next fifty years. These include Winslow, Lynwood Center, Island Center, Rolling Bay, Day Road and Sportsman Triangle as shown on Figure LU-3 in the City's 2017 Comprehensive Plan.
20. "Development" means any action that would require review land use review or other approval from the city or other local, state or federal jurisdiction. Development includes, but is not limited to: land division; construction, reconstruction, structural alteration, relocation, or enlargement of any structure; clearing or grading; and changes to surface or ground waters.
21. "Director" means the director of the city's Planning and Community Development Department or his/her designee.

22. "Educational or scientific activities" means controlled and/or supervised scientific activities or educational activities that are associated with an educational or scientific program that result in no adverse impacts to critical areas or their buffers.
23. "Engineering geologist" means a practicing engineering geologist who has at least four years of professional employment as an engineering geologist with experience in landslide evaluation, and a Washington State specialty license in engineering geology as specified in Chapter 18.220 RCW.
24. "Erosion hazard area" means those areas containing soils which, according to the United States Department of Agriculture Natural Resource Conservation Service Soil Survey Program, may experience significant erosion. Erosion hazard areas also include coastal erosion-prone areas and channel migration areas.
25. "Estuarine, wetland" means a vegetated wetland that is predominantly tidal, as described in Washington State Wetland Rating System for Western Washington: 2014 Update (Ecology Publication #14-06-29, October 2014).
26. "Existing development" means a development that was lawfully constructed, approved or established prior to the effective date of the ordinance codified in this chapter.
27. "Fish" means species of the vertebrate taxonomic groups *Cephalospidomorphi* and *Osteichthyes*.
28. "Fish and wildlife habitat conservation areas" means areas that serve a critical role in sustaining needed habitats and species for the functional integrity of the ecosystem, and which, if altered, may reduce the likelihood that the species will persist over the long term. These areas may include, but are not limited to, rare or vulnerable ecological systems, communities, and habitat or habitat elements including seasonal ranges, breeding habitat, winter range, and movement corridors; and areas with high relative population density or species richness.
29. "Fish and wildlife habitat conservation areas" does not include such artificial features or constructs as irrigation delivery systems, irrigation infrastructure, irrigation canals, or drainage ditches that lie within the boundaries of, and are maintained by, a port district or an irrigation district or company.
30. "Fish habitat" means habitat which is used by any fish at any life stage at any time of the year, including potential habitat likely to be used by fish which could be recovered by restoration or management and includes off-channel habitat.
31. "Fisheries biologist" means a person with experience and training in fisheries who is able to submit substantially correct reports on fish population surveys, stream surveys and other related data analyses of fisheries resources. "Substantially correct" means that technical or scientific errors, if any, are minor and do not delay or affect the site plan review process. Qualifications of a fisheries biologist include:
    1. Either:
        a. Certification by the American Fisheries Society, or;
        b. Bachelor of Science degree in fisheries or the biological sciences from an accredited institution and five years of professional fisheries experience; and
    2. The prior successful completion of at least three habitat management plans.
31. "Frequently flooded areas" means lands subject to at least a one percent or greater chance of flooding in any given year, or within areas subject to flooding due to high ground

water. These areas include, but are not limited to, streams, lakes, coastal areas, wetlands and areas where high ground water forms ponds on the ground surface. (See Chapter 15.16 BIMC, Flood Damage Prevention.)

32. "Functions and values" means the natural processes and beneficial roles performed or provided by critical areas including, but not limited to, water quality <u>and quantity</u> protection and enhancement, providing fish and wildlife habitat, supporting terrestrial and aquatic food chains, providing flood storage, conveyance and attenuation, groundwater recharge and discharge, erosion control, wave attenuation, protecting aesthetic value, and providing recreational and educational opportunities. These roles are not listed in order of priority.
33. "Geologically hazardous areas" means areas susceptible to significant erosion, sliding, or other geological events. They pose a threat to the health and safety of citizens when used as sites for incompatible commercial, residential or industrial development. Geologically hazardous areas include erosion hazard areas, landslide hazard areas, and seismic hazard areas.
34. "Geotechnical engineer" means a practicing geotechnical/civil engineer who has a valid Washington engineering license and a valid certificate of registration in civil engineering, at least four years of professional employment as a geotechnical engineer with experience in landslide evaluation, and appropriate training and experience as specified in Chapter 18.43 RCW.
35. "Habitat Management Plan" (HMP) means a report prepared by a professional wildlife biologist or fisheries biologist which discusses and evaluates critical fish and wildlife habitat functions and identifies and evaluates measures necessary to maintain, enhance and improve terrestrial and/or aquatic habitat on a proposed development site.
36. "Habitat of local importance" means a seasonal range or habitat element with which a given species has a primary association, and which, if altered, may reduce the likelihood that the species will maintain their population and reproduce over the long-term. These might include areas of high relative density or species richness, breeding habitat, winter range, and movement corridors. These might also include habitats that are of limited availability or areas of high vulnerability to alteration, such as cliffs and wetlands.
37. "Hazard tree" means a tree that has significant structural defects that are likely to lead to failure and possibly cause injury or damage as identified in a report from an International Society of Arboriculture (ISA) Tree Risk Assessment Qualified (TRAQ) arborist. In the case of steep slopes, a hazard tree can also be a tree that is a hazard to stability of the slope, as determined by a geotechnical engineer.
38. "Hazardous substances" means any liquid, solid, gas, or sludge, including any material, substance, product, commodity, or waste, regardless of quantity, that exhibits any of the characteristics or criteria of hazardous waste as specified in RCW 70.105.010. (Also see BIMC 18.06.450 through 18.06.510).
39. "Hydric soil" means soil which is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part.
40. "Hydrogeologist" means a practicing hydrogeologist who has at least four years of professional employment as a hydrogeologist with experience in the specific subject area

in which they are providing a report, and a Washington specialty license in hydrogeology as specified in RCW Chapter 18.220.

41. "Hydrophyte or hydrophytic vegetation" means plant life growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content.
42. "Invasive/exotic species" means opportunistic plant species (either native or nonnative) that colonize disturbed ecosystems and come to dominate the plant community in ways that are seen by us as reducing the values provided by the previous plant community.
43. "Land disturbing activity" 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.
44. "Land divisions" means any division of land subject to the city's subdivision design standards (BIMC Chapter 17.12).
45. "Landslide hazard areas" means areas which are at risk of mass movement due to a combination of geologic, topographic, and hydrologic factors. Landslide hazard areas include the following:
    a. Areas characterized by slopes greater than 15 percent having springs or groundwater seepage and having impermeable soils (typically silt and clay) overlain or frequently interbedded with permeable granular soils (predominantly sand and gravel);
    b. Any area potentially unstable due to rapid stream incision or stream bank erosion;
    c. Any area located on an alluvial fan, debris flow deposit, or in a debris flowpath, presently or potentially subject to impacts or inundation by debris flows or deposition of stream-transported sediments;
    d. Any area with a slope of 40 percent or greater and with a vertical relief of 10 or more feet except areas composed of competent consolidated rock;
    e. Any area designated or mapped as class U, UOS, or URS by the Department of Ecology Coastal Zone Atlas and/or mapped as a landslide or scarp on the USGS Surface Geology Map of Bainbridge Island (Haugerud, 2001).
46. "Landslide hazard area buffer" means an area contiguous to a landslide hazard area sufficient in depth to meet the development standards set forth in BIMC 16.20.xx as determined by a geological hazards assessment prepared in accordance with BIMC 16.20.XX, Critical area reports.
47. "Liquefaction" means a process in which a water-saturated soil, upon shaking, suddenly loses strength and behaves as a fluid.
48. "Low impact development (LID)" means a stormwater and land use management strategy that strives to mimic predisturbance hydrologic processes of infiltration, filtration, storage, evaporation and transpiration by emphasizing conservation, use of on-site natural features, site planning, and distributed stormwater management practices that are integrated into a project design.

49. "Low impact development best management practices (LID BMPs)" mean distributed stormwater management practices, integrated into a project design, that emphasize predisturbance hydrologic processes of infiltration, filtration, storage, evaporation and transpiration. LID BMPs include, but are not limited to: bioretention, rain gardens, permeable pavements, roof downspout controls, dispersion, soil quality and depth, minimal excavation foundations, vegetated roofs, and water reuse.
50. "Native or equivalent vegetation" means species which are indigenous to the Puget Sound lowlands ecoregion; or a species that is equivalent in providing the same site-specific functional arrays as would the native species. Functional arrays may include forage, floodwater restraint, hiding habitat, or other physical or biologic roles in the ecosystem, that singly or in combinations correspond to those of the native species. As with natives, the role of an equivalent species may vary depending on the site and its surrounding ecosystem. Invasive/exotic species shall not be considered equivalent species.
51. "No net loss" means the maintenance of the aggregate total of the city's critical areas functions and values over time. The no net loss standard requires that the impacts of a proposed use and/or development, whether permitted or exempt from permit requirements, be identified and mitigated on a project-by project basis, so that as development occurs critical areas functions and values stay the same.
52. "Normal maintenance" means those usual acts to prevent a decline, lapse or cessation from a lawfully established condition. Normal maintenance does *not* include:

a. Use of fertilizer or pesticide application in wetlands, fish and wildlife habitat conservation areas, or their buffers;
b. Re-digging ditches in wetlands or their buffers to expand the depth or width beyond the original ditch dimensions;
c. Re-digging existing drainage ditches to drain wetlands on lands not classified as existing and ongoing agriculture under BIMC 16.20.XX (Exemptions).

53. "Normal repair" means activities to restore a structure or use to a state comparable to original condition, including but not limited to size, shape, configuration, location and external appearance, within a reasonable period after decay or partial destruction.
54. "Ordinary high water mark" means the mark on the shores of all waters, which will be found by examining the beds and banks and ascertaining where the presence and action of waters are so common and usual, and so long continued in all ordinary years, as to mark upon the soil a character distinct from that of the abutting upland, in respect to vegetation; provided, that in any area where the ordinary high-water mark cannot be found, the ordinary high-water mark adjoining freshwater shall be the line of mean high-water.
55. "Pruning" means the selective removal of plant parts to achieve defined objectives.
56. "Pruning amount" means the quantity of plant parts removed at one pruning, expressed in terms of a number of branches or other parts removed, and/or percentage of the crown or buds removed on an entire tree or specific branches.
57. "Ravine" means a V-shaped landform generally having little to no floodplain and normally containing steep slopes, which is deeper than 10 vertical feet as measured from the centerline of the ravine to the top of the slope. Ravines are typically created by the

wearing action of streams. The top of the slope is determined where there is a significant change in the slope to generally less that a 15 percent slope.

58. "Reasonable alternative" means an activity that could feasibly attain or approximate a proposal's objectives, but at a lower environmental cost or decreased level of environmental degradation.
59. "Reasonable use exception (RUE)" is a means of relief that is available for a property that is encumbered to such an extent by critical areas and/or critical area buffers that application of this chapter would deny all reasonable use of the subject property, as further defined by the decision criteria of BIMC 16.20.080~~, and reasonable use of a property cannot be achieved through any other means~~.
60. "Redevelopment" means, on a site that is already substantially developed (i.e., has 35 percent or more of existing impervious surface coverage), the creation or addition of impervious surfaces; the expansion of a building footprint or addition or replacement of a structure; construction, installation or expansion of a building or other structure; replacement of impervious surface that is not part of a routine maintenance activity; and land disturbing activities.
61. "Removal, vegetation" means to eliminate the presence or hazard of unwanted vegetation.
62. "Seismic hazard areas" means areas subject to severe risk of damage as a result of earthquake induced ground shaking, slope failure, settlement, soil liquefaction, debris flows, or tsunamis. The following areas are considered seismic hazard areas:
    a. Seismic Landslide Hazard Areas - Slopes which are stable in non-earthquake periods, but fail and slide during ground shaking;
    b. Liquefaction Hazard Areas - Areas of cohesionless, loose or soft, saturated soils of low density in association with a shallow groundwater table that are subject to settlement and/or liquefaction from ground shaking, or;
    c. Fault Hazard Areas - Areas of known surface rupture or significant surface deformation as a result of an active fault movement, including 50 feet on either side.
63. "Site" means the entire lot, series of lots, or parcels on which a development is located or proposed to be located, including all contiguous undeveloped lots or parcels under common ownership.
64. "Species of local importance" means those species that are of local concern due to their population status or their sensitivity to habitat alteration."
65. "Streams" means those areas in the City of Bainbridge Island where the surface water flows are sufficient to produce a defined channel or bed. A defined channel or bed is an area which demonstrates clear evidence of the passage of water and includes but is not limited to bedrock channels, gravel beds, sand and silt beds, and defined-channel swales. The channel or bed need not contain water year-round. This definition is not meant to include irrigation ditches, canals, storm or surface water runoff devices, or other artificial watercourses unless they are used by fish or used to convey streams naturally occurring prior to construction.
66. "Stream Types" means a streams classification system based on fish usage and perennial or seasonal water regime as found in WAC 222-16-030 and meeting the standards listed below.

a. "Type F Stream" means a stream that has fish habitat. If fish usage has not been determined, water having the following characteristics are presumed to have fish use: Stream segments having a defined channel of 2 feet or greater within the bankfull and having a gradient greater than 16 percent and less than or equal to 20 percent, and having greater than 50 acres in contributing basin size based on hydrographic boundaries. Determination of fish usage shall use the methodology found in Washington Department of Natural Resource's Forest Practice Board Manual, Section 13, including the use of the default physical criteria upstream of manmade barriers to fish passage.
b. "Type Np" means all segments of natural waters within the bankfull width of defined channels that are perennial nonfish habitat streams. Perennial streams are waters that do not go dry any time of a year of normal rainfall. However, for the purpose of water typing, Type Np Waters include the intermittent dry portions of the perennial channel below the uppermost point of perennial flow.
c. "Type Ns" means all segments of natural waters within the bankfull width of the defined channels that are not Type S, F, or Np Waters. These are seasonal, nonfish habitat streams in which surface flow is not present for at least some portion of a year of normal rainfall and are not located downstream from any stream reach that is a Type Np Water. Ns Waters must be physically connected by an above-ground channel system to marine waters, Type F, or Np Waters.

67. "Wetland" means areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include, but are not limited to, swamps, estuaries, marshes, bogs, ponds less than twenty acres, including their submerged aquatic beds and similar areas. Wetlands do not include those artificial wetlands intentionally created from non-wetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, stormwater facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. Wetlands include those legally established artificial wetlands intentionally created from non-wetland areas to mitigated the conversion of wetlands.
68. "Wetland boundary" means the boundary or outer edge of a wetland as delineated in accordance with the federal wetland delineation manual and applicable regional supplements (as updated), as required by WAC 173-22-035.
69. "Wetland category" means category as defined in Washington State Wetland Rating System for Western Washington – 2014 Update (Ecology Publication No. 14-06-029, October 2014), or as revised and adopted by the department.
70. "Wetlands specialist" means a person with experience and training in wetland issues who is able to submit substantially correct reports on wetland delineations, classifications, functional assessments and mitigation plans. "Substantially correct" means that errors, if any, are minor and do not delay or affect the site plan review process. Qualifications of a wetlands specialist include:
    a. Either:

   i. Certification as a Professional Wetland Scientist (PWS) or Wetland Professional in Training (WPIT) through the Society of Wetland Scientists, or;
   ii. Bachelor of science degree in the biological sciences from an accredited institution and five years of professional field experience; and
  b. The prior successful completion of at least three wetland reports.

71. "Wildlife biologist" means a person with experience and training in the principles of wildlife management and with practical knowledge in the habits, distribution and environmental management of wildlife. Qualifications include:
  a. Either:
   ii. Certification as a professional wildlife biologist through The Wildlife Society, or;
   iii. Bachelor of science or bachelor of arts degree in wildlife management, wildlife biology, ecology, zoology, or a related field, from an accredited institution and five years of professional field experience; and
  b. The prior successful completion of at least three habitat managements plans.

71. "Wildlife habitat" means a seasonal range or habitat element with which a given species has a primary association, and which, if altered, may reduce the likelihood that the species will maintain and reproduce over the long-term. These include areas of relative density or species richness, breeding habitat, winter range, and movement corridors. These also include habitats of limited availability or high vulnerability to alteration, such as cliffs, streams and wetlands.

72. "Zone of Influence" means an area, usually upslope from a geologically hazardous area, where changes in land use and hydrology can affect the stability of the geologically hazardous area. The zone of influence is defined as 300 feet upslope from slopes greater than 40 percent, and 200 feet upslope from slopes greater than 15 percent but less than 40 percent that are determined to be geologically hazardous areas.

City of Bainbridge Island
City Council Agenda Bill

PROCESS INFORMATION	
Subject: 7:40 PM Discuss Resolution No. 2017-18 Adopting the Community Forest Management Plan (2006), AB 17-142 - Executive (Pg. 86)	Date: 9/5/2017
Agenda Item: UNFINISHED BUSINESS	Bill No.: 17-142
Proposed By: Council Tree and Low Impact Development Ad Hoc Committee	Referrals(s):

BUDGET INFORMATION		
Department: Executive	Fund:	
Expenditure Req:	Budgeted?	Budget Amend. Req?

REFERRALS/REVIEW		
Study Session: 8/15/2017	Recommendation: Forward to 8/22 consent agenda with amendments.	
City Manager:	Legal:	Finance:

DESCRIPTION/BACKGROUND

The Community Forest Management Plan (*CFMP)* was completed in 2006. The *CFMP* describes existing conditions of trees and forests on Bainbridge Island, ecosystem services provided by trees and forests, and promotes sustainable forest conditions with recommendations for new programs, public outreach and education, incentives, and regulations.

Some of those recommendations have been implemented. The Council Tree and Low Impact Development Ad Hoc Committee has recommended that the *CFMP* be adopted by the Council to encourage further implementation of the *CFMP* recommendations.

The Council formally accepted the *CFMP* by approving Resolution 2006-07 on February 8, 2006.

RECOMMENDED ACTION/MOTION

Discussion

ATTACHMENTS:

Description	Type
Memorandum	Backup Material
Resolution No. 2017-18	Backup Material
Community Forest Managment Plan	Backup Material

Resolution 2006-07 Resolution

CITY OF
BAINBRIDGE ISLAND

Department of Planning and Community Development

Memorandum

Date: August 15, 2017

To: City Council

From: Jennifer Sutton, AICP
Senior Planner

Subject: Resolution 2017-18: Adopting the 2006 *Community Forest Management Plan*

I. Background

The Community Forestry Commission, a former City Citizen Advisory Group, initiated the *Community Forest Management Plan (CFMP).* The purpose of the *CFMP* is to guide and promote sustainable forest conditions on Bainbridge Island through education, incentives, and regulations on public and private property. The *CFMP* begins with a description of the "community forest" and then describes the state of forests and trees on Bainbridge Island, including a tree canopy inventory by zoning areas (p. 11) and watershed (p. 14). The estimated forest cover Island-wide calculated in 2004 was approximately 72% (p. 11). 2015 City LIDAR information shows that 70% of Bainbridge Island land area has tree canopy.

Chapters 4 and 5 of the *CFMP* focus on actions and policies to achieve the overall purpose of the plan, including setting tree canopy cover goals by zoning areas (p. 27). Some of the actions called for by the *CFMP* have been completed. For example, the City created a Heritage Tree Program and added "tree protection during construction" standards to the municipal code (BIMC 18.15.010.C). However other recommendations, such as hiring a City arborist and developing a proactive public education and outreach program, have not been implemented.

The City Council heard a presentation on the *CFMP* once it was completed. The Council formally accepted the *CFMP* with the approval of Resolution 2006-07 on February 8, 2006.

II. Tree and Low Impact Development Ad Hoc Committee Recommendation

The Tree and LID Ad Hoc Committee recommended to the full City Council that the *CFMP* should be adopted. The City Council agreed with that recommendation at their July 18, 2017, meeting. Resolution 2017-18 accomplishes that goal.

III. Next Steps

As mentioned above, the *CFMP* identifies several actions that the City can take to promote forest and tree health throughout Bainbridge Island. The adoption of the *CFMP* gives weight to the City working toward completing other relevant actions identified by the Plan.

RESOLUTION NO. 2017-18

A RESOLUTION of the City Council of Bainbridge Island, Washington, adopting the *Community Forest Management Plan* (2006).

WHEREAS, the citizens of Bainbridge Island recognize that our forests provide multiple ecosystem services including: providing habitat for a wide variety of plants and animals; regulating temperature for dwellings, streams, and shorelines; reducing air pollution; serving an integral role in our Island's water, carbon, and nutrient cycles; providing windbreaks; forestalling erosion by stabilizing slopes and soils; reducing and attenuating stormwater runoff; and enhancing physical and mental health; and

WHEREAS, our City's Comprehensive Plan has long recognized that the well-being of both human and ecological communities is very much connected to forests and natural resources; and

WHEREAS, as a designated Tree City USA, the citizens of Bainbridge Island take seriously their responsibility to protect our native vegetation and forests, and urgently desire that action be taken to strengthen and enforce policies that protect, steward, and sustain forests and native vegetation so that they can continue to provide important cultural, social, economic, and ecological benefits to our community; and

WHEREAS, the *Community Forest Management Plan* was completed in 2006 to promote sustainable tree and forest conditions on Bainbridge Island and includes a forest inventory and recommendations for additional programs, public education and outreach, incentives, and regulations; and

WHEREAS, the City Council in 2006 adopted Resolution No. 2006-07, through which the Council accepted the *Community Forest Management Plan* as a guide for long-term management of the community forest, and also indicated in that resolution that portions of the *Plan* may be adopted in the future; and

WHEREAS, since 2006, the City has accomplished several of the action items recommended by the *Community Forest Management Plan,* but other recommendations have not been implemented; and

WHEREAS, since completion of the *Community Forest Management Plan*, the City has changed its form of government and has abolished some committees and commissions and established others; and

WHEREAS, since completion of the *Community Forest Management Plan*, the City has conducted extensive public process resulting in a newly updated Comprehensive Plan adopted in 2017; and

WHEREAS, the City Council Tree and Low Impact Development Ad Hoc Committee has recommended that the *Community Forest Management Plan* should be adopted by the Council to promote implementation of *Plan* recommendations; now, therefore,

THE CITY COUNCIL OF THE CITY OF BAINBRIDGE ISLAND DOES RESOLVE AS FOLLOWS:

Section 1. The *Community Forest Management Plan* (2006) is hereby adopted. The City will review *Plan* recommendations and work toward implementation of those recommendations through regulations, program development, and public outreach.

Section 2. Any conflict between the *Community Forest Management Plan* and the current Bainbridge Island Comprehensive Plan shall be resolved in favor of the Comprehensive Plan.

PASSED by the City Council this ____ day of August, 2017.

APPROVED by the Mayor this ____ day of August, 2017.

By: ______________________________
Val Tollefson, Mayor

ATTEST/AUTHENTICATE:

By: _____________________
Christine Brown, City Clerk

FILED WITH THE CITY CLERK: August 11, 2017

PASSED BY THE CITY COUNCIL: August ____, 2017

RESOLUTION NO. 2017-18

Community Forest
Management Plan

City of Bainbridge Island
2006

Prepared by:

City of Bainbridge Island Staff:
Marja Preston, AICP
Larry Frazier, AICP
Libby Hudson
Steve Morse
Theresa Rice

The City of Bainbridge Island Community Forestry Commission:
Michael Bonoff
Kathleen Wolf
John Van Den Meerendonk
Sally Adams
Ray Victurine
Brian Stahl
Dick Dearsley
Jennie Sheldon
Derek VanMarter

The Bainbridge Island City Council:
Darlene Kordonowy, Mayor
Bill Knobloch
Christine Nasser
Debbie Vancil
Nezam Tooloee
Deborah Vann
Jim Llewellyn
Bob Scales

GIS analysis of forest canopy cover conducted by Karl Johansen, 2005

Cover Photo by Kimball Andrew Schmidt pbase.com/kaschmidt

Table of Contents

Executive Summary

This is a critical time in the history of the Island. Quality stands of native forest still exist in and around the built features of the City's landscape. These forests provide innumerable benefits – economic, environmental and social – that improve the quality of life for every Island resident. However, if careful planning and management do not occur, these native forests will decline in the face of ongoing residential growth, land development and other landscape changes.

The purpose of the Community Forest Management Plan is to provide tools that ensure we maintain forests that provide all possible functions and benefits, maintaining the forest cover in residential areas and integrating trees as green infrastructure into the developing urban landscape.

An inventory of the community forest, compiled using 2004 aerial photography and GIS technology, was used to better understand the existing forest and to make informed recommendations. The 2004 inventory showed that:

- The Island is comprised of mixed deciduous and coniferous forests with the majority of trees on privately owned lands.
- Overall canopy coverage on the Island is estimated at 72%.
- Canopy coverage in Winslow is 42% and declining quickly. Tree canopy in Winslow consists mainly of trees on private property, as very few street trees currently exist.

The Community Forestry Commission worked with public and elected officials to compile the following recommendations for effective management of the community forest:

- Maintain long-term overall canopy coverage goals for the Island while retaining the native forest structure throughout the Island.
- Adopt an ecosystem-based approach to forest management, using this plan and incentives to conserve multi-functional urban greenways.
- Encourage retention of trees by creating incentives for incorporation of trees and native landscaping into new urban development.
- Develop tree preservation and replacement regulations to ensure that trees are integrated into the urban core areas.

Trees and forests define the visual character of the Bainbridge Island community. In a community values survey conducted in 2000, Islanders highlighted forested land as the main contributor to the Island's character. By establishing ambitious but attainable community forestry management goals, Bainbridge Island will distinguish itself as a leader in the region, committed to providing its residents with a quality lifestyle.

Aldo Leopold once wrote, "A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise." Sustainable urban forestry can lead to a community where trees are abundant, healthy, and highly valued by all. Like Leopold's vision for the biotic communities he knew, sustainable urban forestry can preserve the integrity, stability and beauty of our Island.

Introduction

The Community Forestry Commission of the City of Bainbridge Island was initiated in 2003 to steward the well-being of the Island's trees and forests. This management plan is the result of two years of work to inventory the forest resource and to develop management strategies that complement the changing patterns of land use that are occurring in the community.

Mission Statement

This plan will guide and promote sustainable forest conditions on Bainbridge Island through education, incentives, and regulation, on public and private property, in the village centers, neighborhoods and open spaces, for the environmental, social, and economic benefit of all Bainbridge Island residents.

Bainbridge Island is a distinctive urban area in that its boundaries are finite. A large portion of Bainbridge Island is forested and developed at low densities, with a significant amount of land in conservation. However, the population of the community has grown considerably in the last twenty years and it has become apparent that the community must plan for an equal amount of growth in the future. The intent of this management plan is to maintain the forest cover in the residential areas and to integrate trees as green infrastructure into the developing urban landscape.

This Community Forest Management Plan is intended to assist the City Council, City staff and citizens in implementing actions that ensure maintenance of forests that provide optimal functions and benefits. Without a comprehensive understanding of the value of our trees and forested areas, and a coordinated management plan to maintain and enhance them, we risk losing an enormously valuable resource that is at the heart of the Island's character. By adopting this plan, the City acknowledges the many contributions to our quality of life that are supplied by a healthy and vital community forest.

To fulfill the mission statement, the City of Bainbridge Island and the Community Forestry Commission are committed to providing education and technical assistance, implementing incentive programs, and revising regulations to more effectively support and reflect the goal of integrating trees and forests into the changing urban environment.

I The Community Forest

What is the Community Forest?

Bainbridge Island supports a wide variety of forest systems within one urban boundary. Large tracts of open space preserved through conservation easements such as the Hall and Close properties, and forested parks such as the Grand Forest and Fort Ward State Park make up the largest components of the native forest systems. Much of the forested land on the Island is privately owned on low-density residential land and is managed by individual homeowners or neighborhood associations. The forest in the town center is comprised of recently planted street trees; trees on private property; Waterfront Park; and the "Ravine", which is a privately owned forested property that is protected through regulation.

Community Forest:

Any individual trees, small stands of trees or forested areas, and associated understory plants, that are found growing in both natural and built environments, and which contribute important ecological, social and/or economic benefits to the community.

This plan addresses all trees in our community, including native, naturally grown, and introduced or ornamental species. However, it is important to note that the multi-layered native forest also includes woody shrubs, ground cover, soils and root micchorizae that all function together as a living system. The inventory data used for this management plan is focused on the trees and the tree canopy. However, the management strategies included in this plan are intended to recognize that all components of the community forest contribute to the health of the environment, and that retaining the native understory plants in forested areas is essential to the health of the community forest.

History of the Community Forest

Trees and forests have played a key role in the lives of all peoples that have inhabited this unique Island environment. The Suquamish Tribe were the first known inhabitants of the Island and depended on the forests for their summer residence. The trees of the island were highly valued, providing habitat for game, bark used in woven clothing, and the wood for canoes.

When Captain Charles Wilkes first visited the Island in 1841, he found dense cedar forests, undisturbed, with the exception of a few Suquamish settlements. Within a few decades a number of lumber mills were established on the Island and by the early 1900's, much of the forest on Bainbridge Island had been removed. Strawberry farms dominated the center of the Island where land had been cleared (Swanson, 2002). What remains today is mainly second growth forest with very few old growth trees. These few trees stand testament to the history of the last two centuries and should be protected as part of our heritage.

As the Island's communities continued to expand, residential development began to dominate the area and much of the forested land was converted to residential lots. Nonetheless, substantial forest areas have been conserved in the community. Fort Ward State Park was established after the fort closed and protects a large forested tract along the south end of the Island. The Bloedel Reserve is now privately owned and managed for public use through a fee system. Other large forested properties, including Gazzam Lake Park and the Grand Forest Park, are managed by the Parks District for public use.

In 2001, the citizens of Bainbridge Island approved an eight million dollar bond measure for "acquiring or otherwise preserving forested areas, open space, wildlife habitat, farms and agricultural lands and creating new trails and passive parks...." To date, 13 properties have been acquired, including large tracts of forested land, such as the 12-acre Hall property, 6 acres of forest in the Lost Valley, 49 acres of forested land on the Peters property and 7.5 acres of forested area at the Yama property. These forests are managed by the Parks District. Specific funds have not yet been set aside for comprehensive management of these properties.

Benefits of the Community Forest

Scientific studies of the past several decades reveal that forests provide a great variety of benefits and services which indirectly provide high levels of economic return to communities.

Healthy trees and adequate forest cover provide a variety of ecological functions. Collectively, the urban forest can be viewed as a green infrastructure system, just as roads, sewers and stormwater systems comprise a city's gray infrastructure. However, trees are living entities and have basic biological requirements for survival and growth. In an urban setting, the trees must be actively managed and protected to maintain their health, function, beauty and value.

Benefits are experienced at different scales. Some benefits are realized at an individual scale. For instance, research shows that views of nature reduce stress and help people heal more quickly from both physical and emotional injuries. Some benefits impact our entire community. Forest stands enable rainwater to percolate into aquifers better than impervious surfaces do, enhancing the water supply. The following are examples of the many services and benefits that forests provide in built settings:

Trees and forests improve air quality by absorbing carbon dioxide during the process of photosynthesis and producing oxygen as a by-product. Tree leaves also intercept and remove other pollutants and particulate matter from the air.

- A large, healthy tree can produce enough oxygen each day for 18 people.
- An American Forests study of the Puget Sound area found that tree canopy cover removed 38,990 tons of air pollutants in one year (American Forests, 1998).

Trees and forests save energy by shading our homes and offices, streets, parking lots and other paved areas. Trees cool the air as their leaves transpire water.

- Trees can provide a 4% reduction in annual heating and cooling costs (McPherson 2002).
- The 200,000 leaves on a healthy 100-foot tall tree can take 11,000 gallons of water from the soil and breathe it into the air in a single growing season (Head 2001).

Trees and forests reduce stormwater runoff by intercepting rainfall and releasing it slowly. This reduces runoff and cuts peak flow rates that cause flooding and burden stomwater systems.

- The leaves and branches of trees intercept 7 to 22% of precipitation, hold it, and then release it slowly back into the atmosphere.
- The value of trees can be measured by the reduction in construction and material costs for stormwater control structures and systems. One study has shown that for every tree, 2 cents in water control costs are saved for every gallon of water intercepted during a twelve-hour storm. In a medium-sized city, this equates to a 17% reduction of 11.3 million gallons, and a savings of $226,000 (Head 2001).

Trees and forests improve water quality and reduce soil erosion and decrease the amount of sediment that enters streams and Puget Sound.

- The vegetation of forested streamsides helps disperse the energy of heavy rain so that soil particles are not carried into streams.
- Riparian forests remove, hold, or transform nutrients from fertilizers, sediments, and other pollutants. Healthy root systems prevent soil compaction and retain valuable surface layers of organic soils.

Trees and forests provide wildlife food and habitat important to the survival of insects, amphibians, birds, mammals and other wildlife.

- Many species depend on trees and the forest for food and shelter. Bald eagles and osprey nest in large conifers and use other tall trees along the shoreline for roosting. Tree corridors provide shelter for deer, squirrels and other small mammals, birds and amphibians.
- Forested riparian corridors contribute to the health of aquatic ecosystems, providing shade to streams, and shelter to wildlife.
- Riparian or "streamside" forests control fluctuations in water temperature and maintain varied, but stable light levels. Light levels affect the type and amount of algae present in a stream, and water temperature affects salmonid health. Animals in streams depend on litterfall, as the decay of woody debris releases food and nutrients into the aquatic system.

Trees and forests enhance the quality of life for our residents by creating environments that benefit peoples' health and functioning.

- Physical activity is directly linked to good health. Trees and forests create a natural setting for recreational activities such as walking, jogging, bicycling, golfing, and bird watching.
- Trees contribute to higher job satisfaction and lower absenteeism when employees can view trees or landscapes from their workplace (Kaplan, 1993).
- Routine activity in parks with trees reduces Attention Deficit Hyperactivity Disorder (ADHD) symptoms in children (Taylor, 2001).
- Views of nature from hospital windows also provides a measurable acceleration of the healing process following physical or emotional injuries (Ulrich, 1991).

Trees and forests enhance community economics by contributing to increased property values and enhancing commercial districts.

- Consumers shop more often and longer and are willing to pay 9-12% more in well-landscaped business districts (Wolf, 2005).
- Having trees increases property values by adding to the visual appeal of a property. One study found that each large tree in the front yard was associated with a 1% increase in sales price (Anderson and Cordell, 1988).
- Residences adjacent to quality open space gain 10-20% in value (Crompton, 2001).
- Rental rates for landscaped commercial properties were 7% higher compared to properties with no plants (Laverne, 2003).

2 State of the Forest

One of the Island's greatest assets is that it is well forested, with large parcels of native forest protected by public ownership or conservation easements. The trees and the forests provide the Island with a sense of place and pride, giving structure and character to the community.

Islandwide Forest Cover

A vegetation inventory was conducted to provide baseline data to support the analysis and subsequent policy formulation found in this management plan. The City acquired 0.5-foot pixel resolution color orthophotography in late 2004 (aerial photography flown October 2004). Detailed analysis of the orthophotography resulted in canopy cover estimates for the various land use zones in the community. This information, as well as the preliminary data from the *City of Bainbridge Island Population Allocation Study for the Year 2025, Phase I: Research and Analysis, September 2005*, was used to determine canopy cover goals for the community.

Forest Cover

The estimated forest cover throughout the Island is 72%, based on data acquired from 2004 aerial photography. Forest cover over the various zones in 2004 was estimated as follows:

Low Density Residential (R-2, R-1, R-0.4)	75%
High Density Residential (R2.9 through R-14)	47%
Neighborhood Service Centers	27%
Mixed Use Town Center/High School Road	42%
Winslow Core	29%

American Forests, a nonprofit forest conservation organization, notes that the potential for overall tree cover in urban areas ranges from 60-80% and recommends that cities set canopy cover goals for different land use areas of a city. Canopy coverage in all zones on Bainbridge Island currently exceeds the goals recommended by American Forests[1], as indicated in the table above. However, development is occurring rapidly in many areas of the Island and canopy coverage is declining, especially in the Winslow central core area. It is estimated that forest canopy in the Winslow core has declined by almost 2% since the 2004 data was collected.

[1] American Forests, http://www.americanforests.org/, recommends the following canopy cover goals for metropolitan areas in the Pacific Northwest: 50% cover in suburban residential zones, 25% in urban residential zones, and 15% cover in central business districts.

The 2025 Population Allocation Study indicates that 1,242 new residences are expected in the low and high density residential areas. If each new anticipated dwelling unit resulted in one-half to two-thirds of an acre of clearing, total forest loss in the zones is estimated between 600 and 800 acres. This plan recommends canopy cover goals of 70% for the low-density residential zones and 50% for the high-density residential zones. In order to attain these goals, less than 770 acres of forest can be lost in those areas. Therefore, this plan recommends incentives and education to encourage landowners to clear less than fifty-percent of the forested areas on their individual properties.

