



CITY OF  
BAINBRIDGE ISLAND

**CITY OF BAINBRIDGE ISLAND  
PLANNING COMMISSION MEETING  
AND CONTINUED PUBLIC HEARING  
THURSDAY, FEBRUARY 11, 2016  
6:00 PM - 8:30 PM  
CITY COUNCIL CHAMBER  
280 MADISON AVE N  
BAINBRIDGE ISLAND, WASHINGTON**

- 6:00 PM CALL TO ORDER**  
Call to Order, Agenda Review, Conflict Disclosure
- 6:05 PM PUBLIC COMMENT**  
Accept public comment on off agenda items
- 6:10 PM ORDINANCE 2016-01 TREE AND LANDSCAPING REGULATIONS**  
Continued Public Hearing (held January 21, 2016)
- 6:40 PM PUBLIC COMMENT ON COMPREHENSIVE PLAN UPDATE**
- 6:50 PM 2016 COMPREHENSIVE PLAN UPDATE**
- *Revised Climate Change Guiding Principle*
  - *Review DRAFT Transportation Element*
  - *Debrief from Water Resources Element Workshop*
- 8:10 PM PUBLIC COMMENT ON COMPREHENSIVE PLAN UPDATE**
- 8:25 PM NEW/OLD BUSINESS**
- 8:30 PM ADJOURN**

**\*\*TIMES ARE ESTIMATES\***

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



## ***PLANNING & COMMUNITY DEVELOPMENT***

# ***MEMORANDUM***

TO: Planning Commission

FROM: Jennifer Sutton, AICP  
Senior Planner

DATE: February 11, 2016

RE: Continued Public Hearing on Ordinance 2016-01 Tree and Landscaping Regulations

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### **Background**

City Council authorized creation of an Ad Hoc Committee to review the City's tree and landscaping regulations in early January, 2014. The Ad Hoc Committee is comprised of three Councilmembers and two Planning Commissioners:

Councilmember Roger Townsend  
Councilmember Sarah Blossom

Commissioner Jon Quitslund  
Commissioner Mack Pearl

Realizing that reviewing the regulations in their entirety is a large task, the Committee organized their work by first focusing on tree and landscaping regulations that apply to the Mixed Use Town Center/High School Road zoning districts. Changes recommended by the Committee were ultimately adopted as Ordinance 2015-04 on September 8, 2015.

Meeting 20 times over 2015, the Ad Hoc Committee then reviewed all tree and landscaping regulations of BIMC Section 18.15.010 that apply to:

- Multifamily Development
- Single-family Subdivisions
- Conditional Uses in Residential Zones
- Business/ Industrial Zone
- Water-dependent Industrial Zone
- Neighborhood Service Center Zone

Although the Committee reviewed all tree and landscaping regulations (e.g. perimeter and roadside buffers, tree unit requirements) for each of the land uses and zoning districts listed above, the Committee did not make changes within all of the different requirements. For instance, the Committee recommended not adding a Tree Unit Requirement (Section 18.15.010.G) for development in the Business/Industrial zoning district, since the district has the largest perimeter and roadside buffer

requirements in addition to required parking lot landscaping. The previous Ordinance 2015-04 changed tree unit regulations so that trees in required buffers could not count towards meeting a projects tree unit requirement (See 18.15.010.G.4.b, p 27 DRAFT Ordinance 2016-01).

Ordinance 2016-01 also modified the perimeter buffer standards for the three levels of screening: full screen, partial screen, and filtered screen (proposed to change to “edge planting standard”) to improve how the number of required trees and shrubs are calculated. The Committee was assisted in these changes by landscape architects Tim Goss and Jeff Bouma.

### **Changes to Ordinance 2016-01**

The Planning Commission held a public hearing on Ordinance 2016-01 on January 21, 2016. Changes to the ordinance since that meeting are highlighted in yellow. The Commission requested that the Table 18.15.010-6 (p 27) that converts DBH to tree units be expanded to go up to 48 inches DHB using the same tree unit pattern that is already in the table. The other changes, highlighted in yellow, are in response to the comment submitted by Charles Schmidt.

Not every comment/question posed by Mr. Schmidt is reflected in the draft ordinance; instead, responses are below.

- Page 1: Another “Whereas” has not been added to the ordinance. BIMC Section 18.15.010 has a purpose statement (see page 2).
- Page 5: Deleting the “roadside buffer” requirement for Neighborhood Service Center (NSC) districts was intended, and have been replaced by street tree requirements (see page 33) different from roadside buffer because it is within the right-of-way).
- Page 6: Within the Mixed-Use Town Center zoning districts, the City’s urban core, State Route 305 is the only road with a roadside buffer requirement.
- Page 13: This is the perimeter buffer Table 18.15.010-3, and this section of the table is for perimeter buffers within the R-8 and R-14 zoning districts. “Urban Multifamily” is the Comprehensive Plan designation that applies to the R-8 and R-14 zones. The “Note” explains to the reader what areas are meant by “Urban Multifamily”, and what is proposed to be changed is to delete the requirement to have a landscape buffer BETWEEN R-8 and R-14 properties.
- Page 13: Yes, the “Minimum Perimeter Width” can only be achieved when evaluated for “buffer averaging”- see Section D.3(d) on page 14 and Section D.5(f) on page 17.
- The section on Water Dependent-Industrial districts in perimeter buffer Table 18.15.010-3 has 3 classes of adjacent land use districts- residential, industrial, and nonindustrial. Nonindustrial uses would be uses that were neither residential, nor industrial, such as a restaurant, school, or religious facility.
- The draft was forwarded to the Park District on February 4, 2016.
- Page 19: New trees may be required to be preserved or planted on a property in addition to roadside or perimeter buffers in order to meet parking lot landscaping (Section F) and/or tree unit requirements (Section G) of this chapter.
- Page 21: The only “designated scenic road” is SR 305.

### **Attachments**

DRAFT Ordinance 2016-01

January 21 Comment from Charles Schmidt

**ORDINANCE NO. 2016-01**

**AN ORDINANCE** of the City of Bainbridge Island, Washington, relating to tree and landscaping maintenance and requirements; amending Bainbridge Island Municipal Code Sections 18.15.010 and 18.18.030.

**WHEREAS**, in January 2014, the City Council convened an Ad Hoc Committee consisting of two Planning Commissioners and three Councilmembers to review and make recommendations on the City's tree regulations; and

**WHEREAS**, the Ad Hoc Committee organized their review by first focusing on regulations that apply to the Mixed Use Town Center and High School zoning districts, which resulted in Ordinance 2015-04, approved by the City Council on September 8, 2015; and

**WHEREAS**, the Ad Hoc Committee continued to review tree and landscaping regulations that apply to the rest of the island, outside of the Winslow commercial zoning districts; and

**WHEREAS**, the City Council directed staff to bring forward ordinances to implement the suggested changes; and

**WHEREAS**, the Planning Commission reviewed the draft Ordinance No. 2016-01 at study session on December 17, 2015; and

**WHEREAS**, the Planning Commission conducted a public hearing on Ordinance No. 2016-01 on January 21, 2016, and recommended approval of the ordinance to the City Council after the public hearing; and

**WHEREAS**, the City Council conducted a public hearing on Ordinance No. 2016-01 on XXXX, 2016; and

**WHEREAS**, notice was given on XXXX, 2016 to the Office of Community Development at the Washington State Department of Commerce in conformance with RCW 36.70A.106;

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

**Section 1.** Chapter 18.15.010 of the Bainbridge Island Municipal Code is amended to read as follows:

*18.15.010 Landscaping, screening, and tree retention, protection and replacement.*

All development shall comply with the following regulations addressing landscaping and screening unless other applicable regulations require additional or different forms of landscaping or screening, in which case the more specific standard or criteria shall govern.

A. Purpose.

1. General. The purpose of this section is to preserve the landscape character of the community, link the Island's natural amenities with landscape greenbelts along scenic roads, improve the aesthetic quality of the built environment, promote retention and protection of existing vegetation, reduce the impacts of development on wetlands, streams and the natural environment, enhance the value of current and future development and increase privacy for residential zones, and encourage preservation of significant and heritage trees by:

- a. Retaining existing vegetation, tree stands and significant trees by incorporating them into the site design.
- b. Incorporating native vegetation and drought resistant plant material into new landscape developments.
- c. Providing vegetated screening between different intensities of residential uses, and between development and roads.
- d. Providing visual relief of parking areas in the neighborhood service centers, the Winslow Mixed Use Town Center, and the light manufacturing, (water dependent) industrial, High School Road and urban multifamily districts.
- e. Providing vegetated screening between residential and nonresidential areas.

2. Specific Zone Districts.

- a. For single-family residential short plats and subdivisions in residential districts ~~uses outside the Winslow Mixed Use Town Center, NSC, and B/I districts that require more than just a building permit (i.e., lots created through the flexlot design process),~~ the additional specific intent is to preserve, protect and enhance critical areas, protect the natural forested areas and preserve the greenbelts along designated scenic roadway corridors.
- b. In the R-8 and R-14 multifamily residential districts, the additional specific intent is to screen urban multifamily projects from adjacent lower density residential properties and to soften the appearance of surface parking areas.
- c. For nonresidential uses outside the Winslow Mixed Use Town Center, High School Road I and II, NSC, B/I, and WD-I districts, the additional specific intent is to retain the natural landscape qualities of the Island by retaining existing vegetated buffers to screen views of structures and parking areas and to buffer between areas of high and low intensity uses.
- d. In the Winslow Mixed Use Town Center central core and ferry terminal overlay districts, the additional specific intent is to provide an urban character by incorporating landscape standards; and to provide landscape development to screen uses from single-family residential properties and to soften the appearance of surface parking areas.

e. In the Winslow Mixed Use Town Center, Ericksen Avenue and Madison overlay districts, the additional specific intent is to retain the character of landscape front yards; and to provide landscape development to screen uses from single-family residential properties; and to soften the appearance of surface parking areas.

f. In the Winslow Mixed Use Town Center gateway overlay district, the additional specific intent is to retain the greenbelt located adjacent to SR 305 consistent with the greenways plan and to provide landscape development to screen uses from single-family residential properties.

g. In the High School Road I and II districts, the additional specific intent is to provide landscape development to screen uses from adjacent single-family residential properties and to soften the appearance of surface parking areas.

h. In the NSC district, the additional specific intent is to incorporate landscape standards that support pedestrian scale neighborhood uses compatible with the intensity of the surrounding residential neighborhood; to minimize the impact of lighting, noise and views of surface parking areas; and to provide a buffer between higher and lower intensity uses.

i. In the B/I district, the additional specific intent is to provide a year-round vegetated screen and a noise and site lighting buffer of industrial development from adjacent nonindustrial properties and roadways.

j. In the WD-I district, the additional specific intent is to provide landscape development that screens parking lots and large structures, but allows visual access to the shoreline and small scale active industrial facilities.

#### B. Applicability.

1. All new development, except single-family residential building permits, shall be subject to the requirements of this section, except as ~~required~~ modified by subsections B.2 and B.3 of this section.

2. Projects subject to the conditional use permit process may be required to exceed the requirements of this chapter.

3. Specific submittal requirements for landscaping plans (tree protection, retention and planting plans) are included in the city's administrative manual.

4. Specific landscape requirements applicable to development in each zone district are indicated with an "X" and summarized in the following Table 18.15.010-1.

Table 18.15.010-1: Landscape Requirements by Zone District								
Landscape Requirements for Land Uses & Districts	Significant Tree & Tree Stand Retention (BIMC 18.15.010.C)	Perimeter Landscape (BIMC 18.15.010.D)	Roadside Buffer (BIMC 18.15.010.E)	Parking Lot Landscaping (BIMC 18.15.010.F)	Total Site Tree Unit Requirements (BIMC 18.15.1010.G)	Planting Requirements (BIMC 18.15.010.H)	Irrigation (BIMC 18.15.010.I)	Maintenance (BIMC 18.15.110.J)
Single-Family Residential for which Only a Building Permit is Required (Existing Non-Flex Lots)	<b>DELETE THIS ROW- THIS CHAPTER DOES NOT APPLY TO EXISTING SINGLE-FAMILY LOTS (SEE APPLICABILITY SECTION B ABOVE)</b>							
Single-Family Residential <u>Short Plats and Subdivisions</u> Development Outside Winslow Mixed use, NSG, and B/I Districts (R-.04 through R-6 Districts) Other than Existing Lots for which Only a Building Permit is Required (Flexible Lot Design Process)	X	X (Cluster Subdivisions Only)	X			X	X	X
R-8 and R-14 Multifamily Districts	X	X	X	X	X	X	X	X

Table 18.15.010-1: Landscape Requirements by Zone District								
Landscape Requirements for Land Uses & Districts	Significant Tree & Tree Stand Retention (BIMC 18.15.010.C)	Perimeter Landscape (BIMC 18.15.010.D)	Roadside Buffer (BIMC 18.15.010.E)	Parking Lot Landscaping (BIMC 18.15.010.F)	Total Site Tree Unit Requirements (BIMC 18.15.1010.G)	Planting Requirements (BIMC 18.15.010.H)	Irrigation (BIMC 18.15.010.I)	Maintenance (BIMC 18.15.110.J)
Nonresidential Uses in Areas Outside Winslow Mixed Use, HSR, NSC, B/I, WD-I Residential Districts	X	X	X	X	X	X	X	X
Winslow Mixed Use Town Center [1]	Central Core Overlay	X	X	X [2]	X	X	X	X
	Ericksen Ave. Overlay	X	X	X [2]	X	X	X	X
	Madison Ave. Overlay	X	X	X [2]	X	X	X	X
	Gateway Overlay	X	X	X [2]	X	X	X	X
	Ferry Terminal Overlay	X	X	X [2]	X	X	X	X
High School Road District	X	X	X [2]	X	X	X	X	X
NSC District	X	X	Delete Buffer Req. X	X	X	X	X	X

Table 18.15.010-1: Landscape Requirements by Zone District								
Landscape Requirements for Land Uses & Districts	Significant Tree & Tree Stand Retention (BIMC 18.15.010.C)	Perimeter Landscape (BIMC 18.15.010.D)	Roadside Buffer (BIMC 18.15.010.E)	Parking Lot Landscaping (BIMC 18.15.010.F)	Total Site Tree Unit Requirements (BIMC 18.15.1010.G)	Planting Requirements (BIMC 18.15.010.H)	Irrigation (BIMC 18.15.010.I)	Maintenance (BIMC 18.15.110.J)
B/I District	X	X	X	X		X	X	X
WD-I District	X	X	X	X		X	X	X
[1] Refer to Chapter 18.18 BIMC for additional landscape requirements specific to the Mixed Use Town Center districts. [2] Roadside buffer requirement is adjacent to Highway 305 only.								

DRAFT

C. Tree Retention, Protection and Replacement. Where Table 18.15.010-1 indicates that development must comply with the requirements of this subsection C, all development shall comply with the following requirements. These requirements are intended to supplement any regulations in Chapters [16.12](#) (Shoreline Master Program) and [16.20](#) (Critical Areas) BIMC, which remain the primary source of regulation for environmentally sensitive areas in Bainbridge Island. In the event of any inconsistency between the requirements of this subsection C and the requirements of Chapters [16.12](#) and [16.20](#) BIMC, the requirements of Chapters [16.12](#) and [16.20](#) BIMC shall apply.

#### 1. Retention.

a. Intent. The intent of these regulations is to preserve the forested character of the Island by preserving existing vegetation, significant trees and tree stands, and incentivizing tree protection and replacement in certain districts through a tree unit system, thereby mitigating the development impacts of increased storm water runoff, impervious surface, and loss of carbon dioxide absorption capacity. This shall be accomplished in a manner consistent with the comprehensive plan and the requirements of Washington law and to discourage the removal of significant tree(s) and tree stands.

b. Perimeter Tree Retention Requirements. ~~Significant trees and tree stands~~ Trees and tree stands located in the perimeter areas required to be landscaped pursuant to subsections D and E of this section shall be retained and protected as described in section C.4, unless an applicant can demonstrate during the land use permit review process that the existing trees and vegetation will be compromised after the development is complete, and would likely become hazardous as described in section 1.c below. If the applicant can demonstrate that hazard, then new trees and vegetation may be planted pursuant to the planting standards of Section D.4. Perimeter landscape widths may be averaged to save significant trees, but shall not be reduced to less than the allowed minimum perimeter dimension.

c. Exceptions. Significant trees and tree stands may be removed if it is determined by a consulting arborist who is certified by the American Society of Consulting Arborists, or a TRACE certified professional as established by the PNW Chapter of the International Society of Arboriculture, and whose services are paid for by the applicant, that the vegetation is:

i. A safety hazard due to potential root, trunk, or primary limb failure, or due to exposure of mature trees that have grown in a closed, forested situation; or

ii. Damaged, diseased, or standing dead trees.

d. Protection of Tree Stands. Notwithstanding a determination under subsection C.1.c of this section, if ~~significant~~ trees have been removed from a closed, forested location, a buffer of smaller trees shall be retained or planted on the fringe of the closed, forested area. The buffer of smaller trees shall be adequate to protect the health of the remaining mature trees in the closed, forested area, as determined by a consulting

arborist who is certified by the American Society of Consulting Arborists, and whose services are paid for by the applicant.

## 2. Replacement.

a. Intent. The intent of these regulations is to discourage the unauthorized removal of significant tree(s) and tree stands; and to establish a replacement or fine if such activity occurs. All replanting plans must be prepared or approved, by a landscape architect licensed by the state of Washington, a Washington certified nursery professional or a Washington certified landscaper, a consulting arborist who is certified by the American Society of Consulting Arborists, or a TRACE certified professional as established by the PNW Chapter of the International Society of Arboriculture.

b. Requirements for Unauthorized Removal. If trees required to be retained pursuant to subsection C.1 of this section are not retained or if protection measures described in section C.4 are not fully implemented, they shall be replaced by at least one-and-one-half times (150 percent) of the number of tree units removed. The trees removed shall be replaced with trees of the same type, evergreen or deciduous. Native shrubs and ground cover shall also be replaced when replacing tree stands due to unauthorized removal. Shrubs shall be one-gallon size planted four feet on center spacing; ground cover shall be one-gallon size planted three feet on center spacing. The shrubs and ground cover shall be planted within the limits of the previous tree stand canopy.

c. Requirements for Permitted Removal. A property owner may request removal of trees required to be retained pursuant to this chapter by applying for a clearing permit (BIMC 16.18). Trees will be approved for removal only if they meet the hazard tree requirements of section C.1.c. The clearing permit application shall include a replanting plan. In designing the replanting plan, the landscape or tree professional must consider what landscape function the tree(s) to be removed are serving on the property (e.g. parking lot, street tree, perimeter screening), and what species and location(s) for replanting strives to replace that function. New planting areas may need to be created to achieve this goal.

3. Enforcement and Penalties. Failure to retain, replace or transplant trees will be enforced as follows; provided, that any fine shall be no less than three times the value of the trees, as determined by the current standards of the International Society of Arboriculture. If unauthorized tree(s) or vegetation removal occurs within the public right-of-way, all permits in force on the subject property shall be suspended and no new permits issued until the tree(s) or vegetation has been replaced or all penalties have been satisfied. The director is authorized to make site inspections and take such actions as are necessary to enforce this title in accordance with Chapters [1.16](#), [1.24](#), and [1.26](#) BIMC. The director may require an evaluation by a tree professional, a qualified engineer, landscape architect, soils engineer, testing lab, or other specialist at any time during the tree plan review process or tree removal inspection as necessary to ensure compliance with the provisions of this chapter subsection C and/or the terms of the clearing permit. Applicant shall be responsible for any associated costs.

a. Notice of Infraction. It is unlawful for any person to:

i. Initiate or maintain, or cause to be initiated or maintained, the use, construction, placement, removal, alteration, or demolition of any structure, land, vegetation or property within the city contrary to the provisions of this chapter subsection C.

ii. Misrepresent any material fact in any application, plans or other information submitted to obtain permits or authorizations under this title or not following the conditions of an approval.

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

iv. Fail to submit or implement a planting plan as required by this section.

b. Stop Work Orders. The city shall have the authority to issue a stop work order to cease all development work, and order restoration, rehabilitation, or replacement measures, including applicable sureties, at the owner's or other responsible party's expense to compensate for the use, construction, placement, removal, alteration, or demolition of any structure, land, vegetation or property within the city contrary to the provisions of this chapter subsection C.

c. Additional Remedies. In addition to any other remedy provided by this chapter subsection C or under the BIMC, the city may initiate injunction or abatement proceedings or any other appropriate action in courts against any person who violates or fails to comply with any provision of this chapter subsection C to prevent, enjoin, abate, and/or terminate violations of this title and/or to restore a condition which existed prior to the violation. In any such proceeding, the person violating and/or failing to comply with any provisions of this shall be liable for the costs and reasonable attorneys' fees incurred by the city in bringing, maintaining and/or prosecuting such action.

d. Notice of Infraction. Except as provided in subsection C.3.f of this section, conduct made unlawful by the city under this chapter subsection C shall constitute a civil infraction and is subject to enforcement and fines as provided in BIMC [1.26.035](#), and additionally, is subject to fines as provided in Table 18.15.010-2. A civil infraction under this section shall be processed in the manner set forth in Chapter [1.26](#) BIMC.

e. Civil Penalty.

i. In addition to any civil infraction fine, criminal penalty, and/or other available sanction or remedial procedure, any person engaging in conduct made unlawful by this chapter subsection C shall be subject to a cumulative civil penalty in the amount of \$1,000 per day for each violation from the date set for compliance until the date of compliance. Any such civil penalty shall be collected in accordance with BIMC [1.26.090](#).

ii. A person who fails to comply with the requirements of this ~~chapter subsection C~~ or the terms of a permit issued hereunder, who undertakes an activity regulated by this ~~chapter subsection C~~ without obtaining a permit, or fails to comply with a cease and desist or stop work order issued under this ~~chapter subsection C~~ shall be subject to a civil penalty as set forth in Table 18.15.010-2. Each unlawfully removed or damaged tree shall constitute a separate violation.

iii. Any person who aids or abets in the violation shall be considered to have committed a violation for purposes of the civil penalty.

iv. In addition to the penalties addressed under subsection C.3.e.ii of this section, failure to retain, replace or transplant trees will be enforced as provided in this code; provided, that any financial penalty assessed will be the greater of the amount indicated in Table 18.15.010-2 or three times the value of the trees, as determined by the current standards of the International Society of Arboriculture, whichever is greater. The director may elect not to seek penalties if he or she determines that the circumstances do not warrant imposition of civil penalties in addition to restoration.

Exception to director’s discretion statement above: Any tree identified on a development project’s required landscaping plan as retained and given a monetary value per subsection G.3.a.iii of this section that is removed, or dies during the surety period due to improper protection during construction, shall be subject to an automatic fine of three times the tree’s stated value. All of the project’s active permits shall also be suspended until the fine is paid and all restoration work completed.

**Table 18.15.010-2: Penalties**

<b>Types of Violations</b>	<b>Allowable Fines per Violation</b>
1. Removal of tree(s) approved to be removed, but prior to final tree retention and planting plan approval or issuance of a city tree removal permit	\$100.00 per tree
2. Removal or damage of tree(s) that are or would be shown to be retained on an approved tree retention and planting plan or any other violation of approved tree protection plan	\$1,000 per tree
3. Removal of tree(s) without applying for or obtaining a required city land use permit	\$1,000 per tree
4. Removal of tree(s) without applying for or obtaining a required city clearing permit	\$1,000 per tree

f. Repeat Offenders. Any person who again violates this ~~chapter subsection C~~ within 12 months after having been found by the Bainbridge Island municipal court to be in violation of this ~~chapter subsection C~~ commits a misdemeanor and any person who is convicted of that misdemeanor shall be punished as provided in BIMC [1.24.010.A](#).

#### 4. Protection During Construction and Development.

a. Intent. The intent of these regulations is to provide the best protection for existing vegetation, significant trees and tree stands, including protection for trees on adjacent properties.

b. Requirements.

i. No cutting of ~~significant~~ trees shall be allowed on a site until the tree retention and planting plans have been approved by the director and a clearing, grading or building permit issued.

ii. In order to preserve future ecological function, the applicant shall identify areas of prohibited disturbance, generally corresponding to the dripline or critical root zone (as identified by a consulting arborist) of the existing vegetation, significant trees and/or tree canopy of tree stands to be retained, buffers, areas of existing vegetation to be maintained, future rain gardens, and future planting areas larger than 400 square feet (i.e. landscape islands in parking lots). The prohibited disturbance areas shall be reviewed and approved by the director as part of the land use permit review process.

iii. A temporary five-foot-high chain link fence with tubular steel poles or “T” posts shall delineate the area of prohibited disturbance defined in subsection C.4.b.ii of this section, unless the director has approved the use of a four-foot-high plastic net fence as an alternative. The fence shall be erected and inspected by City staff before clearing, grading and/or construction permits are issued and shall remain in place until construction has been completed, and shall at all times have affixed to it a sign indicating the protected area.

iv. No impervious surfaces, fill, excavation, vehicle operations, compaction, removal of native soil or storage of construction materials shall be permitted within the area defined by the required construction fencing. If avoiding construction and compaction in future planting areas is unavoidable, the landscape plan for the project shall include methods for aerating and/or augmenting compacted soil to prepare for new planting, pursuant to subsection H.2 of this section.

v. A rock well shall be constructed if the grade level around the tree is to be raised more than one foot. The inside diameter of the well shall be equal to the diameter of the dripline or critical root zone (as identified by a consulting arborist) of the tree or tree canopy of tree stands.

vi. The grade level shall not be lowered within the larger of (A) the dripline or critical root zone (as identified by a consulting arborist) of the tree, or the tree canopy of tree stands, or (B) the area recommended by a consulting arborist.

vii. Alternative protection methods may be used if recommended by a consulting arborist and determined by the director to provide equal or greater tree protection.

viii. Wherever this subsection C.4 allows or requires the involvement of a consulting arborist, that individual shall be selected from the city's list of current arborists certified by the American Society of Consulting Arborists and his or her services shall be paid for by the applicant.

5. Modification of Requirements. If the significant tree and tree stand retention requirements of this section create an unnecessary hardship, the applicant may request a modification. The director may administratively approve a modification of the significant tree and tree stand requirements of this section if the director finds that the following standards have been met:

- a. The modification is necessary because of special circumstances relating to the location of existing significant trees and tree stands that prevent compliance with this section; and
- b. The special circumstances of the subject property make the strict enforcement of the provisions of this section an unnecessary hardship to the property owner; and
- c. The special circumstances of the subject property are not the result of the actions of the applicant; and
- d. The approving of the modification will not be materially detrimental to the public welfare or injurious to the property or improvements in the vicinity and land use district in which the subject property is located; and
- e. The modification is consistent with the purpose and intent of this chapter; and
- f. The site design incorporates the retention of other natural vegetation in consolidated locations that promotes the natural vegetated character of the site.

#### D. Perimeter Buffering and Screening.

1. Intent. The intent of this subsection D is to provide an effective vegetated screen over time between uses or land use districts, to screen parking areas and structures located adjacent to public rights-of-way, and to allow visual and physical access to pedestrian and other nonmotorized oriented uses, such as a multipurpose trail or bikeway if those trails could be accommodated without compromising significant vegetation or hazardous slopes. Additional buffers may be required per BIMC [16.20.170](#), The Winslow Ravine – Special rules in Mixed Use Town Center.

2. Requirements by District. In addition to meeting the general requirements of subsection D.4 of this section, applicants shall meet the specific requirements of Table 18.15.010-3 applicable to the zone district or overlay district in which the property is located. In the case of a conflict between the requirements of this subsection D.2 and the requirements of subsection D.4 of this section, the requirements of this subsection D.2 shall apply. The tree retention, replacement, and protection standards of section C apply to perimeter buffers. These perimeter landscape requirements are in addition to required roadside landscaping in subsection E of this section and parking lot landscape requirements in subsection F of this section. These requirements do not apply to projects involving only interior renovations of existing buildings.

<b>Table 18.15.010-3: Perimeter Landscaping Requirements by Land Use &amp; Zoning District</b>			
<b>Abutting zoning or land use district</b>	<b>Perimeter Landscape Type</b>	<b>Perimeter Width (ft.)</b>	<b>Minimum Perimeter Width (ft.)</b>
<b>Multifamily in R-2, R-1 &amp; R-0.4 Districts</b>			
Single-family residential	Full Screen	25	N/A <u>25</u>
<b>R-8 and R-14 Multifamily Districts</b>			
Single-family Residential R-4.3 (Urban Residential)	Partial Screen	20	15
Urban multifamily <b>Note: this applies to R-8 &amp; R-14</b>	Filtered Screen	15	40
<b>Short Plats and Subdivisions in Residential Zoning Districts[1] (from Table 4)</b>			
Residential subdivision in the R-0.4, R-1, R-2, and R-2.9 districts (Cluster Option Only)	<u>Edge Planting Standard</u>	<u>25'</u>	<u>25'</u>
Residential subdivision in the R-3.5, R-4.3, R-5, R-6, R-8, and R-14 districts (Cluster Option Only)	<u>Edge Planting Standard</u>	<u>10'</u>	<u>10'</u>
Multifamily subdivision in the R-2, R-1, and R-0.4 zoning districts (Cluster Option Only)	<u>Full Screen</u>	<u>25'</u>	<u>25'</u>
Park and Conservation Land Buffer: Applies to all single-family subdivisions (OS)[2]	<u>Edge Planting Standard</u>	<u>25'</u>	<u>25'</u>
<b>Nonresidential Uses in Areas Outside Winslow Mixed Use, HSR, NSC, B/I , WD-I Districts</b>			
Residential including multifamily	Full Screen	25	45 <u>25</u>
Nonindustrial uses	<del>Full Screen</del> <u>Partial Screen</u>	20	10
<b>Winslow Town Center Mixed Use District [4] [3]</b>			
Single-family residential	Full Screen	20	15
<b>HSR I and II Districts</b>			
Single-family residential	Full Screen	20	15
<b>NSC Districts</b>			
Residential including multifamily	Full Screen	<u>20</u> <u>45</u>	<u>40</u> <u>15</u>
NSCs	<del>Filtered Screen</del>	40	40

Table 18.15.010-3: Perimeter Landscaping Requirements by Land Use & Zoning District			
Abutting zoning or land use district	Perimeter Landscape Type	Perimeter Width (ft.)	Minimum Perimeter Width (ft.)
<b>B/I Districts</b>			
B/I Non-B/I	Full Screen <del>[2]</del> [4]	50	35
Non-B/I	Partial Screen	15	10
<b>WD-I Districts</b>			
Residential including multifamily	Full Screen	40	<del>20</del> 30
Industrial uses	Partial Screen	10	0
Nonindustrial uses	Full Screen	<del>10</del> 25	15
[1] Properties with less than one acre being subdivided are not subject to perimeter buffer requirements.			
[2] (OS) indicates that the buffer may be calculated in the required open space area for the subdivision.			
[43] For perimeter landscaping requirements in the ferry terminal district transition area, north of Winslow Way, reference BIMC 18.12.030.C.			
[24] Notwithstanding subsection D.2 above, all native shrubs and significant trees shall be retained within all landscape buffers, except that limited removal may be allowed for permitted activities located within the buffer area. If necessary, the existing vegetation shall be supplemented to attain the required screening density. This perimeter buffer applies even when a private access road separates a B/I property from non B/I property.			

3. Perimeter Buffers in Residential Cluster Short Subdivisions, Cluster Long Subdivisions, and Multifamily Subdivisions in the R-2, R-1, and R-0.4 Zoning Districts.

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

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

e. Landscape buffers may be included in the required open space calculations for a subdivision as noted in Table 18.15.010-34. Table 18.15.010-34 depicts the landscape buffer requirements for subdivisions by zoning district and denotes when the buffer may be included in the open space calculations. These standards apply unless alternative buffers are required pursuant to critical area review, the requirements of the Shoreline Management Act, conditioned by SEPA review, or required for public health or safety reasons.

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

**NOTE: The requirements of this table are being added to Table 3 above**

**Table 18.15.010-4: Perimeter Landscape Requirements for Flexlot Subdivisions<sup>[1]</sup>**

Type of Subdivision	Landscape Perimeter Buffer (Cluster Option Subdivision Only)	Park and Conservation Land Buffer (Required for Both Cluster and Open Space Subdivision Options)
<b>Residential subdivision in the R-0.4, R-1, R-2, and R-2.9 districts</b>	25' — Filtered Screen	25' — Filtered Screen (OS) [2]
<b>Residential subdivision in the R-3.5, R-4.3, R-5, R-6, R-8, and R-14 districts</b>	40' — Filtered Screen	25' — Filtered Screen (OS) [2]
<b>Multifamily subdivision in the R-1 zone district</b>	25' — Full Screen	N/A

1. Properties being subdivided with less than one acre are not subject to landscape buffer requirements.  
 2. (OS) indicates that the buffer may be calculated in the required open space area for the subdivision.

#### 4. General Requirements

##### a. Full Screen

The intent of this buffer is to provide an effective vegetated screen over time between uses, land use districts, or to screen parking areas and structures from the public rights-of-way. Where full screen perimeter landscaping is required, the applicant must provide:

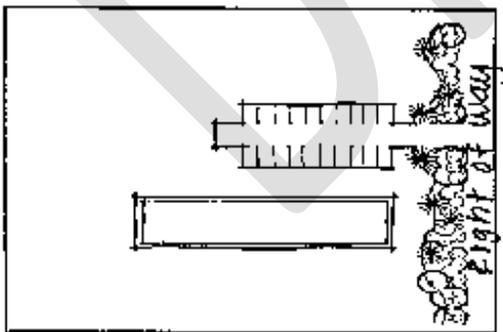
- i. Minimum 70 percent evergreen trees ranging in height from four feet to six feet at the time of planting with at least 50 percent being six feet high; and
- ii. Deciduous trees with a caliper of at least two inches at the time of planting; and
- iii. At least ~~20~~ 50 percent of the trees shall be native species ~~and or~~ drought resistant; and
- iv. The number of trees is determined by calculating the area of the perimeter buffer and dividing the length of the landscape perimeter by 10 feet ~~250 square feet~~; and

- v. Minimum 70 percent e~~Evergreen~~ shrubs at least 21 inches in height at the time of planting, ~~spaced no more than three feet on center,~~ to achieve minimum ~~four~~ six feet height at maturity; and
- vi. The number of shrubs is determined by calculating the area of the perimeter buffer and dividing the length of the perimeter by four feet 50 square feet; and
- vii. Living ground cover shall be planted and spaced to achieve total coverage within ~~three~~ five years; and
- viii. Trees and shrubs shall be spaced to result in a full screen over time.~~Plants may be clustered within the perimeter to screen structures and parking areas.~~

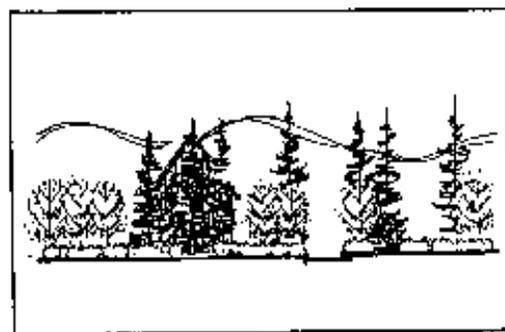
**b. Partial Screen**

Where partial screen perimeter landscaping is required, the applicant must provide:

- i. Minimum 50 percent evergreen trees ranging in height from four feet to six feet at the time of planting with at least 50 percent being six feet high; and
- ii. Deciduous trees with a caliper of at least two inches at the time of planting; and
- iii. At least ~~20~~ 50 percent of the trees shall be native species ~~and or~~ drought resistant; and
- iv. The number of trees is determined by calculating the area of the perimeter buffer and dividing the length of the landscape perimeter by 20 feet 400 square feet; and
- v. At least 50 percent e~~Evergreen~~ shrubs at least 21 inches in height at the time of planting, ~~spaced no more than three feet on center,~~ to achieve minimum ~~four~~ six feet height at maturity; and
- vi. The number of shrubs is determined by calculating the area of the perimeter buffer and dividing the length of the landscape perimeter by five feet 100 square feet; and
- vii. Living ground cover shall be planted and spaced to achieve total coverage within ~~three~~ five years; and
- viii. ~~Plants may~~ should be clustered within the landscape perimeter to screen structures and parking areas.



Partial Screen Plan



Partial Screen Section

**c. Filtered Screen Edge Planting Standard**

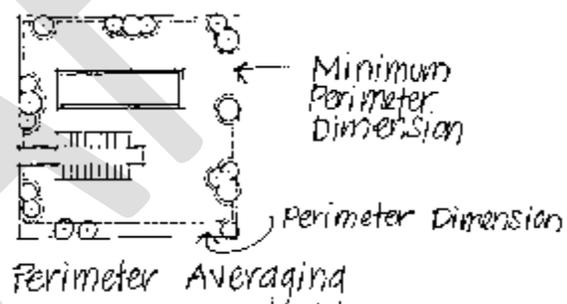
Where ~~filtered screen~~ edge planting standard perimeter landscaping is required, the applicant must provide:

- i. One hundred percent deciduous trees two-inch caliper spaced no more than 30 feet on center; and
- ii. Evergreen shrubs minimum 21 inches in height at the time of planting spaced no more than three feet on center to provide a continuous hedge achieving a maximum height of ~~three~~ six feet at maturity; and
- iii. Living ground cover shall be planted and spaced to achieve total coverage within ~~three~~ five years.

**5. Standards**

The following standards apply to the full screen, ~~partial screen~~ landscape buffer and ~~filtered screen~~ edge planting area perimeter landscape requirements contained in this section.

- a. Existing vegetation may be used in lieu of new plant material ~~if not already being used to meet another requirement.~~ Although existing vegetation may meet the minimum number of trees or shrubs for a required full screen, the Director may require additional trees and/or shrubs to achieve an effective full screen.
- b. A full screen will be required to screen utilities located above ground from adjacent uses.
- c. Perimeter landscaping shall be clustered in areas to screen structures, utility structures, loading areas, parking lots, trash enclosures, storage areas and mechanical equipment.
- d. The director may approve the averaging of perimeter landscape widths to provide adequate screening if it meets the criteria contained in this section.
- e. Earth berms in combination with shrubs and trees may be used to achieve the initial planting height requirement.
- f. Minimum landscape perimeter dimensions are allowed when perimeter averaging is applied. The landscape perimeter can be averaged only if the total required perimeter dimension square footage is achieved. The director may allow landscape perimeter averaging if the following criteria is met: (i) plant material is being clustered to more effectively screen parking areas and structures; and (ii) the quality of the perimeter landscape is not diminished; (iii) significant trees are being retained.