Zone	Cover Goal
Low Density Residential	70%
High Density Residential	50%
Neighborhood Service Centers	35%
MUTC/High School Road	35%
Winslow Core	35%

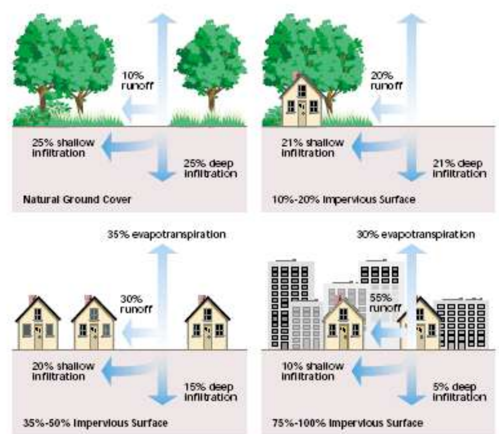
The City of Bainbridge Island Comprehensive Plan focuses much of the anticipated growth in the Mixed Use Town Center (MUTC) and Winslow Core zones. Canopy cover goals address the expected growth in these areas, anticipating the possible decline of tree cover in the MUTC through development of treed lots, but also anticipating increased canopy from newly planted street trees.

The goals show an increase in tree canopy in the Winslow Core area. This is based on the assumption that much of the available land in the Core is currently impervious surface (either buildings or pavement), and that implementation of a new street tree program may result in increased tree canopy in this district. The same is true for the Neighborhood Service Centers.

Watershed Forest Cover

Bainbridge Island is made up of twelve distinct watersheds (see map on Page 14) Watersheds are land areas that drain surface water and groundwater to a downstream water body such as Puget Sound. High ridges and peaks in the landscape determine the direction of water flow and so serve as watershed boundaries.

Our Island community is unique in that all of our watersheds lie within City boundaries, thus our community can effectively manage surface water quantity and quality. All drinking water for the Island is provided by underground aquifers, which are recharged by surface water that percolates into surface soils and then infiltrates to deeper soil and rock layers.



Impervious cover in a watershed results in increased surface runoff. As little as 10 percent impervious cover in a watershed can result in stream degradation. Source: FISRWG 2001.

Forest cover in watersheds is important for two reasons. First, trees and forests cleanse surface water by filtering and extracting pollutants and sediments. Vegetation cover also prevents rainfall from moving quickly over the landscape and accumulating into destructive peak flows. Having trees in all areas of the watershed, rather than only within stream corridors, is crucial to maintaining healthy streams and shorelines and to sustaining our drinking water supply.

As development occurs in the community, much vegetation is typically removed and replaced by impervious surfaces. The combination of forest canopy loss and increased impervious surfaces results in additional runoff, higher stream temperatures and more pollutants in streams and on the shore. The degree of water loss to runoff and increased evapotranspiration can be seen in the above diagram that illustrates the effects of increases in the quantity of impervious surface in the landscape.

Watershed forestry information can be used during the planning process, to monitor impervious surface cover within watersheds and create programs to maintain adequate levels of forest cover that will help protect and retain the watershed systems of the Island.

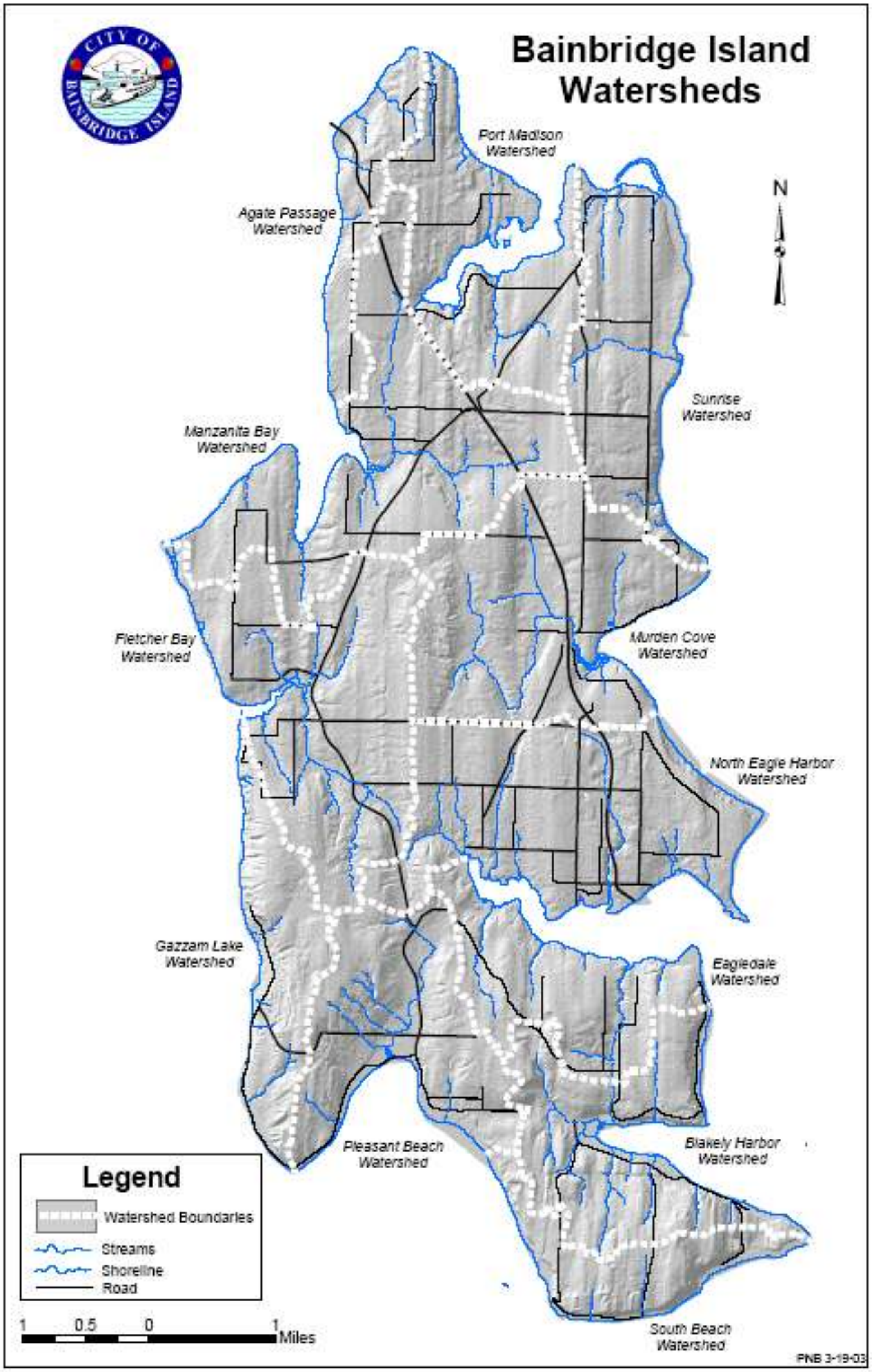
The 2004 forest canopy cover data was used to calculate forest canopy for each watershed. Canopy cover rates vary from 57% to 84%. The North Eagle Harbor watershed, where Winslow is located, contains the lowest cover rate, reflecting its more urbanized condition.

Watershed Forest Cover

The 2004 forest canopy inventory data shows canopy coverage for each watershed on the Island as follows (The figure on the following page illustrates watershed boundaries):

Agate Passage Watershed:	75%
Port Madison Watershed:	80%
Manzanita Bay Watershed:	71%
Sunrise Watershed:	76%
Fletcher Bay Watershed:	77%
Murden Cove Watershed:	69%
North Eagle Harbor Watershed:	57%
Gazzam Lake Watershed:	84%
Eagledale Watershed:	69%
Pleasant Beach Watershed:	73%
Blakely Harbor Watershed:	84%
South Beach Watershed:	72%

This data provides important baseline information for future policy and actions. Retention of existing forest that has mature trees and native soils is the best way to achieve water quality and other environmental benefits. During site development large trees may be replaced by small trees that will take decades to reach a size sufficient to generate comparable benefits. In addition, earth moving associated with development can cause erosion or removal of topsoils, compaction of the subsoils where water infiltration occurs, and elimination of the small depressions and water storage areas that aid natural water quality processes. This plan proposes policies and actions for maintaining water quality through forest retention.


Bainbridge Island Watersheds
Port Madison Watershed
Agate Passage Watershed
Sunrise Watershed
Manzanita Bay Watershed
Fletcher Bay Watershed
Murden Cove Watershed
North Eagle Harbor Watershed
Gazzam Lake Watershed
Eagledale Watershed
Pleasant Beach Watershed
Blakely Harbor Watershed
South Beach Watershed
N
Legend
Watershed Boundaries
Streams
Shoreline
Road
1 0.5 0 1 Miles
PNB 3-19-03

Street Tree Canopy Cover/Diversity

Trees in public spaces are an important element of the urban forest. Street trees:

- provide shade and cover from the weather;
- act as a barrier between traffic and sidewalks;
- have traffic calming effects;
- encourage pedestrian activity; and
- enhance the visual appeal of residential and commercial districts.

Trees in civic spaces, such as those adjacent to civic buildings (such as the library or city hall), on school grounds, in plazas and in more formal park spaces, are often planted to commemorate significant events or people and may serve as memorials in times of loss. Aesthetically, public trees are a mark of the identity and character of the community. Symbolically, they represent the cultural and natural heritage of a place.

Individual street and civic trees within the Winslow core area were inventoried to prepare this plan. Two goals guided the assessment.

First, an evaluation of individual trees and species distribution was needed. Knowledge about the age of components of the urban forest guides management strategies, as young trees have different maintenance needs than mature ones. Species diversity is also important because a prevalence of any single species places the forest at risk for disease (a lesson learned from Dutch elm disease).

The second goal of the assessment was to determine health and condition of the trees. Trees that are well-maintained and healthy generate the greatest level of benefit for both the environment and aesthetics. Numerous studies have demonstrated that costs applied to tree maintenance are a net gain for community investment.

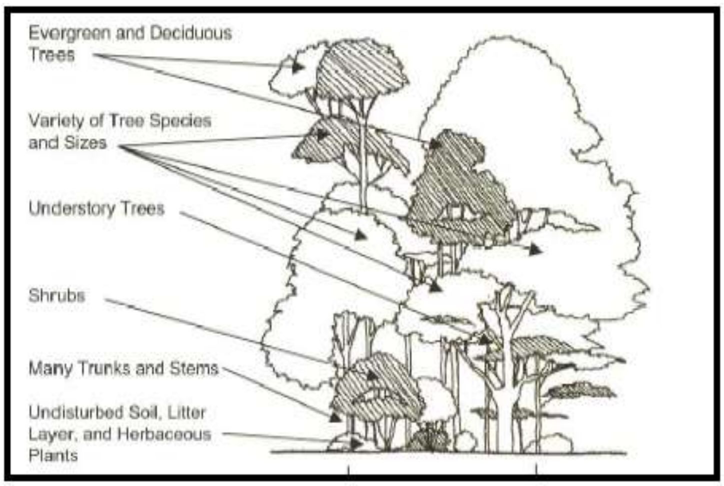
On Bainbridge Island, street tree canopy within the Mixed Use Town Center area is minimal, with a total of 222 small to medium-sized street trees located in street rights-of-way (See Appendix A). The existing street trees are young and most have been planted since 2000. Several large trees are located along Winslow Way. These trees are planted in bulb-outs and most of the trees have outgrown their limited root space.

The City does not currently have a comprehensive street tree planting or maintenance plan and there are currently no requirements for planting street trees. Many of the street trees have been planted by private property owners, and the care of these trees depends on the property owners. Trees are also planted by the City during road or infrastructure installation. Tree pruning and maintenance is currently carried out as needed by the Operations and Maintenance Division of the City's Public Works Department. Utilities occupying the public right-of-way are required to maintain vegetation clearances for existing power lines according to state and federal requirements. Tree pruning and maintenance is often performed by these utilities.

Civic trees are a combination of planted ornamental species, and retained native species. Data collection about this urban forest component, including significant trees, needs to be completed. There is currently no plan for adding to or managing this important community asset.

Forest Structure

The structure of the forest influences the integrity and function of the forest. A forest typically becomes more complex in structure as it matures. Early successional forests typically have lower canopy, fewer canopy layers, and large patches of single species of plants. Over time, pioneer plants grow taller, but are more diversified in height. As trees die, more sunlight reaches the forest floor, encouraging the growth of new saplings of a different group of species. Fallen trees provide essential nutrients to the forest floor. Dead trees left standing may become snags, providing essential habitat to many species. Eventually, tree stands become mixed in species composition and the understory becomes more diverse as well.



Soils. Soils are the foundation of the community forest. Soils on Bainbridge Island are typically glacial till, with shallow bedrock evident on the south end of the Island, especially in the Fort Ward area. The native soil types of the Island, including Alderwood, Harstine, Kapowsin, and others are well suited to supporting Douglas fir, Western hemlock, Western red cedar and red alder (SCS, 1980).

Soils in the urban environment are generally highly disturbed as development can result in erosion or removal of topsoil, compaction of subsoils and alteration of wetlands or natural stormwater storage areas. The resulting quality of urban soils for forest and tree growth is poor. Compacted soils limit root growth and poor drainage can cause tree roots to drown. Special attention should be paid to improving or preparing soils for tree planting in the built environment.

Overstory. The overstory of the community forest was surveyed using a combination of digital aerial imagery obtained in October 2004 and ground observation. Based on this analysis, the Island's overall tree canopy is estimated at 72%. Predominant tree species outside the town center are alder (*Alnus rubra*), bigleaf maple (*Acer macrophyllum*), Douglas fir (*Pseudotsuga menziesii*), Western red cedar (*Thuja plicata*), Western hemlock (*Tsuga heterophylla*), and Madrona (*Arbutus menziesii*).

Understory. The understory vegetation of the forest provides habitat for wildlife and contributes to the overall functions of a healthy forest. Common native understory species in Bainbridge's forests include vine maple (*Acer circinatum*), salmonberry (*Rubus spectabilis*), Indian plum (*Omelaria cerasiformis*), elderberry (*Sambucus racemosa*), oceanspray (*Holodiscus discolor*), huckleberry (*Vaccinium ovatum*), sword fern (*Polystichum munitum*), salal (*Gaultheris shallon*), Oregon grape (*Mahonia aquifolium*) and trailing blackberry (*Rubus ursinus*).

A common practice in forested open space or green belts is underbrushing. Trees are retained, but landowners wish to tidy up the forest or enhance views. The understory is typically made up of multiple layers of varied height vegetation. Removing all but the tallest trees severely compromises forest health and reduces the benefits that are associated with forests. Minor vegetation removal does little damage, but removal of all "brushy" vegetation down to bare soil endangers the health of remaining trees.

Managing our forests for better forest structure will assure that, long-term, they will be sustainable and provide the highest level of benefit. Focusing on managing urban soils, incorporating species diversity in tree planting and encouraging the planting of native understory plants will result in a healthier urban forest.

Forest Health

The community forest on Bainbridge Island is a mosaic of highly altered landscapes and fragments of remaining native ecosystems. The condition of the trees in the forest is an indicator of the health of our urban ecosystem. When the forest is healthy, the Island's ecological systems, including the soil, air and water, are also healthier.

Many factors negatively affect the health of the community forest, including fragmentation, reduced forest structure, invasive species, insects and disease, pollutants, increasing impervious surfaces and construction damage. The strategies outlined later in this management plan are intended to reduce the effects of these threats and to produce a healthier and more functional community forest.

Forest Fragmentation

As land is developed, contiguous forest areas are divided into smaller fragments. Fragmentation increases the proportion of edge to interior habitat. Habitat for interior dwelling species is diminished and invasion of non-native plants is more likely.

Remaining forest fragments are generally located in areas that are difficult to develop, such as wetlands, stream ravines or steep slopes. These fragments are stressed by nearby development and land use activities. Construction compacts root zones and alters drainage patterns. Air pollutants damage tree foliage and impair photosynthesis, making trees more susceptible to pest outbreaks, disease and drought. Forest fragments are also stressed by deer overbrowsing, dumping of trash and compaction from foot traffic (Cappiella, 2005).

The Bainbridge Island Wildlife Corridor Network Study (December 2000) designates upland and riparian wildlife corridors throughout the community. The study proposes to counter the increasing fragmentation of the Island's forests by incorporating existing large patches into the proposed wildlife corridor network, providing smaller habitat areas within the corridor network and maintaining or enhancing the quality of wildlife habitat in the designated corridors. Preservation of the wildlife corridors may not be required depending on how developments are configured. Therefore, incentives are needed to encourage private landowners to protect, expand and enhance the existing corridors.

Increased Impervious Surface and Construction Damage

Development and construction can result in increased impervious surface near remaining forest fragments, compromising root systems and elevating soil pH. Tree damage is often sustained as construction vehicles cut into tree roots or trunks. Additionally, tree roots often conflict with utilities that are installed during construction, causing a long-term decline in tree health.

Insects and Tree Disease

Trees are more susceptible to pests and disease when trees are stressed by crowding, construction damage, or weather conditions, such as drought. Examples include laminated root rot (a fungus that infects conifers) and insect pests such as gypsy moths, longhorn beetles and pine beetles that can invade large areas of forest land.

Invasive Species.

Another major threat to the health of the Island's forests is the introduction of non-native, invasive species. The most widespread is English ivy (*Hedera helix*). Ivy smothers the ground layer vegetation and ultimately carpets the forest floor. Ivy grows up tree trunks, and the heavy weight of the plant can cause breakup of tree trunks and branches. English holly (*Ilex aquifolium*), Himalayan blackberry (*Rubus discolor*), Scot's broom (*Cytisus scoparius*) and Japanese knotweed (*Fallopia japonica*) are other invasive and problematic species threatening the health of the Island's forests and other ecosystems.

<u>Invasives Control.</u> Ivy is the most prevalent invasive plant presenting a serious threat to the forests all over the island. Ivy control is labor intensive and can be accomplished with repeated and consistent efforts.

Knotweed is another non-native, invasive plant that has emerged as a concern on Bainbridge Island in recent years. Knotweed is a rhizomatous perennial introduced from Asia to Europe, and from Europe to the United States in the mid-nineteenth century as an ornamental and fodder plant. Knotweed grows to a height of 2-5 meters, with bamboo-like stems, arching branches and clusters of creamy white flowers appearing late in the season. The plant grows in moist areas and is becoming a serious threat as it forms a monoculture and chokes streams and wetland habitats. This invasive plant has just begun to establish itself on Bainbridge Island and has been targeted as a priority for removal and control before it becomes too prevalent.

Large Knotweed Patch

Invasive species removal efforts are labor intensive. Herbicides are effective to a limited extent, and must be applied carefully and repeatedly to be effective. Other methods include repeated stem removal at the ground, mowing, and/or smothering with heavy plastic and organic mulch materials. In many communities invasives removal is achieved using volunteer groups and frequent work parties.

3 Current Policies/Practices

Existing Policies and Resources

Community forest management in the City of Bainbridge Island is currently achieved through the use of state and local policies and regulations. Very few established City educational programs, incentives or defined standards for management of public or private trees and forests currently exist. This section describes the management tools now available to the City and the following Section 4 recommends policies and actions that will form a comprehensive management approach.

The City of Bainbridge Island Comprehensive Plan, adopted in 2004, outlines City policies on trees and the community forest. The Community Values Survey, conducted in 2000, indicates that Island residents feel forested land contributes greatly to the character of the Island. In response to these survey results, the City developed the Environment Element of the Comprehensive Plan to include Urban Forestry policies.

This Community Forest Management Plan is intended to serve as a supporting document to the Environment Element of the Comprehensive Plan, providing a comprehensive and more detailed set of goals, policies and actions for managing and enhancing the Island's trees and forests.

The Bainbridge Island Municipal Code establishes the regulations that implement the policies of the Comprehensive Plan. The recommendations in this Management Plan for new or revised regulations are intended to be incorporated into the municipal code. The following sections of code are currently in use by the Planning and Public Works Departments:

Landscape Requirements. Chapter 18.85 of the Bainbridge Island Municipal Code outlines requirements for tree retention and landscaping for new development. Generally, new developments must retain 15 percent of the significant trees or 30 percent of the existing tree canopy. This regulation often results in the preservation of inappropriate and potentially hazardous perimeter trees or small stands of trees subject to windthrow. New development in the Core District and Ferry Terminal Overlay District is not required to preserve existing trees.

Flexible Lot Subdivision Design. Title 17 of the Bainbridge Island Municipal Code requires that short plats and subdivisions cluster homesites or retain 25 percent of the original parcel in open space, giving priority to contiguous forested areas. Vegetated buffers along roadways are also required to be retained during division of land. This has resulted in the preservation of much privately owned and maintained forest land. The Wildlife Corridor Network Plan (City of Bainbridge Island, 2000) encourages voluntary preservation of riparian and upland wildlife corridors during subdivision of land.

Land Clearing. Chapter 15.18 of the Bainbridge Island Municipal Code requires that a property owner obtain a permit to clear more than six significant trees or 2,500 square feet of land. A land owner can clear up to 5,000 board feet of timber under this permit.

Vegetation Management. Chapter 16.22 of the Bainbridge Island Municipal Code regulates managed forest lands as well as conversion of forest lands to residential use. This chapter requires that landowners clearing more than 5,000 board feet of marketable timber obtain a Vegetation Management Permit from the City, as well as a Forest Practices Permit from Washington State Department of Natural Resources. Through the City permit process, the landowner is restricted to cutting a percentage of the trees on the property and is required to provide perimeter buffers.

Critical Areas. Chapter 16.20 requires retention of trees and native plants in all wetlands, as well as in all stream and wetland buffers. Significant amounts of tree canopy are preserved through implementation of the regulations in this chapter.

Analysis of Gaps in Current Policies and Resources

This plan recommends that the Department of Planning and Community Development, in cooperation with other City departments, embark on a program to implement forestry management strategies, new education and outreach projects, and innovative community forestry incentive programs. The Community Forestry Commission recommends that existing policies and regulation pertaining to tree planting and preservation be revised. This section briefly discusses the gaps in current programs and policies.

- Regulations pertaining to preservation and removal of trees are scattered throughout several chapters of the Bainbridge Island Municipal Code. In order to facilitate review of tree-related projects, the tree-related regulations should be incorporated into one separate chapter of the code, and cross-referenced where appropriate.

- The tree retention requirements found in Chapter 18.85 (Landscape Requirements) do not apply to the urban center of the Island. Preservation of trees within new developments in the Core District and the Ferry Terminal District is voluntary only and little guidance is provided for appropriate construction activities adjacent to retained trees. An education and incentive-based policy should be drafted to encourage land owners to preserve significant or distinctive trees. Best construction practices should be required to ensure that trees are preserved in appropriate locations and protected from damage during construction.

- The Vegetation Management chapter (BIMC 16.22) was written with the intent of regulating forest lands that are managed for harvest yields or other productive uses. Although a few vegetation management permits are issued each year for forest management, most applications reviewed through this chapter involve conversion of forest lands to residential uses. The Vegetation Management chapter is confusing with regard to these types of applications and should be clarified.

- The preservation of forested open space required through the Flexible Lot Design process is effective in maintaining canopy cover in the residential areas. However, in order to obtain the canopy cover goal for low density residential areas, incentives should be provided for landowners to plant or preserve trees on individual lots and to use low impact development (LID) techniques.

- Code enforcement on illegal tree clearing incidents requires replanting of trees based on the Significant Trees and Tree Stand Replacement section of the Landscape Requirements chapter (BIMC 18.85.050(C)). This section requires replacement at a ratio of 1.5 inches diameter for every one-inch diameter of removed tree. Failure to replace the trees results in a fine of up to three times the value of the trees removed.

  The fine for illegal clearing under the Vegetation Management chapter is $20,000 for each acre of forest cut. This fine has rarely been enforced. Alternate penalty provisions should be created. For example, lesser fines, or fines more closely tied to the number and size of trees removed, might serve as more effective and more enforceable deterrents to nonpermitted clearing.

- The City does not have a street tree plan or guidelines for planting or managing street trees. A requirement for planting street trees with new development in the Mixed Use Town Center and for all newly created streets in the City should be developed. A voluntary program can be developed to encourage street tree planting in established neighborhoods. A street tree plan that includes appropriate tree species selection, practices, and maintenance techniques is needed.

- A Best Management Practices Manual is needed to provide guidelines for maintaining healthy trees and tree stands. Best Management Practices can then be applied by City crews when work on public lands occurs near trees or forests. The manual will also be useful for City employees when they review or inspect private construction or development projects.

4 Forests in the Future: Policies, Standards & Actions

Policies

The Community Forestry Commission developed forestry policies for the City of Bainbridge Island Comprehensive Plan. Those policies are reflected in the policies defined in this plan. The following pages detail standards and actions for each of the six policies that will provide a plan for better management of the community forest through education, incentives, and regulation.

Policy 1: Protect, restore and improve existing vegetation that has environmental, wildlife habitat and aesthetic qualities to include tree groves, significant tree stands, and forested hillsides and vegetation associated with wetlands, stream corridors and riparian areas.

Policy 2: Initiate and promote urban tree management practices in high density, mixed use areas in order to improve quality of life for all district users and create more livable conditions, to include visual amenities, environmental services and economic development.

Policy 3: Develop a community-wide program to enhance the community's awareness of the value of trees and the urban forest.

Policy 4: Encourage the use of Best Management Practices to protect and enhance community trees and forests.

Policy 5: Control and prevent establishment of invasive species that are destructive to forest health.

Policy 6: Periodically review Island-wide forest conditions and revise policies and actions to address changing or emerging circumstances and needs.

Policies, Standards and Actions

Policy I: Protect, restore and improve existing vegetation that has environmental, wildlife habitat and aesthetic qualities to include tree groves, significant tree stands, and forested hillsides and vegetation associated with wetlands, stream corridors and riparian areas.

Standard I.1 Maintain or achieve optimum tree canopy cover levels in all zones of the Island.

In order to ensure that forest canopy in our community is maintained or increased, the Forestry Commission recommends the following minimum canopy coverage limits/goals:

Zone	Existing Cover	Cover Goals
Low Density Residential (R-2, R-1, R-0.4)	75%	70%
High Density Residential (R2.9 through R-14)	47%	50%
Neighborhood Service Centers	27%	35%
Mixed Use Town Center/High School Road	42%	35%
Winslow Core	29%	35%

Actions

a. Identify priority areas for preservation of forest lands through conservation easements or purchase.
b. Use this information for comprehensive planning and rezoning.
c. Promote retention of native tree canopy in all project development review, and during construction.
d. Develop policies, incentives or regulations that result in native forest retention on individual residential building lots.
e. Require planting of street trees that are compatible with existing infrastructure to replace tree canopy lost during development.
f. Develop educational materials to inform landowners about the benefits of tree canopy and management approaches that can be applied to private property.
g. Promote restoration of native forests on sites that have been cleared or harvested.
h. Monitor the forest canopy every five years using the 2004 survey as baseline data.

Standard 1.2 Effectively manage publicly owned forest lands.

Much of the forest land on the Island is publicly owned or maintained. by the Washington State Parks Department, the City of Bainbridge Island and the Bainbridge Island Parks and Recreation District. The Bainbridge Island Parks District has recently been given responsibility for maintenance of lands purchased through the Open Space Commission. Management plans have not been developed for these properties and funds for long-term maintenance of the newly acquired properties have not yet been specifically allocated.

Actions

a. Develop site-based management plans for properties purchased by the Open Space Commission.
b. Identify costs for long-term management of Open Space properties and allocate appropriate funds.
c. Develop a long-term tree management plan for Waterfront Park.
d. Work with the Parks and Recreation District to implement Best Management Practices for trees and forests on forest lands managed by the Parks District.
e. Prevent unnecessary forest loss on all public lands from any private or public activities, including public works and utilities projects.

Standard 1.3 Restore forested areas along scenic roadways, wetlands, stream or riparian corridors, and along ridges and hillsides.

Actions

a. Conduct a scenic corridor analysis to identify and promote vistas that are enhanced by forests and vegetation.
b. Develop incentives for private landowners to plant trees and restore native vegetation on private property, especially along scenic roadways, on ridges and hillsides and in critical areas.
c. Work with the Washington State Department of Transportation to maintain high quality forest stands along SR-305.

Standard 1.4 Maintain adequate forest canopy cover in all areas of the Island's watersheds, with particular attention to wetlands and riparian corridors.

Actions

a. Integrate watershed forest canopy and impervious surface data into future planning efforts. For instance, plan for higher densities in watersheds that are not threatened by high impervious surface levels.
b. Continue to update data on forest canopy and impervious surface.

Policy 2: Initiate and promote urban tree management practices in high density, mixed use areas in order to improve quality of life for all district users and create more livable conditions, to include visual amenities, environmental services and economic development.

Standard 2.1 Create and maintain a healthy and diverse street tree canopy, including tree canopy on all civic properties.

The City does not have a street tree plan or a requirement for planting of street trees. The City should adopt a policy requiring planting of street trees during development of subdivisions and for all properties in the urban environment. A comprehensive street tree maintenance program should then be developed to ensure that the street trees and trees on civic properties are properly pruned and cared for.

Actions

a. Develop a street tree plan that identifies a long-term strategy for street tree selection, siting, replacement and maintenance.
b. Provide funds for successful implementation of the Street Tree Plan.
c. Require street tree planting during development of properties in the urban area and for subdivisions.
d. Develop street profiles that include trees and create more opportunities for tree planting in the public right-of-way. Include innovative standards for adequate tree planting facilities so that root systems neither fail nor interfere with utilities in the right-of-way.

Potential Incentive Programs

Heritage Tree Program
A Heritage Tree Program is being developed to recognize and assist in preserving historic, culturally significant or otherwise unique trees in the community.

Exceptional Trees
Exceptional trees are trees of significant size that should be preserved on private property. Whether a tree can be considered exceptional depends on its species and its size.

Transfer of Development Rights (TDRs)
A Transfer of Development Rights program is recommended to allow density to be transferred from forested properties to other areas on the Island, thereby creating an incentive to preserve forests on private property.

Standard 2.2 Encourage property owners to maximize the preservation of native forest communities and to maintain and enhance the connectivity of tree groves. This should be accomplished using appropriate site design and construction methods as well as open space dedication of open space.

Incentives and education should be provided in order to encourage property owners to preserve trees and native forest communities during design of new developments in the urban core. Incentives are already available in the code to encourage provision of public amenities or affordable housing in the mixed use zones. The Community Forestry Commission recommends the implementation of an incentive option for property owners to obtain additional density by preserving Heritage trees, exceptional trees and significant tree groves in the Mixed Use Town Center and the Urban Multi-family Zones.

Practical design options using a density bonus obtained through tree retention might include an increased height allowance of one story to accommodate the added density and/or a reduction of required parking spaces. This approach would not only preserve individual trees or tree stands, but would serve to decrease the amount of impervious surface created in the urban area.

The Community Forestry Commission has defined and is in the process of mapping "Exceptional" trees in Winslow. It is recommended that incentives be provided for retention of exceptional trees during development.

Actions

a. Promote tree retention as a goal for all new development using incentives, education and regulations.
b. Encourage retention of groves of trees with native understory rather than scattered, individual trees, as stands of native vegetation generate more benefits than isolated trees.
c. Develop incentives to preserve existing trees and native vegetation in site design of new development in the urban area.
d. Allow an increase in allowed density as an incentive for preserving Heritage trees, exceptional trees or tree stands.
e. Allow increased height to accommodate increased density resulting from tree preservation.
f. Allow a reduction in parking requirements to encourage tree preservation.
g. Implement a Heritage Tree program to identify, protect and promote historically or culturally significant trees or tree stands.
h. Provide for Transfer of Development Rights to encourage preservation of forested properties on the Island and especially in the more densely developed areas of the community.
i. Periodically identify and map exceptional trees in the urban area and make the information available to the community and to planners for use during site plan reviews.

Standard 2.3 Expand and Implement the Urban Greenways Plan

In order to preserve or enhance forests in the more densely developed section of the Island, an urban greenways plan for the urban area should be formalized. This plan will expand on the policies listed in the Greenways section of the Comprehensive Plan. Potential multi-functional green corridors or greenways were identified using existing aerial photographs and property information to identify green corridors through the urban mixed use town center, from Sportsman's Club Road to SR-305 and from Eagle Harbor to New Brooklyn Road. The figure below is a conceptual illustration of the potential green corridors.

The green corridors would connect watershed streams with Eagle Harbor and connect parks with open spaces and with schools. The green corridors act as "green" infrastructure, providing tree canopy in the highly urbanized area of the City, and reducing the need for stormwater or "gray" infrastructure. In addition, low-impact trails through the corridors could be developed to enhance non-motorized transportation options through the urban area, connecting people with green space.

Actions 2.3

a. Finalize a Multi-Functional Green Corridor Map and Plan.
b. Develop incentives for private land owners to preserve designated green corridors in the urban center. Incentives could include bonus density, stormwater fee reductions, additional building height, or reduced parking requirements.
c. Establish a fund to purchase and maintain greenways.
d. Prioritize undeveloped properties along the corridors for acquisition or conservation easements.
e. Work with the Non-motorized Transportation Committee and the Watershed Council to plan for multi-modal trails through the corridors.
f. Promote a public outreach program to educate citizens about the green infrastructure corridors to promote preservation and use of the corridors.

Policy 3: Develop a community-wide program to enhance the community's awareness of the value of trees and the urban forest.

Standard 3.1 Assist stewards of the community forest in providing accessible and on-going education opportunities.

The Community Forestry Commission was formed to develop a long-term management strategy for the urban forest and to promote education and outreach programs to educate the community about trees and forest. The Commission has sponsored an invasive species educational effort, a tree protection workshop and coordinates an annual native plant sale. These efforts should continue to focus on best management practices and provide opportunities for landowners to understand new incentive programs for tree preservation.

Many cities sponsor a NeighborWoods Tree Steward program. The program involves creating teams of neighborhood-based, well-trained volunteer tree stewards to plant and maintain street trees and contribute to the ongoing health of our community's trees. The program contributes to the improvement of the quality of life in neighborhoods, strengthens neighborhood identities, broadens an awareness of community forest needs and builds neighborhood pride as citizens work together to care for neighborhood trees.

Actions

a. Observe City-wide Arbor Day. Partner with other agencies and the school district to provide Arbor Day education and activities.
b. Apply for and maintain Tree City, USA status.
c. Develop a City-sponsored quarterly community education workshop on forest and tree management topics. Target architects, development and construction firms, real estate professionals, City employees and private landowners.
d. Continue the annual Native Plant Sale to provide native plants to residents.
e. Facilitate a greenwaste recycling program.
f. Promote the "wildlife tree" concept by encouraging landowners to retain topped or diseased trees that do not present a hazard and by providing wildlife tree signs to landowners.
g. Develop a Community Forest Stewardship program such as NeighborWoods that provides training and recognition to citizens who assist in planting and maintaining street trees in the urban core.

Policy 4: Encourage the use of Best Management Practices to protect and enhance community trees and forests.

Standard 4.1 The use of Best Management Practices for forests and trees encourages appropriate species selection, planting techniques, protection during construction, and maintenance.

Actions

a. Create a Best Practices Manual for forests and trees that recognizes the unique conditions of the community and is subject to periodic review and update.
b. Adopt Best Management Practices as standard City operating procedures.
c. Encourage public entities such as the Parks Department and the School District to adopt the Best Management Practices.
d. Promote awareness of policies in the Community Forest Management Plan and Best Management Practices for trees by providing materials, website links and technical assistance.

As more development occurs in our community, native forests are being replaced with lawns and gardens, comprised primarily of non-native species. This 'urbanization' of the forest is occurring with significant costs to the ecosystem. Non-native plants are "high maintenance" and usually require substantial support systems to keep them alive. These support systems, in the form of fertilizers, pesticides and large additions of water, place considerable strain on the environment.

Standard 4.2 Protect and enhance native plant communities.

Native plant communities are made up of groundcover plants, understory or shrub-like plants and small trees, in combination with large native trees such as Douglas fir, Western Hemlock, and Bigleaf Maple. These plant communities have evolved over many thousands of years to form compatible plant associations. They have adapted to the climate, geography and animal populations of the region. Native plants provide habitat and food for animals, such as birds, butterflies and mammals.

In protecting the forests and trees of Bainbridge Island, it is important to focus on preserving a healthy native forest plant community. The Community Forestry Commission recommends that Best Management Practices that facilitate the long-term health of native plant communities be given the utmost priority.

Actions

a. Promote Best Management Practices that enable preservation and restoration of native forest communities.
b. Develop Best Management Practices that encourage the greatest degree of compatibility between development and native plant materials.
c. Use Best Management Practices to actively protect and restore native plant communities on all public lands.

Standard 4.3 Develop Best Management Practices that protect existing mature trees in the urban area.

Existing, mature trees are a valuable and vital element of the urban environment. Mature trees provide the canopy cover that generates many of the beneficial functions discussed elsewhere in this document, including stormwater attenuation, carbon uptake, and temperature stabilization. They contribute to a healthy urban forest structure and provide shade and visual relief in the city.

In addition, stands of large native trees are a visual reminder of the beauty and cultural heritage of the Pacific Northwest. Retention of large trees creates a community image and a sense of place that Island residents cherish. Large native trees provide numerous utilitarian benefits, but they are also part of our emotional connection to this island home.

Many mature trees in the urban environment are damaged by incorrect pruning or maintenance techniques, caused, for example, by installation of utilities or infrastructure in their root zones or by nearby construction activities. In order to preserve existing mature trees, Best Management Practices for tree maintenance and for tree preservation during construction must be widely accepted and implemented.

Actions

a. Require land owners to implement Best Management Practices for tree protection during construction.
b. Dedicate staff time for education about Best Management Practices.
c. Educate City staff, Parks Department staff and other tree maintenance workers on Best Management Practices for tree protection.
d. Provide workshops for construction firms to promote a shared understanding within the industry about the purpose and strategies for tree retention.
e. Develop disincentives for damaging mature trees that are required to be preserved during construction.

Policy 5: Control and prevent establishment of invasive species that are destructive to forest health.

Standard 5.1 Invasive plant species are widespread and pose a serious threat to the health of the Island's forest.

As discussed in Section 2 of this report, invasive species are one of the greatest threats to the health of our forests. The City should provide funds and coordinate efforts to address the impacts and facilitate eradication of invasive plant species in our forests.

Actions

a. Develop partnerships to initiate an invasive species educational program that encourages citizens to avoid planting invasive species and to educate residents about invasive species removal techniques.
b. Work with the Kitsap County Weed Board and volunteer groups to provide opportunities for invasive species removal, especially ivy and knotweed, on public lands.
c. Promote a cooperative effort among local businesses to inform the public about invasive species and provide appropriate products.
d. Seek funding to develop special programs to promote appropriate disposal of invasive species.
e. Develop regulations that prevent acceptance of landscape plans that include invasive species.

Policy 6: Periodically review Island-wide forest conditions and revise policies and actions to address changing or emerging circumstances and needs.

Standard 6.1 Periodic inventories of the forest resources are necessary to assess change over time. The canopy cover study and street tree inventory that were prepared for this plan provide baseline data. Future data comparisons can be used to assess changes in forest canopy and forest health over time. Depending on the future rate of development in the community, it will be important to update this information at least every decade.

Actions

a. Conduct a canopy cover inventory every ten years to monitor change over time.
b. Maintain an inventory of City street trees, civic trees and "Exceptional" trees in the urban area. The inventory should be updated periodically.

Standard 6.2 Programs and policies should be revised as necessary over time to ensure forest health and achieve canopy cover goals. Using updated data every 5-10 years, the Community Forestry Commission and City staff should update this plan to ensure that the goal of maintaining a healthy and functioning community forest is achieved.

Actions

a. Develop a process to respond to significant changes in the forest canopy through revisions to this management plan.
b. Review and revise Comprehensive Plan policies related to forestry to respond to changes in forest canopy cover.

Standard 6.3. Employ or retain qualified, professional assistance to implement all standards and actions recommended by this plan. In recent decades a unique professional segment of forestry has emerged – municipal and urban forestry. While many urban forestry practices are premised on traditional forestry, the specific conditions of cities and towns demand specialized skills and knowledge. Certified urban and municipal foresters are able to address issues of tree growth, forest planning, and administrative and regulatory implementation.

Actions

c. Develop a full or part-time urban forestry position within either the Department of Planning and Community Development or the Department of Public Works.

5 Management Plan Implementation

Proposed Priorities and Budget for FY 2006-2010

Implementation of the actions recommended by this plan must be prioritized and budgeted on a long-term basis (a five-year master plan) as well as annually:

- development of an administrative program focused on urban forestry, including establishment of a City arborist/urban forester position;
- consolidation of all tree-related codes into one chapter of the Bainbridge Island Municipal Code; and
- development of a Best Management Practices manual and a Street Tree Management Plan to set the framework for a successful, long-term management strategy.

Administrative Program Development 2006

Create a Job Description for a City Arborist or Urban Forester

In order to effectively implement many of the programs recommended by this management plan, a qualified professional urban forester or city arborist will be essential. At this time a half-time position may be appropriate, depending on the extent of work that develops from this program.

Budget Impact: Cost of salary for one half-time position, depending on qualifications ($20,000-$30,000)

Revise and Consolidate all Tree-Related Codes

Regulations pertaining to tree preservation, hazard trees, trees in critical areas, etc. are located in different chapters of the Bainbridge Island Municipal Code. In order to more effectively communicate the tree-related regulations and to simplify the accessibility of these regulations, it is recommended that all tree-related regulations be consolidated into one separate chapter of the code, with cross-referencing as needed. The revised regulations should address the issues and recommendations set forth in this plan. This item should be added to the Department of Planning and Community Development 2006 Workplan.

Budget Impact: No additional cost to the City.

Develop a Best Management Practices Manual

A Best Management Practices Manual for trees should be developed as a resource for City staff and for private property owners. The use of Best Management Practices should be required by ordinance for all construction projects. The contract for development of this manual will be issued in 2005. Publication and distribution of the manual is planned for 2006.

Budget Impact: $10,000 for consultant contract to develop manual.

Develop a Master Street and Civic Tree and Management Program
The Street Tree inventory conducted as part of this management plan effort will support development of a Street Tree Management Program. Development and implementation of a street tree program will involve comprehensive management of the city maintained street trees, planting of additional trees to enhance species and structural diversity, appropriate and regularly scheduled pruning, and disease management. This effort can be undertaken by the City arborist or urban forester, in cooperation with the Department of Public Works.

Budget Impact: No additional cost if completed by City staff. Approximately $8,000 to contract with a consultant for plan development.

Potential Funding Sources for Urban Forest

Diversifying the funding sources for Community Forestry may make it possible to increase the number of projects accomplished and reduce reliance on limited municipal funds. Potential sources of additional revenue are identified as follows:

Grants. Community Forestry Assistance Grants are available through the Washington State Department of Natural Resources. These grants are awarded on a matching basis, for program development, education and tree planting. Up to $120,000 in grant money was available in 2005 and could be used for ordinance development, tree inventory efforts, or development of a street tree management plan.

Other grant monies are available through organizations such as the National Tree Trust (NTT), a national urban and community forestry nonprofit organization, which recently awarded $498,000 to 31 nonprofit organizations across the country for projects that improve the health of urban and community forests.

City Funding for Urban Forestry. The Community Forestry Commission has an annual budget to fund education and outreach activities and to fund development of this management plan. Continued funding of the Community Forestry Commission's activities is crucial to implementation and monitoring of this plan.

Volunteer Contributions. Many of the projects listed in the workplan can be accomplished with volunteer time and assistance. Programs such as Neighborwoods encourage volunteer stewardship that results in planting and maintenance of street trees. However, City-funded staff time is often necessary to initiate and coordinate volunteer efforts. Establishment of a City Arborist position having an emphasis on outreach and stewardship coordination will result in the most effective use of all available resources.

Stewardship

This section identifies the key agencies and individuals responsible for stewardship of our forests and encourages alliances and cooperation among these groups to promote the protection and management of the community forest.

The stewardship of the community forest as part of the urban ecosystem is the responsibility of many groups and individuals in the City of Bainbridge Island. First and foremost, the residents and property owners of Bainbridge Island are stewards of the trees and forests on private property, as well as many street trees and trees within public property areas, open space, parks and easements. Along with these individuals, the following groups have an interest in and responsibilities for protecting and managing the community forest:

Bainbridge Island City Council. The City Council, working with the Mayor and staff, establishes policy and makes budget decisions based on provisions of the Comprehensive Plan. A number of committees, including the Land Use Committee and the Public Works and Transportation Committee make decisions relating to management of the urban forest.

Bainbridge Island Planning Commission. The Planning Commission works in an advisory capacity to the City Council or the Planning Director, and reviews applications for projects. The Planning Commission can recommend project conditions to preserve or plant trees on development sites.

Community Forestry Commission. Members of the Community Forestry Commission are appointed by the Mayor and act in an advisory capacity to the City on tree-related programs. The Commission is responsible for developing this management plan and for implementing educational and outreach programs to promote urban forestry in the City of Bainbridge Island.

Bainbridge Island Parks and Recreation District. The Bainbridge Island Parks and Recreation District is a separate agency from the City of Bainbridge Island. The Parks District manages the majority of public parks on the Island, some of which contain large forested areas. The Parks District is also charged with long-term management of lands purchased by the Open Space Commission. The Parks District has a maintenance program, but individual property management plans have not been developed for the various properties under the purview of this agency.

Bainbridge Island Open Space Commission. The Open Space Commission is an advisory group charged with recommending purchase of properties with the eight million dollar public bond funds approved by Island citizens in 2003. To date, 238 acres of property have been purchased, including many valuable forested areas.

Planning and Community Development Department. The planning department has a significant influence on tree-related issues in the City of Bainbridge Island. This department is the key reviewing agency for new construction in the City. Therefore, it is the first department to identify issues relating to tree preservation, removal or modification to landscaping. The planning department also drafts tree-related ordinances and implements tree-related programs. Planning department staff provides staff support to the Community Forestry Commission. The Director and staff in this department coordinate urban forest issues with the ission, City Council, other City departments and other partners.

Public Works Department. This department manages municipal improvement projects that may impact trees, including sidewalk repairs, street improvements, street lighting and signage and other projects that involve infrastructure. The Public Works Department also reviews development plans for civil engineering, utilities, and drainage issues. This department coordinates with the planning department and other agencies on project review.

City Operations and Maintenance Division. This division of the Public Works Department is responsible for implementation of many municipal improvement projects. In addition, the Operations and Maintenance division staff is responsible for maintenance of the streets and rights-of-way and of stormwater facilities.

Bainbridge Island Land Trust. The Bainbridge Island Land Trust (BILT) seeks to preserve land having significant conservation values such as scenic vistas, wetlands, open spaces, tidelands, forests, unique plant and animal habitats, and stream and wildlife corridors, and to help landowners minimize the environmental impacts of development. Many acres of forest land on the Island have been preserved through conservation easements facilitated by the BILT.

Other Stewardship Efforts. Many volunteers and organizations on Bainbridge Island assist in preserving and restoring natural forest lands. Weed Warriors, a relatively new group, focuses on eradication of invasive species, especially ivy. Their efforts, in cooperation with IslandWood environmental learning center, have resulted in large areas of forests cleared of ivy. The Watershed Council, the Association for Bainbridge Communities and other environmental groups on the Island advocate for preservation of open space and forests in the community.

Table : Community Forest 2005-2010 Workplan

Action	Lead Staff/ Department	Partner Departments/ Agencies	Timeframe	Budget	Evaluation Tools
Policy I: Protect, restore and improve existing vegetation that has environmental, wildlife habitat and aesthetic qualities, including tree groves, significant tree stands, and forested hillsides and vegetation associated with wetlands, stream corridors and riparian areas.					
Identify priority areas for forest preservation	CFC	Open Space Commission, BI Land Trust	2005-2010		
Develop educational materials to inform landowners about the benefits of tree canopy and management approaches that can be applied to private property.	Staff Forester/ CFC		2006	$5,000	
Develop site-based management plans for properties purchased by the Open Space Commission.	Staff Forester	Open Space Commission or BI Land Trust	2006-2007		
Develop a long-term tree management plan for Waterfront Park.	Staff Forester				
Policy 2: Initiate and promote urban tree management practices in high density, mixed use areas in order to improve quality of life for all district users and create more livable conditions, to include visual amenities, environmental services and economic development.					
Develop a Green Corridor Plan. Create incentives for preservation of the green corridors.	Dept. of Planning and Community Development	Winslow Tomorrow, Non-motorized Transportation Committee	2006		
Develop street profiles that include trees and create more opportunities for tree planting in the public right-of-way. Include innovative standards for adequate tree planting facilities.	Staff Forester / Dept. of Public Works		2006-2007		
Develop incentives to preserve existing trees and native vegetation in site design of new development in the urban area.	Dept. of Planning and Community Development		2006		
Develop a Transfer of Development Rights program to encourage preservation of forested properties on the Island and especially in the more densely developed areas of the community.	Dept. of Planning and Community Development		2006-2007		
Periodically identify and map exceptional trees in the urban area and make the information available to planners for use during site plan reviews.	Staff Forester		2010	$3,000	
Policy 3: Develop a community-wide program to enhance the community's awareness of the value of trees and the urban forest.					
Observe City-wide Arbor Day. Partner with other agencies to provide Arbor Day education and activities.	CFC		2005-2010	$1,000/year	

Implement a Heritage Tree Program	CFC/ Staff Forester		2005-2010	$1000 first year $500/year thereafter	
Develop a City-sponsored quarterly community education workshop on forest and tree management topics. Target architects, development and construction firms, real estate professionals and private landowners.	CFC		2006	$2,000/ye ar	
Facilitate a greenwaste recycling program.	Staff Forester		2007-2010		
Promote the "wildlife tree" concept by encouraging landowners to retain topped or diseased trees that do not present a hazard and by providing wildlife tree signs to landowners.	Staff Forester / Dept. of Planning and Community Development		2007		
Initiate a NeighborWoods Program	Staff Forester		2007-2010		
Policy 4: Encourage the use of Best Management Practices to protect and enhance community trees and forests.					
Adopt Best Management Practices as standard City operating procedures.	All City Departments		2005-2006		
Publish and Distribute BMP manual	Dept. of Planning and Community Development				
Policy 5: Control and prevent establishment of invasive species that are destructive to forest health.					
Initiate an invasive species educational program to encourage citizens to avoid planting invasive species and to educate residents about invasive species removal techniques.	CFC/Weed Warriors		2007	$500/year	
Compile data on invasive species to assess priority areas for removal programs.	CFC	Weed Warriors, Kitsap County Weed Board		$3,000	
Policy 6: Periodically review Island-wide forest conditions and revise policies and actions to address changing or emerging circumstances and needs.					
Develop Watershed Canopy Cover Targets and Coordinate Future Zoning to Accommodate Targets	Dept. of Planning and Community Development	Watershed Council	2006		
Conduct regular Street Tree and Exceptional Tree Inventories	Staff Forester		2007-2010	$3,000	

References

American Forests. 1998. Regional Ecosystem Analysis Puget Sound Metropolitan Area, Calculating the Value of Nature.

Anderson, L.M.; Cordell, H.K. 1988. Residential Property Values Improve by Landscaping with Trees. Southern Journal of Applied Forestry. 9: 162-166.

Cappiella, Karen, et. al, Urban Watershed Forestry Manual. Prepared for USDA Forest Service, Center for Watershed Protection, February 2005.

City of Bainbridge Island Department of Planning and Community Development. Wildlife Corridor Network Study. December, 2000.

Crompton, J. L. 2001. Parks and Economic Development. Washington D. C.: American Planning Association.

Head, Constance, et. al, Best Management Practices for Community Trees, A Technical Guide to Tree Conservation in Athens-Clarke County, Georgia. Athens-Clarke County Central Services Department, April 2001.

Kaplan, R. 1993. The Role of Nature in the Context of the Workplace. Landscape and Urban Planning 26(1-4):193-201.

Laverne, R. J., and Winson-Geideman, K. 2003. The influence of trees and landscaping on rental rates at office buildings. Journal of Arboriculture, 29,5,281-290.

McPherson, E. Gregory, et al., Western Washington and Oregon Community Tree Guide: Benefits, Costs and Strategic Planting. Center for Urban Forest Research, March 2002.

Swanson, Jack. Picture Bainbridge, A Pictoral History of Bainbridge Island. The Bainbridge Island Historical Society, 2002.

Taylor, A.F., F.E. Kuo, and W.C. Sullivan. 2001. Coping with ADD: The Surprising Connection to Green Play Settings, Environment and Behavior 33(1); 54-77.

Ulrich, R. et. al. 1991. Stress Recovery During Exposure to Natural and Urban Environments. *Journal of Environmental Psychology.* 11, 201-230.

Wolf, K. L. 1999. Nature and Commerce: Human Ecology in Business Districts. In C. Kollin (ed.), *Building Cities of Green: Proceedings of the 9th National Urban Forest Conference*. Washington D.C.: American Forests.

Wolf 2005. Wolf, K.L. 2005. Business District Streetscapes, Trees and Consumer Response. Journal of Forestry 103(8):396-400.

Cover Photo by Kimball Andrew Schmidt pbase.com/kaschmidt

A Appendix A

Forest Canopy Cover Inventory

The City acquired 0.5-foot pixel resolution color orthophotography in late 2004 (aerial photography flown October 7, 2004). The project consultant, Port Madison GIS, Inc., utilized "heads-up" (screen) digitizing techniques to delineate forest canopy polygons at a display scale of approximately one inch to 80 feet for the entire Island. This yielded detailed canopy data that can be intersected with other map layers utilizing geographic information system (GIS) software; for example, percent forest cover by zoning, drainage basin, public land ownership, neighborhood, or other category of interest. Such analysis provides reasonably accurate area statistics that can be re-calculated periodically as development occurs. Along with demographic projections, this can be a useful predictive tool to enhance city land use policy and improve staff decision making.

Table 1. Canopy Cover Inventory Data Results

Zone Area	Total Acreage in Zone Area	Total Forest Canopy	Percent Canopy Cover
Low Density Residential (R-2, R-1, R-0.4)	15,867.78 acres	11,908.09 acres	75.04 %
High Density Residential (R2.9 through R-14)	1043.57 acres	490.99 acres	47.05%
Neighborhood Service Centers	36.24 acres	9.7 acres	26.77%
Mixed Use Town Center/High School Road Districts	214.71 acres	89.27 acres	41.58%
Winslow Core	87.1 acres	25.57 acres	29.36%
Other	180.71 acres	105.25 acres	58.24%
All Island	**17,430.11**	**12,628.87**	**72.45%**

Several technical limitations to the forest canopy data should be noted:

- Given the date of the photography, some deciduous trees appear leaf-free and may not have been discernible.
- Canopy polygon edges are generalized somewhat, especially where displacement of tall tree crowns is present. It is assumed that these generalizations compensate each other in area calculations and do not greatly affect the final statistics.
- Mapping in obscured areas such as shadows or tall buildings cannot be easily validated without extensive field checking.
- Transition areas, including such vegetation categories as blackberries and wetland shrubs, are sometimes difficult to differentiate from low forest canopy.
- Ornamental plantings and other tree cover in residential areas were mapped as consistently as possible, although many ambiguous situations were encountered.
- The final canopy data is suitable for analysis and display at scales of one inch to 100 feet (1:1200) and smaller. The data should be used for detailed site analysis only when augmented by field observation.

B Appendix B

Street Tree Inventory

An inventory of street trees was conducted in July and August, 2005. For the purposes of this study, street trees were defined as those trees within the right-of-way that are located between the sidewalk and the roadway, i.e., in planter strips, or in planters in the center of roadways. The boundaries of this study generally followed the boundaries of the Mixed Use Town Center/High School Road I zones: Grow Avenue to the west, Ericksen Avenue to the east, High School Road to the North. Data was collected and tree locations were recorded using an ArcPad program. Tree locations were then downloaded into the City's ArcGIS mapping program.

For each street tree, information on tree species, diameter at breast height (dbh), root condition, trunk condition, and condition of the scaffold branches, twigs and foliage was recorded.

Table 2. Street Trees

Scientific name	Common Name	Number of Trees
Acer griseum	paperbark maple	3
Liquidambar styraciflua	American sweetgum	16
Acer macrophyllum	bigleaf maple	8
Malus floribunda	flowering crabapple	1
Malus sylvestris	edible apple	2
Metasequoia glyptostroboides	dawn redwood	1
Morus stribling	fruitless mulberry	1
Acer palmatum	Japanese maple	12
Pinus nigra	Austrian black pine	7
Acer platanoides	Norway maple	1
Prunus cerasifera	purple-leaf plum	11
Prunus domestica	fruit plum	3
Prunus serrulata	flowering cherry	5
Prunus sp.	cherry	3
Pseudotsuga menziesii	Douglas fir	7
Pyrus calleryana	ornamental pear	9
Pyrus communis	fruiting pear	1
Acer rubrum	red maple	26
Acer saccharinum	slver maple	2
Salix matsudana 'tortuosa'	corkscrew willow	1
Thuja plicata	Western red cedar	1
Tilia cordata	littleleaf linden	6
Acer sp.	maple	4
Zelkova serrata	Japanese zelkova	10
Araucaria araucana	monkey puzzle tree	1
Arbutus unedo	strawberry tree	1

Scientific name	Common Name	Number of Trees
Betula jacquemontii	Jacquemonti birch	7
Carpinus betulus	pyramidal hornbeam	12
Cercidiphyllum japonicum	katsura	13
Acer campestre	hedge maple	3
Cornus sp.	dogwood	3
Cotinus coggygria	smoke tree	1
Acer circinatum	vine maple	2
Fraxinus americana	white ash	2
Fraxinus oxycarpa'raywood'	Raywood ash	14
Fraxinus pennsylvanica	green ash	14
Unknown		8

RESOLUTION NO. 2006-07

A RESOLUTION of the City of Bainbridge Island, Washington, accepting a Community Forest Management Plan for the purposes of implementing comprehensive management of the community forest.

WHEREAS, as required by the Washington State Growth Management Act, the City adopted a Comprehensive Plan on September 1, 1994, subsequently amended;

WHEREAS, the Comprehensive Plan contains an Environmental Element that establishes goals and policies to preserve and enhance the community forest; and

WHEREAS, in September 2001, Resolution 2001-51, established the Community Forestry Commission tasked with development of a Community Forestry Management Plan; now, therefore,

THE CITY COUNCIL OF THE CITY OF BAINBRIDGE ISLAND, WASHINGTON, DO RESOLVE AS FOLLOWS:

Section 1. The City Council accepts the attached and incorporated City of Bainbridge Island Community Forest Management Plan 2006 as a guide for long-term management of the community forest. Portions of the plan may be adopted in the future for implementation, as necessary.

PASSED by the City Council this 8th day of February, 2006.

APPROVED by the Mayor this 9th day of February, 2006.

M. J. Briggs for

Darlene Kordonowy, Mayor

ATTEST/AUTHENTICATE:

Susan P. Kasper

Susan P. Kasper, City Clerk

FILED WITH THE CITY CLERK:	January 31, 2006
PASSED BY THE CITY COUNCIL:	February 8, 2006
RESOLUTION NO.	2006-07

City of Bainbridge Island
City Council Agenda Bill

PROCESS INFORMATION	
Subject: 7:50 PM Optional Joint Shoreline Master Program Amendment Review Process, AB 17-151 - Planning (Pg. 139)	Date: 9/5/2017
Agenda Item: NEW BUSINESS	Bill No.: 17-151
Proposed By: Planning and Community Development	Referrals(s):

BUDGET INFORMATION		
Department: Planning	Fund:	
Expenditure Req:	Budgeted?	Budget Amend. Req?

REFERRALS/REVIEW		
:	Recommendation:	
City Manager: Yes	Legal:	Finance:

DESCRIPTION/BACKGROUND

The City completed its Shoreline Master Program (SMP) comprehensive update in 2014. In addition to this state-required SMP comprehensive update, local governments may periodically amend their shoreline master programs when there is a change in law, zoning or other local conditions (WAC 173-26-090). Staff initiated a limited amendment in February 2016; however, that work was put on hold due to timing requirements of other work program tasks. Staff reinitiated a SMP amendment at the August 10, 2017 Planning Commission study session.

Since the City last considered a SMP amendment, the Department of Ecology (Ecology) has updated its rules implementing the Shoreline Management Act, including a new optional joint SMP amendment review process. An issue paper summarizing the proposed rule, WAC 173-26-104 Optional joint review process for amending shoreline master programs, is attached. The rule becomes effective September 7, 2017. **Staff is seeking direction from Council whether or not to participate in the optional joint review process.**

WAC 173-26-104 outlines a new optional amendment process that consolidates the local and state public comment periods. The rule blends together requirements of the existing local amendment process and the state review process.

Current Ecology rules outline a two-stage public review for amendments: a local public comment period and a second, state-level public comment period. The state-level public review for an amendment typically does not generate new public comments, but adds two to six months to the overall process. For example, the City forwarded its adopted limited amendment on aquaculture to Ecology on February 21, 2017. Ecology held its public comment period between May 8 - June 9, 2017 and provided a summary of comments received on August 16, 2017. The City has until November 2, 2017 to provide Ecology with a response to the comments received during Ecology's public comment period. The state-level public comment period has added approximately eight months to the City's amendment process.

Staff recommends the City participate in the optional joint review process to 1) avoid delays in making improvements to the City's SMP and 2) allow the Planning Commission and Council to have an initial determination from Ecology on the proposed amendment's consistency with the Shoreline Management Act and applicable rules before taking action to recommend or adopt the amendments.

RECOMMENDED ACTION/MOTION

Direct staff to notify Ecology that it intends to participate in the optional joint review process for the SMP amendment.

ATTACHMENTS:

	Description	Type
🗋	Ecology Issue Paper -- SMP Optional Process	Backup Material

Optional joint SMP amendment review process

This document presents draft rule amendments defining a new optional process for joint local/state review of proposed local Shoreline Master Programs (SMPs) amendments.

The Department of Ecology (Ecology) is updating rules implementing the Shoreline Management Act (SMA). Ecology sought comments on preliminary draft rules during summer 2016. This document presents Ecology's final draft proposal, available for public comment from March 1 to May 15, 2017. For information on how to submit comments, please visit: http://www.ecy.wa.gov/programs/sea/rules/1506ov.html

Questions? Contact Tim Gates at (360) 407-6522.

Introduction

The SMA is a cooperative program of shoreline management between local governments and the state.[1] A key element of the shared responsibility is Ecology review and approval of SMP amendments.[2] The SMA requires that upon receipt of a proposed SMP amendment, Ecology shall undertake a public comment period. The statute is not specific about whether "proposed" SMPs must be locally adopted before Ecology holds a public comment period.[3] However, current Ecology rules outline a two-stage public review for all amendments, whether they are complete comprehensive updates or minor changes *(see Figure 1):*

- Counties and cities hold a **local public comment period** on proposed amendments. Elected officials formally adopt the SMP and submit proposed amendments to Ecology.
- Ecology holds a second **state-level public comment period** on the locally approved SMP and sends comments to the local government for their response. The local government may or may not identify areas where their locally approved SMP could be improved in response to comments. Ecology then makes a final determination on whether the SMP is consistent with the SMA and applicable rules.

The state-level public review for an amendment typically does not generate new public comments, but adds two to six months to the overall process, delaying improvements to the SMP. Staff efforts processing minor amendments draw scarce local and state resources from core implementation tasks.

Proposed rule option: *concurrent* local and state comment periods

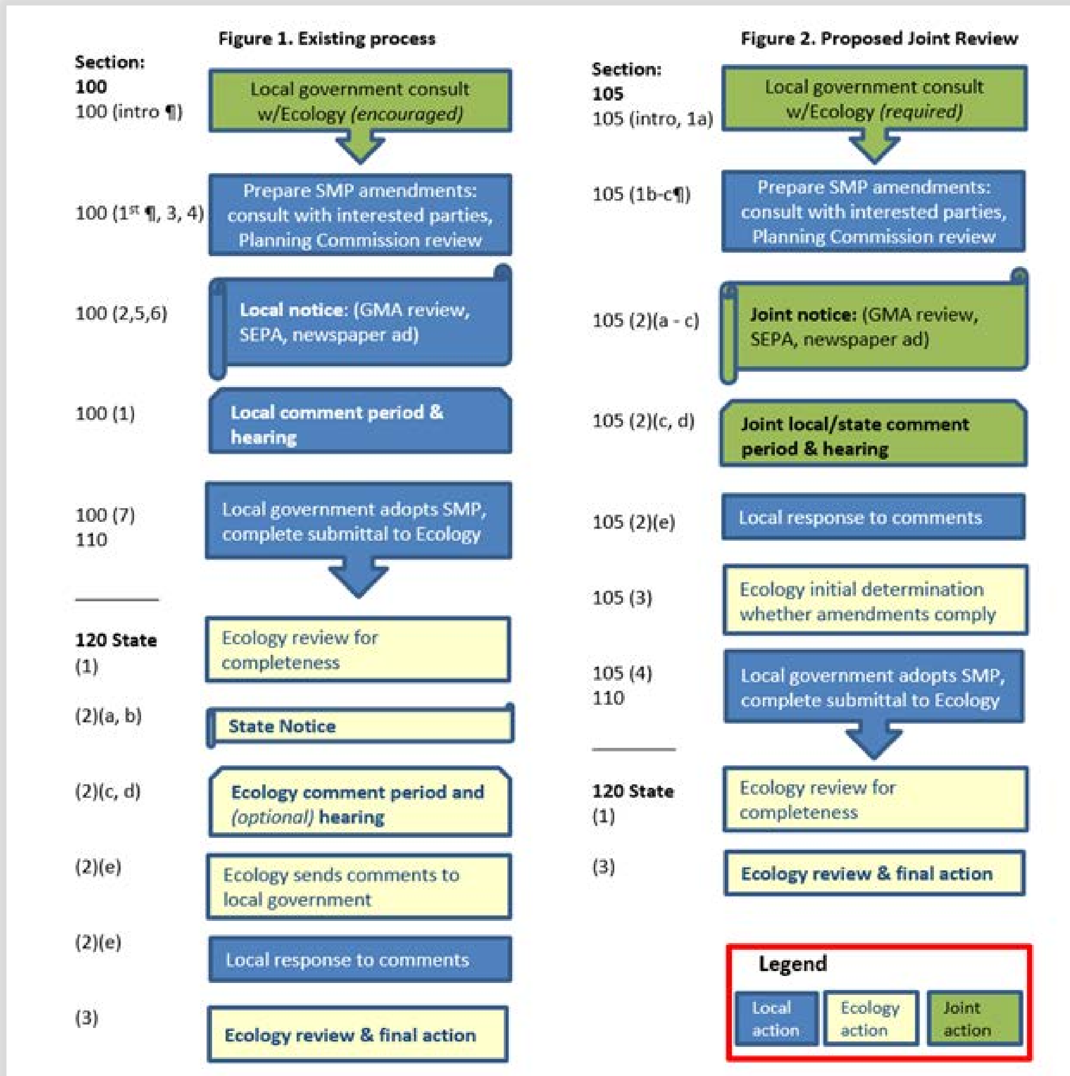
The SMA requires both a local comment period and a state comment period but does not preclude holding the two comment periods at the same time. Ecology's proposed amendments, prepared in consultation with local governments, would create a new option allowing for *concurrent* local and state public comment periods *(see Figure 2).*

The draft rules authorize this optional path for all amendments other than comprehensive SMP updates. Comprehensive updates are one-time revisions for consistency with the full suite of rule requirements, and are adopted after years of study and deliberation. Retaining the existing update process would maintain the same procedural "ground rules" for all jurisdictions that complete the comprehensive update.

[1] RCW 90.58.050

[2] RCW 90.58.090

[3] The requirement that local governments approve the proposal before sending it to Ecology for review is found in existing rules at WAC 173-26-100(7) and WAC 173-26-110(1).



Under the proposed option, a county or city considering an amendment would consult with Ecology early in the local adoption process. After this initial consultation, the local government would prepare amendments through the normal local process. Once amendments are drafted, the local government and Ecology would hold concurrent comment periods, using parallel notification and conducting a shared local public hearing.

Local governments would provide notice of the public comment period to local interested parties and Ecology would provide notice to statewide interested parties.

Just like under the existing process, the local government would prepare a response to comments. The local government may then make further changes in response to public comments, and submit the amendment to Ecology for an initial determination of consistency with the SMA and state rules. This step would improve the transparency of the overall SMP amendment process, because local elected officials would have an initial determination of consistency before taking final action to adopt the amendments.

The draft rule amendments make no substantive changes to the final steps in the approval process. After local adoption, Ecology would conduct a final review to ensure that any changes to the draft SMP resulting from the joint public comment period are still consistent with the SMA and applicable rules.

Proposed amendments

The following presents Ecology's proposed new WAC 173-26-104 outlining an optional joint review process, with ancillary amendments to existing WAC 173-26-100, WAC 173-26-110, and WAC 173-26-120. Note that amendments include some "housekeeping" edits, including amendments to Section 120 incorporating new statutory requirements adopted by the 2011 Legislature regarding the "effective date" of approved SMPs.

New language is shown in underline, deletions are shown in ~~strikethrough~~.

Colored boxes are explanatory and are not part of the proposed amendment.

Contents

WAC 173-26-100 Standard local process for approving/amending shoreline master programs.

Summary of changes to WAC 173-26-100

Proposed amendments retain the current WAC largely unchanged. The title is changed to distinguish the "standard" process from the new optional "joint review" process in WAC 173-26-104. A new introductory paragraph explains that these procedures apply for brand new SMPs *(e.g., in case of a new city incorporation)* and "comprehensive master program *updates*," and that local governments have a choice of using either the standard process or the optional joint review process for all other master program *amendments*.

§ (5) corrects the Department of Commerce name, and removes the reference to a "sixty-day" notice period. This reflects a 2004 law amending RCW 36.70A.160(3), which authorizes expedited review for amendments to development regulations. *(Amendments to policies still must follow the sixty-day review period.)*

§ (7) adds a final clause directing the reader to the next step in the amendment process.

WAC 173-26-100 Standard local process for approving/amending shoreline master programs.

This section establishes local procedures for approving new master programs and preparing comprehensive master program updates required by RCW 90.58.080(2). A local government that proposes master program amendments may follow these procedures or the optional joint review process outlined in WAC 173-26-104.

Prior to submittal of a new or amended master program to the department, local government shall solicit public and agency comment during the drafting of proposed new or amended master programs. The degree of public and agency involvement sought by local government should be gauged according to the level of complexity, anticipated controversy, and range of issues covered in the draft proposal. Recognizing that the department must approve all master programs before they become effective, early and continuous consultation with the department is encouraged during the drafting of new or amended master programs. For local governments planning under chapter 36.70A RCW, local citizen involvement strategies should be implemented that ~~insure~~ ensure early and continuous public participation consistent with WAC ~~365-195-600~~ 365-196-600.

At a minimum, local government shall:

(1) Conduct at least one public hearing to consider the draft proposal;

(2) Publish notice of the hearing in one or more newspapers of general circulation in the area in which the hearing is to be held. The notice shall include:

(a) Reference to the authority(s) under which the action(s) is proposed;

(b) A statement or summary of the proposed changes to the master program;

(c) The date, time, and location of the hearing, and the manner in which interested persons may present their views; and

(d) Reference to the availability of the draft proposal for public review ~~inspection at the local government office or upon request~~;

(3) Consult with and solicit the comments of any persons, groups, federal, state, regional, or local agency, and tribes, having interests or responsibilities relating to the subject shorelines or any special expertise with respect to any environmental impact. The consultation process should include adjacent local governments with jurisdiction over common shorelines of the state;

(4) Where amendments are proposed to a county or regional master program which has been adopted by cities or towns, the county shall coordinate with those jurisdictions and verify concurrence with or denial of the proposal. For concurring jurisdictions, the amendments should be packaged and processed together. The procedural requirements of this section may be consolidated for concurring jurisdictions;

(5) Solicit comments on the draft proposal from the department prior to local approval. For local governments planning under the Growth Management Act, the local government shall notify both the department and the department of ~~community, trade, and economic development~~ commerce of its intent to adopt shoreline policies or regulations, ~~at least sixty days prior to final local approval,~~ pursuant to RCW 36.70A.106;

(6) Comply with chapter 43.21C RCW, the State Environmental Policy Act; and

(7) Approve the proposal and submit for final agency approval as outlined in WAC 173-26-110.

WAC 173-26-104 Optional joint review process for amending shoreline master programs

Summary of new WAC 173-26-104 and introductory paragraph

WAC 173-26-104 outlines a new *optional* amendment process that consolidates the local and state public comment periods. The rule blends together requirements of the existing local amendment process in WAC 173-26-100 and the state review process in WAC 173-26-120.

The first paragraph describes the purpose and intent of the optional process. The language about "early and continuous coordination with the department" is from the introduction to WAC 173-26-100. The difference here is that coordination is "required" rather than "encouraged" because local governments and Ecology will need to coordinate closely to successfully conduct a joint public review. The opening paragraph also describes a guiding principle for a collaborative approach to addressing both local and statewide interests in crafting SMP amendments.

WAC 173-26-104 Optional joint review process for amending shoreline master programs.

This section establishes an optional joint review process a local government may elect to use for master program amendments other than comprehensive updates. The process combines the local and state public comment periods required by RCW 90.58.090. Recognizing that the optional review process requires close coordination in conducting a joint public review, early and continuous consultation with the department is required during the drafting of amendments. The department and local government should work collaboratively to address local interests while ensuring proposed amendments are consistent with the policy of RCW 90.58.020 and applicable guidelines.