**6. Park Buffers and Buffers for Dedicated Conservation Lands.**

- a. Notwithstanding the provisions of subsections D.2, D.3, and D.4 of this section, a 25-foot-wide buffer shall be provided along a property line where the land immediately adjacent to the subdivision boundary is a park or a future park in a municipal plan, or dedicated conservation land area that has been set aside for open space, wildlife habitat or public conservation purposes by deed or conservation easement.
- b. In order to buffer the visual impact of the proposed subdivision and protect off-site views, filtered screen landscaping, pursuant to subsection D.4 of this section, shall be required within park buffers and buffers for dedicated conservation lands buffers where mature trees and shrubs cannot provide such screening.

E. Street Frontage Landscaping.

1. Roadside Buffers for Commercial, Institutional and Multifamily Development. The following table indicates the type of landscaping required when the subject property directly abuts a right-of-way. Roadside buffers may be required for commercial, institutional, or multifamily development where a site plan review or conditional use permit is required. The buffers shall be pursuant to the screening standards set forth in subsection D.4 of this section. Required landscape buffer widths may be reduced to the minimum widths stated in Table 18.15.010-45 through buffer averaging in accordance with the criteria in subsection D.5 of this section. The tree retention, replacement, and protection standards of section C apply to roadside buffers. These requirements do not apply to projects involving only interior renovations of existing buildings.

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

Existing Zoning/Use	Adjacent Right-of-Way Type Abutting Use	
	Right of Way (not including Hwy 305)	Highway 305 [2]
<b>Neighborhood Service Center</b> NOTE: Add Street Trees to NSC Design Guidelines	40' Filtered Screen/5' Minimum	50' Filtered Screen/35' Minimum- <u>NA</u>
Mixed Use Town Center [3]	N/A	50' Full Screen [4] /35' Minimum
High School Road	N/A	50' Full Screen/35' Minimum
<u>Urban Multifamily Development</u>	20' Partial Screen	50' <del>Partial Screen</del> <u>Full Screen</u> /35' Minimum
<u>Conditional-Non-residential Uses within Residential Zone Districts</u>	25' Partial Screen /15' Minimum	50' <del>Partial Screen</del> <u>Full Screen</u> /35' Minimum
Business/Industrial (B/I)	50' Full Screen/35' Minimum	50' Full Screen/35' Minimum
Water Dependent Industrial	40' <del>Partial Screen</del> <u>25' Full Screen</u> /5' <u>15'</u> Minimum	50' <del>Partial Screen</del> /35' Minimum <u>NA</u>
<u>Commercial and Multifamily Subdivisions[5]</u>	<u>NA</u>	<u>50'- Full Screen</u>
<u>Residential Subdivision in the R-0.4, R-1, R-2, and R-2.9 Districts [5]</u>	<u>25'- Full Screen or maintain existing vegetation within 25' buffer (OS) [6][7];</u> <u>Applies only to Collectors &amp; Arterial Roads</u>	
<u>Residential Subdivision in the R-3.5, R-4.3, R-5, R-6, R-8, and R-14 Districts[5]</u>	<u>No requirement unless necessary to reflect neighboring development patterns (OS) [6];</u> <u>Applies only to Collectors &amp; Arterial Roads</u>	

Table 18.15.010-45: Roadside Buffer Requirements by District and Land Use <sup>[1]</sup>		
Existing Zoning/Use	Adjacent Right-of-Way Type Abutting Use	
	Right of Way (not including Hwy 305)	Highway 305 [2]
<p>1. All roadside buffers must be planted if not already existing.</p> <p>2. A buffer is required along Highway 305, which is designated as a scenic highway. The 50' roadside buffer requirement can be reduced up to 25% by the director, after consultation with an acceptable tree professional as identified in subsection C.1.c, if it is determined that (a) a 50' buffer would cause the property to be undevelopable, and (b) the reduced buffer will provide as much screening of site activities from Highway 305 as practicable in light of site topography and conditions.</p> <p>3. For perimeter landscaping requirements in the ferry terminal district transition area, north of Winslow Way, reference BIMC 18.12.030.C.</p> <p>4. Beginning 100' north of Winslow Way.</p> <p>5. Properties being subdivided with less than one acre are not subject to roadside buffer requirements.</p> <p>6. (OS) indicates that the buffer may be calculated in the required open space area for open space subdivision.</p> <p>7. Existing vegetation must remain in the 25 foot buffer area. When existing vegetation does not constitute a full screen, the applicant will not be required to plant a full screen. If existing vegetation within the 25 foot buffer area does constitute a full screen, but dense vegetation is not part of the neighborhood character, then the applicant may choose between maintaining a 25 foot full screen roadside buffer, or averaging that buffer to retain trees and vegetation elsewhere on the property, and eliminating the roadside buffer.</p>		

**SECTION 2 MOVED ABOVE TABLE 18.15.010-4**

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

**NOTE: This Table Integrated with Perimeter Buffer Table 18.15.010-4 above**

**Table 18.15.010-6: Subdivision Roadside Buffer Requirements**

Type of Subdivision	Right-of-Way (Buffers Required for Both Open Space and Cluster Flexlot Subdivision Options along Arterial and Collector Roads [1],[2])
<b>Residential Subdivision in the R-0.4, R-1, R-2, and R-2.9 Districts</b>	50'— Mature Trees and Shrubs or 25'— Full Screen
<b>Residential Subdivision in the R-3.5, R-4.3, R-5, R-6, R-8, and R-14 Districts</b>	No requirement, unless necessary to reflect neighboring development patterns (OS) [3]
<b>Commercial and Multifamily Subdivisions</b>	25'— Full Screen adjacent to all designated scenic roads
<p>[1]— Properties being subdivided with less than one acre are not subject to roadside buffer requirements.</p> <p>[2]— Roadside buffers: A 25-foot full screen buffer must be planted along applicable roadways when no mature trees and shrubs exist along the property boundary in zones R-0.4, R-1, R-2 and R-2.9.</p> <p>[3]— (OS) indicates that the buffer may be calculated in the required open space area for open space subdivisions.</p>	

a. Roadside Buffer General Requirements. All residential subdivisions and short subdivisions subject to landscape buffering requirements shall comply with the standards in this subsection, including those in Table 18.15.010-6.

b. Roadside Buffers in Residential Short Subdivisions.

- i. Except for properties containing a gross area of less than one acre, ~~where mature trees and shrubs of a forested nature are a property~~ located adjacent to public roads that are designated as collector or arterial roads on the adopted road classification map, a ~~25~~ 50-foot-wide vegetative buffer shall be maintained. However, in the R-3.5, R-4.3, R-5, R-6, R-8 and R-14 districts a roadside buffer is not required unless it is determined that a landscape buffer is necessary to maintain the character of the neighborhood or to reflect neighboring development patterns. ~~The provisions for buffer averaging provided in subsection D.5 of this section shall apply.~~
- ii. Where there are no mature trees and shrubs that contribute to the existing forested character of these roads, the character of the neighborhood shall be maintained by establishing building setbacks equal to or greater than the existing building setbacks on the adjacent properties. At no point shall the building setback be less than requirements in this title.
- iii. To accommodate an existing house that is located within ~~25~~ 50 feet of the property line adjacent to a collector or arterial road, the roadside buffer area width shall be reduced to the width adjoining the existing home between the existing house and the property line adjacent to the collector or arterial road.

c. Roadside Buffers in Residential Long Subdivisions.

- i. For subdivisions located in the R-0.4, R-1, R-2 and R-2.9 districts ~~where mature trees and shrubs of a forested nature are~~ located adjacent to public roads that are designated as collector or arterial roads on the adopted road classification map, a ~~25~~ 50-foot-wide vegetative buffer shall be maintained. In the R-3.5, R-4.3, R-5, R-6, R-8, and R-14 districts a roadside buffer is not required unless it is determined that a landscape buffer is necessary to maintain the character of the neighborhood or to reflect neighboring development patterns. ~~The provisions for buffer averaging provided in subsection D.5 of this section shall apply.~~
- ii. For property with a gross area of one acre or more and that is located in districts R-0.4, R-1, R-2 and R-2.9, where ~~there is not existing vegetation are no mature trees and shrubs that contributes to the existing vegetation forested character of the roads,~~ a 25-foot full screen landscape buffer shall be planted consistent with the requirements of subsection D.4.a of this section, except as noted below in this subsection.
- iii. To accommodate an existing house that is located within ~~25~~ 50 feet of the property line adjacent to a collector or arterial road (or within 25 feet of such a property line if subsection E.2.c.ii of this section applies), and to maintain the character of the neighborhood and reflect neighboring development patterns, the roadside buffer area width shall be reduced to the width adjoining the existing home between the existing house and the property line adjacent to the collector or arterial road. At no point shall the building setback be less than requirements in this title.
- iv. For subdivisions designating open space that is intended for agricultural use and would be adversely impacted by the addition of screening landscaping, a 25-foot

roadside buffer as prescribed in subsection E.2.c.ii of this section shall not be required.

d. Roadside Buffers in Multifamily and Commercial Subdivisions. A minimum ~~50-25-~~ foot vegetative buffer shall be established adjacent to all designated scenic roads. The buffer shall be consistent with the requirements for a full screen buffer, pursuant to subsection D.4.a of this section.

e. Multiple Street Frontages. For properties subject to the roadside buffers requirement along two property boundaries, the roadside buffer abutting the street with the lower classification may be reduced to 25 feet in width. For properties that abut more than two streets requiring roadside buffers or in situations where both abutting streets are of the same road classification, one roadside buffer of the full required width shall be required and all other roadside buffers may be reduced to 25 feet; provided, that the full required width buffer is located where a greater number of significant trees can be incorporated into the buffer.

F. Parking Lot Landscaping. The requirements of this subsection F are in addition to required perimeter landscaping under subsection D of this section. When more than one building is placed on a lot or a building is placed in the center of the lot with parking all the way around it, the street perspective is used to determine which landscaping standards to follow for parking lot landscaping.

1. NSC, B/I, and WD-I Districts and Nonresidential Uses Outside Winslow Mixed Use Town Center Overlay Districts and High School Road Mixed Use Districts. All applicants in these areas shall provide the following types and amounts of landscaping. Parking lots shall meet the requirements of BIMC [18.15.020](#). Applicants may refer to the standards contained in this section for optional planting locations within parking areas.

a. Intent. The intent of this section is to screen views of parking lots. To provide shade and visual relief within parking lots, to limit impacts of impervious surfaces and to reinforce safe pedestrian access to buildings.

b. Requirements for Parking Lots Located Adjacent to Public Rights-of-Way.

i. One tree for every four parking stalls; and

ii. Minimum 30 percent evergreen trees; and

iii. Deciduous trees minimum two-inch caliper, evergreen trees minimum six feet high at the time of planting; and

iv. Evergreen shrubs minimum 18-inch height at the time of planting spaced no more than three feet on center, to provide a continuous hedge achieving a maximum height of three feet at maturity located adjacent to the rights-of-way (this may be achieved with the perimeter landscape); and

v. Evergreen ground cover planted and spaced to achieve total coverage within two years; and

vi. A landscaped area at the end of parking aisles.



Parking Adjacent to Right-of-Way



Safe Pedestrian Access

c. Requirements for Parking Lots Not Abutting Public Rights-of-Way.

- i. One tree for every eight parking stalls; and
- ii. One hundred percent of the trees may be deciduous; and
- iii. Deciduous trees minimum two-inch caliper, evergreen trees minimum four feet height at the time of planting; and
- iv. Evergreen ground cover and/or shrubs planted and spaced to achieve total coverage within two years; and
- v. A landscaped area at the end of parking aisles.



d. Standards.

- i. Maintain shrubs at a maximum three feet height within parking lots so views between vehicles and pedestrians will not be blocked.
- ii. Landscape in planting islands or strips shall have an area of at least 100 square feet and with a narrow dimension of not less than five feet if wheel stops are provided to prevent vehicle overhang. A narrow dimension of not less than eight feet may be provided if the vehicle overhang area is included in the planting area.
- iii. Provide permanent curbs or wheel stops to protect the plantings.
- iv. Significant trees and tree stands may be used in lieu of new landscape requirements if they are in addition to the significant tree and tree stand retention requirements.
- v. Clustering of new plant material within parking lots may be approved or required by the director if the intent of this section is met.
- vi. Refer to the landscape materials matrix in the administrative manual for tree species appropriate for parking lots.

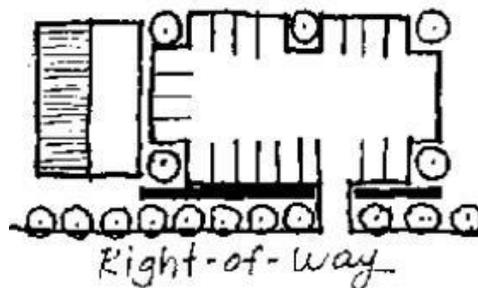
2. Winslow Mixed Use Town Center Overlay Districts, High School Road Districts, R-8 and R-14 Districts. All applicants in these areas shall provide the following types and amounts of landscaping. Parking lots shall meet the requirements of BIMC [18.15.020](#). Applicants may refer to the standards contained in this section for optional planting locations within parking areas.

a. Intent. The intent of this section is to soften the appearance of surface parking lots. To provide more intensive landscaping when surface parking lots are exposed to public view.

b. Parking Lots Located in the Front of Buildings and Adjacent to Public Rights-of-Way.

- i. One tree for every two parking stalls; and
- ii. One hundred percent of the trees may be deciduous; and

- iii. Deciduous trees minimum two-inch caliper; and
  - iv. Evergreen shrubs planted to form a hedge, minimum 18-inch height at the time of planting, spaced no more than three feet on center, not to exceed a mature height of three feet located adjacent to the public rights-of-way (this may be achieved with the perimeter landscape); and
  - v. Deciduous trees minimum two-inch caliper spaced no more than 30 feet on center located along the public rights-of-way (this may be achieved with the perimeter landscape); and
  - vi. Evergreen ground cover and/or shrubs planted and spaced to achieve total coverage within two years; and
  - vii. A landscaped area at the end of parking aisles.
- c. Requirements for Parking Lots Located to the Side of Buildings and Adjacent to Public Rights-of-Way.
- i. One tree for every four parking stalls; and
  - ii. One hundred percent of the trees may be deciduous; and
  - iii. Deciduous trees minimum two-inch caliper; and
  - iv. Evergreen shrubs planted to form a hedge, minimum 18-inch height at the time of planting, spaced no more three feet on center, not to exceed a mature height of three feet located adjacent to the public rights-of-way (this may be achieved with the perimeter landscape); and
  - v. A landscaped area at the end of aisles; and
  - vi. Deciduous trees minimum two-inch caliper spaced no more than 30 feet on center located along the public rights-of-way (this may be achieved with the perimeter landscape); and
  - vii. Evergreen ground cover and/or shrubs planted and spaced to achieve total coverage within two years.



d. Requirements for Parking Lots Located Behind Buildings and Not Adjacent to Public Rights-of-Way.

- i. One tree for every eight parking stalls; and
- ii. One hundred percent of the trees may be deciduous; and
- iii. Deciduous trees minimum two-inch caliper, evergreen trees minimum four feet height at the time of planting; and
- iv. Evergreen ground cover and/or shrubs planted and spaced to achieve total coverage within two years; and
- v. A landscaped area at the end of aisles.

e. Standards.

- i. Maintain shrubs at a maximum three feet height within parking lots so views between vehicles and pedestrians will not be blocked.
- ii. Landscape in planting islands or strips shall have an area of at least 100 square feet and with a narrow dimension of not less than five feet if wheel stops are provided to prevent vehicle overhang. A narrow dimension of not less than eight feet may be provided if the vehicle overhang area is included in the planting area.
- iii. Provide permanent curbs or wheel stops to protect the plantings from vehicle overhang.
- iv. Significant trees and tree stands may be used in lieu of new landscape requirements if they are in addition to the significant tree and tree stand retention requirements.
- v. Clustering of new plant material within parking lots may be approved or required by the director if the intent of this section is met.
- vi. Refer to the suggested landscape materials matrix in the administrative manual for tree species appropriate for parking lots.

G. Total Site Tree Unit Requirements.

1. Intent. The overall purpose of BIMC [18.15.010](#) is to preserve the landscape character of the community through development standards by encouraging the retention of existing vegetation and significant trees by incorporating them into site design. The intent of this subsection G is to ensure that, to the degree practicable, (a) each development approval in the MUTC, HSR I and II, R-8, R-14, and NSC zone districts and (b) each development approval for nonresidential development in the R-5, R-4.3, R-3.5, R-2.9, R-2, R-1, and R-0.4 zone districts leaves the development parcel with at least a specified minimum amount of tree coverage, measured in tree units per acre, that reflects the degree of tree coverage

prior to development or redevelopment and that discourages avoidable site disturbances that would require tree removal.

2. Applicability. The regulations of this subsection G apply to each development application involving (a) any modification to a development parcel located in the MUTC, HSR I and II, R-8, R-14, or NSC districts or (b) a permitted nonresidential development in the R-5, R-4.3, R-3.5, R-2.9, R-2, R-1, and R-0.4 zone districts. If a significant portion of a significant tree trunk, dripline and/or critical root zone extends onto an adjacent property, both properties may use the tree units for retaining the trees to meet the requirements of subsection G.4 of this section, upon mutual agreement. These provisions shall not apply to projects involving only interior renovation of existing buildings.

3. Site Specific Evaluation of Total Impact on Tree Coverage.

a. In order to show how the tree unit requirements of subsection G.4 of this section are being met, the applicant shall submit the following information as part of the landscaping plan information for a land use permit application:

- i. Identify and survey all existing trees to be retained as part of the proposed development;
- ii. If opting to meet tree unit requirements pursuant to subsection G.4.a.iii of this section, the applicant shall identify the species and DBH of each tree to be removed;
- iii. The applicant shall also submit valuation of all trees to be retained, using the valuation standards of the International Society of Arboriculture (see administrative manual for submittal requirements for landscaping plans).

4. Requirements.

a. A development application covered by subsection G.2 of this section shall only be approved if it complies with the requirements of subsections C (Tree Retention, Protection, and Replacement), D (Perimeter Buffering and Screening), E (Street Frontage Landscaping), and F (Parking Lot Landscaping) of this section, and also complies with subsection G.4.a.i, ii or iii of this section.

- i. In the MUTC central core and ferry terminal overlay districts, the development parcel shall have at least 30 tree units per acre following the proposed development or redevelopment.
- ii. In the MUTC Ericksen Avenue, Madison Avenue, and gateway overlay districts, and each site in the R-8, R-14, HSR I and II, and NSC districts, and for permitted nonresidential development in the R-5, R-4.3, R-3.5, R-2.9, R-2, R-1, and R-0.4 zone districts, the development parcel shall have at least 40 tree units per acre following the proposed development or redevelopment.
- iii. As an alternative to subsections G.4.a.i and ii of this section, and at the applicant's option, the development parcel will contain at least the same number

of tree units after the proposed development or redevelopment as it had before that development or redevelopment.

b. Existing and new trees in roadside, perimeter, and shoreline buffers and/or critical areas and their buffers do not count towards the tree unit requirements of this section. If an applicant is choosing to meet their tree unit requirements using subsection G.4.a.iii of this section, the existing trees in those protected areas and buffers will not count towards the “pre-development” amount of tree units.