(1) Local government solicits early public and agency feedback

Summary of proposed new WAC 173-26-104(1)

§ 1(a) requires local government to start the process with a formal notice to Ecology. Ecology will provide checklists to help with the amendment process. Ecology already has a checklist for comprehensive updates. Ecology will prepare new versions for statutorily-mandated periodic reviews, and other locally-initiated amendments.

§ 1(b) is from the introductory paragraph of WAC 173-26-100 and WAC 173-26-100(3).

§ 1(c) is directly from WAC 173-26-100(4).

(1) Local government solicits early public and agency feedback.

(a) Prior to commencing the amendment process, local governments shall notify the department of intent to develop an amendment under the optional joint review process.

The department will provide shoreline master program amendment checklists to help local governments identify issues to address for comprehensive updates, periodic reviews, and other amendments. The checklists will not create new or additional requirements beyond the provisions of this chapter. The checklists are intended to aid in the preparation and review of master program updates and amendments.

(b) Prior to submittal of a master program amendment to the department, local government shall solicit public and agency comment during the drafting of proposed amendments.

(i) The degree of public and agency involvement sought by local government should be gauged according to the level of complexity, anticipated controversy, and range of issues covered in the draft proposal.

(ii) Local government shall make all reasonable effort to consult with and solicit comments of any persons, groups, federal, state, regional, or local agency, and tribes, having interests or responsibilities relating to the subject shorelines or any special expertise with respect to any environmental impact. The consultation process should include adjacent local governments with jurisdiction over common shorelines of the state, where applicable.

(iii) For local governments planning under chapter 36.70A RCW, local citizen involvement strategies should be implemented to insure early and continuous public participation consistent with WAC 365-196-600.

(c) Where amendments are proposed to a county or regional master program which has been adopted by cities or towns, the county shall coordinate with those jurisdictions and verify concurrence with or denial of the proposal. For concurring jurisdictions, the amendments should be packaged and processed together. The procedural requirements of this section may be consolidated for concurring jurisdictions.

(2) Local government and Ecology conduct joint public comment period

Summary of proposed new WAC 173-26-104(2)

These steps combine the **local** notice and comment requirements of WAC 173-26-100(1) and (2), with the **state** notice and comment requirements found in RCW 90.58.090(2) and WAC 173-26-120(B).

§ 2(c)(i) clarifies that local governments provide notice to local interested parties, and Ecology provides notice to the state interested parties list. The rule provides a standardized local comment period of 30 days.

§ 2(c)(ii) clarifies public notice requirements for the joint hearing.

§ 2(d) outlines what items must be made available to the public.

§ 2(e) is a modified version of the requirement of WAC 173-26-120(6). Local governments are provided a default timeframe of 30 days, with an option for additional time upon request.

(2) Local government and Ecology conduct joint public comment period.

At a minimum, local governments and the department shall conduct the following steps:

(a) Local governments planning under the Growth Management Act shall notify the department of commerce of its intent to adopt shoreline policies or regulations, pursuant to RCW 36.70A.106.

(b) Local governments shall comply with chapter 43.21C RCW, the State Environmental Policy Act.

(c) Local governments and the department will provide a formal public comment period.

(i) Provide a public comment period of at least thirty days. The local government will provide reasonable notice and opportunity for written comment to all parties of record who expressed interest regarding the proposal. The department will provide notice to the state interested parties list of persons, groups, agencies, and tribes that have requested in writing notice of proposed master programs or amendments generally or for a specific subject matter.

(ii) Conduct at least one joint local/state public hearing to consider the draft proposal. The local government will publish notice of the joint local/state hearing in one or more newspapers of general circulation in the area in which the hearing is to be held. The notice shall include:

(I) Reference to the authority(s) under which the action(s) is proposed;

(II) The date, time, and location of the hearing, and the manner in which interested persons may present their views;

(III) A statement or summary of the proposed changes to the master program; and

(IV) Reference to the availability of the draft proposal for public review.

(d) Local governments shall make available to the public and shall accept comment on the following materials:

(i) Amended text clearly identifying the proposed changes;

(ii) Any amended environment designation map(s), showing both existing and proposed designations, with justification for changes;

(iii) A summary of proposed amendments together with explanatory text indicating the scope and intent of the proposal; and

(iv) An initial submittal checklist and other supporting material indicating how the proposed amendment is consistent with the policy of RCW 90.58.020 and applicable guidelines.

(e) Local governments shall prepare a response to public comments.

(i) Within thirty days after the close of the joint public comment period, the local government shall document the submitted comments and prepare a written response to the public comments. The response may identify changes to the proposed amendment in response to public comments. Any proposed changes shall be evaluated by the local government for consistency with the policy of RCW 90.58.020 and applicable guidelines.

(ii) A local government may request additional time to prepare responses. Such requests will be accompanied by estimates of additional time needed.

(3) Local government obtains initial determination from the department

Summary of proposed new WAC 173-26-104(3)

After the joint public comment period and an initial local government response to comments, the SMP would be sent to Ecology for an initial determination of compliance before local adoption. This will provide local elected officials an opportunity to consider Ecology's analysis before local adoption. Ecology often provides this informally under the existing process - draft language makes this "best practice" a formal step in the process.

(3) Local government obtains initial determination from the department.

(a) After conducting the joint public comment period, and prior to local government adoption, the local government shall submit the proposed amendment to the department for initial review. In addition to providing the public comment record of materials, initial submittal shall include:

(i) Documentation of all public comments received during the comment period;
(ii) Local jurisdiction responses to public comments;
(iii) Description of any proposed amendments as a result of the public testimony, findings supporting the consistency of the proposed amendments with the policy of RCW 90.58.020 and applicable guidelines;
(iv) Updated text and map amendments.

(b) The department shall provide the local government an initial determination of whether or not the proposal is consistent with the policy of RCW 90.58.020 and applicable guidelines.

(i) The department will provide the initial determination within thirty days of submittal. For complex proposals, the department may indicate to the local government that a longer review period of up to forty-five days is needed.

(ii) If the department's initial determination is that the proposal is consistent with applicable laws and rules, the department will provide a written statement of initial concurrence.

(iii) If the department concludes that the proposal is not consistent with applicable laws and rules, the department will provide a written statement describing the specific areas of concern.

(4) Approve the proposal.

Summary of proposed new WAC 173-26-104(4)

This section simply summarizes the final step of formal adoption and submittal to Ecology.

(4) Approve the proposal.

After receiving the initial determination from the department, the local government adopts the amendment through resolution or ordinance and submits it for final agency approval as outlined in WAC 173-26-110.

WAC 173-26-110 Submittal to department of proposed master programs/amendments

This existing rule outlines what must be included in a complete formal submittal. This section would apply whether the amendment was prepared under WAC 173-26-100 or the optional joint process under WAC 173-26-104.

Summary of proposed changes to WAC 173-26-110

Ecology proposes a few minor edits and clarifications.

The opening paragraph clarifies that digital submittals are acceptable, rather than requiring two paper copies.

§ 6 acknowledges that public notice and consultation may have followed the optional process under WAC 173-26-104.

§ 8 clarifies that the submittal includes local responses to public comments.

§ 9(b) adds a requirement for a checklist to accompany submittals that address the 8-year "periodic review" required under RCW 90.58.040. (Ecology would maintain a checklist of recently amended statutes and rules.)

§ 9(c) adds a final checklist for "locally initiated" amendments to indicate how the proposed amendment meets applicable laws and guidelines.

WAC 173-26-110 Submittal to department of proposed master programs/amendments.

A master program or amendment proposed by local government shall be submitted to the department for its review and formal action. Submittals may be in digital format. A complete submittal shall include ~~two copies of~~ the following, where applicable:

(1) Documentation (i.e., signed resolution or ordinance) that the proposal has been approved by the local government;

(2) If the proposal includes text amending a master program document of record, it shall be submitted in a form that can replace or be easily incorporated within the existing document. Amended text shall show strikeouts for deleted text and underlining for new text, clearly identifying the proposed changes. At the discretion of the department, strikeouts and underlined text may not be required provided the new or deleted portions of the master program are clearly identifiable;

(3) Amended environment designation map(s), showing both existing and proposed designations, together with corresponding boundaries described in text for each change of environment. All proposals for changes in environment designation and redesignation shall provide written justification for such based on existing development patterns, the biophysical capabilities and limitations of the shoreline being considered, and the goals and aspirations of the local citizenry as reflected in the locally adopted comprehensive land use plan;

(4) A summary of proposed amendments together with explanatory text indicating the scope and intent of the proposal, staff reports, records of the hearing, and/or other materials which document the necessity for the proposed changes to the master program;

(5) Evidence of compliance with chapter 43.21C RCW, the State Environmental Policy Act, specific to the proposal;

(6) Evidence of compliance with the public notice and consultation requirements of either WAC 173-26-100 or WAC 173-26-104;

(7) Copies of all public, agency and tribal comments received, including a record of names and addresses of interested parties involved in the local government review process or, where no comments have been received, a comment to that effect.

(8) A summary of amendments made in response to comments received.

(9) A copy of the applicable master program submittal checklist:

> (a) For comprehensive master program updates, a checklist completed in accordance with WAC 173-26-201 ~~(2)(f) and~~ (3)(a) and (h).
>
> (b) For periodic reviews prepared under RCW 90.58.080(4), a checklist completed in accordance with WAC 173-26-090.
>
> (c) For locally initiated amendments, a checklist and any supporting material demonstrating consistency with RCW 90.58.020 and applicable guidelines.

~~(9)~~ (10) For comprehensive master program updates, copies of the inventory and characterization, use analysis, restoration plan and cumulative impacts analysis.

WAC 173-26-120 State process for approving/amending shoreline master programs

Summary of proposed changes to WAC 173-26-120, introductory paragraph and Sections 1 and 2

The existing WAC 173-26-120 outlines Ecology's procedures after local adoption with one consecutively numbered sequence under two headings: "Formal Review" (1-6) and "Approval" (7-9).

Proposed changes organize the rule into three sections: (1) Formal Review for Completeness; (2) State Public Comment Period; and (3) Approval.

The introductory paragraph and § 1(a) and § 1(b) are amended to acknowledge that § 2 is only for local governments that follow the "standard" amendment process under WAC 173-26-100.

WAC 173-26-120 State process for approving/amending shoreline master programs.

Review and approval of master programs and amendments by the department shall follow the procedures set forth below. ~~FORMAL REVIEW~~ The state public comment period under subsection (2) of this section does not apply to master programs adopted under the optional joint review process of WAC 173-26-104.

(1) Formal review for completeness

~~(1)~~ (a) The department shall review the submitted master program or amendment for compliance with either WAC 173-26-100 or WAC 173-26-104, and 173-26-110. The department shall notify the local government in writing when it determines that a complete submittal has been received.

(b) If the submittal is determined to be incomplete, the department will identify the deficiencies and so notify the local government in writing. The review process will not ~~commence~~ begin until the department determines the submittal is complete.

(2) State public comment period

For local governments that have followed WAC 173-26-100, the department shall follow the procedures below:

(a) The department shall provide reasonable notice and opportunity for written comment to all parties of record who expressed interest regarding the local government proposal and to all persons, groups, agencies, and tribes that have requested in writing notice of proposed master programs or amendments generally or for a specific subject matter. The comment period shall be at least thirty days, unless the department determines that a lack of complexity or controversy surrounding the proposal supports a shorter period.

~~(3)~~ (b) For master program or amendment proposals involving local governments planning under chapter 36.70A RCW, the department shall provide notice to the department of ~~community, trade, and economic development~~ commerce of its intent to ~~commence~~ begin formal review of the local government proposal.

~~(4)~~ (c) At the department's discretion, it may conduct a public hearing during the comment period in the jurisdiction proposing the master program or amendment.

~~(5)~~ (d) If the department conducts a hearing pursuant to subsection ~~(4)~~ (c) of this section, it shall publish notice of the hearing in at least one newspaper of general circulation in the area affected by the master program. The public notice shall include:

> ~~(a)~~ (i) A description of the proposed master program or amendment;
>
> ~~(b)~~ (ii) Reference to the authority under which the action is proposed;
>
> ~~(c)~~ (iii) The dates, times, and locations of any public hearings, and the manner in which interested persons may obtain copies of the proposal and present their views.
>
> For master program or amendment proposals involving adoption by rule, the notice of the hearing shall be published at least once in each of the three weeks immediately preceding the hearing in one or more newspapers of general circulation in the county in which the hearing is to be held.

~~(6)~~ (e) Within fifteen days after the close of the department's public comment period, the department shall request of the local government submitting the proposal a review of the issues, if any, identified by the public, interested parties, groups, agencies, and tribes, and a written response as to how the proposal addresses the identified issues consistent with the policy of RCW 90.58.020 and the applicable guidelines. Local government shall submit its response to the department within forty-five days of the date of the department's letter requesting a response. If no response is received by the department within the forty-five-day period, the department may proceed with action on the proposal according to sub-section ~~(7)~~ 3 of this section. Within the forty-five-day period, the local government may request in writing additional time to prepare a response.

Summary of proposed changes to WAC 173-26-120(3)

Proposed amendments reflect changes to the SMA adopted by the Legislature in 2011 regarding the effective date of SMPs and Ecology notice of final action [RCW 90.58.090(7)]. All provisions regarding "effective date" are consolidated under § (3)(d).

The section also include numerous edits to acknowledge the optional "joint review" amendment process proposed under WAC 173-26-104. Other minor edits:

§ 3(a) is modified to clarify that jurisdictions that have undergone a joint review of amendments under WAC 173-26-104 will have skipped § 2.

§ 3(a)(ii) has minor additions to directly match RCW 90.58.090.

§ 3(b) replaces "mails" with "provides," consistent with § 3(a)(iii).

§ 3(b)(i) requires Ecology to provide notice to parties of record. While this is not directly in statute, Ecology believes it should be retained, because once Ecology accepts alternative changes, the agency needs to provide notice to conclude the amendment process.

§ 3(c) adds a heading. The rest of this section is direct from 90.58.090(8). The statutory language is separated into (i) and (ii) so it is easier to read and cite.

§ 3(d) adds a heading, and updates the Legislative requirement from 90.58.090(7) that established the effective date of SMPs as fourteen days after Ecology's approval.

The final sentence of previous **§**(8) is also amended to remove the redundant declaration that Ecology's SMP shall constitute the official master program, as that is addressed in WACs 173-26-030, 173-26-050 and 173-26-060. Previous **§** (9) is deleted because it is replaced with the new statutory language above under § (3)(c).

(3) Approval

~~(7)~~ (a) Within thirty days after receipt of the local government written response pursuant to subsection (2)(e)~~(6)~~ of this section, or for jurisdictions that followed WAC 173-26-104, after determination of completeness pursuant to subsection (1)(a) of this section, the department shall:

(i) ~~m~~Make written findings and conclusions regarding the consistency of the proposal with the policy of RCW 90.58.020 and the applicable guidelines;

(ii) For amendments adopted under WAC 173-26-100, provide a response to the issues identified in subsection ~~(6)~~(2)(e) of this section; and

(iii) ~~e~~Either approve the proposal as submitted, recommend specific changes necessary to make the proposal consistent with chapter 90.58 RCW policy and its applicable guidelines, or deny the proposal in those instances where no alteration of the proposal appears likely to be consistent with the policy of RCW 90.58.020 and the applicable guidelines. The written findings and conclusions shall be provided to the local government and made available to all interested persons, parties, tribes, groups, and agencies of record on the proposal.

(A) In reaching its determination of consistency with the policy of RCW 90.58.020 and the applicable guidelines, the department shall approve those parts of a master program relating to shorelines unless it determines that the submitted parts are not consistent with the policy of RCW 90.58.020 and the applicable guidelines.

(B) The department shall approve those parts of a master program relating to shorelines of statewide significance only after determining the program provides for optimum implementation of the statewide interest as set forth in the policy of RCW 90.58.020 and the applicable guidelines.

~~(a) In cases where the proposal is approved as submitted, the effective date of the approved master program or amendment shall be the date of the department's letter to local government approving the submitted master program or amendments~~.

(b) If the department recommends changes to the proposal, within thirty days after the department ~~mails~~ provides the written findings and conclusions to the local government pursuant to this subsection (~~7)~~ (3), the local government may:

(i) Agree to the proposed changes~~. Receipt by the department of the written notice of agreement from the local government shall constitute final action by the department approving the revised submittal.~~ by written notice to the department. The department shall provide ~~W~~written notice of the local government acceptance ~~shall be provided by the department~~ to all parties of record~~. In such cases, the effective date of the approved master program or amendment is the date the department receives from local government the written notice of agreement~~;

or

(ii) Submit an alternative proposal. If, in the opinion of the department, the alternative is consistent with the purpose and intent of the changes originally proposed by the department in this subsection (~~7)~~ (3) and with the policy of RCW 90.58.020 and the applicable guidelines, it shall approve the alternative changes and provide written notice to all parties of record. ~~In such cases, the effective date of the approved master program or amendments is the date of the department's letter to local government approving the alternative proposal.~~ If the department determines the alternative proposal is not consistent with the purpose and intent of the changes proposed by the department, the department may either deny the alternative proposal or at the request of local government start anew with the review and approval process beginning ~~at~~ in WAC 173-26-120.

~~(8)~~ (c) Department notice of final action.

(i) Promptly after approval or disapproval of a local government's shoreline master program or amendment, the department shall publish a notice consistent with RCW 36.70A.290 that the shoreline master program or amendment has been approved or disapproved. This notice must be filed for all shoreline master programs or amendments.

(ii) If the notice is for a local government that does not fully plan under RCW 36.70A.040, the department must, on the day the notice is published, notify the legislative authority of the applicable local government by telephone or electronic means, followed by written communication as necessary, to ensure that the local government has received the full written decision of the approval or disapproval.

(d) Effective date.

(i) A master program or amendment thereto takes effect ~~when and~~ in such form as it is approved or adopted by rule by the department. ~~except when appealed to the shorelines board as provided for in RCW 90.58.190(4) for local governments not planning under chapter 36.70A RCW. The department's approved document of record, filed at the department, constitutes the official master program.~~

~~(9) For local governments planning under chapter 36.70A RCW, after final action by the department on a local government's shoreline master program or amendment the local government shall (pursuant to RCW 90.58.090) promptly publish a notice that the department has taken final action on the master program or amendment. For purposes of this section, the date of publication for the master program adoption or amendment shall be the date on which the local government publishes the notice that the department has taken final action on the master program or amendment.~~ The effective date is fourteen days from the date of the department's written notice of final action to the local government stating the department has approved or rejected the proposal.

(ii) For master programs adopted by rule, the effective date is governed by RCW 34.05.380.

(iii) The department's written notice to the local government must conspicuously and plainly state that it is the department's final decision and that there will be no further modifications to the proposal.

City of Bainbridge Island
City Council Agenda Bill

PROCESS INFORMATION	
Subject: 8:00 PM Ordinance No. 2017-20 Relating to Bainbridge Island Balloon Ban, AB 17-152, Councilmember Scott (Pg. 155)	Date: 9/5/2017
Agenda Item: NEW BUSINESS	Bill No.: 17-152
Proposed By: Councilmember Scott	Referrals(s):

BUDGET INFORMATION		
Department: Executive	Fund:	
Expenditure Req:	Budgeted?	Budget Amend. Req?

REFERRALS/REVIEW		
:	Recommendation:	
City Manager:	Legal:	Finance:

DESCRIPTION/BACKGROUND

See attached information sheet.

RECOMMENDED ACTION/MOTION

I move that we forward Ordinance No. 2017-20 to the unfinished business agenda on September 12.

ATTACHMENTS:

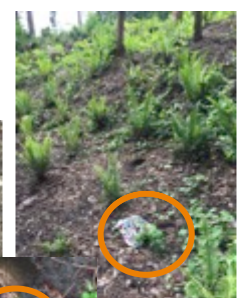
Description	Type
Balloon Ban Introduction	Backup Material
DRAFT Ordinance No. 2017-20	Backup Material

On September 9th, many Islanders will spend the day cleaning up our public and private beaches of trash, litter, and pollution for the second annual Bainbridge Beach Cleanup. Sustainable Bainbridge, along with many partners, will tackle a global problem, locally. The goal is make our shorelines not only healthier for people, but also for land and marine wildlife. I encourage all Islanders to participate in this important community-wide event.

In addition to the general environmental degradation caused by beach and shoreline habitat pollution, marine debris, such as balloons, “may be mistaken for food and ingested, an animal's natural food (e.g. fish eggs) may be attached to the debris, or the debris item may have been ingested accidentally with other food. Debris ingestion may lead to loss of nutrition, internal injury, intestinal blockage, starvation, and even death.” (NOAA, Marine Debris Program, Office of Response and Restoration Impacts. Accessed on August 24, 2017. https://marinedebris.noaa.gov/discover-issue/impacts.)

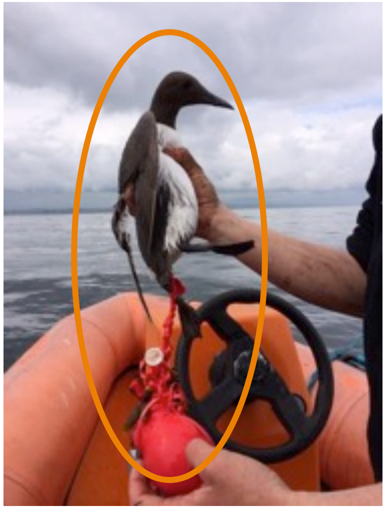
Terrestrial wildlife and ecosystems are also threatened by balloons and other litter. The Environmental Protection Agency (EPA), National Oceanic and Atmospheric Administration (NOAA), U.S. Fish and Wildlife Service (USFWS), the Ocean Conservancy, and many other governmental and nongovernmental organizations warn that balloons can kill marine mammals, birds, and other wildlife by entanglement or ingestion. The attached ordinance addresses this issue and will assure that these threats to marine and terrestrial wildlife will not originate from Bainbridge Island.

The City of Bainbridge Island can be a leader on this issue, along with the states of California, Connecticut, Florida, Tennessee, and Virginia; and the cities of Ocean City, MD, Nantucket, MA, Provincetown, MA, Huntsville, AL, Louisville, KY, San Francisco, CA, Baltimore, MD and Fairfax County, CA, who have all enacted similar ordinances relating to the purchase, sale, disposal and release of balloons.



Photos of balloons recently and readily found on Bainbridge Island:

Images of direct impacts of Balloons on marine and terrestrial species:



Further reading:

https://marinedebris.noaa.gov/sites/default/files/mdp_ingestion.pdf

https://balloonsblow.org/laws-concerning-balloons/

https://marinedebris.noaa.gov/prevention-projects/rising-concern-reducing-balloon-debris-through-social-marketing

https://www.fws.gov/news/blog/index.cfm/2015/8/5/Balloons-and-Wildlife-Please-Dont-Release-Your-Balloons

http://www.king5.com/mobile/article/tech/science/environment/bald-eagle-dies-after-eating-trash/51-428264563

http://ecopartybox.com.au/latex-balloon-info

ORDINANCE NO. 2017-20

AN ORDINANCE by the City Council of the City of Bainbridge Island, Washington, relating to the potential hazards to fish, wildlife, and human health caused by balloons composed of or containing plastic, metal, or other non-biodegradable materials; amending Chapter 8.16 of the Bainbridge Island Municipal Code (BIMC); and prohibiting the sale and use of any type of balloon that is not 100% biodegradable (including, but not limited to, any balloon containing plastic, metal, or Mylar).

WHEREAS, the City of Bainbridge Island currently regulates in Chapter 8.16 a broad range of activities relating to the control of “litter.” Restrictions include, but are not limited to, depositing litter in public places, on sidewalks, in parks, lakes, waterways, and fountains, from vehicles, on private property, and onto vacant lots; and

WHEREAS, expanding the definition of littering to include the uncontrolled release and disposal of non-biodegradable balloons will protect our natural environment, including surrounding marine environment; and

WHEREAS, non-biodegradable balloons may pollute and litter waterways, farms, city property, private property, and many other locations as they fall from the sky; and

WHEREAS, the Environmental Protection Agency (EPA), National Oceanic and Atmospheric Administration (NOAA), U.S. Fish and Wildlife Service (USFWS), among others, report that balloons kill marine mammals, birds, and other wildlife by entanglement or ingestion; and

WHEREAS, the City of Bainbridge Island should be a leader in encouraging action in other jurisdictions, particularly in coastal areas throughout Washington, where balloon releases and litter are particularly harmful; and

WHEREAS, the states of California, Connecticut, Florida, Tennessee, and Virginia; and the cities of Ocean City, MD, Nantucket, MA, Provincetown, MA, Huntsville, AL, Louisville, KY, San Francisco, CA, Baltimore, MD and Fairfax County, CA have enacted similar ordinances relating to the purchase, sale, disposal and release of balloons;

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

Section 1. BIMC Chapter 8.16 shall be amended to prohibit the sale and use of any type of balloon that is not 100% biodegradable (including, but not limited to, prohibiting the sale and use of any balloon containing plastic, metal, or Mylar).

Section 2. BIMC Chapter 8.16 shall be amended to prohibit the release by any person of any balloon, whether considered biodegradable or not, into the environment within or from the City of Bainbridge Island for any purpose, including but not limited to as part of a private, public, or civic event or celebration; promotional activity; or product advertisement.

Section 3. This ordinance shall not apply to manned hot air balloons, or to balloons used in governmental, scientific, or meteorological research projects.

Section 4. This ordinance shall take effect and be in force five (5) days from its passage, approval, and publication as required by law.

PASSED BY THE CITY COUNCIL this ________ day of ____________, 2017.

APPROVED BY THE MAYOR this ______ day of __________________, 2017.

____
Val Tollefson, Mayor

ATTEST/AUTHENTICATE:

____
Christine Brown, City Clerk

FILED WITH THE CITY CLERK:
PASSED BY THE CITY COUNCIL:
PUBLISHED:
EFFECTIVE DATE:
ORDINANCE NUMBER: 2017-20

City of Bainbridge Island
City Council Agenda Bill

PROCESS INFORMATION	
Subject: 8:10 PM 2018 Storm and Surface Water Management Utility Rate Discussion, AB 17-149 - Finance (Pg. 160)	Date: 9/5/2017
Agenda Item: NEW BUSINESS	Bill No.: 17-149
Proposed By: Barry Loveless, Public Works Director; Ellen Schroer, Finance Director	Referrals(s):

BUDGET INFORMATION		
Department: Finance	Fund: SSWM	
Expenditure Req:	Budgeted?	Budget Amend. Req? No

REFERRALS/REVIEW		
:	Recommendation:	
City Manager: Yes	Legal: No	Finance: Yes

DESCRIPTION/BACKGROUND

Background

Over the past few years, the City has completed a comprehensive review of the Storm and Surface Water Management (SSWM) utility. Results of these efforts have resulted in:

- Modifications to the programs of the utility
- Changes to implementing authority in City Code
- Detailed investigation of infrastructure condition
- Financial restructuring including rate assessment methods

These efforts were completed in 2016 and allowed a more definitive assessment of utility financial requirements to provide the programs and services of the utility at the levels of service confirmed during the comprehensive review.

The proposed 2017-18 City Budget requested a SSWM rate increase of 15% in 2017 and 12% in 2018. The Adopted Budget approved the 2017 rate increase, but City Council directed that SSWM Utility Operating Expense Study be completed before consideration of the proposed 2018 rate increase. The Utilities Advisory Committee (UAC) was tasked by City Council to provide a recommendation regarding this study as part of the UAC 2017 Workplan, and the committee did not identify a basis for a full-scale consultant study at this time.

Since providing that recommendation, staff and the UAC have been reviewing the financial requirements and projections for the utility and reconsidering the proposed 2018 rate increase. The attached memorandum provides additional details, final options considered, and the rate recommendation presented tonight.

RECOMMENDED ACTION/MOTION

I move that the Council direct staff to prepare an ordinance setting the rate for the Storm and Surface Water Management Utility at $184.00 per ISU in 2018, and provide for annual increases for inflation through 2022.

ATTACHMENTS:

	Description	Type
🗋	SSWM Rate Discussion Transmittal Memo	Backup Material

CITY OF
BAINBRIDGE ISLAND

Finance and Administrative Services Department

Public Works Department

Memorandum

DATE: September 1, 2017

TO: City Council
Doug Schulze, City Manager

FROM: Barry Loveless, Public Works Director
Ellen Schroer, Finance Director

SUBJECT: 2018 Storm and Surface Water Management Utility Rate Discussion

---

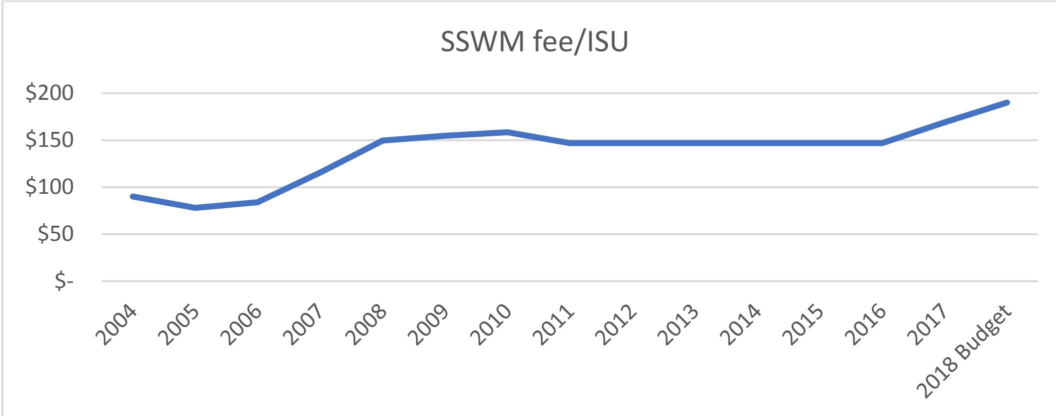
At the September 5th Council meeting, there will be a discussion of the 2018 Storm and Surface Water Management (SSWM rate). This memo provides some background information, along with options considered for the 2018 rate, and a staff recommendation for the 2018 rate. Staff presented and discussed this information with the Utility Advisory Committee (UAC) in July and August.

Staff recommends a rate of $184.00 per impervious surface unit (ISU) in 2018. This rate is an increase of 8.9% over the current rate of $169.00 per ISU. It is less than the $190.00 per ISU that was originally forecast for 2018.

Background

The following items provide context for the consideration of the current proposed 2018 rate.

- The SSWM fee per ISU has fluctuated over time, but remained flat or decreased from 2008 through 2016, as shown in the chart on the next page. Between 2008 and 2016 SSWM requirements increased due to the issuance of the first NPDES permit for the City, however the rate did not change from 2011-2016 while the City undertook a comprehensive review of the utility's programs and services. In 2004, 15 years ago, the charge per ISU was $90.00 per year. The adopted budget assumes a rate of $190.00 per year in 2018.



- Over time, the requirements for the SSWM utility as set by the Department of Ecology (DOE) have increased significantly. The first NPDES permit was issued by DOE for the period 2007-2013. Prior to that time there were no legal requirements of the SSWM utility. The second permit was issued for 2013-2018, significantly increasing requirements, and future permits are expected to continue this trend. Fulfilling these legal requirements has required additional staff time and other resources. Examples of increasing permit requirements include:
  - Development of Stormwater Management Plan (SWMP) with required components
    - Public Education and Outreach – develop outreach to specific audiences and measure effectiveness
    - Public Participation and Involvement – include public in decision processes and prepare and post annual report of program activities
    - Illicit Discharge Detection and Elimination (IDDE) – enforceable ordinance, investigate, track, and maintain records, implement inspection program for businesses
    - Controlling runoff from new development – develop review program and ordinances, implement low impact development standards, ongoing annual inspections required to ensure long-term private maintenance, follow-up and enforcement actions required for non-compliance and field screening to identify IDDE.
    - Municipal Operations Pollution Prevention – inventory and map the system and inspect facilities over first permit period, increasing to required inspections and maintenance standards for next permit and more detailed mapping,
    - Monitoring – initially just report any information to now participating financially in regional program
- The City's financial policies state that utility rates will be adequate to ensure that each of the utility funds is fully self-supporting.
- In accordance with City policy, the SSWM fee is set to support the programs and services of the SSWM utility.
- The programs and services of the utility have been reviewed by the Utility Advisory Committee and the Council during a comprehensive utility review conducted from 2014-2015. This resulted in a complete re-write of the applicable sections of the City Code.
- Money to support the utility's programs and services comes either wholly from the SSWM Fund, or if the programs and services benefit more than one fund, money comes from multiple funds.

- Significant review of this utility has been accomplished in the past few years, including the efforts listed below.
  - Otak SSWM Management Program Analysis (2006)
  - FCS study of SSWM rates (2010)
  - Decision to exempt streets from SSWM charges (2012)
  - UAC SSWM utility review (Peters/Dashiell/Lee) (2014)
  - Comprehensive review of the SSMW utility by UAC and City Council (2014-2015)
  - SSWM Code chapter repealed and replaced (2015)
  - Comprehensive audit of all parcels' impervious surface measurement in alignment with new code provisions (2015)
  - UAC review of proposed SSWM Operating Expenses Study (current) (2017)
  - UAC Review of proposed 2018 rate increase (current) (2017)

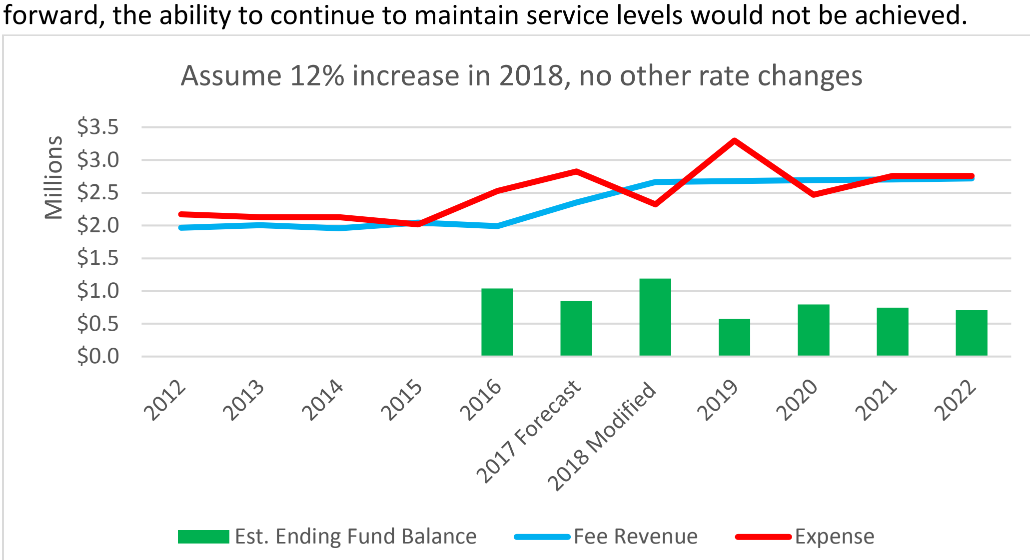
Rate analysis

Staff considered the utility's revenue requirement for 2018 and subsequent years when analyzing the 2018 rate. The intention is to build a budget which supports the utility as reviewed and approved by City Council during the 2015 review. The budget supports staffing and operating programs and services as presented in this review. In addition, it supports the current approved CIP. The capital projects included in the 2018 proposal are projects at Wardwell (contract awarded on August 22, 2017), culvert replacement at Ravine Creek, and design for culvert replacement at McDonald Creek at Eagle Harbor as approved in the CIP.

Staff has reviewed current financial and operational performance. We recommend a rate of $184.00 per ISU for 2018, shown below as Option 2. Options considered include:

Option 1 – Continue with 2018 Adopted Budget assumptions

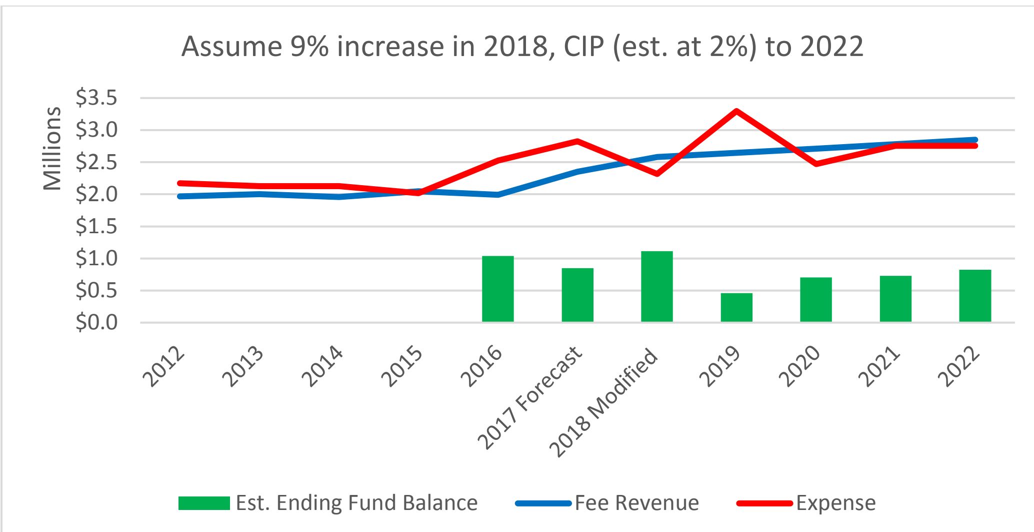
1. Approve rate of $190/ISU, as per 2018 Adopted Budget, an increase of 12% to estimated revenue of $2,665,000, based on current ERU counts. This increase would be the second step in the rate increase from 2016 levels. Current programs and services continue and the reserves would be funded, but without a mechanism to increase rates according to inflation going forward, the ability to continue to maintain service levels would not be achieved.



Option 2 – Increase rate to fund expected expenses through 2022

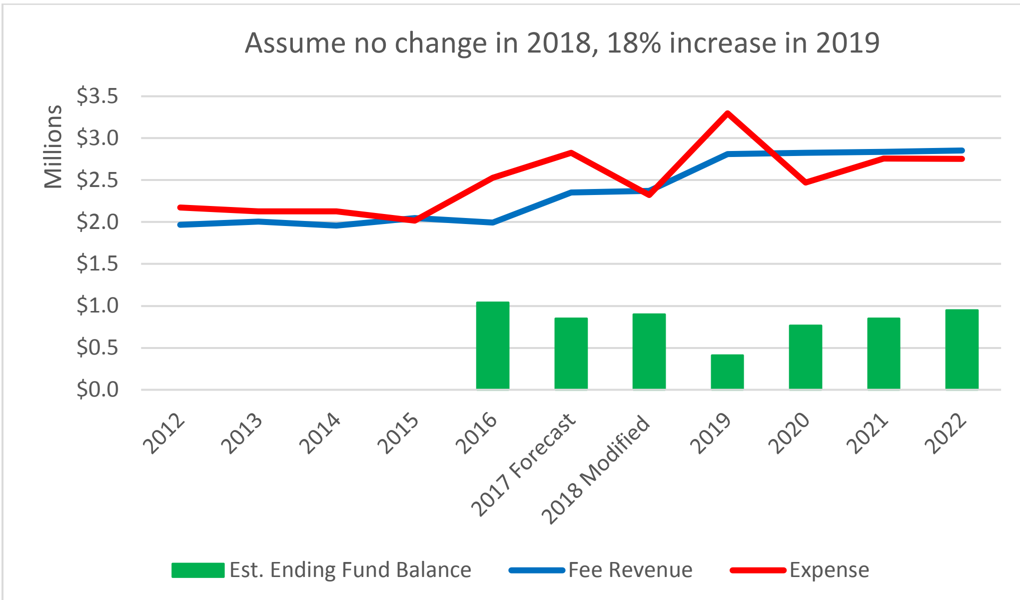
2. Approve rate of $184/ISU, an increase of 8.9% in 2018 and commit to increase rates with inflation over the following four years. This increase would allow the City to start 2019 with adequate funding for planned capital improvements including the McDonald Creek culvert project to go forward. This rate assumes some modifications to the 2018 Adopted Budget, including making a temporary position into a regular on-going position to support ongoing programs, and also setting the repair and maintenance budget at a level of $250,000 going forward, which is lower than originally budgeted for 2018.

   This is the option recommended by staff. It has been presented to the UAC, which has initially concurred with the recommendation at their August 23rd meeting, with a formal concurrence expected at their next meeting. A final UAC recommendation may be presented by the committee separately.



Option 3 – Defer rate increase to 2019

3. Not approve rate increase, leaving rate at $169/ISU for 2018. This decision would provide adequate funding for the currently approved operating and capital budget in 2018, and would provide for staffing and repair budgets as described in Option 2. This approach would require a significant increase to 2019 rates, shown below as an 18% increase to $199/ISU, to fund planned capital improvements including the McDonald Creek culvert project.



City of Bainbridge Island
City Council Agenda Bill

PROCESS INFORMATION	
Subject: 8:30 PM Appointments to Cultural Funding Advisory Committee (CFAC), AB 17-103 - Mayor Tollefson (Pg. 167)	Date: 9/5/2017
Agenda Item: NEW BUSINESS	Bill No.: 17-103
Proposed By: Mayor Tollefson	Referrals(s):

BUDGET INFORMATION		
Department: Executive	Fund:	
Expenditure Req:	Budgeted?	Budget Amend. Req?

REFERRALS/REVIEW		
:	Recommendation:	
City Manager:	Legal:	Finance:

DESCRIPTION/BACKGROUND

A call for participation was issued for volunteers to join the Cultural Funding Advisory Committee. Eleven applications were received. One applicant withdrew from consideration. The following individuals have been recommended for appointment: Connie Bye, Kate Camber, James Cash, Becky Crook, Jen Kochenash, Helen (Kami) Lee, and Diane Walker.

RECOMMENDED ACTION/MOTION

I move to forward to the September 12, 2017, consent agenda the recommended appointments to the Cultural Funding Advisory Committee as listed in the agenda bill.

ATTACHMENTS:

Description	Type
CFAC Applications	Backup Material

From:	noreply@civicplus.com
To:	Roz Lassoff
Subject:	Online Form Submittal: Citizen Advisory Group Application
Date:	Sunday, July 23, 2017 10:29:12 PM

Citizen Advisory Group Application

Step 1

Please complete the form below if you are interested in serving on a committee or commission. Once completed, this form will become part of the City's Volunteer Roster. Please note: once submitted, this application becomes a public record. Your address and contact information will not be shared.

Applicant Name	Connie Bye
Email	
Phone	
Address	
City	Bainbridge Island
State	WA
Zip	98110
Current Employer	Retired
Current Position	Retired
I am interested in serving on one of the following advisory groups (select all that apply):	Cultural Funding Advisory Committee

Experience & Qualifications

Have you served on any city advisory groups in the past?	No
If so, please indicate which groups:	*Field not completed.*
Please share your qualifications for this appointment (skills,	Since moving to the island in 2012, I have appeared in numerous musical theater productions with Ovation Performing Arts Northwest and also work behind the scenes on costuming and in

activities, training, education) if any:	other production areas. I sing with Crescendo, an adult vocal group. I volunteer as a docent at the art museum, both as a greeter and school-tour guide. I am a writer, who regularly contributes to "Bainbridge Island" magazine. Before I retired, I worked as a reporter, then an editor for "The Kansas City Star," "The St. Louis Business Journal" and "The St. Louis Post-Dispatch." I have a passion for the arts!
Please share your community interests (groups, committees, organizations) if any:	Ovation Performing Arts Northwest, Bainbridge Island Museum of Art, Crescendo (adult vocal group), West Sound Wildlife Shelter.
Feel free to attach your resume (optional):	
Type the Year	2017
How did you hear about the volunteer opportunity?	Other - See below
Other	Marijane Milton

Email not displaying correctly? [View it in your browser.]()

Connie Bye's career in journalism at *The Lenexa News, The Kansas City Star, The St. Louis Business Journal* and *The St. Louis Post-Dispatch* included time as a reporter and an editor. She and her husband, Dale, lived in eight cities in six states before moving four years ago to Bainbridge Island to be near their daughter, son-in-law and three grandchildren. She enjoys volunteering for the Bainbridge Island Museum of Art, both at the front desk as a greeter and as a school-tour docent. With Ovation Performing Arts Northwest, she has performed onstage in several musicals and worked behind the scenes on others; she also sings with Crescendo, Ovation's adult vocal group.

From:	noreply@civicplus.com
To:	Roz Lassoff
Subject:	Online Form Submittal: Citizen Advisory Group Application
Date:	Monday, July 17, 2017 10:57:32 AM

Citizen Advisory Group Application

Step 1

Please complete the form below if you are interested in serving on a committee or commission. Once completed, this form will become part of the City's Volunteer Roster. Please note: once submitted, this application becomes a public record. Your address and contact information will not be shared.

Applicant Name	Kate Camber
Email	
Phone	
Address	
City	Bainbridge Island
State	WA
Zip	98110
Current Employer	Self employed
Current Position	Reading teacher
I am interested in serving on one of the following advisory groups (select all that apply):	Cultural Funding Advisory Committee

Experience & Qualifications

Have you served on any city advisory groups in the past?	No
If so, please indicate which groups:	*Field not completed.*
Please share your qualifications for this appointment (skills,	I am new to BI. I want to actively engage in this community. I'm a partner at SVP. Through them, I have taken a week-long equity workshop and served on a 9-month grant

activities, training, education) if any:	committee. I have an MA in human development. I teach reading to students who have dyslexia.
Please share your community interests (groups, committees, organizations) if any:	As I say, I am new here. I regularly go to the art museum and galleries here.
Feel free to attach your resume (optional):	*Field not completed.*
Type the Year	2017
How did you hear about the volunteer opportunity?	*Field not completed.*
Other	Facebook

Email not displaying correctly? View it in your browser.

From:	noreply@civicplus.com
To:	Roz Lassoff
Subject:	Online Form Submittal: Citizen Advisory Group Application
Date:	Thursday, July 20, 2017 1:36:14 PM

Citizen Advisory Group Application

Step 1

Please complete the form below if you are interested in serving on a committee or commission. Once completed, this form will become part of the City's Volunteer Roster. Please note: once submitted, this application becomes a public record. Your address and contact information will not be shared.

Applicant Name	James Cash
Email	
Phone	
Address	
City	Bainbridge Island
State	WA
Zip	98110
Current Employer	N/A
Current Position	N/A
I am interested in serving on one of the following advisory groups (select all that apply):	Cultural Funding Advisory Committee

Experience & Qualifications

Have you served on any city advisory groups in the past?	Yes
If so, please indicate which groups:	Infrastructure Ballot Measure Task Force
Please share your qualifications for this appointment (skills,	Buyer (City of Santa Ana) - Bowers Museum Renovation Project; Operations Manager (Mama*s Kitchen 501(c)3) - including some Grant Writing and fund raising; MBE/DBE/WBE Outreach liaison

activities, training, education) if any:	(City of Long Beach/Gas Dept.) - Federal Contract (set-Asides); Public Works Construction Contracting; CBDG Project Contracting/Procurements. Conducted Minority/Women/Disadvantage Business Enterprise Seminars for Governmental Procurement Officers to assist in setting up Programs for various Governmental Organizations.
Please share your community interests (groups, committees, organizations) if any:	Bainbridge Pride; GSBA & Pride Foundation Volunteer - Scholarship Review Committee; Treasurer - Homeowners Association
Feel free to attach your resume (optional):	*Field not completed.*
Type the Year	2017
How did you hear about the volunteer opportunity?	Other - See below
Other	E-mail (Arts & Humanities)

From:	noreply@civicplus.com
To:	Roz Lassoff
Subject:	Online Form Submittal: Citizen Advisory Group Application
Date:	Thursday, July 20, 2017 1:05:38 PM

Citizen Advisory Group Application

Step 1

Please complete the form below if you are interested in serving on a committee or commission. Once completed, this form will become part of the City's Volunteer Roster. Please note: once submitted, this application becomes a public record. Your address and contact information will not be shared.

Applicant Name	Becky Crook
Email	
Phone	
Address	
City	Bainbridge Island
State	WA
Zip	98110
Current Employer	Self-Employed
Current Position	Literary Translator
I am interested in serving on one of the following advisory groups (select all that apply):	Cultural Funding Advisory Committee

Experience & Qualifications

Have you served on any city advisory groups in the past?	No
If so, please indicate which groups:	*Field not completed.*
Please share your qualifications for this appointment (skills,	My work is in the arts, particularly literature. I translate literature and also write fiction. I have also been the founder and editor in chief of a multicultural arts and literature magazine in Germany

activities, training, education) if any:	(www.sandjournal.com); taught courses in creative writing; been involved in translating curated exhibitions at modern art museums in Europe. More locally, I have been a creative writing editor at The Other Journal; worked with an organization that links veterans to poetry; worked with Saint Mark's Cathedral on cultural programs; and have helped to organize for two consecutive years the Film, Faith & Justice Film Festival in Seattle together with Human Rights Watch.
Please share your community interests (groups, committees, organizations) if any:	I am interested in Bainbridge Arts, the arts programs at Bloedel Reserve, a local (Seattle) literary translation group, and the US chapter of the PEN Free Word Center, though I have not yet served in any capacity on committees related to these groups. I am a member of the Author's Guild and the Translator Association.
Feel free to attach your resume (optional):	
Type the Year	2017
How did you hear about the volunteer opportunity?	Other - See below
Other	Recommendation from a friend

Becky L. Crook

Bainbridge Island, WA
98110 U.S.A.

EMPLOYMENT

Freelance Translator & Editor (February 2010 - present)

Semi-kolon, www.semi-kolon.com

- Translated (German>English, Norwegian>English) poetry and prose, essays, reports, articles, lectures, online content, film subtitles, coursework, syllabi, letters, manuscripts, and more for clients in a broad variety of fields
- Edited and copyedited written texts

Editor-in-Chief, Founder (March 2010 – September 2012)

SAND, Berlin's English Literary Journal, www.sandjournal.com

- Co-founded Berlin's English literary and arts journal
- Coordinated journal publicity, editing, translation, design, distribution and print-publishing schedules as editor in chief
- Managed a team of 15 for bi-annual publications

Editor, Translator, Film Editor (October 2009 – February 2011)

betterplace.org, the betterplace lab, Berlin, Germany

- Translated and edited English content for website, brochures and newsletters
- Managed website design project for the betterplace lab, launched in June 2010
- Collaborated to research and develop innovative social media tools for nonprofit organizations
- Created short films for social engagement projects

Managing Editor (May 2005 – September 2008)

The Other Journal, Seattle, USA

- Managed a team of eight+ editors and copyeditors for online quarterly publications
- Created editorial standards and working guidelines for journal editorial team

EDUCATION

- October 2008 International House Prolog Language School: German level C1
- 2003 – 2005 Extra-occupational post-baccalaureate studies in Psychology, Political Science, Sociology, and Race & Ethnic Minority Studies
- March 2003 Bachelor of Arts in Linguistics
  Seattle Pacific University, Summa Cum Laude

LETTERS OF RECOMMENDATION AVAILABLE UPON REQUEST.

Publications

The Berlin Design Guide, ed. Berlin: Alphabet Press, 2012. Print.

"These Memories Are Not Your Own." Art installation in *SAND.* Fall 2012, Issue 6. Print.

"Wild Pigs in Berlin", story on *NPR Berlin* Radio. Spring 2012

"Lovegrove & Gosling: Berlin's new literary agency." *SAND.* Spring 2012, Issue 5. Print.

"The Secret Desires of Houseplants," in *Geez Magazine.* Fall 2010, Issue 19. Print.

"Racism, Art, and the Darkness of Truth: An Interview with Barry Moser." *The Other Journal.* Fall, 2009.

"Mystery and Mayhem: Reading Bulgakov's *The Master & Margarita* While Dating an Atheist in Seattle." *"God is Dead" and I Don't Feel So Good Myself,* Anthology, eds. Chris Keller, Andrew David, Jon Stanley. Eugene: Wipf and Stock, 2009.

"Sea Billows Rolling: A Review of *Deaths and Transfigurations: Poems* by Paul Mariani," *The Other Journal.* Spring, 2009.

"Uprising." *Remembering the Future.* Anthology, eds. Andrew David and Chris Keller. Eugene: Cascade Books, 2009.

"Back to Storytelling: An Interview with Gertrud Nelson." *The Other Journal.* Fall, 2008.

"Mystery and Mayhem: Reading Bulgakov's *The Master & Margarita* While Dating an Atheist in Seattle," *The Other Journal* (Spring 2008)

"Stories of Restoration: An Interview with Musician Traci Howe." *The Other Journal.* Spring, 2008.

"Dish Water, Smart Bombs, and Life Together: A Conversation with Shane Claiborne." *The Other Journal.* Spring, 2007.

"Creatures of Place: An Interview with Poet Paul Willis." *The Other Journal.* Fall, 2006.

"Hip Hop Artists The Blue Scholars and Good Foot: Voices in the Urban Wilderness." *The Other Journal.* Fall, 2006.

"Passage." *The Other Journal.* Fall, 2006.

"Poetic Language and the Calling of Motherhood: An Interview with featured poet Debra Rienstra." *The Other Journal.* Spring, 2006.

"AIDS Awareness Campaign: Stories from Africa." *The Other Journal.* Fall, 2005.

"Invitation." *The Other Journal.* Fall, 2005.

"Of Cabbages and Kings." *The Other Journal.* Spring, 2005.

TRANSLATION WORK

Literary Translation:

Kagge, Erling. *Silence in the Age of Noise.* Knopf (U.S.) and Viking Penguin (U.K.). Spring 2017 (forthcoming).

Ullmann, Linn. *Register of Disquiet*. Norton. Spring 2017. (forthcoming).

Hagerup, Inger. *That Summer*. Enchanted Lion Books. Fall 2017. (forthcoming)

Skomsvold, Kjersti Annesdatter. *Monsterhuman*. Dalkey Archive Press. Spring 2017 (forthcoming).

Solstad, Dag. *We Do Not Want to Give the Coffee Pot Wings.* SAND. Journal. Spring 2017 (forthcoming).

Askildsen, Kjell. *The Red House*. New York: Freeman's. *Home* Issue. Winter 2017 (forthcoming).

Finborud, Lars Mørch. *Sanding Down Gravestones*. Berlin: Broken Dimanche Press. November 2016.

Bildøen, Brit. *Seven Days in August.* Calcutta: Seagull Books. November 2016.

Simonsen, Frøydis Sollid. "Every Morning I Crawl Out of the Ocean." *Asymptote Journal,* Spring 2016 Issue.

Horne, Thomas with Colin Eick & Eivind Stoud Platou. *Beer and Food: The Gourmet's Guide to Recipes and Pairings*. Co-translation with Rosie Hedger. Berlin: Gestalten Vorlag, Spring 2015.

Roskifte, Kristin. *Still deg i kø!* Singapore: Epigram Books, Nov. 2014.

Grue, Jan. "The Minotaur" from *Kropp og Sinn*. Published in *Asymptote Journal*, Autumn 2014 Issue. (This translation was also read as part of an audio podcast for Asymptote in Autumn 2014).

YOKOLAND. *Captain Blue.* 2014.

YOKOLAND. *Painter Green*. 2014.

YOKOLAND. *Baker Brown*. 2014.

Kagge, Erling. *Under Manhattan.* Trans. Becky L. Crook. Breda: World Editions, 2014.

Finborud, Lars Mørch. *The Black Signs.* Trans. Becky L. Crook. Berlin: Broken Dimanche Press, 2014 .

Brandt, Willy. "Germany, Israel and the Jews." Translated speech in a forthcoming publication by *whitefox*, London, 2014.

Benz, Wolfgang. "Anti-Semites and Enemies of Islam." Translated speech in a forthcoming publication by *whitefox*, London, 2014.

Translation in *SAND.* Issue 7, Fall 2013. Grue, Jan. "The Flying Man." *Kropp og Sinn: Noveller*. Oslo: Gyldendal, 2012. Print.

Grue, Jan. *Body and Mind.* Sample translation, Becky L. Crook. Oslo: Gyldendal, 2012.

Film Subtitles:

Günter Rössler: Die Genialität des Augenblicks. Dir. Fred R. Willitzkat. D 2012. Film.

Die Lust am Spiel. Dir. Fred R. Willitzkat. D 2011. Film.

Gute Freunde. Dir. Fred R. Willitzkat. D 2011. Film.

Sunset Star: Everywhere But Home. Dir. Andreas Michera. D 2012. Film.

From:	noreply@civicplus.com
To:	Roz Lassoff
Subject:	Online Form Submittal: Citizen Advisory Group Application
Date:	Friday, July 21, 2017 11:42:46 AM

Citizen Advisory Group Application

Step 1

Please complete the form below if you are interested in serving on a committee or commission. Once completed, this form will become part of the City's Volunteer Roster. Please note: once submitted, this application becomes a public record. Your address and contact information will not be shared.

Applicant Name	Jen A. Kochenash
Email	
Phone	
Address	
City	Bainbridge Island
State	WA
Zip	98110
Current Employer	Self
Current Position	Parent and Volunteer
I am interested in serving on one of the following advisory groups (select all that apply):	Cultural Funding Advisory Committee

Experience & Qualifications

Have you served on any city advisory groups in the past?	No
If so, please indicate which groups:	*Field not completed.*
Please share your qualifications for this appointment (skills,	Helped create and eventually chaired an annual historic preservation event in Mt. Lebanon, PA. Worked with the municipality on budget, marketing, handout materials, event

activities, training, education) if any:	location, and a bus tour while securing gardeners, interior designers, architects, and historical preservationists to provide panel advice. Completed a two-year training program in art history to be an active volunteer docent at the Carnegie Museum of Fine Art. Master's degree in Museum Learning Theory and Aesthetics. Helped run the BISD art docent program (overseeing 80+ volunteers throughout 5 schools) for three years. Created a training program for docents using the Visual Thinking Strategies educational support program.
Please share your community interests (groups, committees, organizations) if any:	I am currently a very active volunteer in my children's school with over 300 documented volunteer hours during the 2016/2017 school year. In addition to classroom volunteering I am an art docent, ran the legacy 6th grade "gift to the school" art installation, and am on numerous other committees. In the greater community I serve on a committee with Bainbridge Prepares in their child safety pod. In 15 years as an islander I have volunteered at the library, helped run Girls Night Out, worked with the Downtown Association and served on a neighborhood committee to build a park. I enjoyed meeting and working with people at BIMA, BIAC, and the BIAHC during my time running the Art Docent program. I am excited about the potential to explore exciting and enriching cultural opportunities and gifts to our community.
Feel free to attach your resume (optional):	*Field not completed.*
Type the Year	2017
How did you hear about the volunteer opportunity?	Other - See below
Other	email

From:	noreply@civicplus.com
To:	Roz Lassoff
Subject:	Online Form Submittal: Citizen Advisory Group Application
Date:	Thursday, July 20, 2017 6:45:21 PM

Citizen Advisory Group Application

Step 1

Please complete the form below if you are interested in serving on a committee or commission. Once completed, this form will become part of the City's Volunteer Roster. Please note: once submitted, this application becomes a public record. Your address and contact information will not be shared.

Applicant Name	Helen (Kami) Lee
Email	
Phone	
Address	
City	Bainbridge Island
State	WA
Zip	98110
Current Employer	N/A retired from Doctors without Borders end of January 2017
Current Position	N/A
I am interested in serving on one of the following advisory groups (select all that apply):	Cultural Funding Advisory Committee

Experience & Qualifications

Have you served on any city advisory groups in the past?	No
If so, please indicate which groups:	*Field not completed.*
Please share your qualifications for this appointment (skills,	Management; leadership; work ethic; written and oral communication skills; multicultural perspective

activities, training, education) if any:	
Please share your community interests (groups, committees, organizations) if any:	In addition to art and culture, my interests include the environment, animal welfare, community engagement and libraries
Feel free to attach your resume (optional):	
Type the Year	2017
How did you hear about the volunteer opportunity?	Other - See below
Other	email

Helen Hull Amestoy Lee (name in passport)
(Kami = nickname/preferred name**)**
Bainbridge Island, WA 98110

Médecins Sans Frontières-Holland – field admin (finance & human resources) in Magburaka, Sierra Leone, 9 months; Médecins Sans Frontières-Holland – finadmin (finance & human resources) in Myitkyina, Myanmar, 1 year; MSF-Holland – finadmin in Moba, DRC, three months, measles vaccination campaign**; Médecins Sans Frontières-Holland – finadmin (human resources & finances) in Boguila, Central African Republic,** seven months**; MSF-France - mental health officer/responsible for patient education and counseling in Buenaventura, Colombia,** nine months – focus on training staff and team building; **MSF-F - field administrator (human resources & finances) in Buenaventura, Colombia,** six months**; Peace Corps Response Volunteer in Buea, Cameroon – Organizational Strengthening /Capacity Building Feb-Aug 2010 (**with Reach Out Cameroon, an NGO focusing on HIV/AIDS awareness and prevention; Buea, Cameroon); **Peace Corps Volunteer in Shambyu, Namibia – HIV/AIDS awareness & prevention Jan 2007-Dec 2008; West Caprivi, Namibia 2009** (community mobilization; facilitation of workshops/trainings; poverty reduction; project monitoring and evaluation; testing campaign design & implementation; HIV+ support group work; proposal writing)

Prior Experience

Founded and **administered** a trilingual secretarial school in Guatemala City; **facilitated** workshops in schools and for businesses (e.g. creativity, team building, multiple intelligences); **organized** and **facilitated** professional retreats; **interpreted** for U.S. visitors and medical teams; **translated** (Spanish to English) articles, books, reports; **planned** and **delivered** cross cultural orientation programs; **designed** and **wrote/revised** annual reports, manuals for international NGOs

Degree

Master of Arts in Education, **University of Michigan,** Ann Arbor, Michigan
Graduate studies in Comparative Education, UCLA, Los Angeles, California
California Life Teaching Credential
Bachelor of Arts in Latin American Studies, Smith College, Northampton, Massachusetts, Minor: Spanish / Junior Year Abroad in Madrid

Training

Courses: Transactional Analysis; Learning Styles; the Writing Process; Supervision: Staff Development; Collegial Leadership
Seminars on neurolinguistics; meditation; individual counseling; co-dependency
Computer skills: word processing, spreadsheets, Power Point
Fundación ACCESO: Training as facilitator of strategic planning process for NGOs
Training in Crisis Management (3-day workshop, Guatemala)
Certificate in Grief Counseling and Thanatology, Canyon College, Caldwell, Idaho

Foreign Languages

Spanish – fluent; lived in Spanish-speaking country 30+ years
French – basic (fluent as a young girl – spent a year in Switzerland age 12-13)
German – minimal (speak and understand simple requests – year of study in college)

Personal Interests/Hobbies

Community involvement – traveling to the interior/rural area of Guatemala; working with women's and children's groups; volunteer work with US medical teams – OR scheduling and interpreting; community development
Outdoor activities – walking; swimming; camping; **Reading –** non-fiction; women's issues; **Photography –** avid photographer; one-woman exhibit February 2006 ("Amor a Guatemala: Caras, Colores y Costumbres"); **Contemporary art -** an ongoing passion (viewing and collecting, not producing!)

From:	noreply@civicplus.com
To:	Roz Lassoff
Subject:	Online Form Submittal: Citizen Advisory Group Application
Date:	Monday, July 17, 2017 12:19:56 PM

Citizen Advisory Group Application

Step 1

Please complete the form below if you are interested in serving on a committee or commission. Once completed, this form will become part of the City's Volunteer Roster. Please note: once submitted, this application becomes a public record. Your address and contact information will not be shared.

Applicant Name	Shayla Miles
Email	
Phone	
Address	
City	Bainbridge Island
State	WA
Zip	98110
Current Employer	Bloedel Reserve
Current Position	Programs & Events Manager
I am interested in serving on one of the following advisory groups (select all that apply):	Cultural Funding Advisory Committee

Experience & Qualifications

Have you served on any city advisory groups in the past?	No
If so, please indicate which groups:	*Field not completed.*
Please share your qualifications for this appointment (skills,	- Four plus years experience in special event planning and program planning: develop the annual public programming and philanthropic events calendars, create and manage departmental

activities, training, education) if any:	and event budgets, hire outside vendors and contractors, anticipate event challenges, and craft and execute plans that exceed the event's or project's goals. - Experience negotiating and writing contracts with outside vendors and organizations; and working with Bloedel's legal team to craft and review language for contracts, WSLCB license applications and operating plans, and other legal documents as they are needed. - A genuine love of data, creating systems and long-term strategy: currently oversee the organization-wide implementation of project management software (google-based Wrike,) systematizing repeatable tasks and identifying opportunities for efficiencies and implementing those strategies throughout the organization. - Demonstrated ability to handle multiple projects and deadlines at a time, prioritize, triage potential problems, anticipate challenges, and employ the utmost discretion regarding sensitive donor, board member and staff information. - Experience working with and leading meetings with high-profile Board of Trustees members and community organization and local business leaders: created agendas, planned and executed meeting logistics and content, and orchestrate action item follow ups and next steps.
Please share your community interests (groups, committees, organizations) if any:	- Current Bloedel Reserve staff member - On ad-hoc Public Art Committee (BI) - Serve as volunteer for Friends of the Farm (BI organzation) and Arboretum Foundation (Seattle organization) - Desire to eventually get Masters in Public Administration
Feel free to attach your resume (optional):	
Type the Year	*Field not completed.*
How did you hear about the volunteer opportunity?	City Announcement
Other	*Field not completed.*

Shayla Miles

Employment History

Bloedel Reserve, Bainbridge Island, WA

Programs & Events Manager, 03/16 – present

- Plan and implement the annual program and event calendar to align with organization's priorities, including encouraging public engagement, increasing membership, and furthering philanthropy.
- Facilitate selection of, and lead scheduling and management of all program and educational events for Reserve members and the general public, including concerts, lectures, and seasonal exhibits; find educators, and implement programs such as guided walks, lectures, workshops, meet the artist events, etc.
- Manage internal logistics and communication for all events across the organization's departments, including facilitating communication with Board of Trustees, creating agendas and taking minutes for Board committee meetings, producing timelines and tasks, coordinating all event marketing efforts, updating project calendars and daily schedules, communicating with vendors and talent, organizing event setup and take down, and identifying volunteer requirements for each program/event and creating job duties for staff and volunteers involved.
- Develop, implement an monitor multiple annual departmental budgets as well as individual event budgets.
- Plan, coordinate and execute various donor based cultivation and fundraising events, including event's logistics, invitations, RSVP tracking, etc; responsible for over $500,000 worth of budgeted net revenue raised in 2017.

Nell's Restaurant, Seattle, WA

General Manager & Wine Director, 02/14 – 03/16

- Successfully managed the Front of House operations and staff of the Nell's Restaurant – hired and trained staff, maintained inventory needs for all wine, liquor, NA beverages and operation-related goods; oversaw service and served/bartended; performed any and all tasks the restaurant might require.
- Trained FOH staff on all procedures of the restaurant; created training documents and communicated with staff on all operational procedures and wine list updates; programmed Point of Sale system to reflect all menu changes as needed.
- Created memorable moments and built relationships with both regular and new guests.
- Managed the expansive wine program which includes a $90,000+ inventory cellar with over 400 wines by the bottle, 20 wines by the glass, and a cocktail and spirits program.
- Collaborated with the Executive Chef to coordinate and execute successful catering and restaurant buy-out events; staff events, communicate with client and oversee events.

Whole Foods, Interbay, Seattle, WA

Wine and Spirits Specialist/Buyer, 08/13 – 02/14

- Oversaw the Whole Foods Interbay location wine and spirits department with over 300 different wine and spirit SKUs; managed inventory and purchased all products; planned and implemented wine and spirit features, built displays, hosted wine tastings, and trained Whole Foods team members on wine and spirit products as needed.
- Built and maintained fruitful relationships with over 25 distribution representatives and many more self-distributing Washington wineries; utilized those relationships to seek out the best new products, producers, importers to stay ahead of competing wine stores.

References available upon request.

From:	noreply@civicplus.com
To:	Roz Lassoff
Subject:	Online Form Submittal: Citizen Advisory Group Application
Date:	Friday, August 4, 2017 4:29:26 PM

Citizen Advisory Group Application

Step 1

Please complete the form below if you are interested in serving on a committee or commission. Once completed, this form will become part of the City's Volunteer Roster. Please note: once submitted, this application becomes a public record. Your address and contact information will not be shared.

Applicant Name	Maggie Smith
Email	
Phone	
Address	
City	Bainbridge Island
State	WA
Zip	98110
Current Employer	self
Current Position	artist
I am interested in serving on one of the following advisory groups (select all that apply):	Cultural Funding Advisory Committee

Experience & Qualifications

Have you served on any city advisory groups in the past?	Yes
If so, please indicate which groups:	Design Review Board, Public Art Committee
Please share your qualifications for this appointment (skills,	working artist, experience in public art, MFA degree

activities, training, education) if any:	
Please share your community interests (groups, committees, organizations) if any:	Amabile Choir, Bainbridge Island Rowing, Bainbridge Island Land Trust
Feel free to attach your resume (optional):	
Type the Year	2017
How did you hear about the volunteer opportunity?	Other - See below
Other	email

Email not displaying correctly? View it in your browser.

MAGGIE SMITH

Bainbridge Island, WA 98110

Public Commissions:

Harborview Nursing Commemorative for Harborview Medical Center, Seattle, Washington. Commissioned by 4Culture, with filmmaker Lois Shelton, 2012, lighting consultant Gwen Demombynes.

Armed Forces Memorial in Norfolk, Virginia. Additional pieces for 1998 project, adding cast bronze letters home from Iraq and Afghanistan, 2009.

Naturaleza Viva, ceramic mural for Sierra Vista School, Sunnyside, Washington, for Washington State Arts Commission Art in Public Places Program, 2007.

Carolina Memorial, at the University of North Carolina, Chapel Hill, North Carolina. Memorial to Carolina war dead, with Reynolds & Jewell landscape architects, 2007.

Oak Grove Freedman's Cemetery Memorial, Salisbury, North Carolina. African American cemetery restoration and memorial, with Reynolds & Jewell landscape architects, 2006.

Richards Creek: Factoria Boulevard Street Improvements Public Art; art for street in Bellevue, Washington, 2004. Sidewalk paving, railing, benches and trellises highlight community history.

Spur Line: Artwork for West Lake Union Corridor; art for 1½ mile pedestrian pathway along lakefront in downtown Seattle, Washington, 2004. Paving, railing and benches talk about lakeshore history.

Water Quilt, ceramic tile mural for Don Nakata Memorial Pool, Bainbridge Island, WA, 2002.

Lynn Street Park Tile Project; worked with community to design and make ceramic tile for seating walls, benches and signage at street end lakefront park in Seattle, Washington, 2002.

Island-to-Island Bench Collaboration, concrete benches with children's tiles and bronze words for Annmarie Garden in Solomon's Island, Maryland; and Bainbridge Island, Washington, 1998.

Armed Forces Memorial, Norfolk, Virginia; with James Cutler Architects, 1996-98. Co-designer of memorial in concrete, stone, steel, wood, bronze, and landscaping on Norfolk waterfront.

Link Station Children's Tiles, Design team artist and artist-in-residence for public intermodal transit center, Wenatchee, Washington, 1996-97.

Twelve Benches for Annmarie Garden, Annmarie Garden, Solomons Island, Maryland, 1995. Community project; concrete, tile, and bronze benches portray significant local plants.

Talking Wall, with poet Judith Roche and Seattle High School students, METRO Convention Place Station, Seattle, Washington, 1995. Graffiti prevention project on a downtown Seattle street.

Waterfront Benches, ceramic tile benches and pavement at Golden Gardens Park, Seattle, 1993.

Salem Witch Trials Tercentenary Memorial, with James Cutler Architects, Salem, Massachusetts, 1992. American Institute of Architects National Honor Award-winning project.

Two Quilts For Portsmouth, ceramic murals at Human Services Center, Portsmouth, Virginia, 1990.

Two Quilts For Wenatchee, Mission View and Lincoln Elementary Schools, Wenatchee, Washington, Washington State Arts Commission Art in Public Places Program, 1990.

Children's Tile Murals, developed project and worked with public school children, METRO Downtown Seattle Transit Project, International District Station, Seattle, Washington, 1989.

Public Commissions, continued:

Ceramic mural, Dutch Hill School, Snohomish, Washington, Washington State Arts Commission Art in Public Places Program, 1987.

Tanana River, ceramic mural, Salcha Elementary School, Alaska % for Art Program, 1987.

Public Art Planning:

Bainbridge Island Design Review Board, City of Bainbridge Island, WA, 2004—10.

Winslow Gateway Project and Arts Master Plan for the Public Art Committee of Bainbridge Island, WA, 2003, with artist Buster Simpson.

Cultural Enhancement Plan for Des Moines Memorial Drive, King County, WA, 2003, with artist Jon Gierlich and landscape architects Susan Black & Associates.

Artwork Concept Plan for the "Potlatch Trail", a City of Seattle Transportation project, Seattle Arts Commission, with Gloria Bornstein and Elizabeth Conner, 2001.

Advisor, ***Bainbridge Island Public Art Committee***, 1995-2000.

Juror, various public art projects in Puget Sound region, 1985—.

Awards:

Island Treasure Award, Bainbridge Island Arts & Humanities Council, 2004.

National American Institute of Architects Honor Award, with James Cutler Architects, 1994.

Seattle American Institute of Architects Honor Award, with James Cutler Architects, 1993.

Boston Society of Architects Artist and Architect Collaboration Honor Award, 1993.