5. Calculation of Tree Units.

a. Each tree preserved on a development parcel shall earn the number of tree units shown in Table 18.15.010-67, based on its diameter at breast height (DBH) as measured in inches. If the DBH measurement results in a fraction, the requirement shall be rounded to the nearest whole number (greater than or equal to 0.5 is rounded up; less than 0.5 is rounded down).

**Table 18.15.010-67: Tree Unit Conversion Table for Preserved Trees [1]**

DBH	Tree Units	DBH	Tree Units	DBH	Tree Units
3 – 5	1.0	24 – 26	6.2	39-40	10.8
6 – 10	1.2	27 – 28	7.0	41-42	11.4
11 – 12	1.4	29 – 30	7.8	43-44	12.0
13 – 15	2.0	30+ 31	8.2 8.4	45-46	12.6
16 – 18	3.2	32-33	9.0	47-48	13.2
19 – 20	3.8	34-36	9.6	49+	13.8
21 – 23	4.6	37-38	10.2		

[1] For multi-stemmed trees, measure the DBH of each trunk separately, multiply each of these measurements by itself, add up these amounts, and calculate the square root of that total to find the DBH for the tree as a whole.

b. Tree Retention Bonus.

- i. If retained trees occur in a tree stand, they shall earn 1.2 times the tree unit value shown in Table 18.15.010-67.
- ii. If the retained trees occur in a tree stand that is adjacent to a tree stand on an adjacent lot that is already protected as part of a land use permit or conservation easement, they shall earn one and one-half times the tree unit value shown in Table 18.15.010-67 instead of the bonus described in subsection G.5.b.i of this section.
- iii. If the retained tree is one designated through the city’s heritage tree program it shall earn two times the tree unit value shown in Table 18.15.010-67, and the tree

shall not receive additional bonus in subsections G.5.b.i and ii of this section for location in a tree stand.

iv. If the retained tree is located within a designated Wildlife Corridor Network, it shall earn one and one-half times the tree unit value shown in Table 18.15.010-~~67~~.

c. Each new or replacement tree planted shall earn one tree unit. New trees planted to meet the minimum parking lot landscaping requirements of subsection F of this section do not count towards meeting tree unit credits under this section. New trees planted in or around a parking lot that exceed the minimum requirements of subsection F of this section can be counted towards meeting required tree units.

d. If, after complying with subsections C, D, E, and F of this section, additional trees need to be planted to meet the minimum tree unit requirements in subsection G.4 of this section:

- i. In the MUTC central core and ferry terminal overlay districts, those trees may be planted either at ground level or above ground level (such as a patio, terrace, or rooftop); and
- ii. In the MUTC Ericksen Avenue, Madison Avenue, and gateway overlay districts, R-8, R-14, HSR I and II, NSC districts, as well as for nonresidential developments within residential districts, those trees shall be planted at ground level.

#### H. Planting Requirements.

1. Intent. The intent of this section is to encourage the use of native species and recommend planting conditions adaptive to Bainbridge Island.
2. Requirements. Landscape designs shall conform to the following provisions:
  - a. Areas not devoted to landscape required by this chapter, parking, structures and other site improvements are encouraged to be planted or remain in existing vegetation.
  - b. New plant materials shall include native species or nonnative species that have adapted to the climatic conditions of the coastal region of the Puget Sound region.
  - c. New plant materials shall consist of drought resistant species, except where site conditions within the required landscape areas assure adequate moisture for growth.
  - d. New tree plantings shall be a minimum of two inches in caliper if deciduous or six feet in height if evergreen. New shrubs planted in roadside or perimeter buffers shall be of a variety that achieves a minimum six feet height at maturity. Soil planting types and depth shall be sufficient for tree planting.
  - e. When the width of any landscape strip is 20 feet or greater, the required trees shall be staggered in two or more rows.

- f. Existing vegetation may be used to augment new plantings to meet the standards of this chapter.
- g. Grass may be used as a ground cover where existing or amended soil conditions assure adequate moisture for growth.
- h. Ground cover areas shall contain at least two inches of composted organic mulch at finish grade to minimize evaporation. Mulch shall consist of materials such as composted yard waste, composted sawdust, and/or manure that are fully composted.
- i. Existing and/or compacted soils may need to be augmented with fully composted organic material or aerated.
- j. Specific submittal requirements for landscaping plans (tree protection, retention and planting plans) are included in the city's administrative manual.

### 3. Performance Assurance.

- a. Performance assurance is required to assure the city that the landscape required by this section is properly installed and will become established and be adequately maintained.
- b. The required landscape shall be installed prior to the issuance of a temporary certificate of occupancy for the project. The Washington landscape architect, Washington certified nursery professional or Washington certified landscaper shall submit a landscaping declaration to the director to verify installation in accordance with the approved plans.
- c. The time limit for compliance may be extended to allow installation of landscaping during the next appropriate planting season as approved if the director determines that a performance assurance device, for a period of not more than one year, will adequately protect the interests of the city. The performance assurance device shall be for 150 percent of the cost of the work or improvements covered by the assurance device. In no case may the property owner delay performance for more than one year.
- d. The form and type of the performance assurance device shall be determined by the director.

### 4. Maintenance Assurance.

- a. The property owner shall replace any unhealthy or dead plant materials in conformance with the approved planting plan.
- b. A maintenance assurance device shall be required for a period of five years after acceptance by the city of the new planting or transplanting of vegetation to ensure proper installation, establishment, and maintenance.
- c. The maintenance assurance device amount shall not be less than 20 percent of the cost of replacing materials covered by the assurance device.

- d. The form and type of the maintenance assurance device shall be determined by the director.

## I. Irrigation.

1. Intent. The intent of this section is to provide temporary or permanent irrigation within new planting areas that do not have high soil moisture conditions. These regulations shall not apply where provisions of Chapter [16.12](#) or [16.20](#) BIMC or any state or federal law restricts irrigation, and in case of conflict with any provision of those laws, the provisions of those laws shall govern.
2. Requirements.
  - a. Except for areas of undisturbed existing vegetation, all landscape areas that do not have high soil moisture conditions shall have temporary or permanent irrigation systems. Temporary systems may be removed after 24 months or two growing seasons, whichever occurs first; provided, that the plantings are established.
  - b. Areas where existing site conditions assure adequate soil moisture for growth within the required landscape area shall have temporary irrigation systems only as required to sustain new plantings.
  - c. Landscape areas consisting of drought resistant vegetation may require temporary irrigation systems. Permanent irrigation systems located within required landscape areas should include the following features:
    - i. Moisture or precipitation sensors; and
    - ii. Automatic timers set for operation to assure adequate moisture levels; and
    - iii. Head-to-head spacing, if sprinkler heads are proposed; and
    - iv. Pressure regulating devices; and
    - v. Backflow prevention devices; and
    - vi. Separate irrigation zones for grass and planting beds; and
    - vii. Other features required to comply with applicable state and city codes.
  - d. Irrigation water shall be applied with goals of avoiding runoff, low head drainage, overspray, or other similar conditions where water flows onto adjacent property, nonirrigated areas and impervious surfaces by:
    - i. Considering soil type and infiltration rates; and

- ii. Using proper irrigation equipment and schedules, including features such as repeat cycles, to closely match application rates with infiltration rates; and
  - iii. Considering special problems posed by irrigation on slopes and in median strips.
- e. Irrigation systems shall be subject to the following additional provisions:
- i. Systems in landscape strips less than five feet in width shall be designed to ensure that overspray and/or runoff does not occur by use of system design options such as low volume emitters; and
  - ii. Sprinkler heads with consistent application rates shall be selected for proper area coverage, operating pressure, and adjustment capability; and
  - iii. Separate control valves shall be used to irrigate plants with differing water needs.

#### J. Maintenance.

1. Intent. All new landscape plantings and significant trees and tree stands to be retained shall be maintained to preserve the Island's forested character.
2. Requirements.
  - a. All landscaping, significant trees and tree stands shall be maintained for the life of the project.
  - b. All landscaped areas required by this chapter, significant trees and tree stands, except within critical areas or their protective buffers (defined in Chapter [16.20](#) BIMC), should be maintained in a healthy growing condition.
  - c. Landscape areas shall be kept free of trash.
  - d. All plant material shall be managed by pruning so that plant growth does not conflict with public utilities, restrict pedestrian or vehicular access, or create a traffic hazard.

#### K. Screening of Certain Facilities.

1. Outdoor Storage. In the NSC and B/I districts, outdoor storage areas shall be screened. The screen height is determined by the height of the material or equipment being screened. Chain link fencing with neutral colored slatting is permitted along with vegetative screening when vegetative screening alone is not sufficient to block the outdoor storage from public view and where the fencing is not visible from a street. Exterior storage should be confined to portions of the site least visible from public view.
2. Trash Dumpsters and Outdoor Equipment.
  - a. In the NSC and B/I districts, trash dumpsters or any outdoor equipment, whether on roof or side of a structure, or on the ground, shall be screened from view. Screening shall be architecturally consistent with the adjacent structure in terms of materials. Mechanical equipment should be located below the highest vertical element of the building.

b. In the B/I districts, trash and recycling containers shall be located to mitigate noise impacts to nearby residential properties.

c. Small wind energy generators do not need to be screened.

3. Business/Industrial. In the B/I districts, light manufacturing uses shall visually screen the development year-round from adjacent, nonindustrial properties and from adjacent roadways. Landscape screening shall be provided in accordance with subsection D of this section. (Ord. 2015-04 §§ 2 – 8, 2015; Ord. 2012-11 § 2 (Exh. A), 2012)

**Section 2.** Section 18.18.030 of the Bainbridge Island Municipal Code is amended to read as follows:

***18.18.030 Specific design regulations and guidelines.***<sup>1</sup>

All development shall comply with the design regulations and guidelines applicable to that type of development as set forth in this section and the reference documents, which are adopted as part of this title by reference. In the event of a conflict between two or more design standards or regulations, the more specific shall apply.

**A. Detached Single-Family Residential Developed Using the R-8SF Urban Single-Family Overlay District.** Detached single-family residential developed in accordance with the R-8SF urban single-family overlay district transfer of development rights program shall comply with those regulations contained in “Design Guidelines for R-8SF Urban Single-Family Overlay District” if they want to develop at overlay zone densities.

**B. Multifamily Residential.** Multifamily development in the R-8 and R-14 zones shall comply with those regulations contained in “Design Guidelines for Multifamily”; provided, that applications submitted prior to December 8, 1999, shall not be subject to the requirements of this section.

**C. Commercial and Mixed Use – General.** Development, redevelopment, and exterior renovation in commercial and mixed use projects in all zoning districts except the B/I district shall comply with the general guidelines in “Guidelines for Commercial and Mixed Use Projects – Including Guidelines for Lynwood Center, Island Center, and Rolling Bay,” as well as any specific guidelines applicable to that type of development in the subsections below.

**D. Nonresidential Uses in Residential Zones.** Educational, cultural, governmental, religious or health care facilities in residential zones shall comply with the general guidelines in “Design Guidelines for Commercial and Mixed Use Projects – Including Guidelines for Lynwood Center, Island Center, and Rolling Bay.”

**E. Mixed Use Town Center and High School Road Districts.** Development, redevelopment, or exterior renovation in the Mixed Use Town Center overlay districts and the High School Road districts shall comply with regulations contained in “Design Guidelines for Mixed Use Town Center and High School Road Zoning Districts.”

**F. Lynwood Center NSC Design Guidelines.** Development, redevelopment, and exterior renovation in the Lynwood Center NSC zone district shall comply with those

regulations contained in the Lynwood Center NSC-specific portion of “Guidelines for Commercial and Mixed Use Projects – Including Guidelines for Lynwood Center, Island Center, and Rolling Bay.”

1. Street trees shall be provided in an amount equivalent to at least one every 30 feet in planting pots or beds covered by a tree grate, pavers or planted area. Trees may be grouped and are encouraged to have a varied meandering effect. Tree size, location and species shall be approved by the City. See Street Tree diagram in Central Core Overlay District Design Guidelines (BIMC 18.18.030.E).

**G. Island Center NSC Design Guidelines.** Development, redevelopment, and exterior renovation in the Island Center NSC zone district shall comply with those regulations contained in the Island Center NSC-specific portion of “Guidelines for Commercial and Mixed Use Projects – Including Guidelines for Lynwood Center, Island Center, and Rolling Bay.”

1. Street trees shall be provided in an amount equivalent to at least one every 30 feet in planting pots or beds covered by a tree grate, pavers or planted area. Trees may be grouped and are encouraged to have a varied meandering effect. Tree size, location and species shall be approved by the City. See Street Tree diagram in Central Core Overlay District Design Guidelines (BIMC 18.18.030.E).

**H. Rolling Bay NSC Design Guidelines.** Development, redevelopment, and exterior renovation in the Rolling Bay NSC zone district shall comply with those regulations contained in the Rolling Bay NSC-specific portion of “Guidelines for Commercial and Mixed Use Projects – Including Guidelines for Lynwood Center, Island Center, and Rolling Bay.”

1. Street trees shall be provided in an amount equivalent to at least one every 30 feet in planting pots or beds covered by a tree grate, pavers or planted area. Trees may be grouped and are encouraged to have a varied meandering effect. Tree size, location and species shall be approved by the City. See Street Tree diagram in Central Core Overlay District Design Guidelines (BIMC 18.18.030.E).

**I. Business/Industrial District Design Guidelines.**

1. Development, redevelopment, and exterior renovation of facilities in the B/I zone district shall comply with those regulations contained in “Design Guidelines for Light Manufacturing.”

2. In addition, development, redevelopment, and exterior renovation of facilities in the B/I district shall be subject to the following requirements governing its relationship to adjoining and nearby uses. A proposed development must be sited and designed to minimize potential safety hazards to adjoining and nearby developments. Specifically, a project shall be designed in a manner that minimizes conflicts between vehicular and nonmotorized traffic. Additionally, a development shall be fenced and buffered, as necessary, to impede potentially dangerous travel between different types of uses, such as between a manufacturing operation and day care center. Outdoor operations, such as loading docks and playgrounds, shall be located as far away as possible from residences and other noise-sensitive uses.

**J. Fort Ward Design Guidelines.** Development, redevelopment, or exterior renovation in the Fort Ward historic overlay district shall comply with regulations contained in “Design Guidelines for Fort Ward.” (Ord. 2013-07 § 1, 2013; Ord. 2011-02 § 2 (Exh. A), 2011)

**Section 3.** 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 \_\_\_\_\_, 2016.

APPROVED BY THE MAYOR this \_\_\_\_ day of \_\_\_\_\_, 2016.

\_\_\_\_\_  
XXXX, Mayor

ATTEST/AUTHENTICATE:

\_\_\_\_\_  
Rosalind D. Lassoff, CMC, City Clerk

FILED WITH THE CITY CLERK: XXXX, 2016  
PASSED BY THE CITY COUNCIL:  
PUBLISHED:  
EFFECTIVE DATE:  
ORDINANCE NUMBER: 2016-01

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To: Planning Commission

From: Charles Schmid

Date: 21 January 2016

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First of all I would like to thank the “ Ad-Hoc Tree Committee” and acknowledge all the work they have done on this ordinance -- which is both complex and important to preserving (or attempting to preserve) the Island’s special natural appearance. This ordinance is especially important as we see some major subdivisions in process as we speak.

I just have a few minor comments and questions – mostly minor.

PAGE 1

There are a lot of “WHEREAS’s” which duly describe the process. Why not add one- WHEREAS the Bainbridge Island Comprehensive Plan stresses the importance of tree and landscaping retention, maintenance and planting;

Isn’t this what we are doing – making the Zoning ordinance correspond and carry out the Comprehensive Plan? This is of course described in more detail in Section 1 of the Code..

PAGE 2

1c and d cover screening between different residential uses, parking areas, and other zones but neglects mentioning screening from roads. Perhaps mentioning Highway 305 is designated a Scenic Highway by the state with an RCW link is important here.

PAGE 4

I believe the X in the table 18.15.010 signifies required. This should be indicated somewhere (or did I miss it?)

PAGE 5

Bottom column deletes Roadside Buffer requirements. Was this intended since there are residential zones across the street from NSC zones. Maybe this just needs to be clarified.

PAGE 6

[2] Could you check/discuss the meaning that “Roadside buffer requirements for MUTC zones adjacent to Highway 305 only.”

PAGE 8

2c. second line change “tree” to “trees required”

PAGE 13

I am not sure what the “Note: this applies to R-8 & R-14” in Table 18.15.010-3 applies to given that the rest of the row is stricken.

Can the “Minimum Perimeter Width” only be used with Buffer Averaging? I have always assumed this, but never that sure is correct.

PAGE 13 (continued)

Is a “Nonindustrial use defined? See use of term towards bottom of Table.

Please review the Minimum Perimeter widths for the bottom three sections for residential zones. They are 15, 15, and 15 respectively. I feel they should be increased to both columns to be equal for Perimeter Widths as you have recommended above.

PAGE 14

I was wondering if you thought that: Note [1] in table 18.15.010-3 could be reworded to “Properties with less than 1 acre being subdivided are not subject to perimeter buffer requirements” to avoid someone interpreting that this applies to subdividing into 1 acre parcels.

Please continue the discussion to eliminate “Cluster” development. This approach doesn’t result in Cluster development, is not often used, and recent examples show poor results of screening.

3a. and 3 b. Why were the denser “filtered screen” replaced with the less dense “edge planting standard landscape perimeters?”

3c something is wrong with this sentence structure.

PAGES 15-17

The calculation for the number of trees and shrubs in the perimeter buffer seems to be improved and I look forward to seeing how it works.

PAGE 17

5e Planting shrubs and trees on earth berms should not be optional.

6. Has the BI Metro Parks and Recreation District seen the draft?

PAGE 19

Item 2 of Table 18.15.010-4

I think Scenic Highway should be capitalized.

Item 7 Is there any quantitative requirement for how many trees and vegetation is required to be placed “elsewhere on the property?” I understand the rationale for this change but of the opinion it is still too open to interpretation, and will remove perimeter buffers on most subdivisions – no matter where they are located.

PAGE 20 b. Roadside Buffers in Residential Short Subdivisions.

i Does this only apply to the zoning of the applicant and not take into account the neighboring zoning? For example if a subdivision in a R-14 zone have to take into account an adjacent R-5 Zone? This question might well display my ignorance on how this applies. This has the same criteria “unless it is determined that a landscape buffer is necessary to maintain the character of the neighborhood or to reflect neighboring development patterns.” Perhaps a tour to a couple of subdivisions by the ad-hoc committee would be helpful.

PAGE 21

d. Have there been “designated scenic roads?” This should not be confused with Scenic Highway 305 which has a 50 foot buffer (see page 18).

I have not commented on Tree Units since I still have to figure them out. I hope others – who understand their application – review this section.

Finally please include the requirements for trees in sidewalks for MUTC zones. This is in the guidelines section for Winslow which I believe is law – and has been overlooked by applicants and planners. Either include it into the ordinance or make a reference prominent in this ordinance.



## ***PLANNING & COMMUNITY DEVELOPMENT***

# ***MEMORANDUM***

TO: Planning Commission

FROM: Jennifer Sutton, AICP  
Senior Planner

DATE: February 11, 2016

RE: Study Session on Comprehensive Plan Update

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### **I. REVIEW DRAFT *CLIMATE CHANGE GUIDING PRINCIPLE***

The Planning Commission discussed adding an additional guiding principle and policies regarding climate change at the January 21 meeting. See the memorandum from Interim Planning Director Joe Tovar.