The Benjamin Blumberg Memorial Travel Fund Award for study in Japan, 1977.

The Morris Goodman Sculpture Award. Indianapolis Art Museum, 1977.

Articles:

Salisbury Post, January 17, 2006: "A Day of Tremendous Significance"

Architectural Record, June 2000: "Snapshot: Remembering the soldiers, in their own words"

New York Times, June 5, 1997: "Wind-Swept Words For a War Memorial"

Architecture, December 1995: "On the Boards"

Progressive Architecture, August 1993: "Crucible of Stone"

Newsweek, August 31, 1992: "Remembering the Witch Hunt's Victims"

Art New England, August/September 1992: "The Art of Remembrance"

Residencies:

Instituto Sacatar Fellowship, Island of Itaparica, Brasil, for two-month residency in 2011.

Ucross Foundation Residency, Clearmont, Wyoming, one-month residency in 2008.

Artist Residency Grant, Watershed Center for the Ceramic Arts, Edgecomb, Maine, 1994.

Education: M.F.A., Indiana State University. B.A., University of Delaware

From:	noreply@civicplus.com
To:	Roz Lassoff
Subject:	Online Form Submittal: Citizen Advisory Group Application
Date:	Thursday, July 20, 2017 5:04:56 PM

Citizen Advisory Group Application

Step 1

Please complete the form below if you are interested in serving on a committee or commission. Once completed, this form will become part of the City's Volunteer Roster. Please note: once submitted, this application becomes a public record. Your address and contact information will not be shared.

Applicant Name	Diane Walker
Email	
Phone	
Address	
City	Bainbridge Island
State	WA
Zip	98110
Current Employer	Self
Current Position	artist/writer/publisher
I am interested in serving on one of the following advisory groups (select all that apply):	Cultural Funding Advisory Committee

Experience & Qualifications

Have you served on any city advisory groups in the past?	No
If so, please indicate which groups:	*Field not completed.*
Please share your qualifications for this appointment (skills,	Skills and Activities: As a painter I have exhibited in art shows all over Western Washington. As a photographer my work has been exhibited all over the country, in magazines, in books and on

activities, training, education) if any:	book covers. As a poet my work has been shown every one of the last several years of our local Poetry Corners contest, I have a daily poetry blog, and I've published several books of poetry. As a playwright I've had plays produced at BPA and the Jewel Box in Poulsbo. As an actor I've appeared in numerous plays for the Jewel Box, BPA, Island Theatre and Kitsap Forest Theatre. For five years I wrote, edited, designed, photographed and published a monthly 20-page newspaper and weekly newsletters for an audience of 20,00 for the Episcopal Diocese of Western Washington. For 15 years prior to that I was a marketing communications manager for a variety of hi-tech organizations; prior to that I managed a staff of 30 volunteers for a public library and taught quilting classes for the League of NH Crafts. Training: Undergraduate studies in art and art history; multiple adult learning courses in management, advertising, layout and design, public relations, photography, painting and pastels. Education: BA in English Composition from Mount Holyoke College, So. Hadley, MA Certificate in Public Library Science from the University of NH Certificate in Theological Studies from Diocesan School of Theology, Seattle; Certificate in Organizational Behavior from Antioch College, Seattle
Please share your community interests (groups, committees, organizations) if any:	I am currently on the steering committee for Bainbridge Community Broadcasting and manage their web page, publicity and publishing; I previously served on the board of Island Theatre as secretary and webmaster; I read for the blind as part of the VIP program; I previously served as a marketing advisor/designer for Bainbridge Bargain Boutique, I am a photography judge every year for the BIHS art contest, and I have sold art to raise money for Helpline and the Bargain Boutique.
Feel free to attach your resume (optional):	
Type the Year	2017
How did you hear about the volunteer opportunity?	Other - See below
Other	letter from BIAHC

Email not displaying correctly? [View it in your browser.]()

DIANE R. WALKER
Bainbridge Island, WA 98110 •

AREAS OF EXPERTISE

- Marketing communications, including writing, layout, design, strategy, identity, and PR
- Management/organizational skills for both paid and volunteer staff
- Non-profit experience including grantwriting, speechwriting, public speaking, social media

CORE ACCOMPLISHMENTS

- **As Director of Communications for the Episcopal Church in Western Washington**:
  Built an award-winning communications program for the Episcopal Diocese of Western Washington. Worked with leadership to develop positioning and vision statements; produced, wrote and edited a monthly newspaper, newsletters, brochures, promotional materials, manuals, directories and presentations.
- **As Program Manager for DTSS, Inc.**:
  Managed branding, design, implementation and release of PC-based remote software distribution package. Wrote business plan, hired staff, set budgets and pricing. Conducted focus groups, developed product specifications, marketing strategies and messages. Supervised marketing, advertising and documentation.
- **As Public Relations Account Executive for Boston's Clarke&Company:**
  Developed public relations campaigns for Apollo, Computervision, Intermetrics, Softbridge and others. Wrote articles and speeches to promote expertise of corporate executives. Met with administrative and engineering managers to assess product strengths and develop consistent messaging strategies.
- **As an independent communications professional:**
  Wrote and edited software documentation; produced brochures, ads, PR, direct mail programs, and newsletters for real estate, hi-tech corporations, and several non-profit agencies. Wrote grant applications, set up and managed social media promotions, designed logos and signage.

FREELANCE COMMUNICATIONS CONSULTING

Work with hi-tech, small business and non-profit clients to assess communications needs for specific vertical markets. Write and edit copy for web pages, ads, brochures, social media, newsletters, press releases and product manuals. Manage product marketing activities, develop positioning strategies, supervise preparation of market surveys and launch materials. Create product and corporate identity and informational signs and fliers. Write and edit PR articles for publication; write grant applications and speeches.

PROFESSIONAL EXPERIENCE

Director of Communications **Diocese of Olympia, Seattle**
Managed communications activities for Episcopal Diocese of 103 congregations. Responsible for writing, editing, design, layout and production of 16-20 page monthly tabloid newspaper (circ. 19,000). Won national awards for feature stories, layout and photography. Responsible for all written materials, including brochures, manuals, directories, budget materials, press releases, and policy statements. Served as copyeditor for national news service at two national Episcopal General Conventions. Managed staff, developed and led communications training workshops; generated annual budget, policy and procedures; established employee performance appraisal system.

Product Marketing Manager **Aldus Corporation, Seattle**
Managed marketing activities for simultaneous release of Aldus FreeHand, a computerized drawing program for Mac and PC. Developed positioning strategy, created and analyzed market surveys; wrote copy for packaging, brochures, demos, ads and press releases; proofed and tested manuals.

Program Manager **DTSS Inc., Hanover, NH**
Led cross-functional product team for design, implementation and release of PC-based remote software distribution package, Developed business plan, hired staff, set budgets and pricing, conducted customer focus groups, defined product specifications and supervised marketing and documentation teams.

Public Relations Account Exec **Clarke&Company, Boston, MA**
Managed public relations campaigns for Apollo, Computervision, Intermetrics, Softbridge and others. Ghost-wrote articles for publication to promote products and executives. Won Bellringer award for designing pop-up invitation to join Walter Cronkite for New York product introduction.

Product Manager **DTSS Inc., Hanover, NH**
Managed release of new operating system, including documentation and training materials, promotional materials and activities. Developed customer and market surveys, analyzed qualitative and quantitative data. Created direct mail, ads, PR, corporate newsletter; wrote presentations for product introduction.

Documentation Manager **DTSS Inc., Hanover, NH**
Managed documentation team, writing and editing manuals for software products, including mainframe operating system, communications and graphics packages, database management, word processing and more. Responsible for final editing and proofing; established company stylebook, tone and voice.

Supervisor of Public Services **Howe Library, Hanover, NH**
Managed circulation desk, publicity and display. Trained and supervised paid and volunteer staff. Responsible for promotion of collections, programs and services. Instituted new circulation system, wrote staff and volunteer manuals, conducted statewide workshops on publicity and display; prepared statewide promotions for National Library Week.

EDUCATION

AB, *Cum Distinctionem*, Mount Holyoke College; majored in English composition
Certificate in Public Library Techniques, University of NH
Certificate in Organizational Development, Antioch Univ. Center for Creative Change

VOLUNTEER/COMMUNITY ACTIVITIES

Steering Committee/Publicist for Bainbridge Community Broadcasting
Former board member/secretary/webmaster, Island Theatre
Read for the blind, Bainbridge Island VIP program
Marketing Consultant, Seattle Children's Hospital Thrift Store
Exhibitions Director, ECVA.org
Daily blogger, ContemplativePhotography.com
Former Librarian, Shaw Island Library
Former board member, Episcopal Communicators
Former board member, Ecunet (international ecumenical internet provider)

From:	noreply@civicplus.com
To:	Roz Lassoff
Subject:	Online Form Submittal: Citizen Advisory Group Application
Date:	Monday, July 24, 2017 11:22:06 AM

Citizen Advisory Group Application

Step 1

Please complete the form below if you are interested in serving on a committee or commission. Once completed, this form will become part of the City's Volunteer Roster. Please note: once submitted, this application becomes a public record. Your address and contact information will not be shared.

Applicant Name	Joseph Wolfe
Email	
Phone	
Address	
City	Bainbridge Island
State	WA
Zip	98110
Current Employer	Retired
Current Position	Retired
I am interested in serving on one of the following advisory groups (select all that apply):	Cultural Funding Advisory Committee

Experience & Qualifications

Have you served on any city advisory groups in the past?	No
If so, please indicate which groups:	*Field not completed.*
Please share your qualifications for this appointment (skills,	Once an aspiring classical musician accepted by the Eastman School of Music. Played in a large number of orchestras and bands. An internationlly-recognized scholar on business games

activities, training, education) if any:	and experiential learning techniques.
Please share your community interests (groups, committees, organizations) if any:	Currently the President of the Bainbridge Crest Homeowner's Association
Feel free to attach your resume (optional):	
Type the Year	2017
How did you hear about the volunteer opportunity?	City Announcement
Other	*Field not completed.*

Email not displaying correctly? View it in your browser.

Joseph A. Wolfe

Bainbridge Island WA 98110 USA
(

AREAS OF SPECIALIZATION

Business policy and strategic management; Strategic decision making processes
Business policy pedagogy; Business simulations and games
Organization theory; Managerial and organizational effectiveness

EDUCATION

Ph.D. in Management, Business and Economic History, Marketing; New York University, Stern School of Business, 1971
M.S. in Retailing; New York University, School of Retailing, 1966
University of Buffalo, 1962; B.S. in Business Administration (Retailing major)
Graceland University, 1955; Associate of Arts

MAJOR EXPERIENCE

Experiential Adventures, LLC
    President, November 1997-Present
Center for Advanced Learning Technologies, INSEAD, Fontainebleau, France
    Senior Research Fellow, August 1997-August 1998
International Management Center, Budapest, Hungary
    Visiting Professor of Strategic Management, December 1989-June 1990
The University of Tulsa
    Professor Emeritus May 1998
    Professor of Management, September 1983-May 1998
    Chairman, Management and Marketing Department, September 1983-June 1985
    Associate Professor of Management, June 1978-August 1983
The University of Nebraska at Omaha
    Associate Professor of Management and Organizational Behavior, July 1977-June 1978
University of Illinois, Chicago Campus
    Associate Professor of Management, September 1969-June 1977
Grand Way Stores, New York, New York
    Assistant to Operations Vice President, January 1964-June 1966
R.H. Macy Company, Inc., New York, New York
    Assistant Buyer; Sales Manager, June 1962-January 1964

MINOR EXPERIENCE

Consultant with Frank H. Cassell and Associates, Chicago, Illinois
Management Development courses for University of Illinois, Champaign-Urbana
Volunteer consultant for Capital Formation, Inc., New York, New York
Lecturer at College of Insurance, New York, New York; Long Island University, Brooklyn Campus; Elmhurst College, Elmhurst, Illinois; Middle Management Program, Aurora College, Aurora, Illinois; American Management Association Institute, Chicago, Illinois
Consultant to Planned Parenthood Association, Chicago, Illinois; B. Altman Co., New York, New York; Jewel Food Company, Chicago, Illinois; University of Illinois Medical Center; Cook County Hospital, Chicago, Illinois; Ohio State Employment Service; Service Master, Inc., Wheaton, Illinois; International-Harvester, Inc., Chicago, Illinois; Phillips Petroleum Company,

Bartlesville, Oklahoma; State University of New York- Westbury; South-Western Publishers
Editorial advisor to Bobbs-Merrill Company, Inc.; Business Publications, Inc.; McGraw-Hill Inc.; Prentice-Hall; Richard D. Irwin, Inc.; South-Western College Publishing; West Publishing Company

Curator, The ABSEL Business Games and Exercises Archive, McFarlin Library, The University of Tulsa, 2002-2009.

Advisor, Editor and Typology Master, The Serious Games and Exercises Typology, October 2014-present.

DISSERTATION

Increasing Black Entrepreneurship in the Ghetto: An Exploratory Study of a Management Training Program for Harlem Blacks

ACADEMIC AND PROFESSIONAL ACTIVITIES

Major Committee Assignments at the University of Illinois

Co-creator of College of Business Administration Career Day
Joint Committee on the Master of Urban Planning and Policy
Senate Committee on Student Affairs
College Educational Policy Committee
Creator and Administrator of INPRO, 1974
Senate Calendar Committee, September 1975-June 1977

Major Committee Assignments at the University of Tulsa

Chairman, Curriculum Committee 1978-1979.
Member, Curriculum Committee 1988-1992.
Chairman, Dean's Search Committee, College of Business Administration 1979-1980.
Member, Graduate Council 1980-1982.
Member, Promotion and Tenure Committee, 1982-1983; 1987-1988; 1991-1994.
Chairman, Research and Faculty Development Committee, 1982-1984.
Member, Research and Faculty Development Committee, 1993-1997.
Member, Review of Petroleum Engineering Graduate Degree Programs, 1983-1984.
Member, Bovaird Chair Search Committee, 1983-1984.
Chairman, Management and Marketing Department, 1983-1985.
Member, Executive Committee, College of Business Administration 1983-1985.
Chairman, Review of Masters in Music Degree Program, 1984-1985.
Member, Advisory Committee, Faculty Development Center, 1985-1986.
Member, Committee on Committees, 1985-1987.
Chairman, Committee on Committees, 1987-1988.
Creator and Administrator, Business Week Game, 1988.
Presenter, Case Analysis Seminar, Graduate Student Orientation, Fall, 1990.
Advisor, Freshman Advising Program, 1990-1991.
Member, President's International Advisory Committee, 1990-1994.
Member, International Advisory Committee, College of Business Administration, 1991-1993.
Moderator, "The Role of American Business in the Changing European Market," College of Business Administration, Business Day, 1991.
Chair, Undergraduate Core Curriculum Review Subcommittee, 1991-1992.
Member, Computer Committee, 1992-1994.
Member, Graduate College Research Committee, 1993-1995.
Member, International Management Center Faculty Advisory Council, 1993-1995.

Member, University Curriculum Committee, 1994-1995.
Member, Committee for Petitions of the Graduate Council, 1994-1995.
Member, College of Business Administration Outstanding Teaching Award Committee, 1991, 1995.
Coordinator, College of Business Administration "Functions of Business" Intgrated Curriculum Program, 1995-1997.
Member, Faculty Senate, October 1995-April 1997.
Member, Committee for Planning of the Graduate Council, 1995-1996.
Member, Follow-Up Review Committee for Speech Pathology Program, Winter 1996.
Member, Follow-Up Review Committee for Computer Science Program, Winter 1996.
Chair, Follow-Up Review Committee for Biological Science Program, Winter 1996.

Honors and Awards

Buffalo, New York Downtown Merchants Award, 1962
Beta Gamma Sigma Honor Society, June 1962
Eta Mu Pi Honor Society, June 1966
Omicron Delta Epsilon Honor Society, June 1968
Best research paper award 1980, 1982, 1988, 2003 Association for Business Simulation and Experiential Learning (ABSEL)
Finalist, First Annual International Prize Competition for the most original contribution to the field of Organizational Analysis and Design, ORSA/TIMS Meeting, Houston, TX, 1982
Distinguished Service Award, ABSEL, 1987
Elected ABSEL Fellow, 1989
Academy of Management Outstanding Service Award, MED Division, 1988-1989
Fulbright Lecturer in Strategic Management, International Management Center, Budapest, Hungary, Spring, 1990
Distinguished Service Award, Management Education and Development Division, Academy of Management, 1991
Simulation & Gaming Award, Outstanding Service to the Profession, July, 1994
Outstanding Reviewer Award, Management Education and Development Division, Academy of Management, 1999.

Professional Memberships

Academy of Management
Association for Business Simulation and Experiential Learning
International Simulation and Gaming Association

BOOKS

Joseph Wolfe (Ed.) The Business Administration Decision Simulation: Participant's Manual. Multilith, 1972.

Joseph Wolfe (Ed.) The Business Management Game. Tulsa, OK: University Bookstore, 1980; 1984.

Joseph Wolfe and J. Bernard Keys (Eds.), Business Simulations, Games and Experiential Learning in International Business Education. Binghampton, NY: International Business Press, 1997.

Joseph Wolfe, The Global Business Game: A Strategic Management and International Business Simulation. Cincinnati: South-Western College Publishing, 2000, ISBN 0-32400084-7.

Joseph Wolfe, The Global Business Game: A Strategic Management and International Business Simulation. Cincinnati: South-Western College Publishing, 2003, ISBN 0-324-16185-9.

Joseph Wolfe, The Global Business Game: A Strategic Management and International Business Simulation. World Edition. Knoxville: Innovative Learning Solutions, 2007, www.onlinegbg.com.

Joseph Wolfe, The Global Business Game: A Strategic Management and International Business Simulation. Americas Edition. Knoxville: Innovative Learning Solutions, 2008, www.onlinegbg.com.

Joseph Wolfe, The Global Business Game. Business Basics Edition. Knoxville: Innovative Learning Solutions, 2009, www.onlinegbg.com. Spanish and English editions.

MONOGRAPHS AND CHAPTERS IN BOOKS

Joseph Wolfe, "Sample Case Analysis: Pennsylvania Movie Theatres, Inc.," in John A. Pearce, II and Richard B. Robinson, Strategic Management: Formulation, Implementation and Control. 3rd and 4th editions. Homewood, IL: R.D. Irwin, 1988/1991.

Alvin C. Burns, James W. Gentry and Joseph Wolfe, "A Cornucopia of Considerations in Evaluating the Effectiveness of Experiential Pedagogies," in James W. Gentry (Ed.), The Guide to Experiential Learning. NY: Nichols Publishing Co., 1990, pp. 253-278.

Joseph Wolfe, "The Evaluation of Computer-Based Business Games: Methodology, Findings, and Future Needs," in James W. Gentry (Ed.), The Guide to Experiential Learning. NY: Nichols Publishing Co., 1990, pp. 279-300.

Joseph Wolfe, "Chrysler Acquires American Motors," in John A. Pearce, II and Richard B. Robinson, Strategic Management: Formulation, Implementation and Control. 4th edition. Homewood, IL: R.D. Irwin, 1991, pp. 730-752; Also in James M. Higgins and Julian W. Vincze, Strategic Management: Text and Cases. 4th edition. Hinsdale, IL: The Dryden Press, 1989, pp. 914-937; Also in Michael J. Stahl and David W. Grigsby, Strategic Management for Decision Making. Boston: PWS-Kent, 1992, pp. 467-493; Also in Alan N. Hoffman and Hugh O'Neill, The Strategic Management Casebook and Skill Builder, St. Paul, MN: West Publishing Co., 1993, pp. 499-523.

Joseph Wolfe, The Business Management Laboratory Decision Support System: User's Guide. April, 1988 (Xerox).

Joseph Wolfe, A Viewer's Guide to "The Last Place on Earth". December, 1988 (Xerox).

Joseph Wolfe, "Creative Dance Ensemble: A Demonstration Case Analysis," in James M. Higgins and Julian W. Vincze, Instructor's Manual for Strategic Management: Text and Cases. 4th edition. Hinsdale, IL: The Dryden Press, 1989, pp. 126-154.

Joseph Wolfe, "Cineplex Odeon Corporation," in Fred R. David, Strategic Management. Columbus, OH: Merrill, 1991, pp. 535-553; Also in John A. Pearce, II and Richard B. Robinson, Strategic Management: Formulation, Implementation and Control. 4th edition. Homewood, IL: R.D. Irwin, 1991, pp. 849-866; Also in Peter Wright, Charles Pringle and Mark Kroll, Strategic Management: Text and Cases. NY: Allyn and Bacon, 1992, pp. 541-560; Also in Samuel C. Certo and J. Paul Peter, Strategic Management: Concepts and Applications. 2nd edition. NY: McGraw-Hill, 1991, pp. 426-449; Also in Samuel C. Certo and J. Paul Peter, Cases in Strategic Management. 2nd edition. Flossmoor, IL: Austen Press, 1993, pp. 64-87;

Also in James M. Higgins and Julian W. Vincze, Strategic Cases: Text and Cases. 5th edition. Hinsdale, IL: The Dryden Press, 1993, pp. 985-1004; Also in Alan N. Hoffman and Hugh O'Neill, The Strategic Management Casebook and Skill Builder, St. Paul, MN: West Publishing Co., 1993, pp. 96-116; Also in Bob de Witt and Ron Meyer, Strategic Management in Europe - Cases. St. Paul, MN: West Educational Publishing (in press, March 1994); Also listed in the Pinnacle catalog, Marilyn Taylor (Ed.), NY: Primis, McGraw-Hill, Inc. (in press); Also in Samuel Certo and J. Paul Peter, Selected Cases in Strategic Management. 3rd edition. Chicago: Austen Press, 1995, pp. 41-63.

Joseph Wolfe, "The Tragic Crash of Flight 191," in Peter Wright, Charles Pringle and Mark Kroll, Strategic Management: Text and Cases. NY: Allyn and Bacon, 1992, pp. 913-937; Also in Peter Wright, John A. Parnell, and Mark Kroll, 1993 Edition of Cases in Strategic Management, NY: Allyn and Bacon, 1992, pp. 351-372; Also in Alan N. Hoffman and Hugh O'Neill, The Strategic Management Casebook and Skill Builder, St. Paul, MN: West Publishing Co., 1993, pp. 687-711.

Joseph Wolfe, "Joe White vs. American Airlines," in Samuel C. Certo and J. Paul Peter, Strategic Management: Concepts and Applications. 2nd edition. NY: McGraw-Hill, 1991, pp. 1092-1111; Also in Samuel C. Certo and J. Paul Peter, Cases in Strategic Management. Flossmoor, IL: Austen Press, 1993, pp. 730-749.

Joseph Wolfe, "Industrial Highlight: Aerospace Industry," in Samuel C. Certo and J. Paul Peter, Strategic Management: Concepts and Applications. 2nd edition. NY: McGraw-Hill, 1991, pp. 1112-1114; Also in Samuel C. Certo and J. Paul Peter, Cases in Strategic Management. 2nd edition. Flossmoor, IL: Austen Press, 1993, pp. 750-752.

Joseph Wolfe and Jozsef Poor, "A Socioeconomic Note on Hungary in 1990," in Thomas L. Wheelen and J. David Hunger, Strategic Management and Business Policy, 4th edition, Reading, MA: Addison-Wesley, 1992, pp. 1014-1038; Also in James M. Higgins and Julian W. Vincze, Strategic Cases: Text and Cases. 5th edition. Hinsdale, IL: The Dryden Press, 1993, pp. 571-593; Also listed in the Management Catalog, NY: McGraw-Hill Primis, October 1995, p. 117; Also listed in Darden Case Bibliography 1994-95: Management Cases and Notes. Eleventh edition. Charlottesville, VA: Graduate School of Business Administration, University of Virginia, p. 89; Also listed by The European Case Clearing House.

Joseph Wolfe and Jozsef Poor, "Csepel Machine Tool Company," in Thomas L. Wheelen and J. David Hunger, Strategic Management and Business Policy, 4th edition, Reading, MA: Addison-Wesley, 1992, pp. 1039-1060; Also in Alan N. Hoffman and Hugh O'Neill, The Strategic Management Casebook and Skill Builder, St. Paul, MN: West Publishing Co., 1993, pp. 627-648; Also in John Hendry, Tony Eccles, Sumantra Ghoshal and Peter Williamson (Eds.), European Cases in Strategic Management, London: Chapman & Hall, 1992, pp. 99-120; Also in James M. Higgins and Julian W. Vincze, Strategic Cases: Text and Cases. 5th edition. Hinsdale, IL: The Dryden Press, 1993, pp. 549-570; Also listed in the Management Catalog, NY: McGraw-Hill Primis, October 1995, p. 62; Also in Samuel Certo and J. Paul Peter, Selected Cases in Strategic Management. 3rd edition. Chicago: Austen Press, 1995, pp. 531-550; Also listed in Darden Case Bibliography 1994-95: Management Cases and Notes. Eleventh edition. Charlottesville, VA: Graduate School of Business Administration, University of Virginia, p. 89; Also listed by The European Case Clearing House.

Joseph Wolfe, Gyula Bosnyak and Janos Vecsenyi, "Taurus Hungarian Rubber Works: Implementing a Strategy for the 1990s," in Alan N. Hoffman and Hugh O'Neill, The Strategic Management Casebook and Skill Builder, St. Paul, MN: West Publishing Co., 1993, pp. 649-667; Also in Lloyd L. Byars, Cases in Strategic Management, NY: Harper Collins Publishers, 1992; Also in John Hendry, Tony Eccles, Sumantra

Ghoshal and Peter Williamson (Eds.), European Cases in Strategic Management, London: Chapman & Hall, 1993, pp. 415-431; Also in Peter Wright, John A. Parnell, and Mark Kroll, 1993 Edition of Cases in Strategic Management, NY: Allyn and Bacon, 1992, pp. 213-232; Also in Peter Wright, Charles D. Pringle, and Mark J. Kroll Strategic Management: Text and Cases, 2nd edition, Boston: Allyn and Bacon, 1994, pp. 737-756; Also in James M. Higgins and Julian W. Vincze, Strategic Cases: Text and Cases. 5th edition. Hinsdale, IL: The Dryden Press, 1993, pp. 891-910; Also listed in the Management Catalog, NY: McGraw-Hill Primis, October 1995, p. 120; Also in Bob de Witt and Ron Meyer, Strategic Management in Europe - Cases. St. Paul, MN: West Educational Publishing; Also listed in Darden Case Bibliography 1994-95: Management Cases and Notes. Eleventh edition. Charlottesville, VA: Graduate School of Business Administration, University of Virginia, p. 89; Also listed by The European Case Clearing House; Also in W. Cravens, Charles W. Lamb, Jr. and W. Crittenden, Strategic Marketing Management Cases. 5th edition.

Joseph Wolfe, "Systematics, Inc.," in Carl R. Ruthstrom and Charlene A. Dykman, Information Systems for Managers: Casebook, St. Paul, MN: West Publishing Co., 1992, pp. 165-175; Also in Peter Wright, Charles D. Pringle, and Mark J. Kroll Strategic Management: Text and Cases, 2nd edition, Boston: Allyn and Bacon, 1994, pp. 393-404; Also in Peter Wright, John A. Parnell, and Mark Kroll 1993 Edition of Cases in Strategic Management, NY: Allyn and Bacon, 1993, pp. 117-128; Also in Alan N. Hoffman and Hugh O'Neill, The Strategic Management Casebook and Skill Builder, St. Paul, MN: West Publishing Co., 1993, pp. 407-416; Also in James M. Higgins and Julian W. Vincze, Strategic Cases: Text and Cases. 5th edition. Hinsdale, IL: The Dryden Press, 1993, pp. 946-957; Also in Jeffrey Harrison and Caron St. John, Strategic Management of Organizations and Stakeholders: Theory and Cases. St. Paul, MN: West Publishing Co., 1994, pp. 928-937; Also in John A. Pearce, II and Richard B. Robinson, Strategic Management: Formulation, Implementation and Control. 5th edition. Homewood, IL: R.D. Irwin, 1994, pp. 508-517; Also in John A. Pearce, II and Richard B. Robinson, Cases in Strategic Management. 3rd edition. Homewood, IL: R.D. Irwin, 1994, pp. 100-109; Also listed in the 1994 Pinnacle catalog, Marilyn Taylor (Ed.), NY: Primis, McGraw-Hill, Inc.; Also listed in the Irwin's Case Catalog, Chicago: R.D. Irwin, 1995, p. 105.

Joseph Wolfe, "Cincinnati Milacron," in Peter Wright, John A. Parnell, and Mark Kroll 1993 Edition of Cases in Strategic Management, NY: Allyn and Bacon, 1993, pp. 69-92; Also in Peter Wright, Charles D. Pringle, and Mark J. Kroll Strategic Management: Text and Cases, 2nd edition, Boston: Allyn and Bacon, 1994, pp. 369-392; Also in Alan N. Hoffman and Hugh O'Neill, The Strategic Management Casebook and Skill Building, St. Paul, MN: West Publishing Co., 1993, pp. 224-247; Also in Thomas L. Wheelen and J. David Hunger, Cases in Strategic Management, 4th edition, Reading, MA: Addison-Wesley, 1993, pp. 158-184; Also in Thomas L. Wheelen and J. David Hunger, Strategic Management and Business Policy, Reading, MA: Addison-Wesley, (in press, February, 1993); Also in Thomas L. Wheelen and J. David Hunger, Cases in Strategic Management, Reading, MA: Addison-Wesley, 1994, pp. 158-184; Also in Jeffrey Harrison and Caron St. John, Strategic Management of Organizations and Stakeholders: Theory and Cases. St. Paul, MN: West Publishing Co., 1994, pp. 402-423; Also in John A. Pearce, II and Richard B. Robinson, Cases in Strategic Management. 3rd edition. Homewood, IL: R.D. Irwin, 1994, pp. 461-481; Also in John A. Pearce, II and Richard B. Robinson, Strategic Management: Formulation, Implementation and Control. 5th edition. Homewood, IL: R.D. Irwin, 1994, pp. 869-889; Also in Edwin Mansfield, Study Guide for Applied Microeconomics. NY: W.W. Norton, 1994); Also listed in the 1994 Pinnacle catalog, Marilyn Taylor (Ed.), NY: Primis, McGraw-Hill, Inc.; Also in Michael Hitt and Thomas Speh, Business Marketing Management. Hinsdale, IL: The Dryden Press, 1995); Also in Samuel Certo and J. Paul Peter, Selected Cases in Strategic Management. 3rd edition. Chicago: Austen Press, pp. 477-500; Also listed in the Irwin's Case Catalog, Chicago: R.D. Irwin, 1995, p. 65.

Joseph Wolfe, "Lessons in Capitalism: The Use and Transferability of a Management Simulation Within a Pioneering Hungarian MBA Programme," in Fred Percival, Sheila Lodge, and Danny Saunders (Eds.), Simulation and Gaming Yearbook 1993: Developing Transferable Skills in Education and Training. London: Kogan Page Publishers, 1993, Chapter 24, pp. 160-171.

Joseph Wolfe and Bradley Miller, "Phoenix Holdings' Troubled Acquisition," in Peter Wright, Charles D. Pringle, and Mark J. Kroll Strategic Management: Text and Cases, 2nd edition, Boston: Allyn and Bacon, 1994, pp. 711-724; Also listed in the 1994 Pinnacle catalog, Marilyn Taylor (Ed.), NY: Primis, McGraw-Hill, Inc.; Also in Ralph W. Jackson and Robert D. Hisrich Sales and Sales Management, Englewood Cliffs, NJ: 1996, pp. 494-507.

Joseph Wolfe, "PepsiCo and the Fast-Food Industry," in Mark Kroll, Peter Wright and John Parnell, Cases in Strategic Management, NY: Allyn and Bacon (in press, 1994); Also in Peter Wright, Charles Pringle and Mark Kroll, Strategic Management: Text and Cases. NY: Allyn and Bacon; Also in Thomas L. Wheelen and J. David Hunger, Strategic Management and Business Policy, Reading, MA: Addison-Wesley, 1995, pp. 599-629; Also in Jeffrey Harrison and Caron St. John, Strategic Management of Organizations and Stakeholders: Theory and Cases. St. Paul, MN: West Publishing Co.; Also in Michael A. Hitt, R. Duane Ireland and Robert E. Hoskisson, Strategic Management: Competitiveness and Globalization. Minneapolis/St. Paul, MN: West Publishing Co., 1995, pp. 856-879; Also in Jeffrey Harrison and Caron St. John, Strategic Management of Organizations and Stakeholders: Theory and Cases. St. Paul, MN: West Publishing Co., 1994; Also in Samuel Certo and J. Paul Peter, Selected Cases in Strategic Management. 3rd edition. Chicago: Austen Press, 1995, pp. 263-290; Also in Leslie W. Rue, Lloyd L. Byars and Shaker A. Zahra, Strategic Management. Homewood, IL: R.D. Irwin; Also in J. Paul Peter and James H. Donnelly, Jr., Marketing Management: Knowledge and Skills. Boston: McGraw-Hill, 1998, pp. 819-847; Also listed in the Irwin's Case Catalog, Chicago: R.D. Irwin, 1995, pp. 52, 94.

Joseph Wolfe, "Food Lion Comes to Tulsa...'Hello, I'm Diane Sawyer'," in Mark Kroll, Peter Wright and John Parnell, Cases in Strategic Management, NY: Allyn and Bacon; Also in Peter Wright, Charles Pringle and Mark Kroll, Strategic Management: Text and Cases. NY: Allyn and Bacon; Also in Thomas L. Wheelen and J. David Hunger, Strategic Management and Business Policy, Reading, MA: Addison-Wesley, 1995, pp. 522-551; Also in Michael A. Hitt, R. Duane Ireland and Robert E. Hoskisson, Strategic Management: Competitiveness and Globalization. Minneapolis/St. Paul, MN: West Publishing Co., 1995, pp. 568-594; Also in Jeffrey Harrison and Caron St. John, Strategic Management of Organizations and Stakeholders: Theory and Cases. St. Paul, MN: West Publishing Co.; Also in John A. Pearce II and Richard B. Robinson, Strategic Management: Formulation, Implementation and Control. Sixth edition. Homewood, IL: R.D. Irwin, 1996; Also in Samuel Certo and J. Paul Peter, Selected Cases in Strategic Management. 3rd edition. Chicago: Austen Press, 1995, pp. 95-122; Also in Leslie W. Rue, Lloyd L. Byars and Shaker A. Zahra, Strategic Management. Homewood, IL: R.D. Irwin; Also in J. Paul Peter and James H. Donnelly, Jr., Marketing Management: Knowledge and Skills. Boston: McGraw-Hill, 1998, pp. 644-672; Also listed in the Irwin's Case Catalog, Chicago: R.D. Irwin, 1995, pp. 75, 123.

Joseph Wolfe, "Bringing North-American and West European Theory, Practice and Teaching Methods to the IMC: A Comparative Delphi Panel Study of Early Faculty Experiences," pp. 13-18 in Business Research and Management Challenges: Papers and Cases from Central/Eastern Europe, Sandor Peter (Ed.). Budapest: International Management Center, 1994.

Joseph Wolfe and Joann Babiak, "General Electric Fires Ed Russell," Listed by The European Case Clearing House; Also listed in the 1995 Pinnacle catalog, Marilyn Taylor (Ed.), NY: Primis, McGraw-Hill, Inc.; Also in Arthur Goldsmith, Business, Government, Society: An International Perspective. Homewood, IL: R.D. Irwin; Also in Peter Wright, Mark Kroll and John Parnell, Strategic Management: Concepts & Cases. Englewood Cliffs, NJ: Prentice-Hall.

Joseph Wolfe, "Transvit of Novgorod, Russia," Listed in the 1995 Pinnacle catalog, Marilyn Taylor (Ed.), NY: Primis, McGraw-Hill, Inc.; Also in Leslie W. Rue, Lloyd L. Byars and Shaker A. Zahra, Strategic Management. Homewood, IL: R.D. Irwin; Also in David Grigsby and Michael Stahl, Cases in Strategic Management: Total Quality and Global Competition. Cambridge, MA: Blackwell Publishers, 1997, pp. 437-44; D.W. Cravens, C.W. Lamb, Jr. and V.L. Crittenden, Strategic Marketing Management Cases, NY: Irwin/McGraw-Hill, 2002; Also listed in the Irwin's Case Catalog, Chicago: R.D. Irwin, 1995, pp. 106, 135.

Joseph Wolfe, "Mazda Motors," Listed in the 1995 Pinnacle catalog, Marilyn Taylor (Ed.), NY: Primis, McGraw-Hill, Inc.

Joseph Wolfe, "The Use of Simulation/Games to Fill Russia's Managerial Needs," in David Crookall and Kiyoshi Arai (Eds.) Simulation and Gaming Across Disciplines and Cultures: ISAGA at a Watershed. Thousand Oaks, CA: Sage Publications, Inc., 1995, pp. 265-274.

Joseph Wolfe and J. Bernard Keys (Eds.). Business Simulations, Games and Experiential Learning in International Business Education. West Hazleton, PA: The Haworth Press. Inc., 1997.

Joseph Wolfe, "North America's Management and Marketing Games as Environments for the Study of Business Related Social Issues: An Inventory with Suggestions for Correcting Deficiencies," in Dorien J. DeTombe and Cor van Dijkum (Eds.). Analyzing Complex Societal Problems: A Methodological Approach. Munchen und Mering, Germany: Rainer Hampp Verlag, 1996, pp. 167-178.

Joseph Wolfe and David Crookall, "Creating a Cumulative Science of Simulation," in Amparo Garcia Carbonell and Frances Watts (Eds.). Simulation Now! Learning Through Experience: The Challenge of Change. Valencia, Spain: Diputacio de Valencia, 1996, pp. 35-51.

Joseph Wolfe, "A Business Game With Social Consequences," in R. Shiratori, K. Arai and F. Kato (Eds.). Gaming, Simulations, and Society: Research Scope and Perspective. Tokyo: Springer-Verlag, 2005, pp. 169-176.

REFEREED ARTICLES

Joseph Wolfe, "A Test of Intensive vs. Extensive Training Schedules," International Journal of Continuing Education and Training, Vol. 2, No. 3 (Winter, 1973), pp. 229-239.

Joseph Wolfe, "Evaluating the Training Effort: A Positive Approach for Training Directors and Training Program Evaluations," Training and Development Journal, Vol. 27, No. 5 (May, 1973), pp. 20-27.

Joseph Wolfe and Barbara L. Moe, "An Experimental Evaluation of a Hospital Supervisory Training Program," Hospital Administration, Vol. 18, No. 3 (Fall, 1973), pp. 65-77.

Joseph Wolfe, "Hospital Game Builds Administrative Skills," Hospitals, Vol. 47, No. 22 (November 16, 1973), pp. 41-43.

Joseph Wolfe, "The Comparative Learning Effects of a Management Game vs. Casework in the Teaching of Business Policy," Academy of Management Proceedings, Thad B. Green and Dennis F. Ray (Eds.), Boston, 1973, pp. 291-297.

Joseph Wolfe, "Effective Performance Behaviors in a Simulated Policy-Making Environment," Management Science, Vol. 21, No. 8 (April, 1975), pp. 872-882.

Joseph Wolfe and Gary Guth, "The Case Approach vs. Gaming in the Teaching of Business Policy: An Experimental Evaluation," The Journal of Business, Vol. 48, No. 3 (July, 1975), pp. 349-364.

Joseph Wolfe, "A Comparative Evaluation of the Experiential Approach As A Business Policy Learning Environment," Academy of Management Journal, Vol. 18, No. 3 (September, 1975), pp. 442-452.

Joseph Wolfe, "Learning Styles Rewarded in a Complex Simulation with Implications for Business Policy an OB Research," in Proceedings, Academy of Management, Robert L. Taylor, Michael J. O'Connell, Robert A. Zawacki and D.D. Warrick (Eds.), Kansas City, MO, 1976, pp. 164-168.

Joseph Wolfe, "Correlates of Business Game Success and Real-World Success: An Exploration into the External Validity of Business Games," in Proceedings, Midwest Division Academy of Management, Andrew F. Sikula and Raymond L. Hilgert (Eds.), St. Louis: Washington University, 1976, pp. 103-110.

Joseph Wolfe, "The Effects and Effectiveness of Simulations in Business Policy Teaching Applications," Academy of Management Review, Vol. 1, No. 2 (April, 1976), pp. 47-56.

Joseph Wolfe, "A Response to Snow's Comment on Business Policy Teaching Research," Academy of Management Review, Vol. 1, No. 4 (October, 1976), pp. 136-137.

Joseph Wolfe, "Correlates and Measures of the External Validity of Computer-Based Business Policy Decision-Making Environments," Simulation & Games, Vol. 7, No. 4 (December, 1976) pp. 411-433.

Joseph Wolfe, "The Design of Studies on the Comparative Effects of Gaming vs. Traditional Teaching Methods," in Computer Simulation and Learning Theory, Burnard H. Sord (Ed.), Austin, Texas: Bureau of Business Research, The University of Texas at Austin, 1977, pp. 289-294.

Joseph Wolfe, "An Evaluation of a Simulation-Based School Curriculum Integration Effort," The Journal of Business, Vol. 50, No. 3, (July, 1977), pp. 343-355.

Joseph Wolfe, "The Effects of Game Complexity on the Acquisition of Business Policy Knowledge," Decision Sciences, Vol. 9, No. 1 (January, 1978), pp. 143-155.

Joseph Wolfe, "Correlations Between Academic Achievement, Aptitude, and Business Game Performance," in Exploring Experiential Learning: Simulations and Experiential Exercises, D.C. Brenenstuhl and S.C. Certo (Eds.), Bureau of Business and Economic Research, Arizona State University, Tempe, Arizona, 1978, pp. 316-324.

Joseph Wolfe, "A Demonstration of the Business Simulation-Game as a Curriculum Assessment Device," in Insights Into Experiential Pedagogy, S.C. Certo and W.C.

Brenenstuhl (Eds.), Bureau of Business and Economic Research, Arizona State University, Tempe, Arizona, 1979, pp. 191-195.

Joseph Wolfe, "Associations Between Individual Cognitive Processing Variables and Business Game Performance and Play," in Experiential Learning Enters the 80's, D.C. Brenenstuhl and W.D. Biggs (Eds.), Bureau of Business and Economic Research, Arizona State University, Tempe, Arizona, 1980, pp. 169-173.

Joseph Wolfe and Thomas I. Chacko, "Cognitive Structures of Business Game Players: Relationships Between an Individual's Cognitive Processing Equipment and Business Game Performance and Play," Simulation & Games, Vol. 11, No. 4 (December, 1980), pp. 461-476.

James W. Gentry and Joseph Wolfe, "ABSEL: Empirical Findings on the State of the Association," in Developments in Business Simulation and Experiential Exercises, Vol. 8, W.D. Biggs and W.J. Fritzsche (Eds.), Illinois State University, Normal, 1981, pp. 223-226.

Joseph Wolfe and Thomas I. Chacko, "The Effects of Different Team Sizes on Business Game Performance," in Developments in Business Simulation and Experiential Exercises, Vol. 9, W.J. Fritzsche and L.A. Graf (Eds.), Illinois State University, Normal, 1982, pp. 232-235.

Joseph Wolfe and Thomas I. Chacko, "Team Size Effects on Business Game Performance and Decision-Making Behaviors," Decision Sciences, Vol. 14, No. 1 (January, 1983), pp. 121-133.

Joseph Wolfe and C. Richard Roberts, "A Longitudinal Study of the External Validity of a Business Management Game," in Developments in Business Simulation and Experiential Exercises, Vol. 10, L.A. Graf and W.M. Currie (Eds.), Illinois State University, Normal, 1983, pp. 9-12.

Lester Neidell and Joseph Wolfe, "A Comparative Evaluation of a Marketing Game," in Developments in Business Simulation and Experiential Exercises, Vol. 11, W.M. Currie and J.W. Gentry (Eds.), Normal: Illinois State University, 1984, pp. 26-28.

Paul Miesing and Joseph Wolfe, "The Art and Science of Top Management Planning Styles: A Synthesis," Management Science, Vol. 31, No. 6 (June, 1985), pp. 773-781. Reprinted in Darek S. Pugh and Samuel Eilon (Eds.), The History of Management Thought: Management Science Anthology, Volume I. Aldershot, England: Dartmouth Publishing Company Limited, 1995, pp. 263-272.

Joseph Wolfe, "The Teaching Effectiveness of Games in Collegiate Business Courses: A 1973-1983 Update," Simulation & Games, Vol. 16, No. 3 (September 1985), pp. 251-288.

Joseph Wolfe and C. Richard Roberts, "The External Validity of a Business Management Game: A Five-Year Longitudinal Study," Simulation & Games, Vol. 17, No. 1 (March, 1986), pp. 45-59.

Joseph Wolfe and Thomas M. Box, "Relationships Between Team Cohesion Dimensions and Business Game Performance," in Developments in Business Simulation and Experiential Exercises, Vol. 13, A.C. Burns and L. Kelley (Eds.), Stillwater: Oklahoma State University, 1986, pp. 11-16.

Joseph Wolfe, "The ABSEL Research Consortium: Preliminary Steps and Position Papers," in Developments in Business Simulation and Experiential Exercises, Vol.

13, A.C. Burns and L. Kelley (Eds.), Stillwater: Oklahoma State University, 1986, p. 96.

Joseph Wolfe and C. Richard Roberts, "The Effects of Different Grade Weights on Business Game Learning Levels," Journal of Educational Technology Systems, Vol. 14, No. 4 (1985-1986), pp. 307-316.

Joseph Wolfe and Conrad Jackson, "Creating Models of the Strategic Decision Making Process Via Participant Recall: A Free Simulation Examination," Journal of Management, Vol. 13, No. 1 (Spring, 1987), pp. 119-130.

Joseph Wolfe and Thomas M. Box, "Team Cohesion Effects on Business Game Performance," in Developments in Business Simulation and Experiential Exercises, Vol. 14, L. Kelley and P. Sanders (Eds.), Oklahoma State University, Stillwater, 1987, pp. 250-255.

Joseph Wolfe and Thomas M. Box, "Team Cohesion Effects on Business Game Performance," Simulation & Games, Vol. 19, No. 1 (March, 1988), pp. 82-98.

J. Bernard Keys and Joseph Wolfe, "Management Education and Development: Current Issues and Emerging Trends," Yearly Review of Management, Vol. 14, No. 2 (June, 1988), pp. 205-230.

Jerry Gosenpud and Joseph Wolfe, "Strategy Design, Process and Implementation in a Stable/Complex Environment: An Exploratory Study," in Developments in Business Simulation and Experiential Exercises, Vol. 15, P. Sanders and T. Pray (Eds.), Stillwater: Oklahoma State University, 1988, pp. 147-152.

Joseph Wolfe, "The Tragic Crash of Flight 191," in Proceedings of the North American Case Research Association, Vol. 2, A. Sharplin and W. Naumes (Eds.), Atlanta, November, 1988, p. 76.

Joseph Wolfe, Donald D. Bowen and C. Richard Roberts, "Team Building Effects on Company Performance: A Business Game-Based Study," Simulation & Games, Vol. 20, No. 4 (December, 1989), pp. 388-408.

Joseph Wolfe and Jerry Gosenpud, "Strategy Design, Process and Implementation in a Stable/Complex Environment: A Second Exploratory Study," in Developments in Business Simulation and Experiential Exercises, Vol. 16, T. Pray and John Wingender (Eds.), Stillwater: Oklahoma State University, 1989, pp. 111-116.

Joseph Wolfe and Ralph Jackson, "An Investigation of the Need for Algorithmic Validity," Simulation & Games, Vol. 20, No. 4 (September, 1989), pp. 272-291.

Joseph Wolfe, "Cineplex Odeon Corporation," in Proceedings of the North-American Case Research Association, Vol. 3, A. Sharplin and Lonnie Phelps (Eds.), New Orleans, November 1989, p. 65.

J. Bernard Keys and Joseph Wolfe, "The Role of Management Games and Simulations in Education and Research," Yearly Review of Management, Vol. 16, No. 2 (June, 1990), pp. 307-336; Reprinted in J.B. Keys, A.G. Edge and R.A. Wells, The Multinational Management Game: A Game of Global Strategy. Homewood, IL: R.D. Irwin, 1991.

Jerry Gosenpud and Joseph Wolfe, "A Life Cycle Analysis of Decision Making for a Strategic Management Team," in Developments in Business Simulation and Experiential Exercises, Vol. 17, John Wingender and Walter J. Wheatley (Eds.), Stillwater: Oklahoma State University, 1990, pp. 73-78.

Joseph Wolfe and Jozsef Poor, "Csepel Machine Tool Company," in Proceedings of the North American Case Research Association, Vol. 4, Raymond M. Kinnunen and Lisa A. Rask (Eds.), Orlando, Florida, November 1990, p. 78.

Joseph Wolfe, Gyula Bosnyak and Janos Vecsenyi, "Taurus Hungarian Rubber Works: Implementing a Strategy for the 1990s," in Proceedings of the North American Case Research Association, Vol. 4, Raymond M. Kinnunen and Lisa A. Rask (Eds.), Orlando, Florida, November 1990, p. 79.

Joseph Wolfe and Jozsef Poor, "A Socioeconomic Note on Hungary in 1990," in Proceedings of the North American Case Research Association, Vol. 4, Raymond M. Kinnunen and Lisa A. Rask (Eds.), Orlando, Florida, November 1990, p. 80.

Joseph Wolfe, "On the Transfer of Market Oriented Business Games to Eastern Bloc Cultures," Social Science Computer Review, Vol. 9, No. 2 (Summer, 1991), pp. 202-214.

Joseph Wolfe, "Prospects for the Transfer of American Market Oriented Business Games to Post-Socialist Cultures," Proceedings, XVIII International Seminar on Gaming-Simulation in Education and Scientific Research, Kiev, USSR, 1991, pp. 48-50.

Joseph Wolfe, "Steps in Creating a New International Management Game," Proceedings, XVIII International Seminar on Gaming-Simulation in Education and Scientific Research, Kiev, USSR, 1991, pp. 45-47.

Joseph Wolfe, "The Strategic Management Skill Levels Possessed by a Group of Pioneering Hungarian MBA Candidates: A Comparative Simulation-Based Study," in Managing Change with Cases, Simulations, Games and other Interactive Methods, Hans E. Klein (Ed.), Needham, MA: World Association for Case Method Research and Application, 1991, pp. 349-360.

Joseph Wolfe, "Systematics, Inc.," in Proceedings of the North American Case Research Association, Vol. 5, Raymond M. Kinnunen and Lisa A. Rask (Eds.), Atlanta, Georgia, November 1991, p. 75.

Joseph Wolfe, "Successful Student Case Analysis Strategies" in Proceedings of the North American Case Research Association, Vol. 6, Raymond M. Kinnunen (Ed.). Boston: Northeastern University, November 1992, p. 100. Revised and published in Simulation & Gaming.

Joseph Wolfe and Michael Chanin, "The Integration of Functional and Strategic Management Skills in a Business Game Learning Environment," Simulation & Gaming, Vol. 24, No. 1 (March 1993), pp. 34-46.

Ronald D. Klein, Robert A. Fleck, Jr. and Joseph Wolfe, "A Role for Management Games in Internationalizing the Business School Curriculum," Journal of Management Education, Vol. 17, No. 2 (May 1993), pp. 159-173.

Joseph Wolfe, "On the Propriety of Forecasting Accuracy as a Measure of Team Management Ability: A Preliminary Investigation," Simulation & Gaming, Vol. 24, No. 1 (March 1993), pp. 47-62.

Joseph Wolfe and Richard Roberts, "A Further Study of the External Validity of Business Games: Five-Year Peer Group Indicators," Simulation & Gaming, Vol. 24, No. 1 (March 1993), pp. 21-33.

Joseph Wolfe, "A History of Business Games in English-Speaking and Post-Socialist Countries: The Origination and Diffusion of a Management Education and

Development Technology," Simulation & Gaming, Vol. 24, No. 4 (December 1993), pp. 446-463. Revision of original paper presented June 23, 1992, St. Petersburg, Russia. Appeared in Proceedings, Vol. 1, pp. 22-26.

Joseph Wolfe, "Successful Student Case Analysis Strategies," Simulation & Gaming, Vol. 24, No. 4 (December 1993), pp. 464-475.

Joseph Wolfe, "Pepsico and the Fast-Food Industry," Proceedings of the North American Case Research Association's Annual Meeting, Vol. 7, Lew G. Brown and David R. Vestal (Eds.), Atlanta, November, 1993, p. 64.

Joseph Wolfe, "Food Lion Comes to Tulsa... 'Hello, I'm Diane Sawyer'," Proceedings of the North American Case Research Association's Annual Meeting, Vol. 7, Lew G. Brown and David R. Vestal (Eds.), Atlanta, November, 1993, p. 65.

Joseph Wolfe and Garry Bruton, "On the Use of Computerized Simulations for Entrepreneurship Education," Simulation & Gaming, Vol. 25, No. 3 (September 1994), pp. 405-418.

Joseph Wolfe and David Crookall, "Creating a Cumulative Science of Simulation Application: Research Considerations and Methodological Obstacles," Proceedings of the 26th Annual International Conference, International Simulation and Gaming Association. Amparo Garcia Carbonell and Frances Watts (Eds.), Valencia, Spain, July 1995.

Joseph Wolfe, "CEO Strategic Locus of Control Effects on Game performance and Playing Behavior," in Developments in Business Simulation and Experiential Exercises, Vol. 23, Alan L. Patz and John Butler (Eds.), Madison, WI: Omnipress, 1996, pp. 81-87.

Joseph Wolfe and Joseph N. Rogé, "Computer-Based General Management Games as Strategic Management Learning Environments," in Teaching Strategic Management with Business Games, J. Bernard Keys and Joseph Wolfe (Eds.), Simulation & Gaming, Vol. 28, No. 4 (December 1997), pp. 423-441.

Joseph Wolfe, "The Effectiveness of Business Games in Strategic Management Course Work," in Teaching Strategic Management with Business Games, J. Bernard Keys and Joseph Wolfe (Eds.), Simulation & Gaming, Vol. 28, No. 4 (December 1997), pp. 360-376.

Joseph Wolfe and Joseph N. Rogé, "Coaching Business Game Teams Using A Decision Variable Optimizer," in Developments in Business Simulation and Experiential Learning, Vol. 24, John Butler and Nancy H. Leonard (Eds.), Madison, WI: Omnipress, 1997, pp. 209-210.

Joseph Wolfe and David J. Fritzsche, "Teaching Business Ethics with Management and Marketing Games," Simulation & Gaming, Vol. 29, No. 1 (March 1998), pp. 44-59.

Joseph Wolfe and David Crookall, "Developing a Scientific Knowledge of Simulation/Gaming," Simulation & Gaming, Vol. 29, No. 1 (March 1998), pp. 7-19.

Joseph Wolfe, "New Developments in the Use of Simulations and Games for Learning," Journal of Workplace Learning, Vol. 10, No. 6/7 (June/July 1998), pp. 310-313.

Joseph Wolfe, "Computer-Based Simulation Games for Business Education in North America," in Methodology for Analyzing Complex Societal Problems, Dorien J.

DeTombe (Ed.), Delft, The Netherlands: Delft University of Technology, 1999, p. 11.

Joseph Wolfe and Denise J. Luethge, "The Impact of Involvement on Performance in Business Simulations: An Examination of Goosen's 'Know Little' Decision Making Thesis," Journal of Education for Business, Vol. 19, No. 2 (November/December 2003), pp. 69-74.

Joseph Wolfe, "Practicing Peter Drucker's Management Wisdom," in Social Contributions and Responsibilities of Simulation & Gaming, K. Aria (Editor), Proceedings of the 34th Annual Conference of the International Simulation and Gaming Association, Kazusa Akademia Park, Chiba, Japan, August 2003, pp. 41-57.

Joseph Wolfe, "An Examination of the Social Consequences of Collusive Decision Making Practices in a Complex Business Game," in Social Contributions and Responsibilities of Simulation & Gaming, K. Aria (Editor), Proceedings of the 34th Annual Conference of the International Simulation and Gaming Association, Kazusa Akademia Park, Chiba, Japan, August 2003, pp. 21-37.

Joseph Wolfe and Antonio Carlos Aidar Sauaia, "The Tobin *q* as a Company Performance Indicator," Simulation & Gaming, Vol. 36 No. 2 (June 2005), pp. 238-249.

Joseph Wolfe and Steven Gold, "A Study of Business Game Stock Price Algorithms," Simulation & Gaming, Vol. 38, No. 2 (June 2007), pp. 153-167.

Luis G. Flores, William J. Ritchie and Joseph Wolfe, "Exploring distance education as an alternative to locally administered business strategy simulations: The case of two universities," Review of Business Research, Vol. 8, No. 3 (2008), pp. 101-109.

Jan Hense, Willy Christian Kriz and Joseph Wolfe, "Putting theory oriented evaluation into practice: A logic model approach for evaluating *Simgame*," Simulation & Gaming, Vol. 40, No. 1 (March 2009), pp. 110-133.

Steven C. Gold and Joseph Wolfe, "The Validity and Effectiveness of a Business Game Beta Test," Simulation & Gaming, Vol. 43 (2012),pp. 481-505.

Joseph Wolfe, William D. Biggs and Steven C. Gold, "Early-Determined Business Endgame Standings: A Replication and Expansion of Teach and Patel's Findings," Simulation & Gaming, Vol. 44 (2013), pp. 493-513.

Joseph Wolfe, "Assuring Business School Learning with Games," Simulation & Gaming, Vol. 47, No. 2 (2016), pp. 206-227.

Joseph Wolfe and Steven C. Gold 2017. Predicting Business College Retention and Persistence: Game-Based Behavioral Indicators. Academy of Business Journal, Vol. I. pp. 7-25.

NON-REFEREED PUBLICATIONS

Joseph Wolfe, "A Call for Evaluation," ABSEL News & Views, Vol. 1, No. 2 (1981), p. 6.

Joseph Wolfe, "A Tribute to William R. Dill," ABSEL News & Views, Vol. 1, No. 3 (1981), pp. 5-6.

Joseph Wolfe, "Neuhauser, Not Business Gaming, Has Failed," ABSEL News & Views, Vol. 1, No. 4 (1981), p. 3.

Joseph Wolfe, "The 1985 ABSEL Meeting and ABSEL 1985-1986," Simulation & Games, Vol. 16, No. 4 (December, 1985), p. 481.

Joseph Wolfe, "Trends and Developments in Business Gaming: Observations from the 1986 ABSEL Conference," ISAGA Newsletter, No. 53 (December, 1986), pp. 3-7. Also appeared in Simulation & Games, Vol. 17, No. 4 (December, 1986), pp. 497-501.

Joseph Wolfe, "President's Column," ABSEL News & Views, Vol. 6, No. 2 (Fall, 1986), pp. 2, 4.

Joseph Wolfe, "ABSEL Research Consortium," Simulation & Games, Vol. 17, No. 4 (December, 1986), pp. 493-495.

Joseph Wolfe, "Special Issue Overview," Simulation & Games, Vol. 18, No. 2 (June, 1987), pp. 171-175.

Joseph Wolfe, "Past-President's Review and a Look Forward," ABSEL News & Views, Vol. 7, No. 1 (Spring, 1987), p. 4.

Joseph Wolfe, "From the Research Coordinator," MED Newsletter, Vol. 14, No. 1 (November, 1987), p. 8.

Alvin C. Burns, James W. Gentry and Joseph Wolfe, "A Cornucopia of Considerations in Evaluating the Effectiveness of Experiential Pedagogies," in Developments in Business Simulation and Experiential Exercises, Vol. 15, P. Sanders and T. Pray (Eds.), Oklahoma State University, Stillwater, 1988, p. 274.

Joseph Wolfe, "The Evaluation of Computer-Based Business Games: Methodology, Findings, and Future Needs," in Developments in Business Simulation and Experiential Exercises, Vol. 15, P. Sanders and T. Pray (Eds.), Oklahoma State University, Stillwater, 1988, p. 275.

Joseph Wolfe, "ABSEL Hosts 30th Anniversary National Gaming Symposium," ABSEL News & Views, Vol. 8, No. 1 (Spring, 1988), p. 7. Also appeared in Simulation & Games, Vol. 19, No. 3 (September, 1988), p. 347.

Joseph Wolfe, "ABSEL Hosts 30th Anniversary National Gaming Symposium," ABSEL News & Views, Vol. 8, No. 2 (Fall, 1988), p. 3.

Joseph Wolfe, "Joe Wolfe 1989 Program Chair," MED Newsletter, Vol. 15, No. 1 (November, 1988), p. 4.

Joseph Wolfe, "Depth and Diversity: The 1989 Program," MED Newsletter, Vol. 15, No. 2 (March, 1989), p. 3. Also appeared in The Academy of Management News, Vol. 19, No. 3 (May, 1989), p. 15.

Joseph Wolfe, "Pre-Convention Workshop on Effective Teaching Methods," MED Newsletter, Vol. 15, No. 2 (March, 1989), p. 10. Also appeared in The Academy of Management News, Vol. 19, No. 3 (May, 1989), p. 15.

Joseph Wolfe, "30th Anniversary Commemoration," ABSEL News & Views, Vol. 17, No. 1 (Spring, 1989), p. 10.

Joseph Wolfe, "Call for Submissions: The Annual Review of Management," ABSEL News & Views, Vol. 9, No. 1 (Spring, 1989), p. 3; also in MED Newsletter, Vol. 15, No. 3 (June, 1989), p. 9. Also appeared as "Call for Submissions-- Use of Business Games and Experiential Exercises," The Academy of Management News, Vol. 19, No. 3 (May, 1989), p. 21.

Joseph Wolfe, "James Brian Quinn Outstanding Educator Presentation," MED Newsletter, Vol. 15, No. 3 (June, 1989), p. 3.

Joseph Wolfe, "Report from the Program Chair," MED Newsletter, Vol. 15, No. 3 (June, 1989), p. 3.

Joseph Wolfe, "Facilitating the Capstone Business Policy Course at the Management Principles Level," Management Newsletter, Vol. 3, No. 1 (December, 1989), pp. 8-9.

Joseph Wolfe, "Glen M. McEvoy and Phyllis Tharenou Receive Division's 1989 Best Paper Awards," MED Newsletter, Vol. 16, No. 1 (November, 1989), pp. 3, 12.

Joseph Wolfe, "Reviewers for 1989 Program," MED Newsletter, Vol. 16, No. 1 (November, 1989), p. 6.

Joseph Wolfe, "Old Ways Slow to Change in Hungary," The Tulsa Tribune, (February 13, 1990), pp. 5B, 6B.

Joseph Wolfe, "Chairperson's Column," MED Newsletter, Vol. 17, No. 1 (November, 1989), p. 1

Joseph Wolfe, "Chairperson's Column," MED Newsletter, Vol. 17, No. 2 (March, 1991), pp. 1, 3.

Joseph Wolfe, "An Interim Report from the MED Curriculum Internationalization Task Force," MED Newsletter, Vol. 17, No. 2 (March, 1991), pp. 4-5.

Joseph Wolfe, "Some Comments on Modeling the Human Component in Computer-Based Business Simulations," Simulation & Gaming, Vol. 22, No. 3 (September, 1991), pp. 360-364.

Joseph Wolfe, "MED Division Treasurer's Report," MED Newsletter, Vol. 18, No. 1 (November, 1991), p. 7.

Joseph Wolfe, "Call for Nominations," MED Newsletter, Vol. 18, No. 1 (November, 1991), p. 12.

Joseph Wolfe, "St. Petersburg, USSR Business Gaming Conference," ABSEL News & Views, Vol. 11, No. 2 (Fall/Winter, 1992), pp. 11-12.

Joseph Wolfe, "Reactions to Richard Teach's Response," Simulation & Gaming, Vol. 24, No. 1 (March 1993), pp. 73-75.

Joseph Wolfe, "A Report on Two Gaming Conferences in Russia and Ukraine," Simulation & Gaming, Vol. 24, No. 1 (March 1993), pp. 116-119.

Joseph Wolfe and David Crookall, "In Memorium," Simulation & Gaming, Vol. 24, No. 1 (March 1993), pp. 7-8.

Joseph Wolfe, "A Forecast of Business Gaming in the Year 2010," Simulation & Gaming, Vol. 24, No. 3 (September, 1993), pp. 381-383.

Joseph Wolfe, "Research Opportunity," NACRA Newsletter, Spring, 1993, p. 5. Also appeared in ABSEL News & Views, Vol. 13, No. 1 (Spring/Summer, 1993), p. 5. Also appeared in Simulation & Gaming, Vol. 24, No. 3 (September, 1993), pp. 393-394.

Joseph Wolfe, "Recollections on 25 Years of Simulation/Gaming," Simulation & Gaming Silver Anniversary Issue, Part 1, Vol. 25, No. 2 (June, 1994), pp. 287-290.

Joseph Wolfe, "ABSEL Fellows News," ABSEL News & Views, Vol. 16, No. 1 (Spring/Summer 1996), p. 3.

Joseph Wolfe, "Introduction," Special Issue on Business Simulations, Games and Experiential Learning in International Business Education, Journal of Teaching International Business, Vol. 8, No. 4 (Fall, 1997), pp. 1-3.

Joseph Wolfe, "Steven Gold Newest ABSEL Fellow," ABSEL News & Views, Vol. 17, No. 2 (Spring/Summer 1997), p. 3.

Joseph Wolfe, "VIP Review- Alcohol and Horseplay: An HR Decision at Connchem," in 1997 Proceedings of Cases in Progress, Vol. 97, No. 1, L. Richardson, R. Knaus and W. Matthews (Eds.), Eastern Case Writers Association, New Brunswick, NJ, 1997, pp. F48-F49.

Joseph Wolfe, "VIP Review- The Northeast New York Regional Transportation Brokerage Service," in 1997 Proceedings of Cases in Progress, Vol. 97, No. 1, L. Richardson, R. Knaus and W. Matthews (Eds.), Eastern Case Writers Association, New Brunswick, NJ, 1997, pp. G44-G46.

Joseph Wolfe, "VIP Review- Qualitel's Technical Department," in 1997 Proceedings of Cases in Progress, Vol. 97, No. 1, L. Richardson, R. Knaus and W. Matthews (Eds.), Eastern Case Writers Association, New Brunswick, NJ, 1997, pp. H18-H20.

J. Bernard Keys and Joseph Wolfe, "Guest editorial: Teaching strategic management with business games", Simulation & Gaming. Special Issue: Teaching Strategic Management, Vol. 28, No. 4 (December 1997), pp. 358-359.

Joseph Wolfe, "A report from Simulation & Gaming's Business Section Editor", ABSEL News & Views, Vol. 19, No. 1 (Winter 1999), pp. 3, 5.

Joseph Wolfe, "My Travels With Bernie," ABSEL News & Views, Vol. 20, No. 1, p. 6.

Joseph Wolfe, "Who Needs Validity? Perspectives from the Field of Management Education and Development", In Shaping Future with Simulation, A. Heemink, L. Dekker, H. de Swaan Arons, I. Smit and T. van Stijn (Eds.), p. 116, Delft, The Netherlands: TU Delft, 2001.

Joseph Wolfe, "Guest editorial: The experiential method and the business gaming field", Simulation & Gaming, Vol. 35, No. 2 (June 2004), pp. 173-177.

BOOK REVIEWS

Joseph Wolfe reviewing Richard W. Lotts, Basic Data Processing, Englewood Cliffs, NJ: Prentice-Hall, 1967, in Journal of Retailing, Vol. 43, No. 3 (Fall, 1967), p. 57-58.

Joseph Wolfe reviewing Harold Lazarus (Ed.), Human Values in Management: The Business Philosophy of A.M. Sullivan, NY: Dun and Bradstreet, 1968, in Journal of Retailing, Vol. 44, No. 3 (Fall, 1968), p. 75.

Joseph Wolfe reviewing Harold Lazarus and E. Kirby Warren (Eds.), The Progress of Management: Process, Behavior, and Operations Research, Englewood Cliffs, NJ:

Prentice-Hall, 1968, in Journal of Retailing, Vol. 44, No. 3 (Fall, 1968), p. 75-77.

Joseph Wolfe and Richard Teach, "Three Downloaded Mainframe Business Games: A Review," Academy of Management Review, Vol. 12, No. 1 (January, 1987), pp. 181-192.

Joseph Wolfe and Gordon Nielsen reviewing Roy W. Hinton and Daniel C. Smith, "Business Game Review: Strat-Plan," in Simulation & Games, Vol. 18, No. 1 (March, 1987), pp. 153-159.

Joseph Wolfe reviewing Kaz Darzinkis, Winning Monopoly, NY: Harper & Row, 1987, in Simulation & Games, Vol. 19, No. 3 (September, 1988), pp. 367-368.

Joseph Wolfe and Gordon Nielsen reviewing Kenneth R. Goosen, The Management/Accounting Simulation, Little Rock, AR: Micro Accounting Publications, 1988, in Simulation & Gaming, Vol. 21, No. 2 (June 1990), pp. 212-215.

Joseph Wolfe reviewing Arthur A. Thompson, Jr. and Gregory J. Stappenbeck, The Business Strategy Game: A Global Industry Simulation, Homewood, IL: R.D. Irwin, 1992, in Simulation & Gaming, Vol. 25, No. 1 (March 1994), pp. 133-137.

Joseph Wolfe reviewing Richard V. Cotter and David J. Fritzsche, The Business Policy Game: An International Simulation, Englewood Cliffs, NJ: Prentice Hall, 1995, in Simulation & Gaming, Vol. 28, No. 4 (December 1997), pp. 481-485.

Joseph Wolfe, Two Computer-Based Entrepreneurship Experiences: An Essay Review. Academy of Management Learning & Education Vol. 3, No. 3(September 2004), pp. 333-339.

Joseph Wolfe, Guest Editorial: The Experiential Method and the Business Gaming Field. Simulation & Gaming, Vol. 35, No. 2 (June 2004), pp. 173-177.

Joseph Wolfe reviewing Clark Aldrich, Simulations and the Future of Learning: An Innovative (and Perhaps Revolutionary) Approach to e-Learning, Pfeiffer/A Wiley Imprint, October 2003, in Academy of Management Learning & Education Vol. 4, No. 2 (June 2005), pp. 254-256.

CASES CREATED (Plus teaching notes by Joseph Wolfe)

Joseph Wolfe, Chrysler Acquires American Motors, Fall 1987.

Joseph Wolfe, The Tragic Crash of Flight 191, Summer 1988.

Joseph Wolfe, Cineplex Odeon Corporation, Spring 1989.

Joseph Wolfe and Jozsef Poor, A Socioeconomic Note on Hungary in 1990, Spring 1990.

Joseph Wolfe, Gyula Bosnyak and Janos Vecsenyi, Taurus Hungarian Rubber Works: Implementing a Strategy for the 1990s, Spring 1990.

Joseph Wolfe and Jozsef Poor, Csepel Machine Tool Company, Spring 1990.

Joseph Wolfe, Systematics Inc., Summer 1991.

Joseph Wolfe, Cincinnati Milacron, Winter, 1992.

Joseph Wolfe and Bradley W. Miller, Phoenix Holdings' Troubled Acquisition, Summer, 1992.

Joseph Wolfe, PepsiCo and the Fast-Food Industry, Spring, 1993.

Joseph Wolfe, Food Lion Comes to Tulsa... Hello, I'm Diane Sawyer, Summer, 1993.

Joseph Wolfe, Transvit of Novgorod, Russia, Spring, 1994, ISBN: 0324-002637.

Joseph Wolfe, Mazda Motors, Inc., Summer, 1994.

Joseph Wolfe and Joann Babiak, General Electric Fires Ed Russell, Summer, 1994.

Joseph Wolfe, Angstrem's Brave New World, Spring, 1995.

Joseph Wolfe, The Pond Scum of American Industry, Summer, 1995, ISBN: 0324-002513.

Joseph Wolfe, Transvit's New Marketing Department, Summer, 1995, ISBN: 0324-002637.

Joseph Wolfe, Angstrem's Expansion-Based Sales Forecast, Summer, 1995, ISBN: 0324-002556.

Joseph Wolfe, IBM Restructures the PC Company Again... And Again, Fall, 1995, ISBN: 0324-002564.

Joseph Wolfe, Happy Mac's New Face, Winter, 1995, ISBN: 0324-002580.

Joseph Wolfe, Mazda and Ford Look for a Chinese Connection, Winter, 1995, ISBN: 0324-002599.

Joseph Wolfe, Pepsi's Smooth Moos Smoothies, Winter, 1995, ISBN: 0324-002602.

Joseph Wolfe and Charles Moore, Blue Circle Cements Its Future, Winter, 1995, ISBN: 0324-002610.

Joseph Wolfe and Joann Babiak, How to Motivate Fred Maiorino? Winter, 1995.

Joseph Wolfe, The Minnesota Twins Reach Out, Spring, 1996, ISBN: 0324-002645.

Joseph Wolfe, Serving Mobil's Gasoline-Buying Types, Summer, 1996, ISBN: 0324-002653.

Joseph Wolfe, Does Friendly Serve Measure Up?, Summer, 1996, ISBN: 0324-002661.

Joseph Wolfe, 7th Level's Siliwood Marriage, Summer, 1996, ISBN: 0324-00267x.

Joseph Wolfe, Making the Consumer Products Division Work, Summer, 1996, ISBN: 0324-002572.

Joseph Wolfe, A New Customer for Prozac?, Summer, 1996.

Joseph Wolfe, GM Tries to Sharpen Its Car Images, Summer, 1996, ISBN: 0324-002483.