***Planning Commission Action:*** Review and confirm amendments to the new climate change guiding principle and policies.

### **II. REVIEW DRAFT *TRANSPORTATION ELEMENT***

The Planning Commission discussed the DRAFT *Transportation Element* on January 21 and recommended some changes, and directed the drafting committee to make grammatical changes and revise the DRAFT *Transportation Element*. The drafting committee met on January 27.

***Planning Commission Action:*** Review and confirm amendments to the *Transportation Element*. The changes are shown in strikethrough/underline formatting.

### **III. DEBRIEF OF *WATER RESOURCES ELEMENT WORKSHOP***

The Workshop was held on January 28, and was attended by 15 people. The question and answer session primarily focused on drinking water systems, sewer, and on-site septic issues. A table with public comment from the workshop is attached. The Planning Commission also received written public comment that was emailed in before and after the workshop.

The Element workshop followed the second Community Conversation on Water that was held on January 12 where Aspect Consulting reported their results on “Task 2” of their work USGS model for

Bainbridge Island. A [video](#) of the January 12 meeting can be viewed from the City website. There were more questions than time at the workshop would allow. The attached table answers questions that were unable to be answered during the workshop and some questions that were submitted in the days after the workshop.

***Planning Commission Action:*** The Commission should ask questions of staff about the information presented. The Commission should provide direction to the staff about the suggestion from the Utility Advisory Committee to forward all utility related policies currently in the *Water Resources Element* to the *Utilities Element*.

#### **IV. NEXT STEPS**

The Planning Commission will begin to review the goals/policies of the *Water Resources and Housing Elements* at the meeting on February 25, and through March.



## ***PLANNING AND COMMUNITY DEVELOPMENT***

# ***MEMORANDUM***

DATE: February 4, 2016

TO: Planning Commission

FROM: Joe Tovar, FAICP  
Interim Planning Director

RE: Draft revised Climate Change Guiding Principle and Policies

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At the January 21 meeting, the Planning Commission reviewed a proposed new Climate Change Principle and several policies. The Commission reviewed the language that the Drafting Committee had previously prepared as well as edits to that language and some additions that were recommended by Eco Adapt. At the conclusion of the discussion, the Planning Commission asked that the Drafting Committee prepare further refinements and clarifications of the draft Climate Change language. Based on the Commissioners' specific comments, additional research I have done, and the Drafting Committee's review, following is revised language for your consideration.

### **I. Revised proposed Climate Change Guiding Principle and Policies and definitions**

First, per Commissioner Gale's suggestion, this Guiding Principle addressing Climate Change would be inserted as the new #7, and the former #7 would become #8. The new #8 would read:

“Support the Island’s Guiding Principles and Policies through the City’s organizational and operating budget decisions.”

Shown **in blue** below are the Eco Adapt **additions and deletions** with which the Commission appeared to agree. I have suggested further **additions and deletions in green** to clarify or expand where appropriate. Note that several words have been italicized in this draft because they would be defined terms in the Comprehensive Plan’s glossary. This includes the term “resilience” that Commissioner Killian had questions about. A variation of this term is actually in common usage in the climate change field, including the Environmental Protection Agency. For our purposes, I suggest the following:

*“Climate resilience”* is the capacity for a socio-ecological system to absorb stresses and maintain function in the face of external stresses imposed upon it by climate change.

Also, we have used the term “carbon storage” in earlier drafts to describe the ecosystem services that vegetation provides relative to carbon. My research indicates that a more appropriate and specific term would be “carbon sequestration.” A good definition of that term from USGS is:

"Carbon sequestration" is a term used to describe both natural and deliberate processes by which CO<sub>2</sub> is either removed from the atmosphere or diverted from emission sources and stored in the ocean, terrestrial environments (vegetation, soils, and sediment), and geologic formations.

**Guiding Principle #7 - ~~Adopt and implement a strategy to adapt to Reduce greenhouse gas emissions~~ and mitigate the effects of *climate change* ~~and maintain in order to foster~~ the Island’s ~~environmental, economic and community~~ *climate resilience resiliency* in the face of shifting ~~environmental~~ conditions, such as sea level rise, ~~changing rainfall frequency and intensity~~, and more extreme weather events.**

Guiding Policy **7.1** Participate with state, regional and local partners in the development of a regional climate action plan aimed at reducing greenhouse gases by 25 percent of 1990 levels by 2020, 45 percent of 1990 levels by 2035 and 80 percent of 1990 levels by 2050.

Guiding Policy **7.2** Advocate for comprehensive federal, state and regional science-based limits and a market-based price on carbon pollution and other greenhouse gas emissions.

Guiding Policy **7.3** Engage and lead community outreach efforts in partnership with other local governments, businesses and citizens to educate the community about *climate change* efforts and promote collaborative actions.

Guiding Policy **7.4** ~~Develop and implement a Climate Action Plan that recognizes Minimize impacts on the ecosystem~~ values ~~provided by carbon storage in~~ the Island’s forests, ~~which includes including~~ *carbon sequestration*.

**Guiding Policy 7.5** ~~Enhance~~ mobility choices ~~that reduce~~ the Island’s ~~with a smaller~~ carbon footprint.

**Guiding Policy 7.6** ~~Encourage~~ new development that is durable, low-impact and energy-efficient.

**Guiding Policy 7.7** ~~Include specific goals and policies in each plan Element to provide direction to programs, projects and regulations to mitigate and/or adapt to climate change.~~

## II. Additional Goals and Policies to carry forward Guiding Principle #7

With regard to Guiding Policy 7.7, Commissioner Chester identified several policies from the Snoqualmie and Olympia plans that might be appropriate to include in several Elements in the Bainbridge Island Comprehensive Plan. Specifically named were:

## City of Snoqualmie

- 6.2.3 Encourage lot layout and site design that allows for houses and other buildings to be oriented to optimize passive and active solar access and minimize shade on adjoining properties.
- 6.2.7 Operate and maintain the City’s vehicle fleet to improve fuel efficiency and reduce costs, and whenever possible purchase alternative-fuel, lower-emission or net-zero emission fleet vehicles.
- 6.2.10 Reduce landfilled solid waste tonnages through such actions as promoting the use of recyclable and compostable packaging, commercial composting, and the recycling of construction and demolition debris.

## City of Olympia

**Policy E8.4** Encourage the conservation and reuse of existing natural resources and building materials.

If the Planning Commissioner wishes to include any or all of these examples in the Bainbridge Island Comprehensive Plan, there are some logical places to insert them. For example, Snoqualmie policy 6.2.3 and Olympia Policy E 8.4 would fit neatly into the Land Use Element. Snoqualmie Policy 6.2.7 is similar to language we already have in the draft Environmental Element, while Snoqualmie Policy 6.2.10 could be included in the Utilities Element.

We will be returning to the Planning Commission in late March or early April with a review of the Land Use, Economic, Environmental, Transportation, Water Resources, and Housing Elements. At that time, we will highlight any revisions or clarifications needed to reconcile the “red pins” policies flagged earlier. We could also specifically note any climate change-specific Goals or Policies, some of which are already in those draft elements, with an icon in the margin. This was done by the City of Sammamish to call attention to their plan policies that address sustainability and health. Here is an illustration of what that might look like:

### GOAL EN-13

**Support and implement climate pledges and commitments undertaken by the City, and other multi-jurisdictional efforts to reduce greenhouse emissions, address *climate change*, sea-level rise, ocean acidification, and other impacts of changing global conditions.**



# TRANSPORTATION ELEMENT

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# TRANSPORTATION ELEMENT

## INTRODUCTION

**NOTE: NEW LANGUAGE SHOWN IN BLUE IS FROM THE DRAFT IWTP (CHAPTER 3) BLACK STRIKETHROUGH/UNDERLINE SHOWS ADDITIONS/DELETIONS TO IWTP TEXT**

### **Purpose and Structure of the Transportation Element**

The Growth Management Act requires that a Transportation Element be consistent with and implement the Land Use Element and that it contain a number of specific sub-elements.<sup>i</sup> The primary focus of this Element is to set forth a Transportation Vision, Goals and Policies consistent with the rest of the Comprehensive Plan and to provide direction to implementing actions. Other GMA requirements, including a detailed inventory of transportation facilities, identification of needs, projects to meet those needs, and financing for those projects, are contained in the Island Wide Transportation Plan (IWTP). The IWTP is a functional plan, technical rather than policy in nature, and provides the primary means for carrying out the policy direction of the Transportation Element. The IWTP is hereby adopted by reference.

~~One of the most important issues to the Bainbridge Island community is the~~ The Comprehensive Plan's Guiding Principles and Policies emphasize the important relationship between the Island's transportation system elements and the character of the community character, livability, public health, safety, economic vitality and the environmental quality. Implementation of the Transportation Element chapter important discusses each of these elements to the transportation system, identifies how this Plan responds to these issues, and provides examples of transportation system features that illustrate these concepts. Transportation plays a large role in the sustainability of Bainbridge Island's economy and environment and the quality of life of its Bainbridge Island residents.

### **Existing Conditions and Challenges**

The ferry terminal to Seattle and the Agate Pass Bridge are the only two options for travel to or from off the Island. Bainbridge is largely a bedroom community of Seattle and Kitsap County, so and many Islanders commute off-island by ferry or bridge. Likewise, many on-Island workers commute from off-island. Lengthy commute times by ferry or being stuck in traffic on SR305 mean spending hours away from family, friends, and activities. Speeding and cut-through traffic makes neighborhood streets feel unsafe. During commute hours, SR 305 creates a wall across the Island. Reliable and efficient transportation on and off island is important to balance jobs and housing and maintaining the quality of life for Island residents.

Poor quality or non-existent bicycle and pedestrian facilities can be a deterrent to residents walking or bicycling for transportation, connecting to transit, traveling to schools and parks, as well as for recreational purposes. Non-motorized facility networks provide options for active

modes of transportation allowing residents to make healthy lifestyle choices. Walkability and bikeability are desirable characteristics of neighborhoods. An increasing number of Island residents are choosing to walk and bike to goods and services in the urban developed area of the Island and to work.

How people choose to travel is a key element of both environmental sustainability and quality of life. Transportation is a significant contributor to climate change, as it accounts for a high percentage of greenhouse gas emissions. ~~The City's This~~ This Comprehensive Plan focuses growth in designated centers urban areas such as ~~such as~~ Winslow, Lynwood, Rolling Bay, and Island Center, and the Neighborhood Service Centers. The High School Road shopping area is designed to be automobile-oriented while the Winslow Master Plan for downtown stresses designing for pedestrian and bicycle modes of transportation. With good planning and implementation of mixed use and higher densities within these centers urban areas, development can lead to a more sustainable growth pattern and preserve community character. Investments in infrastructure for active transportation modes and access to transit ~~allow for enable~~ reduced dependence on the automobile, and present an opportunity for the Island to develop more sustainably, which in turn reduces the Island's its greenhouse gas emissions and improves the quality of life for Island residents.

Transportation infrastructure and associated drainage have direct impacts on the environment. Storm water run-off can contribute to water pollution, flooding, and water temperature elevation. The road network right-of-way presents many opportunities to incorporate sustainable stormwater practices to provide positive contributions to environmental sustainability

### **Balancing Community Needs Interests**

One of the ~~challenges more difficult aspects~~ of improving a transportation system is finding the right balance between sometimes competing community interests needs and desires. For example it may be best to construct a sidewalk/separated pathway on one side of the roadway rather than on both sides to reduce impacts to vegetation.

Evaluating the trade-offs and weighing the importance among between competing community goals ~~and design guidelines~~ is an important function of the City of Bainbridge Island. ~~Table TR-1 illustrates the issues that can arise for a variety of transportation improvements.~~

~~Public Works~~ The City uses the community values in the Comprehensive Plan when developing project objectives. The City of Bainbridge is committed to the principles of *context sensitive* solutions. Public Works staff strive to facilitate public engagement when developing capital projects to evolve and refine the community's values as they relate to each project.

### **Transportation Vision for Bainbridge Island**

~~A vision is a statement that provides an overall direction to the Plan. to It encompasses a variety of transportation topics, but summarizes them into an overall thought or statement. Goals and policies are statements that reflect the vision of the community. The goals and policies address issues and concerns, define community priorities, develop framework for transportation solutions, and guide their implementation.~~

Promote ~~Provide~~ a safe, dependable, properly maintained, and fiscally responsible, multimodal transportation system; promote active transportation modes and transit, consistent with and supporting the other Elements of the Comprehensive Plan. The transportation system should improve mobility and safety for all users while respecting the community character of neighborhoods and the environment. The system needs to be regionally coordinated, adequately financed, and community supported. The system should be designed to provide these attributes over the design lifetime, including considerations regarding climate change.

## MOVED TO APPENDIX

### GMA requirements for Transportation Element

#### Transportation Issues (NOTE: This section is from Ch 2 IWTP)

As population grows on the Island and in Kitsap County more demand is placed on the Island's roadway network and the regional SR305 Corridor. As traffic volumes and vehicular-related congestion increases, so do conflicts with bikes/pedestrians and the need for transportation improvements to accommodate all modes of transportation and a wider range of users. We need to consider how future growth will affect the community, and how to preserve the character and livability of Bainbridge Island. The following list identifies and briefly describes the community's transportation issues.

- A. **Limited Transportation Choices** – Given the relative lack of non-motorized infrastructure in many parts of the Island, and limited transportation services, many Islanders are dependent on individual automobile travel as their only practical and safe transportation option. In order to meet the needs of a growing population and maintain or improve quality of life on the Island, we need to provide better transportation options to improve mobility for all ages and abilities.
- B. **Roadway Congestion** – Traffic on Island roadways, particularly on SR 305 and within Winslow, can result in a variety of issues such as making it difficult to “get around” by automobile, traffic “spilling over” into adjacent neighborhoods, and making it more difficult for transit and non-motorized users to get to their destinations in a timely manner. Congestion related to ferry loading and unloading creates surges on Island roadways every 45 to 50 minutes. In the afternoon hours, impacts from ferry activities can snarl area traffic and cause traffic delays. In addition to ferry traffic, the SR 305 Corridor has experienced increasing congestion due to commuters traveling on and off island across the Agate Pass Bridge. Congestion and increased travel times are experienced during commute hours along the SR 305 Corridor.
- C. **SR 305 Traffic Congestion** – Concern surrounds the future of the SR 305 Corridor. While the existing configuration of two lanes is adequate during off-peak hours, peak hour traffic coupled with surges from exiting ferry activities have resulted in high levels of congestion at multiple locations. This affects Island residents using the corridor, off-Island commuters, and increases the difficulty of cross-Island travel, resulting in higher

volumes of traffic on local streets when drivers try to avoid SR 305 congestion. Access to SR 305 is becoming increasingly difficult at the north end of the Island.

- D. ***School Related Congestion*** Congestion related to schools ~~in the north end of the urban center of Winslow~~ has become more problematic, such as intersections on New Brooklyn and Sportsman Club Roads. ~~With Woodward and Sakai Schools now on the same schedule, there is significant traffic congestion at intersections along New Brooklyn Road.~~ Increasingly, Youth are routinely being driven to and from after school and not taking the school bus, walking, or bicycling to home or to after-school activities, causing additional demands on the transportation system ~~in the Winslow Area.~~
- E. ***Greater Winslow Area Traffic Congestion – Residential and economic*** ~~The~~ growth of vehicular traffic on Bainbridge Island, particularly in the Winslow subarea, has resulted in more vehicles on the street system. Intersections are increasingly congested, in particular during commute and school drop off and pick up times, but also in general. ~~Increasingly,~~ These impacts are felt on streets adjacent to major corridors. Residents of these streets feel that the impacts of high traffic volumes and travel speeds need to be controlled to maintain the quality of the neighborhoods.
- F. ***Motor Vehicle Speeds and Speed Limits*** – Excessive vehicular speeds puts the traveling public at greater risk especially for walkers, wheel chair users, and bicyclists. Many Island roads lack shoulder facilities or separate bicycle and pedestrian infrastructure. ~~Speeding vehicles discourage~~ ~~Speeds are a barrier to~~ many people who want to walk, use a wheelchair, or ride a bicycle for transportation or recreation in many areas on the Island.
- G. ***Non-Motorized Travel*** – Non-motorized modes of transportation are important to many Islanders and the need for improved non-motorized infrastructure has consistently ranked high in community surveys. ~~The City has, and continues to, invest significant resources in planning and implementing non motorized improvements.~~ While significant improvements have been made, many parts of the Island infrastructure are not adequate to serve the needs of users of all ages and abilities. As a result, many people remain dependent on cars as the only practical and safe means of travel. Many people do not feel safe walking and biking outside of the urban center of Winslow.
- H. ***Transit Service*** – ~~Bainbridge Island is a bedroom community of Seattle and ferry service is essential for many Islanders.~~ Ferry Service is vital to many residents who work in Seattle and to the local and regional economy. As automobile capacity and parking space at the ferry terminal is limited, non- motorized facilities with connectivity to the ferry and transit service are important to many Islanders for sustainably accommodating population growth. ~~In recent years ferry auto use has declined and walk on passenger growth has moderated.~~ WSF forecasts significant growth of non-motorized trips ~~and automotive trips to remain flat~~ in the coming decade.

Kitsap Transit provides bus service connecting many areas of the Island to the ferry and ~~the urban center of~~ Winslow. Kitsap Transit is working to expand service during non-peak hours and to inter-Island locations, and many in the community would like to see this service maintained and expanded. This service has provided valuable mobility to the community, especially for older people, those with disabilities and younger populations.

- I. **Transportation Network Connectivity** – Bainbridge Island’s roadway system has few roadways that contribute to the development of a “network”. Many parts of the Island have only a single way to access the area, such as the Point White/Crystal Springs Beans Bight, West Port Madison or Agatewood areas. Mobility, emergency access, emissions, and circulation can all be improved with better roadway connections. Alternative modes of travel are a high priority for many Islanders. Expanding the Island’s network of both on-street and off-street non-motorized facilities is needed to provide neighborhood, inter-island, and regional connectivity.
- J. **Climate Change** – Transportation is both vulnerable to climate change and a potential cause of climate change, and provides opportunity to mitigate climate change. Creating a transit plan that reduces transportation emission of greenhouse gases, increases our community’s resilience to the effects of climate change, and can itself withstand the effects of climate change is a priority. These criteria should be used to evaluate all transportation solutions and proposed projects.
- K. **Roadway Intersection Congestion** – At locations other than SR 305, intersections may limit capacity as the Island population grows. Islanders are increasingly concerned about relieving intersection capacity at school locations and during commute times in the urban center of Winslow. Intersection congestion can also lead to delay for non-motorized users, in particular bicyclists where riders share the road with vehicles.
- L. **Roadway and Intersection Safety** – There are some Island locations where there has been a history of or a potential for accidents. The perception of these locations as unsafe may reduce the population willing to walk, bicycle, or ride (on a horse or in a wheelchair) because they want to avoid a roadway or intersection that is uncomfortable for walking or bicycling.
- M. **Livability** – Providing convenient active transportation choices provides for better public health and improved lifestyles both in the urban center of Winslow and outlying areas of the Island. Bikeable and walkable communities are becoming increasingly desirable and important to many Island residents. These aspects of the community are attractive to visitors as well and are an increasingly important element to creating a vibrant downtown business community.
- N. **Community Character** - There is a desire to retain the feel of the Island’s existing transportation system. Outside of Winslow and other designated neighborhood centers ~~more urban areas~~, the ~~tree-lined narrow~~ scenic roadways, open drainage ditches, and winding roads provide a more rural flavor that many consider important elements of the Island’s character. However, these elements need to be balanced with the community’s desire for safe roads that provide mobility options for all ages and abilities of Island residents without requiring a vehicle.
- O. **Environmental Impacts** – The City contains many environmental qualities that should be maintained. As the City’s population grows, developing alternative modes of transportation is desirable to reduce congestion and carbon emissions from motor vehicles.
- P. **Stormwater** – Stormwater drainage of roadways is an important environmental aspect. As storm water regulations evolve, the cost of roadway construction has increased exponentially.

- Q. **Regional coordination** – The 2016 update of the Island Wide Transportation Plan (IWTP) and the Comprehensive Plan Transportation Element—update is creates an opportunity to coordinate with WSDOT (WSF, Olympic Region), Kitsap Transit, and neighboring jurisdictions to ensure a more integrated transportation system.
- R. **Financing** – Solutions to many of the Island’s transportation issues will cost money, a lot of money. Considering how best to pay for these improvements and who should pay (City, State, Federal) are key issues to this Plan. The scale of investment must be commensurate with the scale of the problems we are trying to solve.

## **Relationship of the Transportation Element to the Island Wide Transportation Plan**

The primary purpose of the Transportation Element is to support and implement the Island’s Vision and Guiding Principles as well as the Goals, and Policies set forth in the other Plan Elements. The “Island Wide Land Use Concept,” described in Figure 1 of the Land Use Element and depicted in Figure 1, calls for compact, walkable, mixed use centers within a much larger conservation landscape of open spaces, wildlife habitat, forested areas, agricultural, residential and recreational lands. The transportation improvements and programs called for the Plan are essential to meeting the objectives for both the centers and the surrounding conservation landscape.

The GMA’s transportation requirements are met either in this Transportation Element or in the Island Wide Transportation Plan, which is hereby adopted by reference [Insert Hyperlink]. The Transportation Element provides consistency with other Plan Elements and over-arching policy direction, whereas the IWTP provides the technical support for those policy choices and a detailed guide for implementing and funding all transportation programs, projects and services.

## **Transportation Element Utilization [Note: this section was forward in the Element]**

The Transportation Element is a tool for the City to aid in decision-making in all aspects of transportation planning, scheduling, and budgeting. The Transportation Element will guide the City in making decisions regarding public expenditures, improvements, and developments. City staff will use the Transportation Element to establish budgets and plan improvement projects. The Transportation Element will also be used to ensure consistency between land use actions and the City’s transportation plans and policies.

Other agencies, such as the State Department of Transportation, Kitsap Transit, and Kitsap County, will use the Transportation Element to coordinate their actions with Bainbridge Island to address regional transportation issues and projects. Developers and businesses may also use the Transportation Element to assess project feasibility, make investment decisions and develop individual projects. Transportation providers should consult the Transportation Element to coordinate their services with transportation facility design and operation, and the

general public can use the Transportation Element to become better informed about the City's transportation plans.

Transportation issues are among the top concerns for Bainbridge Island residents since Island roadways serve two equally important purposes. Not only do the roadways provide mobility, they also enhance the character of the Island. Much of the concern over transportation is related to the future of State Route 305, which serves not only Bainbridge Island, but also functions as a regional facility connecting Seattle and the Island ferry terminal with the Kitsap and Olympic Peninsulas.

An integrated part of this Transportation Element is the Non-Motorized Transportation Plan (NMTP), adopted by the City Council in 2002. The NMTP provides a comprehensive long-range plan for developing and promoting the use of non-motorized transportation systems.

## GOALS AND POLICIES

**NOTE: GOALS & POLICIES IN BLUE REORGANIZED FROM CHAPTERS 2 & 7 IWTP BLACK STRIKETHROUGH/UNDERLINE SHOWS ADDITIONS/DELETIONS TO IWTP TEXT**

### GOAL TR-1: MULTIMODAL

Encourage the development of an integrated multimodal transportation system that provides a range of safe transportation alternatives and increases the through movement of people, maximizing use of non-motorized and public transit.

#### Policy TR 1.1

In accordance with *complete streets* practices and guidelines, new or rebuilt streets shall, as much as is practical, address the use of the right-of-way by all users.

#### Policy TR 1.2

The City will coordinate with the City police department, the Kitsap County Health District, the school, parks, and fire districts, and other civic groups to develop and sponsor outreach programs. The programs are intended to inform specific segments of the community, including but not limited to, motor-vehicle drivers, school-age children, non-motorized commuters, cyclists, recreational users, private property owners with or adjoining non-motorized facilities, and the general public.

The following public education programs should be provided to Island citizens:

- pedestrians and non-motorized vehicle safety
- rights and responsibilities of non-motorized facility users
- rights and responsibilities of property owners



~~Discussion: Squeaky Wheels, Cascade Bicycle Club, the Bicycle Alliance of Washington, and The League of American Bicyclists or other Bicycle and pedestrian advocacy organizations are good resources of information on skill development and safety education for bicyclists and pedestrians.~~

### GOAL TR-2: NON-MOTORIZED SYSTEM

Provide the citizens of Bainbridge Island with a non-motorized transportation system that is a planned and coordinated network of shoulders, sidewalks, trails, footpaths, bikeways, and multi-purpose trails that connect neighborhoods with parks, schools, the shoreline, the ferry terminal, and

commercial areas. ~~The non-motorized system should in a way that maximizes mobility, provides a sense of safety and comfort for pedestrians, bicyclists, and equestrians, while respecting property owners' rights, protect the natural environment and complement the character of existing neighborhoods.~~

#### Policy TR 2.1 Non-Motorized connectivity

Provide a non-motorized transportation system that effectively serves the needs of people of all ages and abilities who walk, bike, or ride horses, or use wheel chairs; encourages non-motorized travel; and provides continuous networks of attractive shoulders, sidewalks, pathways (footpaths), and multi-purpose trails throughout the Island that are also connecting to regional systems. Provide safe and appropriately scaled non-motorized access that connects Neighborhood Service Centers, Winslow, the ferry terminal, services such as a doctors office, schools, parks, recreation areas, shorelines (including road-ends), and transit connections including to ferry and bus services.

#### Policy TR 2.2 ~~Non-Motorized design and construction~~

~~Develop non-motorized design standards that provide safe and efficient access, encourage use and mobility, and are appropriate to the location and needs of the immediate area. See, consistent with the policies of Goal 2 and associated policies in Chapter 7 of the IWTP. this plan.~~

#### Policy TR 2.3 ~~Non-Motorized safety and maintenance~~

~~Promote the safety of non-motorized users through effective transportation improvements, maintenance operations and enforcement. See following the policy direction of Goal 3 in Chapter 7 of the IWTP. this plan.~~

#### Policy TR 2.4 ~~Non-Motorized community education~~

~~Improve the safe use of non-motorized and roadway facilities by non-motorized and motorized users through continuous community education of NMTP g Goal 4 in Chapter 7 of the IWTP. this plan.~~

#### Policy TR 2.5 ~~Non-Motorized implementation~~

~~Provide mechanisms for funding, prioritizing and implementing the non-motorized transportation system plan as described in Goal 5 in Chapter 7 of the IWTP. this plan.~~

#### Policy TR 2.2 Access to Schools

Provide networks of pedestrian facilities within one half mile and bicycle facilities within one mile of public schools. The City and the School District should coordinate efforts to develop non-motorized facilities. Private schools will provide access from neighboring properties to the school. Separated facilities are preferred near schools and especially for elementary schools. Retain school bus service where necessary to discourage students from crossing SR305.

### **Policy TR 2.3 Sidewalk Facilities**

Provide a network of sidewalk facilities adjacent to roadways in urban areas and other areas with significant pedestrian traffic. Facilities to be of sufficient width to accommodate expected pedestrian use, including safe roadway crossings. Designs should accommodate users of all abilities and in addition to meeting ADA requirements provide effective and efficient facilities for the widest range of mobility to the extent feasible. Emphasis should be placed on improving sidewalk facilities in the Winslow Area, as there are currently deficiencies in the sidewalk network in Winslow, including areas with higher use and demand by users with limited mobility.



### **Policy TR 2.4 Shoulder Facilities**

Provide a network of shoulder facilities along the islands roadway arterial streets and higher volume collector streets that provides for an integrated network that serves cyclists island-wide and pedestrians in locations without sidewalks.

### **Policy TR 2.5 Pathways and Multiuse Trail Facilities**

Develop a system trails to serve non-motorized users across the Island. The network is envisioned to be comprised of a regional trail connecting the Ferry Terminal to the Agate Pass Bridge (Sound to Olympics Trail), interisland multi-use trails, shoreline trails (Waterfront Park-Trail), and connecting pathways within neighborhoods. The system is envisioned to provide walkability within neighborhoods and connectivity for pedestrians island-wide. Multi-use trails are envisioned to provide an alternative for cyclists to the shoulder network along arterial streets to accommodate users of all ages and abilities. Multi-use trails are envisioned to connect with pathways, sidewalks, and shoulder facilities to form an integrated non-motorized system.



### **Policy TR 2.6 Non-Motorized Design and Construction**

Develop and regularly update design standards for non-motorized facilities that provide safe and efficient access, encourage use and mobility, and are appropriate to the location and needs in the immediate area.

Standards for shoulders, sidewalks, pathways, and multiuse trails to provide low levels of stress/ high levels of service for non-motorized users. Facilities to be appropriate for factors such as roadway classification, traffic volumes, vehicular speeds, topography, and expected level of non-motorized use.

Include appropriate amenities such as benches and short term and long term bicycle parking in the construction of non-motorized facilities. Parking lots and garages serving public, commercial, and multifamily residential buildings **to are required to** provide convenient bicycle parking and storage facilities.



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### **Policy TR 2.7 Non-Motorized Safety and Maintenance**

Promote the safe use of non-motorized facilities through effective transportation improvements, maintenance operations, and enforcement.

Provide safety enhancement in annual capital improvement programs and individual transportation improvement projects where applicable. Strongly encourage the Washington State Department of Transportation to accommodate non-motorized permeability and safety enhancements on SR 305.

Routinely evaluate facilities and roadway maintenance operation programs and resource levels to ensure adequate maintenance and preservation of the City's growing inventory of non-motorized facilities. Provide a high level of service to maintain low user stresses and encourage active transportation.



Coordinate with the Police Department and the Washington State Patrol to provide officer training and consistent enforcement of traffic laws, including speed limits, for both motorized and non-motorized users.

### **Policy TR 2.8 Non-Motorized Community Education**

Improve the safe use of non-motorized roadway facilities by non-motorized and motorized users and encourage active modes of transportation through continuous community education. Coordinate with the City Departments, Schools, the Park District, the Fire District, and other civic groups to develop and sponsor outreach programs. Programs should inform specific segments of the community including but not limited to motor-vehicle drivers, school age children, non-motorized commuters, recreational users, private property owners fronting non-motorized facilities, and the general public.

Maintain and update guide maps that effectively identify the location of non-motorized routes and facilities and provide signage for public non-motorized facilities, such as trails, in order to clearly designate routes and access points.

### **TR2.9 Non-Motorized Implementation**

The City supports the Federal, State, and Regional goals of doubling walking and cycling **by 2036, within** the 20 year planning period of the City's comprehensive plan. The City will maintain an advisory committee to advocate for transportation planning, public non-motorized projects, private development projects, and education and outreach. The committee should represent a broad range of interests including pedestrians, cyclists, and equestrians.

Secure easements and other land dedication for non-motorized facilities through development mitigation, donation, tax incentives, and direct acquisition.

Incorporate non-motorized improvements during the planning and design phase of transportation improvement projects. All commercial and residential development projects that reach design thresholds set in the municipal code, shall be reviewed for compliance with the transportation element non-motorized goals and policies, adopted plans, and standards.

### **GOAL TR-3: Ferry Service**

**Coordinate with Washington State Ferries (WSF) and other possible providers to operate ferries ~~service to Bainbridge Island~~ that meet local service and commuter needs, coordinates are integrated with all travel modes, and provides equitable regional service.**

**Policy TR 3.1** Parity of ferry services

~~Support efforts~~ **Strongly advocate** to equalize ferry services from Bremerton, Bainbridge, Kingston, and Southworth in order to optimize the use of each ferry service. ~~Support actions that balance~~ peak hour travel times and provide ferry capacity closer to users' origin and destination.

**Policy TR 3.2** Ferry priority

Support the ferry system efforts to maximize the convenience of pedestrian, bicycle, transit, and HOV use on ferry runs through providing priority status and improvements to **discourage encourage non-** single occupancy vehicle (SOV) use.

**Policy TR 3.3** Passenger ferry options

~~Encourage innovative~~ **Advocate for increased** service options for foot ferry passengers such as water taxi and passenger ferry service to and from various areas of the Puget Sound region.

**Policy TR 3.4** Create Green Ferry Transit

Support WSF and other providers to create and incorporate best practices into ferry services that reduce greenhouse gas emissions and vulnerability of ferry transit from climate change.

**Policy TR 3.5** Bicycle and Pedestrian Safety

Promote bicycle and pedestrian safety improvements in the vicinity of the ferry terminal.

**GOAL TR-4: Bus Service**

**Encourage the use of public transit and encourage transit agencies to operate and maintain local and regional transit service and facilities that reduce the need for single-occupant vehicles and support the needs of transit-dependent users.**

**Policy TR 4.1** Transit **Improvements Level of Service (LOS)**

Encourage a transit LOS standard that identifies deficiencies and the program improvement needs as defined in the Kitsap Transit Plan.

**Policy TR 4.2** Public transit ferry access

Support actions from Metro, Sound Transit, Kitsap Transit, or other appropriate agencies that:

- **Improves** public transit from the Seattle ferry terminal directly to popular destinations in Seattle metropolitan area, as well as Sea-Tac Airport.
- **Promotes** the availability of public transit service to ferry commuters and for special events.
- ~~Adjusts~~ **Maintain** bus schedules to meet ferry arrival and departure times and improve service throughout the day and during evening hours.
- **Provides** information on the ferry ~~boats~~ and at the ferry terminals regarding transit options.

**Policy TR 4.3** Multiple-use P&R lots

Encourage park-and-ride use of multiple-use lots such as those located at churches or other locations, and promote the use of those lots to Island residents. Encourage park-and-ride lots to include areas, preferably covered, for bicycle parking users.

**Policy TR 4.4** Expansion of Island transit

Support the expansion of Island transit services that target:

- Ferry commuters
- Non-ferry commuters, including Island employees
- Connection of High School Road and Winslow Way
- Non-commuter travel to other Kitsap County service and employment areas
- Intra-Island connection to Neighborhood Service Centers and residential areas
- Transit dependent access, including addressing the access needs of all ages and abilities youth, the elderly and disabled transit users.

**Policy TR 4.5** Integration with Non-motorized Transit

Public transit should be optimized for access via non-motorized option, including accommodation for bikes and assistive devices-pedestrian and bicycles.

**Policy TR 4.6** Green Island Transit

Improve local air quality by improving the local transit fleet to meet the highest possible emission standards-possible.

**GOAL 5: Transportation Demand Management**

**Encourage greater efficiency of the integrated multimodal transportation system that provides a range of transportation alternatives and increases the through movement of people.**

**Policy TR 5.1** SOV Parking restrictions

Use fee structure and space allocation programs to discourage Single Occupancy Vehicle (SOV) parking at City-controlled parking.

**Policy TR 5.2** HOV parking

Develop parking and other programs that encourage High Occupancy Vehicle (HOV) use, including carpool and vanpool parking.

**Policy TR 5.3** SOV reduction programs

Encourage schools, the private sector and the public sector to adopt programs that reduce SOV use including: telecommuting, and promotion of ridesharing, walking, biking and reliance on buses.

**Policy TR 5.4** SOV reduction projects

The development of ~~transportation improvement program~~ projects to improve the

transportation system and reduce SOV traffic shall include enhancements for cyclists and pedestrians and the prioritization of those projects shall consider the inclusion of multimodal enhancements as a criterion.

### **Policy TR 5.5**

Support the Washington Department of Transportation and Kitsap Transit with the development and implementation of demand management strategies for SR 305 to encourage alternate modes of transportation other than SOV.

## **GOAL TR-6: OPERATION AND MOBILITY**

**Improve the operation and mobility of the Island's transportation system through the identification and implementation of system improvements that maintain Level of Service (LOS) standards and meet the transportation vision.**

**NOTE: LISA M COMMENTED THAT SAFETY SHOULD BE INTEGRATED INTO A FEW PLACES IN THIS GOAL**

### **Policy TR 6.1** Road development standards guidelines

Construct, modify, and maintain roads to: 1) meet safety needs, 2) provide for transit and non- motorized users (including bicyclists, pedestrians, wheelchair users, and equestrians as appropriate), 3) correct LOS deficiencies, 4) improve connectivity and emergency response times, and 5) meet Comprehensive Plan goals, and 6) reduce greenhouse gas emissions.

Set street design guidelines which establish street widths, reflecting the desired vehicle speeds, accommodating bicycle, pedestrian, wheelchair, equestrian, and transit uses, and providing for emergency vehicle access and also considering community character.

### **Policy TR 6.2** ~~Street design guidelines~~ **NOTE: Combined with TR 6.1**

~~Set street design guidelines which establish street widths, reflecting the desired vehicle speeds, accommodating bicycle, pedestrian, wheelchair, equestrian, and transit uses, and providing for emergency vehicle access and also considering community character.~~

### **Policy TR 6.2** Roadway classifications

Set appropriate roadway classifications that reflect existing and projected vehicle usage, traffic operations, including non-motorized and transit uses, and considers adjacent land uses and community character.

### **Policy TR 6.3** Roadway LOS

Establish Level of Service standards for Bainbridge Island for motorized vehicles, bicycles, and pedestrians. Providing a level of service for all modes is important for a viable transportation system. In some locations where constraints limit options, some modes may be favored over other modes. Transportation networks should provide for all modes of transportation as a system. ~~that measure the performance of the existing transportation system, quantify the traffic impacts of future development, and prioritize improvements to the transportation system.~~

**Policy TR 6.4** Concurrency management

~~Follow~~Enforce the City's *concurrency* ordinance and monitor the expected transportation impact of proposed development on the available capacity of the roadway system. ~~Before~~Early in the issuing development review process approval, ensure that there are adequate transportation facilities or that improvements are planned, scheduled and funded for completion within six (6) years.

**Policy TR 6.5** Access management

Develop access management programs to control the location and number of curb cuts. Control the location and spacing of commercial driveway entrances and the design of parking lots to avoid congestion near intersections, line of sight obstructions, confusing circulation patterns, and Take steps to prevent avoid traffic and pedestrian and vehicular accidents.

**Policy TR 6.6** Truck corridors

Designate truck corridors to allow the efficient movement of goods and freight within the transportation system.

**Policy TR 6.7** Island mobility

Identify and support improvements measures that will improve vehicular and non-motorized connectivity across SR 305.

**Policy 6.8** Acquisition of transportation facilities

Secure easements or other land dedication for transportation facilities through development mitigation, donation, tax incentives/exemption programs, or direct acquisition.