Joseph Wolfe, Pontiac Goes Back to the Future, Summer, 1996, ISBN: 0324-002491.

Joseph Wolfe, Right-Sizing GM's Dealership Network, Summer, 1996, ISBN: 0324-002505.

Joseph Wolfe, Making and Marketing Beer in America, Summer, 1996, ISBN: 0324-002696.

Joseph Wolfe and Lester A. Neidell, Marketing T. Paul's T-Towne Beer, Summer, 1996, ISBN: 0324-00270x.

Joseph Wolfe and Lester A. Neidell, Miller Asks Wanna Iguana?: Part I, Fall, 1996, ISBN: 0324-002718.

Joseph Wolfe and Lester A. Neidell, Miller Asks Wanna Iguana?: Part II, Fall, 1996, ISBN: 0324-002726.

Joseph Wolfe and Lester A. Neidell, Miller Asks Wanna Iguana?: Part III, Fall, 1996, ISBN: 0324-002734.

Joseph Wolfe, PepsiCo Beverages: Strategies, Structures and Ethical Concerns, Fall, 1996, ISBN: 0324-002521.

Joseph Wolfe, PepsiCo Beverages: Meeting the Beverage Industry's Challenges, Winter, 1996, ISBN: 0324-00253x.

Joseph Wolfe, PepsiCo Beverages: Defense and Repair, Winter, 1996, ISBN: 0324-002548.

Joseph Wolfe, Pepsi's Foreign Fruitworks Foray (A), Winter, 1999.

Joseph Wolfe, Pepsi's Foreign Fruitworks Foray (B), Winter, 1999.

CONFERENCE PAPERS PRESENTED

Joseph Wolfe, "The Comparative Learning Effects of a Management Game vs. Casework in the Teaching of Business Policy," Academy of Management, 1973, Boston, MA.

Joseph Wolfe, "The Experiential Approach as an Environment for Teaching Business Policy Material," Midwest Division, Academy of Management, 1974, Chicago, IL.

Joseph Wolfe, "Business Policy Simulations: A Summary Review of Effects and Research Needs," Mountain-Plains Management Conference, 1974, Stillwater, OK.

Joseph Wolfe, "The Integration of a Core Curriculum: Learning Outcomes Produced by a Complex Business Game," Midwest Division, Academy of Management, 1975, Ann Arbor, MI.

Joseph Wolfe, "A Simulation-Based Test of Emery and Trist's Environmental Causal Textures," Academy of Management, 1976, Kansas City, MO.

Joseph Wolfe, "Learning Styles Rewarded in a Complex Simulation with Implications for Business Policy and Organizational Behavior Research," Academy of Management, 1976, Kansas City, MO.

Joseph Wolfe, "Learning Style Abilities as Related to Team Effectiveness," Academy of Management, 1977, Orlando, FL.

Joseph Wolfe and C. Richard Roberts, "Organizational Effectiveness Criteria: Managerial Causal Belief Systems by Hierarchical Level within Organizational Technologies," ORSA/TIMS Joint National Meeting, 1981, Houston, TX.

Joseph Wolfe and Thomas I. Chacko, "The Effects of Different Team Sizes on Business Game Performance," ABSEL, 1982, Phoenix, AZ.

Joseph Wolfe and C. Richard Roberts, "The Uniformity of Internally-Derived Organizational Effectiveness Judgments by Hierarchy and Organizational Technology," Academy of Management, 1982, New York, NY.

Joseph Wolfe and C. Richard Roberts, "An Exploratory Study of Hospital Effectiveness Belief Structures by Hierarchical Level," Academy of Management, 1983, Dallas, TX.

Joseph Wolfe and C. Richard Roberts, "Managerial Effectiveness Belief Structures in Two Opposing Organizations," Academy of Management, 1983, Dallas, TX.

Joseph Wolfe, "Constructing Optimal Learning Groups in Business Policy Simulations," Organizational Behavior Teaching Conference, 1983, Norman, OK.

Joseph Wolfe and Conrad Jackson, "The Accuracy of Participant Recall for Creating Models of the Strategic Management Process," Academy of Management, 1985, San Diego, CA.

Joseph Wolfe and C. Richard Roberts, "The Recall Accuracy of Strategic Decision Makers: A Free Simulation Study," Academy of Management, 1987, New Orleans, LA.

Joseph Wolfe and Ralph Jackson, "An Investigation of the Need for Valid Business Game Algorithms," Association for Business Simulation and Experiential Learning, 1989, Orlando, FL.

George Schell and Joseph Wolfe, "Adventures with JORGE: The Creation and Testing of a Strategic and Tactical Decision Making Artificial Intelligence System," International Simulation and Games Association, 1989, Weimar, Germany.

Joseph Wolfe and John Gregg, "On the Efficacy of Managerial Decision Support Systems in a Business Gaming Environment," International Simulation and Games Association, 1989, Weimar, Germany.

Joseph Wolfe and Michael Chanin, "The Integration of Functional and Strategic Management Skills in a Business Game Learning Environment," Academy of Management, 1990, San Francisco, CA.

Joseph Wolfe, "On the Transfer of Market Oriented Management Games to Socialist Cultures," Association for Business Simulation and Experiential Learning, 1991, Nashville, TN.

Ronald Klein, Robert Fleck, Jr., and Joseph Wolfe, "The Role of Management Games in Internationalizing the Business School Curriculum," Association of International Business, 1991, Miami, FL.

Joseph Wolfe, "A History of Business Teaching Games: The Origination and Diffusion of a Management Education and Development Technology," Social Simulation & Game Modeling Designers Association, 1992, St. Petersburg, Russia.

Joseph Wolfe and Richard Roberts, "Peer Group Indicators of the External Validity of Business Games: A Five-Year Longitudinal Study," Association for Business Simulation and Experiential Learning, 1992, Las Vegas, NV.

Joseph Wolfe, "Successful Student Case Analysis Strategies," North American Case Research Association, 1992, New Orleans, LA.

Joseph Wolfe, "Experiences with Transferring American Business School Faculty, Theory and Teaching Methods to a Post-Socialist Economy: A Delphi Panel Study," International Simulation and Games Association, 1993, Bucharest, Romania.

Joseph Wolfe, "Bringing North American and West European Theory, Practice and Teaching Methods to the International Management Center: A Comparative Delphi Panel Study of Early Faculty Experiences," Research Conference, International Management Center, Budapest, Hungary, 1993.

Joseph Wolfe, "General Electric Fires Edward Russell: A Case Study of Corporate Price Fixing and Executive Whistle-Blowing Activity," International Workshop on Methods and Tools for Analyzing Complex Interdisciplinary Societal Problems. Delft University of Technology, Delft, The Netherlands, November, 1994.

Joseph Wolfe, "North America's Management and Marketing Games as Environments for the Study of Business-Related Social Issues: An Inventory with Suggestions for Correcting Deficiencies," International Workshop in Simulation as a Tool for Analyzing Complex Problems. University of Utrecht, Utrecht, The Netherlands, November, 1994.

Joseph Wolfe, "Three Video Cases and Case Computer Aids," North American Case Research Association. Colorado Springs, Colorado, November 1996.

Joseph Wolfe and Joseph N. Rogé, "Using the Decision-Optimizer as a Game Coaching Device," Association for Business Simulation and Experiential Learning, New Orleans, March 1997.

Joseph Wolfe, "The Spread and Usage of Computerized Business Games in the United States," Japanese Association for Simulation and Games, Tokyo, October 1997.

Joseph Wolfe, "The Teaching and Learning Effectiveness of Business Games," Japanese Association for Simulation and Games, Tokyo, October 1997.

Joseph Wolfe, "Business Games Teach: Thoughts on the Sources of Conflicting Conclusions on Their Effectiveness," Association for Business Simulation and Experiential Learning, Maui, Hawaii, January 1998.

Kevin Hindle, Joseph Wolfe and Albert Angehrn, "Crash Landing at INSEAD: Initiating a Grounded Theory of the Pedagogical Effectiveness of Simulation Games for Teaching Aspects of Entrepreneurship," Eighth Annual Global Entrepreneurship Research Conference, INSEAD, Fontainebleau, France, July, 1998.

Joseph Wolfe, Invited Paper, "Computer-Based Simulation Games for Business Education in North America," IFORS99, 15th Triennial Conference (International Federation of Operational Research Societies), Beijing, China, August 1999.

Joseph Wolfe, "Computerized Simulations in American Business Education: Their Characteristics and a Prototypical Development Example," ICCE99, 7th International Conference on Computers in Education, Chiba, Japan, November 1999.

Joseph Wolfe, Invited Plenary Session, "Who Needs Validity? Perspectives From the Field of Management Education and Development", EUROSIM2001, Delft, Amsterdam, June 2001.

Joseph Wolfe and Kenneth Goosen, "An Examination of the 'Goosen Know Little' Thesis", Association for Business Simulation and Experiential Learning, Fort Lauderdale, Florida, March 2002.

Joseph Wolfe, "Creating and Validating a Computerized Decision Maker", Association for Business Simulation and Experiential Learning, Fort Lauderdale, Florida, March 2002.

Joseph Wolfe, "Business Games as Strategic Decision Making Laboratories", International Simulation and Gaming Association, Edinburgh, Scotland, August 2002.

Joseph Wolfe, "The Tobin q As A Performance Indicator", Association for Business Simulation and Experiential Learning, Baltimore, Maryland, March 2003.

Joseph Wolfe, "A Business Game With Social Consequences", International Simulation and Gaming Association, Chiba, Japan, August 2003.

Joseph Wolfe, "An Examination of the Social Consequences of Collusive Decision Making Practices in a Complex Business Game", International Simulation and Gaming Association, Chiba, Japan, August 2003.

Joseph Wolfe, "Practicing Peter Drucker's Management Wisdom", International Simulation and Gaming Association, Chiba, Japan, August 2003.

John R. Dickinson, James W. Gentry, Alvin C. Burns and Joseph Wolfe, "An Inventory of Basic Research Using Business Simulation Games", International Simulation and Gaming Association, Edinburgh, United Kingdom, August 2005.

Joseph Wolfe and Gary Castroviovanni, "Business Games as Strategic Management Laboratories", Association for Business Simulation and Experiential Learning, San Francisco, California, March 2006.

Joseph Wolfe and Robin McCoy, "Should Business Game Players Choose Their Teammates: A Study with Pedagogical Implications", Association for Business Simulation and Experiential Learning, Charleston, South Carolina, March 2008.

Joseph Wolfe and Guy Deloach, "Individual and organizational Learning in a Top Management Game", Association for Business Simulation and Experiential Learning, Seattle, Washington, March 2009.

Joseph Wolfe, Steven Gold and Cordelia Norris, "Examining a Beta Test", Association for Business Simulation and Experiential Learning, Little Rock, Arkansas, March 2010.

Joseph Wolfe and Robin McCoy, "Those who do and those that don't: A study of engaged and disengaged business game players", Association for Business Simulation and Experiential Learning, Fort Lauderdale, Florida, March 2011.

Joseph Wolfe, "Regulatory Focus insights into business game engagement", International Association for Simulation and Games, Dornbrin, Austria, July 2014.

Joseph Wolfe, "Business games for assurance of learning purposes", International Association for Simulation and Games, Dornbrin, Austria, July 2014.

CONFERENCE AND SYMPOSIA PROGRAMS AND WORKSHOPS CREATED

Joseph Wolfe, Developments in the Teaching of Strategic Management via Business Gaming. Academy of Management, 1987, New Orleans, LA.

Joseph Wolfe, Symposium: A Continuum of New Organizational Behavior Teaching Technologies. Academy of Management, 1987, New Orleans, LA.

Joseph Wolfe, Pre-Convention Workshop-- Making Your Teaching Effective: Games, Computers, and Experiential Learning. Management Education and Development Division, Academy of Management, 1988, Anaheim, CA.

Joseph Wolfe, Evaluating Teaching Innovations- Issues and Suggestions in the Quest for Better Pedagogical Research. Academy of Management, 1990, San Francisco, CA.

Donald D. Bowen and Joseph Wolfe, Team-building for Improving Classroom Performance. Organizational Behavior Teaching Conference, 1990, Richmond, VA.

Joseph Wolfe, Workshop on Experiential Methods. Jointly sponsored by the Polish Ministry of Industry and Commerce, the Soviet and East European Business Administration Center, and the University of Tulsa, November 17-23, 1991, Warsaw, Poland.

Joseph Wolfe, Experiences with Transferring West European and American Business Theories and Teaching Methods to Europe's Post-Socialist Economies. Academy of Management, 1993, Atlanta, GA.

Joseph Wolfe, A series of symposia/workshops sponsored by the Academy of Management and offered through its standing Teaching Committee:

New Tricks for Older Dogs. Southwest Academy of Management, March, 1995, Houston, TX.

Some Current Issues and Emerging Answers in Business School Teaching. Midwest Academy of Management, April, 1995, St. Louis, MO.

Scholarly Criticism of Management Education. Western Academy of Management, April, 1995, San Diego, CA.

Where Our Teaching Methods Are and Where They're Going. Eastern Academy of Management, May, 1995, Ithaca, NY.

"Hands-On" Management Education Methods. Southern Academy of Management, November, 1995, Orlando, FL.

Joseph Wolfe, Perspectives on a New Generation of Business Games. ABSEL, March, 1996, Orlando, FL.

Joseph Wolfe, Business Gaming in the United States, Japan Association of Simulation and Gaming, Tokyo, October 4, 1997.

Joseph Wolfe, Business Games Teach: Thoughts on the Sources of Conflicting Conclusions on their Effectiveness, ABSEL, Maui, Hawaii, January 1998.

Viktor Rybalsky and Joseph Wolfe, Management Gaming's Lost Opportunity: Meditations About the Russian Experience and Prospects for the Future, ABSEL, Philadelphia, March 1999.

Joseph Wolfe, Helping New Game Adopters: Four Perspectives, ABSEL, San Diego, April 2001.

Joseph Wolfe and William Biggs, So You Want to Publish in Simulation & Gaming, ABSEL, San Diego, April 2001.

Joseph Wolfe, Presenter, Experiential Adventures: *The Global Business Game*. MED Division Professional Development Workshop, Academy of Management, Washington DC, August 2001.

Joseph Wolfe, Presenter, Classic Articles in the Business Gaming Literature, ABSEL, Fort Lauderdale FL, March 2002.

Joseph Wolfe, Presenter, Migrating *The Global Business Game* to the Web: Method, Process and Product, ABSEL, San Antonio, March 2007.

Joseph Wolfe, Invited presentation, Active Learning Through Simulations. The Association to Advance Collegiate Schools of Business International, Orlando FL, June 2007.

Joseph Wolfe, Professional Development Workshop. Teaching and Teaching Games. The Academy of Management, Montreal, Canada, August 2010.

Joseph Wolfe, Keynote Speaker. Simulation in Marketing Research. Dokuz Eylul University Maritime Faculty, Izmir, Turkey, April 2011

Joseph Wolfe, “Sail the Titanic”, International Association for Simulation and Games, Dornbrin, Austria, July 2014.

Joseph Wolfe, Workshop organizer. An Introduction to The Typology of Serious Games and Exercises, ABSEL, Las Vegas, March 2014.

MODERATOR OR DISCUSSION LEADER

Joseph Wolfe and Paul H. Hamelman, Teaching Business Policy. Midwest Division, Academy of Management, 1974, Chicago IL.

Joseph Wolfe, Business Games, Education, and Curriculum Design. Midwest Division, Academy of Management, 1976, St. Louis MO.

Joseph Wolfe, Business Policy Pedagogy. ABSEL, 1979, New Orleans LA.

Joseph Wolfe, Instructional Innovations in Management Education. Academy of Management, 1982, New York NY.

Joseph Wolfe, Users and Evaluations. ABSEL, Tulsa OK, 1983.

Joseph Wolfe, Experiential Learning in Our Schools of Business. Academy of Management, 1985, San Diego CA.

Joseph Wolfe, Factors Influencing Management Education and Development Effectiveness. Academy of Management, 1986, Chicago IL.

Joseph Wolfe, Food for ABSEL Thought. ABSEL, 1987, Hilton Head SC.

Joseph Wolfe, Distinguished Speaker Session-- Michael Lombardo. Management Education and Development Division, Academy of Management, 1989, Washington DC.

Joseph Wolfe, Session Chair, Business Policy/Strategic Management/Strategic Planning, North American Case Research Association, Orlando FL, 1990.

Joseph Wolfe, An Analysis of the Csepel Machine Tool Company, Association Internationale des Etudiants en Sciences Economiques et Commerciales, Katowice Poland, 1991.

Joseph Wolfe, Moderator Concurrent Session #24, World Association for Case Method Research & Application, Berlin Germany, 1991.

Joseph Wolfe, Moderator, Simulation Research and Findings, ABSEL, 1992, Las Vegas NV.

Joseph Wolfe, Moderator and Panel Member, Crumbling Walls: Opening the Gates to Business in Central and Eastern Europe. University of Tulsa Conference "After 1992: A New European Order?", 1992, Tulsa OK.

Joseph Wolfe, Moderator, Individual and Organizational Antecedents to Effective Management Development. Academy of Management, 1992, Las Vegas NV.

Joseph Wolfe, Moderator, American Perspectives on Business Gaming. Social Simulation & Game Modeling Designers Association, 1992, St. Petersburg Russia.

Joseph Wolfe, Moderator, New Tricks for Older Dogs. Southwest Academy of Management, 1995, Houston TX.

Joseph Wolfe, Moderator, Scholarly Criticism of Management Education. Western Academy of Management, 1995, San Diego CA.

Joseph Wolfe, Moderator, The Politics of Teaching: Balancing the Demands for Teaching and Research Productivity. Eastern Academy of Management, 1995, Ithaca NY.

Joseph Wolfe, Moderator, Some Current Issues and Emerging Answers in Business School Teaching. Midwest Academy of Management, 1995, St. Louis MO.

Joseph Wolfe, Moderator, How Do We Measure the "Learning" in Experiential Learning and How Do We Best Stimulate It? ABSEL, March, 1996, Orlando FL.

Joseph Wolfe, Moderator, Simulations and Learning: Can We Prove a Relationship? ABSEL, February, 1997, New Orleans.

Joseph Wolfe, Discussant, A Simulation Melange Including Cyberspace. ABSEL, February, 1997, New Orleans LA.

Joseph Wolfe, Moderator, The Prospects for Creative Teaching: A Discussion with Patricia Sanders, ABSEL, Maui HA, January 1998.

Joseph Wolfe, Moderator, Cultures and Self-Concept. ABSEL, Maui HA, January 1998.

Joseph Wolfe, Moderator, What Has Al Burns Done in ABSEL?: A Discussion with Alvin Burns. ABSEL, Philadelphia PA, March 1999.

Joseph Wolfe, Facilitator, Improving Learning/Teaching Effectiveness. MED Division, Academy of Management, Chicago IL August 1999.

Joseph Wolfe, Moderator, *Simulation & Gaming* Symposium Issue Preview, ABSEL, Baltimore MD, March 2003.

Arata Ichikawa and Joseph Wolfe, Convener, Peter F. Drucker's Thoughts and Business Games. Japan Association of Simulation and Gaming, October 1997, Tokyo Japan.

Joseph Wolfe, Moderator, National Cultures and Historic Roots. Academy of Management Annual Meeting, Anaheim CA, August 2008.

Precha Thavikulwat and Joseph Wolfe, Co-Host, Research Forum: Connect and Collaborate with Colleagues. Association for Business Simulation and Experiential Learning, Fort Lauderdale FL, March 2011.

Keynote address. Alternative Quantitative Methods for Marketing Research. Dokuz Eylul University University, Maritime Faculty, Tinaztepe Campus. Izmir, Turkey, April 15, 2011.

Joseph Wolfe, Moderator, “Motivation and learning”, International Association for Simulation and Games, Dornbrin, Austria, July 2014.

PANEL/SYMPOSIUM MEMBER

Symposium on Business Gaming. Midwest Division, Academy of Management, 1975, Ann Arbor MI.

Business Games and Simulation. Conference on the Uses of the Computer in the Business Curriculum, Illinois Institute of Technology, 1976, Chicago IL.

The Evaluation of Learning in Business Simulation Games. "Design of Comparative Studies on the Effects of Gaming vs. Traditional Methods of Teaching," ABSEL, 1976, Knoxville TN.

Symposium on Business Gaming. "Research on the Learning Effectiveness of Business Simulation Games- A Review of the State of the Science," ABSEL, 1981, Orlando FL.

Megatrends for Business Simulation and Experiential Learning. ABSEL, 1984, Honolulu HA.

ABSEL-- At a Crossroads? "Creating a Strategic Plan for ABSEL," ABSEL, 1987, Hilton Head SC.

Symposium on Experiential Learning Techniques. "The Status of Business Gaming Methods in the United States," Karl Marx University, Budapest Hungary, 1987.

On the Proper Output Measures of Business Gaming-- Attitude, Performance or Learning? ABSEL, San Diego CA 1988.

Evaluating Student and Faculty Performance in Business Schools. Academy of Management, Anaheim CA, 1988.

Pre-conference Workshop on Case Teaching and Writing, "Hey Prof - How Did You Come Up With This Grade Anyway?" Academy of Management, San Francisco CA, 1990.

Developing Cases in International Settings. North American Case Research Association, Orlando, FL, 1990. Also presented as a pre-conference activity, Academy of Management, Miami Beach Florida, 1991.

Pedagogical Techniques: Business Games, Student Research and Games. Polish American Society of Business Educators, Wroclaw Poland, January, 1991.

Simulation Practicum. Polish American Society of Business Educators, Wroclaw Poland, January, 1991.

Using American Business Simulations with International Participants. ABSEL, Nashville TN, 1991.

Privatization in Poland-- Chances and Barriers. Association Internationale des Etudiants en Sciences Economiques et Commerciales, Katowice Poland, 1991.

The State of Simulation Gaming in Eastern European Countries- Principally Russia, ABSEL, Savannah GA, 1993.

International Education, ABSEL, Savannah GA, 1993.

Making Management Education Happen, How ABSEL Can Help: A Panel and Discussion, ABSEL, Savannah GA, 1993.

Business Opportunities in Hungary. East Bloc Update '93 Conference, Free Market Business Development Institute, Portland State University, Portland OR, March 1993.

Comparative Student Profiles, Motivations, and Institutional Environment. Experiences with Transferring West European and American Business Theories and Teaching Methods to Europe's Post-Socialist Economies. Academy of Management, 1993, Atlanta GA.

Simulations: Features, Uses, and Limitations. Academy of Management, 1993, Atlanta GA.

Simulations: Features, Uses, and Demonstrations. SAGSET Conference, Nottingham England, August 1994.

Entrepreneurship Education: Recent Advances in Simulation, Experiential Learning and Field Work Training. Academy of Management, 1994, Dallas TX.

Teaching Doctoral Students to Teach: A Panel Discussion of Programs, Politics, Principles, and Practices. Academy of Management, 1994, Dallas TX.

Business Gaming: Paused for the Next Great Push or Stalled in Its Tracks?. Eastern Academy of Management, 1995, Ithaca NY.

Research and Publication Survey. ABSEL, 1995, San Antonio TX.

The Historical Background and Pedagogical Foundations of Business Gaming. Symposium entitled "Our Roots: The Development of Pedagogy." ABSEL, 1995, San Antonio TX.

A New Perspective on Management Education. National Conference of the Institute of Behavioral and Applied Management, 1995, Seattle WA.

Marketing Cases Review Panel, North America Case Research Association, 1995, Orlando FL.

How to Get a Hit! ABSEL, March 1996, Orlando FL.

Planning for Your 1997 ABSEL Research and Networking, ABSEL, March 1996, Orlando FL.

VIP Review Roundtable, Eastern Case Writers Association, May 1997, New Brunswick NJ.

The Spread and Usage of Computerized Business Games in the United States. Japan Association of Simulation and Gaming, October 1997, Tokyo, Japan.

The Teaching and Learning Effectiveness of Business Games. Japan Association of Simulation and Gaming, October 1997, Tokyo, Japan.

Prospects on the Future of Management Games. ABSEL, Maui HA, January 1998.

VIP Review Roundtable, Eastern Case Writers Association, May 1998, Pittsfield MA.

A Test Bank for Assessing Learning from Simulations, ABSEL, Philadelphia PA, March 1999.

A Review of Business Game Research Design and Emphasis, ABSEL, Philadelphia PA, March 1999.

VIP Session, Casewriter's Association, Philadelphia PA, May 1999.

The Art & Science of Writing Publishable Cases: The Master Writer's View, Case-writer's Association, Philadelphia PA, May 1999.

Alternative Ways of Using the Internet for Business Simulations for Decisions Input, Processing, and Financial and Economic Data Output, ABSEL, San Antonio TX, March 2007.

Research and Publications for Research in Active-Learning. ABSEL Workshop on Experiential Teaching and Learning, Seattle WA, March 2009.

With Robert Willis. OK… But does it teach? Teaching and Learning Conference, Vancouver Island University, May 10-12, 2017.

PROFESSIONAL SERVICE

Reviewer of competitive papers and seminar proposals, 1976 Midwest Division, Academy of Management.

Reviewer of competitive papers and seminar proposals, Business Policy and Planning Division and Management Education and Development Division, Academy of Management 1979-1980, 1982-1983, 1985-1989, 1998, 1999 and 2000.

Reviewer of competitive papers, 1979-1992, 1995-1998, 2002, ABSEL.

Director-at-Large, 1980, 1981, ABSEL.

Associate Editor, Simulation & Gaming, 1982-1997, 2001-2006.

Member, Editorial Review Board, Case Research Journal, 1993-1999.

Local Arrangements Chair, 1983, ABSEL.

Vice President and Program Chairman, ABSEL, 1984.

President-Elect, ABSEL, 1985.

President, ABSEL, 1986.

Reviewer of competitive papers, Southwest Division, Academy of Management, 1986.

Reviewer of competitive papers, SWFAD Meeting, 1986.

Member-at-Large, Nominating Committee, Management Education and Development Division, Academy of Management, 1986-1987.

Editor, Special Issue on Business Gaming, Simulation & Games, Vol. 18, No. 2 (June, 1987).

Member, Editorial Review Board, The Journal of Management Development, Key Issues in Management Education, Vol. 7, No. 2, 1988.

Member, Strategic Planning Group, ABSEL, 1987-1988.

Chairman, Research Committee, Management Education and Development Division, Academy of Management, 1987-1988.

Program Chairman, Management Education and Development Division, Academy of Management, 1989 National Conference.

Member, Advisory Board, Soviet and East European Business Administration Center, School of Business Administration, Portland State University, 1989-1993.

Member, International Advisory Board, School of Managers, Kiev Building Institute, Kiev, Ukraine, Summer, 1990-1997.

Faculty colloquia, "The Role of Management Education as an Economic Development Strategy in East European Nations." Invited presentations at Humboldt University, East Berlin, March, 1990; Warsaw University, May, 1990; Kiev Technological University, May, 1990; and St. Petersburg Academy of Technology and Economics, January, 1993.

Chairman, Internationalization of Management Curricula Task Force, Management Education and Development Division, Academy of Management, 1990-1991.

Chair, Management Education and Development Division, Academy of Management, 1990-1991.

Board Member, Sage International Series on Simulation/Gaming in the Social Sciences, 1990-1993.

Reviewer, Best Paper Awards, Association for Business Simulation and Experiential Learning, Nashville, 1991, Las Vegas, 1992, San Antonio, 1995, Maui, 1998, Philadelphia, 1999.

Reviewer of competitive papers, Southern Management Association Meeting, 1992-1993, 1999.

Reviewer of competitive papers, World Association for Case Method Research and Application, Limerick, Ireland, 1992; Bratislava, Czechoslovakia/Vienna, Austria, 1993.

Member, Academy of Management Teaching Committee, 1992-1997.

Chair, Simulation Center Advisory Board, Academy of Technology and Economics, St. Petersburg, Russia, 1993-1994.

Chair, Jury for the Annual Marie Birshtain Research Competition, Social Simulation Game Modeling Designers Association, St. Petersburg, Russia, 1993-1994.

Member, International Advisory Board and Reviewer, Management Learning, 1993-present.

Case Collections Editor, Primis Pinnacle, Primis, McGraw-Hill, Inc., 1993-1998.

Member, Editorial Review Board, Special Issue on Business Games in Entrepreneurship Education, Simulation & Games, Fall, 1993.

Business-game management development experiences in Lubin, Poland, December, 1993; Arkhangelsk, Russia March, 1994; Tambov, Russia, March, 1994; University of Warsaw Executive MBA Program, January, 1994; Novgorod, Russia, May, 1994; Rostov-on-Don, Russia, May, 1994.

Reviewer, North American Case Research Conference, 1994-1995.

Member, Advisory Board, Enhancing the Teaching of Management Conference, 1994-1995.

Reviewer of competitive papers and symposium proposals, Enhancing the Teaching of Management Conference, 1995.

Member, Board of Directors, Eastern Case Writers Association, 1995-1999.

Member, Management Education and Development Division, Innovation Award Program, Academy of Management, Spring, 1996.

Member, Advisory Board, Society of Methods and Tools for Analyzing Complex Societal Problems, 1996-1997.

Coeditor (with J. Bernard Keys), Special Issue on Business Simulations, Games and Experiential Learning in International Business Education, The Journal of Teaching in International Business, Vol. 8, No. 4 (Fall, 1997).

Ad Hoc Reviewer, Journal of Management Education, Winter, 1996, Winter, 1997, Summer, 1998, Spring, 1999, Winter, 2001.

Member, Advisory Board, Center for Managerial Learning and Business Simulation, Georgia Southern University, 1997-2000.

Distinguished Lecture, "Travels with Management Games in Central and Eastern Europe." The Center for Managerial Learning & Business Simulation, Georgia Southern University, April 24, 1997.

Member, Board of Directors, Center for Advanced Learning Technologies, INSEAD, Fontainebleau, France, August 1997-1999.

Ad Hoc Reviewer, Transactions on Engineering Management, Winter, 1997.

Co-editor (with J. Bernard Keys), Teaching Strategic Management with Business Games, Simulation & Gaming, Vol. 28, No. 4 (December 1997).

Business Section Editor, Simulation & Gaming, 1998-2002.

Reviewer, Casewriters Association, 1998.

Ad Hoc Reviewer, European Journal of Operational Research, Summer, 1998.

Review board member, Human Relations, Summer, 1998-present.

Co-Director, The Global Competition, University of Tulsa, College of Business Administration, April, 1999.

Faculty symposium, The Global Business Game, University of International Business and Economics, Beijing, China, August, 1999.

Facilitator, Entrepreneurship Roundtable, Graceland University, Lamoni, Iowa, 2000, 2001, 2002.

Chair, Outstanding Papers Committee, International Simulation and Gaming Association, 2001; 2014.

Ad Hoc Reviewer, Journal of Simulation Practice and Theory, October, 2001.

Ad Hoc Reviewer, Academy of Management Journal of Learning and Education, 2001-2003; Editorial Board member 2003-2005.

Lecture, Business Games as Decision-Making Laboratories, Stillman Lecture Series, Seton Hall University, April 2005.

Local arrangements chair, Association for Business Simulation and Experiential Learning, Seattle WA, March, 2009.

Dissertation Committee Member, Guy DeLoach DBA Candidate, Baker College, 2010-2011.

Member, Advisory Board, International Simulation and Gaming Association Conference, Dornbrin Austria, July 2014.

Chair, Best Papers Committee, International Simulation and Gaming Association Conference, Dornbrin Austria, July 2014.

Co-Editor (with Willy Kriz), Symposium Issue, Simulation & Gaming, 2016.

Member, Advisory Board, Simulation & Gaming, 2016-present.

PUBLIC SERVICE

President, Knightsbridge Homeowners Association, 1971, 1975.

Board Member, Knightsbridge Homeowners Association, 1972, 1974.

Member, Mayor's Homeowner's Council, Village of Schaumburg, Schaumburg, IL, 1975.

Secretary, Parent's T.I.M.E., Tulsa, 1981-1982.

Member, Soviet-American Task Force on International Trade Simulations, 1988-1990.

Guest lecturer, Alexander Nevsky Concert, "Meet Phil" Tulsa Philharmonic Subscription Concert Series, October 16-17, 1993.

Panelist, Joint luncheon meeting, International Management Center and the Tulsa World Trade Association, April, 1994.

Member, Adult Education Committee, Temple Israel, Tulsa, 1999-2003.

Chair, Charles Schusterman Jewish Community Center Film Series, 2004-2007.

Secretary/Treasurer, Bainbridge Crest Homeowner’s Association, 2014-2015.

Speaker, Fulbright Talks: Stories by Fulbrighters, Moving From Communism to Capitalism, The Seattle Athanaeum, March 1, 2017

HOBBIES

Reading; Classical Music; Static airplane model building

City of Bainbridge Island
City Council Agenda Bill

PROCESS INFORMATION

Subject: 8:40 PM Resolution No. 2017-20 Affirming the City of Bainbridge Island's Commitment to Meet or Exceed Goals Established in the Paris Climate Agreement, AB 17-156 – Mayor Tollefson (Pg. 232)	Date: 9/5/2017
Agenda Item: NEW BUSINESS	Bill No.: 17-156
Proposed By: Mayor Tollefson	Referrals(s):

BUDGET INFORMATION

Department: City Clerk	Fund:	
Expenditure Req:	Budgeted?	Budget Amend. Req?

REFERRALS/REVIEW

:	Recommendation:	
City Manager:	Legal:	Finance:

DESCRIPTION/BACKGROUND

During this past year, the Bainbridge Island City Council has taken a number of significant steps to recognize our City's responsibility to address the consequences of climate change. We have adopted a new Comprehensive Plan with ambitious climate change goals, and have established a Climate Change Advisory Committee. We authorized the Mayor to signal our support for the goals of the Sierra Club-sponsored Mayors for Clean Energy. We adopted Resolution 2017-04, supporting the adoption of a State carbon pricing policy.

The Resolution offered here for consideration acknowledges the responsibility of State and local governments to do their best to achieve the goals of the Paris Climate Agreement of 2015 in light of the current federal administration's stated intent to back away from the obligations of that Agreement.

RECOMMENDED ACTION/MOTION

I move to forward Resolution No. 2017-20 to the September 12 consent agenda for approval.

ATTACHMENTS:

Description	Type
Resolution No. 2017-20	Backup Material

RESOLUTION NO. 2017-20

A RESOLUTION of the City Council of Bainbridge Island, Washington, affirming the City of Bainbridge Island's commitment to meet or exceed goals established in the Paris Climate Agreement.

WHEREAS, the City of Bainbridge Island wishes to join forces with other cities, states, mayors, governors, college and university leaders, businesses and investors for the first time to declare that the City of Bainbridge Island will continue to support climate action to meet the Paris Agreement; and

WHEREAS, in December 2015 in Paris, world leaders signed a global commitment to fight climate change. The landmark agreement succeeded where past attempts failed because it allowed each country to set its own emission reduction targets and adopt its own strategies for reaching them. In addition, nations- inspired by the actions of local and regional governments, along with businesses - came to recognize that fighting climate change brings significant economic and public health benefits; and

WHEREAS, the Trump Administration has announced that it will withdraw the United States from the commitments of that agreement. This action by the Trump Administration announcement undermines a key pillar in the fight against climate change and damages the world's ability to avoid the most dangerous and costly effects of climate change. Importantly, it is also out of step with what is happening in the United States; and

WHEREAS, in the United States, it is local and state governments, along with businesses, that are primarily responsible for the dramatic decrease in greenhouse gas emissions in recent years. Actions by each group will multiply and accelerate in the years ahead, no matter what policies Washington may adopt; and

WHEREAS, in the absence of leadership from Washington, states, cities, colleges and universities, businesses and investors, representing a sizeable percentage of the U.S. economy will pursue ambitious climate goals, working together to take forceful action and to ensure that the U.S. remains a global leader in reducing emissions. It is imperative that the world know that in the United States, the actors that will provide the leadership necessary to meet our Paris commitment are found in city halls, state capitals, colleges and universities, investors and businesses; now, therefore,

THE CITY COUNCIL OF THE CITY OF BAINBRIDGE ISLAND DOES RESOLVE AS FOLLOWS:

Section 1. The City of Bainbridge Island will continue to support climate action to meet the Paris Climate Agreement.

Section 2. The City of Bainbridge Island will remain actively engaged with the international community as part of the global effort to hold warming well below 2°C and to accelerate the transition to a clean energy economy that will benefit our security, prosperity, and health.

PASSED by the City Council this ____ day of September, 2017.

APPROVED by the Mayor this ____ day of September, 2017.

By: ______________________________
Val Tollefson, Mayor

ATTEST/AUTHENTICATE:

By: _____________________
Christine Brown, City Clerk

FILED WITH THE CITY CLERK: August 31, 2017
PASSED BY THE CITY COUNCIL: September ____, 2017
RESOLUTION NO. 2017-20