**Policy TR 6.9** Level of Service (LOS) reassessment

If the adopted LOS standard cannot be maintained, due to funding shortfalls or other events, the City shall evaluate and revise the adopted LOS standard, restrict land use development as required, or institute other actions consistent with LOS reassessment strategy.

**GOAL TR-7: State Route (SR) 305/~~Through Traffic~~**

**Coordinate with WSDOT to ensure that state facility improvements meet the goals of the Bainbridge Island transportation vision and Comprehensive Plan, and minimize impacts to the local transportation system.**

**Policy TR 7.1** State Route 305 LOS standard

Adopt the Level of Service standard for SR 305, as established by WSDOT in the State Highway Plan. Under the current plan, the LOS standard is "D-mitigate", where actions are taken to mitigate congestion when operations drop below LOS D.

**Policy TR 7.2**

Develop a master plan for the SR 305 corridor as a green and scenic highway balancing the objectives of maintaining the treed character, and providing safe visibility. Incorporate best practices into highway improvements that reduce greenhouse gas emissions, and

vulnerabilities of transit from climate change.

### **Policy TR 7.3 SR 305 Impacts to Neighborhoods**

All proposed improvements to SR 305 shall include provisions to improve permeability for island residents, reduce neighborhood cut through traffic and improve access to and from North-end neighborhoods.

### **Policy TR 7.4 Bridges to the Island**

Oppose any proposals to construct any new bridges to Bainbridge Island. Support planning efforts for the eventual replacement/ refurbishment of the Agate Pass Bridge including potential capacity improvements for transit and non-motorized modes.

### **Policy TR 7.5 SR 305 improvements**

Support the construction of spot improvements for SR 305 to reduce congestion, increase permeability across the corridor and improve safety for through traffic, local traffic, and non-motorized and transit users.

### **Policy TR 7.6 Sound to Olympics (STO) Trail**

Support the construction of the STO and its branch trails.

### **Policy TR 7.7 Park & Ride facilities**

Encourage the development of park-and-ride lots near commuters' points of origin throughout Kitsap County in order to minimize traffic impacts along SR 305.

### **Policy TR 7.8 Impact to State facilities**

Evaluate the Comprehensive Plan's land use designations to assess their impact on all roadways, including State-owned facilities, and include as part of the Island-wide Transportation Plan Element.

### **Policy TR 7.9 Improvements to off-island State facilities**

Promote Encourage off-Island projects that will mitigate on-Island congestion to of SR 305.

## **GOAL TR-8 Neighborhoods**

**Consider the special needs of neighborhood safety, pedestrian and bicycle facilities, transit use and facilities, and traffic flow in the development of transportation improvements that affect neighborhoods.**

### **Policy TR 8.1 Neighborhood cut-through traffic**

Protect residential neighborhoods from the impacts of cut-through motor vehicle traffic by providing appropriate connecting routes and impact design features for new developments and applying appropriate traffic-calming measures to control vehicle volumes while maintaining emergency vehicle response times.

**Policy TR 8.2 Neighborhood street development**

~~Establish roadway standards to enhance~~ Support the character of neighborhoods by providing neighborhood programs and projects and projects for placemaking, traffic calming, greenways, appropriate street width, lighting for safety, curb cuts, and pedestrian and bicycle facilities as consistent with the Comprehensive Plan.

**Policy TR 8.3 Neighborhood circulation**

Develop a circulation and access management plan for neighborhoods and neighborhood service centers so that as properties develop, vehicular and non-motorized connectivity and circulation are maintained, cut-through vehicle traffic is discouraged, and appropriate speeds are encouraged, while maintaining access and response times for emergency vehicles.

**Policy TR 8.4 Waterfront Trail**

~~Complete and protect the~~ The Winslow Waterfront Trail should be completed and protected.

**GOAL TR- 9 Safety and Maintenance**

**Support the safe use of the transportation system by maintaining the roadway system and including necessary safety enhancements in transportation improvement projects.**

**Policy TR 9.1 Maintenance is a priority**

Include transportation projects and adequate operation and maintenance funding to ensure that the vehicular and non-motorized transportation system infrastructure is maintained in a safe and usable condition.

**Policy TR 9.2 Roadway Network Traffic Control Evaluation**

Conduct periodic traffic studies in areas of the Island's roadway network that have experienced significant traffic changes due to development ~~periodically at the discretion of the City Engineer~~ to ensure that appropriate traffic control devices are employed for to ~~ensure~~ the safety of the traveling public. Consider opportunities to improve the non-motorized infrastructure as a means to ~~facilitate additional~~ increase mobility options for cyclists and walkers to the roadway network.

**Policy TR 9.3 Roadside Safety Program**

Periodically evaluate roadside conditions of the City's secondary arterial network and higher volume collectors, ~~at the discretion of the City Engineer,~~ to evaluate the condition of existing roadways ~~elements, the need for new elements,~~ and prioritize repairs and improvements to ensure the safety of the traveling public.

**Policy TR 9.4 Street lighting guidelines**

Provide street lighting to address safety issues. Light design and placement should minimize glare and light spillage, and maximize visibility of pedestrians and bicyclists.

## GOAL TR- 10 Parking

The availability of public parking is an asset to commercial districts and a benefit to island residents and visitors. On-street parking is a vital element of the core commercial district that includes the City’s “Main Street” community on Winslow Way. On-street parking may be a benefit environmentally in urban areas as it may require less developed impervious surface than off-street parking.

### Policy TR 10.1

Encourage on-street parking in *designated centers* ~~urban-zoned areas~~. Development of street frontages in urban commercial areas should maximize on-street parking to the extent practical. Development projects in urban residential areas should consider on-street parking **in favor of rather than** off-street parking.

### Policy TR 10.2

Preserve on-street parking in the ~~Core~~ *mixed-use* commercial districts of Winslow and *designated-centers*. City projects in commercial districts should maximize parking to the extent practical within the existing rights of way. Note that “*Complete Streets*” projects must also balance other functions such as non-motorized uses. Seek opportunities to expand public parking.

### Policy TR 10.3

The City should look to maximize public parking on City-owned properties in addition to maintaining convenient parking for visitors and staff at City facilities.

### Policy TR 10.4

Prioritize parking in the ~~urban-center~~ *mixed-use districts* of Winslow for short-term use. Continue to manage City public parking in ~~the urban-center of~~ Winslow so that commuter parking for ferry commuters is not practical and short-term parking is prioritized for the Waterfront Park, Senior Center, and patrons of downtown businesses.

### Policy TR 10.5

Support parking programs for customers in retail/ service areas and employees of local businesses in the ~~Main Street area~~ *mixed-use districts* of ~~the urban-center of~~ Winslow. Work with business owners ~~to toward the goal of~~ limiting employee parking to off street facilities to optimize available, convenient parking for patrons. Continue to manage City public parking to maximize close-in parking for patrons of local businesses and assist in providing some daily off-site parking for employees at walkable outlying locations.

### Policy TR 10.6

Encourage bicycle parking in the ~~urban-town~~ *designated neighborhood* centers and at public facilities. ~~Seek opportunities to accommodate bicycle parking.~~ Provide bicycle parking at locations convenient to businesses providing goods and services and for employees who commute to work by bicycle. Provide bicycle storage at transit facilities.

## GOAL TR-11 Community Character

**Develop transportation improvements that respect the Island's natural and historic character and are consistent with both the short and long-term vision of the Comprehensive Plan.**

### Policy TR 11.1 Scenic resource protection

Protect the Island's unique scenic resources along corridors including SR 305 and secondary arterials ~~non-urban transportation corridors~~ outside designated centers; require broad greenbelts and trees to screen parking and unwanted views and buffer noises between the roadway and development ~~as identified in the Land Use element.~~

### Policy TR 11.2

~~Encourage~~ Manage the appearance and safety of winding, ~~narrow~~ roadways in ~~non-urban~~ areas outside designated centers through the provision for and retention of appropriate roadside vegetation and trees, and following of the natural topography whenever possible. Retain the scenic character of SR 305 by minimizing the placement of signs, discouraging new access points, and planting and maintaining vegetation.

### Policy TR 11.3 Street design guidelines

~~Reflect the more urban nature of roadways~~

Create safe, attractive, and functional pedestrian and bicycle circulation within Winslow Planning Area and designated within neighborhood centers through the design and implementation of Complete Streets to enhance community character. including: encouraging, ~~where appropriate, of the following:~~

- ~~speed limits of 20 to 25 mph, with effective signage and enforcement~~
- ~~crosswalks and sidewalks~~
- ~~street trees and landscaping~~
- ~~traffic calming strategies and devices~~
- ~~on-street public parking~~
- ~~accommodations for transit stops and facilities~~
- ~~bike facilities~~
- ~~street lighting, with an emphasis on maximizing pedestrian and bicycle visibility~~
- ~~facilities that meet ADA requirements~~

### Policy TR 11.4 Street lighting guidelines

Minimize the use of street lighting outside of Winslow, except to address safety issues ~~design lighting to minimize glare and light spillage.~~

### Policy TR 11.5 ~~SR 305 scenic character~~ **MOVED UP TO TR11.2**

~~Retain the scenic character of SR 305 by minimizing the placement of signs, discouraging new access points, and maintaining vegetation pursuant to a corridor Master Plan buffers. See Policy TR 7.8.~~

## GOAL TR-12 Environment

**Develop, operate, and maintain a transportation system that respects and protects the natural environment including the quality of the Island's air, water, and natural habitats.**

### Policy TR 12.1 Environment sensitivity

Minimize impacts of road construction on environmentally sensitive areas; minimize damaging runoff and pollution from road use and maintenance; implement programs that encourage the planting of low-maintenance, vegetated groundcover and trees along roadways.

### Policy TR 12.2 Utilities

Where possible, the City shall require the undergrounding of overhead utilities to reduce the need for removal and maintenance of roadside vegetation.

## REVIEW WITH AND AFTER UTILITIES ELEMENTS

### Policy TR 12.3 Air quality

Develop transportation plans and programs that reduce travel demand, improve traffic flow, and consider the impact to air quality including reducing greenhouse gas emissions, and support County, regional, and state air quality goals and requirements.

### Policy TR 12.4 Wildlife corridors

Minimize transportation impacts to identified wildlife corridor crossings so that adequate linkages for animal movement between habitat areas are maintained.

## GOAL TR-13 Community Involvement

**Ensure involvement and input from the citizens at all stages of significant transportation projects and decision-making that affect Bainbridge Island. ~~Using the theory and practices of Context Sensitive Solutions seek to refine the goals of the Comprehensive Plan for the context of the site in the development of the design of transportation projects.~~**

### Policy TR 13.1 Citizen involvement

Provide citizen opportunities for reviewing transportation plans and documents to give an opportunity for public comment and ensure consistency with the community vision.

### **Policy TR 13.2 Context Sensitive Design**

In the design process for transportation projects, use the principles and practices of context sensitive solutions to refine the goals of the Comprehensive Plan and the Island-wide Transportation Plan in keeping the context of the site. ~~Use the theory and practices of Context Sensitive Solutions seek to refine the goals of the Comprehensive Plan for the context of the site in the development of the design of transportation projects.~~

### Policy TR 13.3 Participation in regional decision-making

Insist on early and full City participation in regional transportation decisions affecting the

Island. Such participation should include City and community representation in the decision making process and public meetings on the Island.

#### **Policy TR 13.4 Public education**

Educate and inform the public on the proposed methods and potential alternatives that address identified transportation issues.

### **GOAL TR-14 Regional Coordination**

**Coordinate with the local, regional, and state, public and private organizations that promote regional transportation improvements and services that are compatible with the community's vision as expressed in the Comprehensive Plan.**

#### **Policy TR 14.1 Agency cooperation**

Work to ensure that the transportation system is planned and operated in coordination with adjoining jurisdictions by participating ~~Participate~~ in regional coordinating functions with the Kitsap County, Kitsap Transit, Washington State Ferries (WSF), Kitsap Regional Coordinating Council, Puget Sound Regional Council, the Suquamish Tribe, and the Washington State Department of Transportation and other appropriate public transportation agencies and user groups.

#### **Policy TR 14.2 Regional planning**

~~Support regional studies that describe and identify the impacts of regional traffic on the Island's transportation system.~~ Support the Puget Sound Regional Coordinating Council's (PSRC) long term planning efforts and studies that describe and identify the impacts of regional traffic on the Island's transportation system. The City should submit plans to PSRC for certification of consistency w/ regional long term planning.

#### **Policy TR 14.3 Jurisdictional coordination**

~~Work to ensure that the transportation system is planned and operated in coordination with adjoining jurisdictions, Kitsap County, and the Washington State Department of Transportation.~~

#### **Policy 14.3**

Coordinate planning and implementation with Kitsap County, Kitsap Transit, Washington Department of Transportation, Kitsap Coordinating Council, the Suquamish Tribe, the Puget Sound Regional Council, and other planning / advocacy groups to further non-motorized goals. This includes trails and access to transit in Kitsap County, the Olympic Peninsula, and the greater Puget Sound region.

#### **Policy 14.4**

Pursue joint funding opportunities with the School District, Park and Recreation District, Washington State Department of Transportation and other agencies to meet high priority needs.

Discussion: Joint projects with multiple agency participation is an efficient way to leverage limited funds of each participant and enhance grant applications.

## GOAL TR-15 Transportation Financing

**Periodically prepare and update a fiscally responsible, cost-effective transportation financing plan that optimizes the use of City funds and leverages other funding sources.**

### **Policy TR 15.1** Developer LOS requirements

Require all new and expanded development to maintain the adopted Transportation LOS standard. The pro-rated cost of any improvements needed to maintain the adopted LOS shall be the responsibility of developers.

### **Policy TR 15.2** Developer participation

Require new and expanded developments to construct, ~~or participate in the funding, to~~ upgrade unimproved and/or underimproved roadways, ~~or participate in the funding of~~ roadways that conform to City standards.

### **Policy TR 15.3** Funding from others

Aggressively seek available County, State, and Federal money to fund projects that help meet the Island's overall Island's transportation objectives.

### **Policy TR 15.4** Advance system planning

Ensure that the Island's transportation improvement plan accounts for forecasted population and employment growth and has revenue sources sufficient to build and maintain it.

### **Policy TR 15.5** Preservation of existing system

Mandate the maintenance and repair of the existing transportation system ~~is~~ as a high priority when making funding allocation decisions.

### **Policy TR 15.6** Traffic Impact Fee

~~Adopt and~~ Periodically update a traffic impact fees for mitigating to mitigate the impacts of future development.

1.

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RCW 36.70A.070 (6) A transportation element that implements, and is consistent with, the land use element.

(a) The transportation element shall include the following subelements:

(i) Land use assumptions used in estimating travel;

(ii) Estimated traffic impacts to state-owned transportation facilities resulting from land use assumptions to assist the department of transportation in monitoring the performance of state facilities, to plan improvements for the facilities, and to assess the impact of land-use decisions on state-owned transportation facilities;

(iii) Facilities and services needs, including:

(A) An inventory of air, water, and ground transportation facilities and services, including transit alignments and general aviation airport facilities, to define existing capital facilities and travel levels as a basis for future planning. This inventory must include state-owned transportation facilities within the city or county's jurisdictional boundaries;

(B) Level of service standards for all locally owned arterials and transit routes to serve as a gauge to judge performance of the system. These standards should be regionally coordinated;

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(C) For state-owned transportation facilities, level of service standards for highways, as prescribed in chapters **47.06** and **47.80** RCW, to gauge the performance of the system. The purposes of reflecting level of service standards for state highways in the local comprehensive plan are to monitor the performance of the system, to evaluate improvement strategies, and to facilitate coordination between the county's or city's six-year street, road, or transit program and the office of financial management's ten-year investment program. The concurrency requirements of (b) of this subsection do not apply to transportation facilities and services of statewide significance except for counties consisting of islands whose only connection to the mainland are state highways or ferry routes. In these island counties, state highways and ferry route capacity must be a factor in meeting the concurrency requirements in (b) of this subsection;

(D) Specific actions and requirements for bringing into compliance locally owned transportation facilities or services that are below an established level of service standard;

(E) Forecasts of traffic for at least ten years based on the adopted land use plan to provide information on the location, timing, and capacity needs of future growth;

(F) Identification of state and local system needs to meet current and future demands. Identified needs on state-owned transportation facilities must be consistent with the statewide multimodal transportation plan required under chapter **47.06** RCW;

(iv) Finance, including:

(A) An analysis of funding capability to judge needs against probable funding resources;

(B) A multiyear financing plan based on the needs identified in the comprehensive plan, the appropriate parts of which shall serve as the basis for the six-year street, road, or transit program required by RCW **35.77.010** for cities, RCW **36.81.121** for counties, and RCW **35.58.2795** for public transportation systems. The multiyear financing plan should be coordinated with the ten-year investment program developed by the office of financial management as required by RCW **47.05.030**;

(C) If probable funding falls short of meeting identified needs, a discussion of how additional funding will be raised, or how land use assumptions will be reassessed to ensure that level of service standards will be met;

(v) Intergovernmental coordination efforts, including an assessment of the impacts of the transportation plan and land use assumptions on the transportation systems of adjacent jurisdictions;

(vi) Demand-management strategies;

(vii) Pedestrian and bicycle component to include collaborative efforts to identify and designate planned improvements for pedestrian and bicycle facilities and corridors that address and encourage enhanced community access and promote healthy lifestyles.

(b) After adoption of the comprehensive plan by jurisdictions required to plan or who choose to plan under RCW **36.70A.040**, local jurisdictions must adopt and enforce ordinances which prohibit development approval if the development causes the level of service on a locally owned transportation facility to decline below the standards adopted in the transportation element of the comprehensive plan, unless transportation improvements or strategies to accommodate the impacts of development are made concurrent with the development. These strategies may include increased public transportation service, ride sharing programs, demand management, and other transportation systems management strategies. For the purposes of this subsection (6), "concurrent with the development" means that improvements or strategies are in place at the time of development, or that a financial commitment is in place to complete the improvements or strategies within six years.

KEY ISSUE (A,B,C, etc.) and COMMENTS (1,2,3, etc.)	Commenter	Commission Comment/Conclusion	
<b>A GROUNDWATER &amp; AQUIFER PROTECTION</b>			
1	Looked at the water recharge policies as an issue of concern. Should look beyond the 20 years for managing our water supply. Will we be in trouble when the rainfall pattern changes	Doug Rauh	
<b>B DRINKING WATER SERVICE &amp; UTILITIES</b>			
1	One of the issues with City water service is that people that are near the service areas can't hook up (like if you are on New Brooklyn? Can we have a service area that runs between Fletcher Bay and Winslow service areas? Should consider this area when considering growth.	Charles Schmidt	
2	There are small water systems that run out of water every summer- the City did not take over that water system, and I wonder why the policy isn't to take over failing water systems.	Randall Samstagg	
3	There seems to be a division between the distribution of water and the using of water, the water itself. How would a major disruption be handled by the system	Bob Osserman	
<b>C ON-SITE SEPTIC POLICIES</b>			
1	Already dense areas on the Island on septic near the shoreline, like Murden Cove, Fletcher Bay, and Point Monroe. The sewer service area, either extension or smaller treatment plants, need to be expanded. Sewering doesn't bring growth, it stops pollution. Partly a jurisdictional problem because the Health District is in Port Orchard, the state is the one that posts polluted beaches. There should be an all-Island utility study.	Randall Samstagg	
2	Would like to remind the Planning Commission that Puget Sound pollution has many culprits. Kitsap County Health District looked at 193 septic systems on Murden Cove, and 2 are failing and will be fixed. The Health District could not say that the Murden Cove septic systems are adding too much nitrate to Puget Sound. On its face, sewer doesn't bring growth. But when combined with public water, there can be growth, like if the sewer gets extended down New Brooklyn to Island Center. The water capital plan already has a major project, and the increased density will come later.	Robert Dashiell	
3	Recommend taking utility management (drinking water, stormwater, and sewer) policies out of the Water Resources Element, and putting them into the Utilities Element.	City Utility Advisory Committee	

KEY ISSUE (A,B,C, etc.) and COMMENTS (1,2,3, etc.)		Commenter	Commission Comment/Conclusion
4	I'm a civil and sanitary engineer. Class A wastewater treatment using membranes would be excellent, and above what is required under the law. The activated sludge can absorb some micro-pollutants like pharmaceuticals. Nitrates from septic systems may end up in streams. The wastewater treatment plan removes nitrate. Nitrate pollution is extremely serious, and dense, un-sewered areas are likely contributing to nitrate pollution of creeks and nearshore environment. Water quality impacts should drive decisions related to sewer issues. No significant nitrate removal system for septic drainfields.	Randall Samstagg	
<b>D PUBLIC SANITARY SEWER SERVICE &amp; UTILITIES</b>			
1	Trying to figure how the City and Sewer District 7 coordinate on pumping of the Lynwood Center area sewer districts.	Charles Schmidt	
2	There are a great number of updates to be done related to out-of-date information. The updating should have already been done and before the Planning Commission before the workshop. LID program is absent (mostly) from this element currently, and since it will be required in 2017, this needs to be updated. More information about how many chemicals make it into Puget Sound from waste water treatment plant (e.g. birth control, caffeine). This is a real problem, but it is being studied. Membrane system could help to reduce the amount of chemicals in wastewater. At this time of the Comprehensive Plan update, we should have the discussion about updating our wastewater treatment system. Right now we pay a fee to the tribe for the outfall being located near a geoduck bed. Wastewater treatment plants will become more sophisticated in the near future.	Robert Dashiell	
<b>E STORMWATER MANAGEMENT</b>			
1			
2			
3			
<b>F OTHER ISSUES</b>			
1			
2			

## **Questions NOT Answered during January 12<sup>th</sup> BI “Water Workshop”** *Includes Questions submitted before, during, and after the meeting*

1. I live on Mandus Olson next to the Grand forest with a well going down about-125 feet that has produced very nice water. Some years ago, the city put in a much larger capacity and deeper well uphill from me, I started to get the lovely sulfur rotten egg smell in the drier summer months. Adding sulfur removal to my filtering system is VERY pricey. This year for the first time I have had this odoriferous issue in the winter and worse than ever. My question is- Does this have anything to do with the level of aquifer water that is now being used by more and more islanders, i.e is the water table lower and wells are now pulling up water with different properties than in years past. Is this one of many symptoms of inadequate recharge/supply vs water extraction/demand?

Groundwater supply quantity and quality at private wells can be affected by one or more issues; for example: the age and conditions of the well, the age and condition of the piping and treatment systems between the well and the faucet, naturally-occurring conditions, water use and land use on neighboring lands, and pumping from other wells completed in the vicinity of the well. Diagnosing the specific cause of changes can be challenging. We recommend private well owners contact the Kitsap Public Health District Drinking Water Section (360-337-5235) for guidance on addressing specific changes in water quality that can affect health.

2. What does the term “exempt wells” mean? Does this mean exempt from standardized monitoring requirements? What is the scope of this group, in terms of the number of households served? Are some small commercial purveyors of water included?

An exempt well is a well that is exempt from the requirement to obtain a Washington State Water Right Permit. Below is an excerpt from Ecology’s website explaining the exemption. Although the majority of exempt wells are residential, agricultural, or small industrial users, this may include small public purveyors as long as they use no more than 5,000 gallons per day. However, this does not exempt public purveyors from Department of Health-required monitoring for water quality.

*In Washington State, prospective water users must obtain authorization in the form of a water right permit or certificate from the Department of Ecology (Ecology) before withdrawing groundwater. The groundwater permit exemption*

## **Questions NOT Answered during January 12<sup>th</sup> BI “Water Workshop”** ***Includes Questions submitted before, during, and after the meeting***

*allows the users of small quantities of groundwater to construct wells and develop their water supplies without first obtaining a water right permit from Ecology.*

*The only exceptions to the permit requirement is for withdrawals of groundwater for:*

- Providing water for livestock (no gallon per day limit).*
- Watering a non-commercial lawn or garden one-half acre in size or less (no gallon per day limit, however limited to reasonable use).*
- Providing water for a single home or groups of homes (limited to 5,000 gallons per day).*
- Providing water for industrial purposes, including irrigation (limited to 5,000 gallons per day but no acre limit).*

(Department of Ecology Webpage, January 27, 2016)

The terms “private” wells or “residential” wells are often used interchangeably with “exempt” wells as they make up the greater majority of exempt wells.

3. Is it known how many households are served by private wells? (By “private” I mean wells that supply water free of charge except for costs involved in maintenance of the system.) It’s my impression that some individuals and groups of homes with private wells have encountered no problems with either quality or quantity, but that there have been complaints in some areas of the Island. What can COBI do? In general, do citizen on private wells have the option of hooking up to a larger system?

Approximately half of the Island’s population is served by large or small public water purveyor systems and approximately half own their own well. Generally, Island groundwater quality is excellent; however, there are localized areas that tend to have naturally high mineral content, specifically iron and manganese. In nearly all cases the mineral concentrations are well below EPA’s drinking water contaminant levels and are not a health concern, but these concentrations can influence taste and color and may stain fixtures. Some private well owners install filtering devices to reduce or remove these minerals.

If a citizen resides in a public purveyor service area and the purveyor has available capacity, the citizen may choose to obtain water from the purveyor.

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*Includes Questions submitted before, during, and after the meeting*

4. Best Available Science estimate for:

- How many gallons of rainwater fall on Bainbridge Island (average year)?
- How many gallons of the annual rainwater on Bainbridge Island becomes groundwater (i.e., does not run off as surface water)?
- How many gallons of that groundwater seeps or is used as transpiration (trees for example)?
- How many gallons get into one or more aquifers per year?
- How many gallons of water are currently withdrawn from all aquifers per year?

The USGS used the groundwater model to calculate each of these water budget components for the year 2008 in terms of acre-feet. These values can be found in [Conceptual Model and Numerical Simulation of the Groundwater-Flow System of Bainbridge Island, Washington \(USGS, 2011\)](#) on pages 68-69. One acre-foot is equal to 325,851.429 gallons. In order to convert acre-feet to gallons, just multiply the acre-foot value by 325,851.429.

As part of the upcoming Aquifer System Carrying Capacity model run, Aspect Consulting will be updating our water budget.

5. On p. 4 of the Aspect memo addressing Task 1, I want to make sure I understand the second paragraph under **Production**. Does “increased pumping in 2000-04” mean that more than 350 million gallons were produced, or that the aquifers’ capacity was depleted more than usual? (It is unclear to me how aquifer capacity is estimated, and how fluctuations in an aquifer’s content are measured.) Was it simply coincidental that drops in precipitation coincided with increases in production?

Increased pumping of approximately 400,000 million gallons per year in 2000 to 2004 was correlated with below average precipitation, and likely reflected additional water demand for lawn and garden irrigation. The aquifer capacity will be discussed in more detail in the upcoming Aspect memorandum describing the System Carrying Capacity Assessment.

6. In Figure 2 I see the dramatic jump upward in the green line between 2000 and 2004, and perhaps a ‘new normal’ of 350 M gallons is established around 2007, but then there may be another uptick in 2014. I must say that the generalization

## **Questions NOT Answered during January 12<sup>th</sup> BI “Water Workshop”** *Includes Questions submitted before, during, and after the meeting*

about “fairly steady” production “over the last 10 years” is not borne out by Figure 2, unless I am grossly misreading it.

The “fairly steady” characterization of the 10 year (January 2005 through December 2014) production trend was based on the observed relatively consistent pumping data, particularly as compared to the noted increased pumping trend during 2000 to 2004.

7. How many wells are actually being monitored? (Aspect report and City Groundwater program appear to have much differing numbers).

The City and the City’s consultants draw information and monitoring data from multiple sources to conduct assessments or studies. These sources include, but are not limited to, the City’s Groundwater Management Program, the City’s Operations and Maintenance group, the Kitsap Public Health District, other water purveyors, and private or residential wells.

The City’s Groundwater Management Program currently monitors monthly water levels in 45 wells and annual chloride concentrations in approximately 30 wells. The City’s Operations and Maintenance group (like other water purveyors on the Island) conducts monitoring in water utility production wells as necessary and/or required to operate the water system. Lastly, private/residential well owners are required to sample their wells by the Kitsap Public Health District each time a new drinking water well is drilled or the property changes hands. Private/residential well owners may choose to sample their well if they have a water quality concern.

Therefore, depending upon the task (routine monitoring data assessment, in-depth hydrogeological data assessment, aquifer system construct, modelling, etc.) there will be significantly different numbers of wells monitored/utilized. Each report will stipulate the number of wells monitored/utilized for that particular task.

8. Given what we now know, what population estimate can be supported on the island (potable water use)?

The aquifer capacity will be discussed in more detail in the upcoming Aspect memorandum describing the System Carrying Capacity Assessment. The assessment will look at increased groundwater production associated with increased population.

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9. What City Fund pays for the City’s Groundwater Monitoring program?

The Water Utility

10. What is the fully allocated annual cost of the City’s Groundwater Monitoring program?

Supplies are usually less than \$300/year and analytical costs associated with chloride sampling are less than \$700/year. Yearly staff allocations fluctuate from year to year depending upon each year’s workplan. We suggest you refer to the City’s Finance Department for record of staff allocations.

11. What is the logic of having that fund (whichever one it is) pay for such monitoring?

Funding source was a council decision. We suggest you refer to the record of council actions/meeting minutes in regards to the City’s Groundwater Management Program.

12. Will nitrate monitoring be concentrated in the shallow aquifers? Will nitrate monitoring be focused on higher density neighborhoods with septic tanks?

According to USGS research, nitrate is usually applied or introduced to the aquifer system at the surface/shallow subsurface and, therefore, we usually find higher nitrate concentrations in shallow aquifers (<100 feet below land surface) (*Distribution of Elevated Nitrate Concentrations in Ground Water in Washington State, Fact Sheet 2008-3063; Nutrient Concentrations in Surface Water and Groundwater, and Nitrate Source Identification Using Stable Isotope Analysis, in Barnegat Bay-Little Egg Harbor Watershed, New Jersey, 2010-11, Scientific Investigations Report 2012-5287; and Recent (2008-10) Concentrations and Isotopic Compositions of Nitrate and Concentrations of Wastewater Compounds in the Barton Spring Zone, South-Central Texas, and Their Potential Relation to Urban Development in the Contributing Zone, Scientific Investigations Report 2011-5018*).

Should the City choose to monitor nitrate in groundwater, it is logical that monitoring will be concentrated in the shallow aquifers (Perched, Semi-perched, and Sea Level, possibly others if located near land surface) and in areas where the potential sources are more prevalent such as density of row crop agriculture and density of on-site septic systems to name a few.

**Questions NOT Answered during January 12<sup>th</sup> BI “Water Workshop”**  
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13. Why is the water analysis so far down in the Comprehensive Plan process? Isn't water planning as important as Land Use planning?

The Growth Management Act (GMA) requires that the Land Use Element be consistent with and supported by the other elements in the comprehensive plan, including any optional elements that the City chooses to adopt, such as the Environmental, Utilities and Water Resources Elements. The GMA does not stipulate where the water analysis must fall within the sequence of updating the plan. As a practical matter, the updated aquifer information prepared by Aspect was not yet available when the Land Use, and several other elements, had to be undertaken. Depending on how the Planning Commission and City Council interpret and apply the Best Available Science, including the Aspect aquifer information, it may be appropriate to review and revise the Land Use and other Elements.

14. Can we develop a better question session for the third water meeting instead of having one person read them?

Thank you for your comment. We will consider it.

15. If the deep aquifers demonstrate drawdown for the last 20 years vs. 1000 year old water we are taxing the water system?

The degree to which we are taxing the groundwater system can be measured in a number of ways. Aspect is using the updated groundwater model to assess the relationship between drawdown and saltwater intrusion. This will be discussed in more detail in the upcoming Aspect memorandum describing the System Carrying Capacity Assessment.

16. Is it your position that auto pollution isn't the largest polluter to the environment and water? Or that the home chemicals aren't a large factor?

There are numerous sources of pollution including, but certainly not limited to, automobiles, roadways, parking lots, construction site sediment and concrete processes, commercial/industrial chemical use, and agricultural and residential chemical use, household waste, and pet/livestock waste. Even areal deposition (particles of pollutants that fall from the sky) can be a significant source of pollutants, particularly during rain events.

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The question of which pollutant source is the largest polluter to the environment and water depends upon the observed pollutant and sources of that pollutant in the contributing drainage area. Urban settings tend to have distinct pollution characteristics versus a rural setting. There may be significant differences even within a single watershed. It would take dedicated monitoring and research in a specific area or drainage basin to determine the most significant pollutant(s) and source of pollutants for that area.

17. But shouldn't maintenance of our forests and wooded areas be an important factor to maintain as EPA advised years ago?

Yes, forested and wooded areas are important to consider when balancing our community needs for many reasons beyond drinking water supply such as providing habitat and wildlife corridors, stabilizing stream banks and shorelines, controlling flooding, and minimizing impervious surfaces that generate stormwater runoff.

18. Do we know what fraction of wells on the Island are metered? Has the City considered incentives or programs to bring more private wells into metered status? Would that be helpful in understanding our groundwater budget? Similarly, how about incentives for private wells to self-test quality?

Wells/water use are generally metered for the following reasons:

1. Public purveyors meter to track production (water produced),
2. Public purveyor *customers* have a meter on their water *line* to track their water use for billing purposes, or
3. In some communities such as in California, Colorado, etc., water use is metered to monitor compliance with drought management/or water supply management restrictions (put in place either by the local water purveyor for their customers or the State for all other wells).

The City and other public purveyor's on the Island only have the authority to meter their own wells and their customers' water use. The Department of Ecology is the governing authority of water use and is the only agency authorized to require metering and/or restrict water use (or they may choose to delegate the authority). This is usually only done in cases when a proven extreme water

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shortage exists (i.e., several drought years in a row or significant over-production of water resulting in severe depletion of the water supply).

As individual water use is closely and well-tracked by public purveyors nationwide, estimates for average per capita water use are well-known and very good. Therefore, the costs and dedicated resources to implement Island wide metering (not to mention the legal ramifications) would far outweigh any potential gain.

However, exploring incentives for private/residential well owners to conserve water to protect the supply and annually test and self-report well water quality to the local health district for their own protection as well as to enhance the data repository available for groundwater quality assessments is a worthwhile pursuit.

19. Why would the city and city paid consultants mischaracterize Early Warning Level (EWL) data when their own documentation for the Fletcher Bay Aquifer Island Center Well # 1 demonstrates a continued concern of 4.9’ per year of draw down from 2008 to 2015, after already being placed on the EWL of 5’ per year from 1998 to 2008? Would the citizens of Bainbridge Island benefit from the required studies and evaluation established for the EWL system (designed to protect the water supply) for the problematic FB Island Center well?

Two points of clarification: 1) The well in question is the former Island *Utilities* Well #1 (now under the ownership of KPUD) and not a well at Island *Center* (the subject well is located in the Eagledale area south of Eagle Harbor), and 2) the City recognizes that although the water levels for this well do not strictly meet the EWL of ½ foot per year for ten years *for the last ten-year period of examination*, based upon its history and that fact that it is certainly *close* to triggering the EWL, additional investigation was, and is, warranted.

Management responses to exceedances of EWLs are stipulated in Section 4.3.2 on page 13 of the City’s [Groundwater Monitoring Program Update](#) (revised March 2009) and include analyzing water level data from other wells in the same aquifer and other nearby wells, which the consultant did and addressed in the program update (Section 5.5, page 16). Also in keeping with recommended management actions, the City attempted to follow up with the then-owner of Island Utilities to

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conduct a thorough analysis of the historic water level and production data for validity as some of the extreme variability suggested that some of the water levels were measured during pumping of the well. Only water levels that are measured during non-pumping, equilibrium conditions (static water levels) should be compared to EWLs, not water levels measured during pumping.

As soon as Island Utilities came under the ownership and management of the Kitsap Public Utility District (KPUD), the City (through its consultant) contacted KPUD with concerns about the well. KPUD assured the City that it would be thoroughly vetting historic data, investigating the production and performance of the well and other nearby wells, and sharing that information with the City as soon as it is available.

It is important to remember that EWLs are NOT confirmations of a problem, just an indication that further investigation is warranted.

20. Is the City Manager and the Council concerned when the taxpayer---funded consultant, tasked to update the USGS groundwater model and study for the City of Bainbridge Island, claims he has “not heard about drawdown in the Fletcher Bay Aquifer” when there is documentation regarding the known drawdown of water levels in this aquifer as reported in the USGS 2011 study itself, and the consultants’ own Aspect Reporting to the city 2008 (March 2009) update water reporting?

Aspect responded differently than indicated above to the question posed during the “Question and Answer” session (approximately 1 hour and 36 minutes into the workshop video). The figures in the 2011 USGS report extend only to the shoreline of Bainbridge Island, while the groundwater model results indicate drawdown in the Fletcher Bay aquifer extends across the Kitsap Peninsula. So, we interpret the condition in the Fletcher Bay Aquifer as a regional effect, and not one limited to Bainbridge Island. We expect this condition to be further described by the USGS in their upcoming report on modeling of the entire Kitsap region to include Bainbridge Island (anticipated in 2016).

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Under Task 1 of the current contract with the City, Aspect assessed Early Warning Levels (EWLs) based on reported conditions and methods described in the [Groundwater Monitoring Program Update \(Aspect, 2009\)](#). Although the observed water levels in wells completed in the Fletcher Bay Aquifer did not exceed the EWL from 2004 through 2014, the ‘Island Utilities Well # 1’ showed continued drawdown that was very close to triggering the EWL. This drawdown may be due to one or more conditions: increasing withdrawals over time; decreasing well efficiency over time; or withdrawals exceeding the local capacity of the aquifer. With the transfer of water system ownership to Kitsap Public Utilities District, we expect future monitoring to provide information on withdrawal data, which has not been provided previously (see response to question #19 above).

21. Does the fact that Bainbridge Island is both an EPA---designated Sole Source Aquifer and surrounded by saltwater (at high risk for Seawater Intrusion – DOE publications) place further obligation on city and state leaders to adequately and honestly study and report on the water supply and the impacts of growth to date? According to records requests there have been no Environment Impact Statements to date for development on Bainbridge Island.

The facts you cite here are part of the information available to inform the questions of waters supply and impacts of growth. The Aspect updated aquifer information, and any comments offered into the record by yourself and others is all part of the information that will be weighed and considered by the planning commission and city council. The City will be doing the environmental review required by the State Environmental Policy Act, which may or may not include an Environmental Impact statement. That decision will not be made until later in the process.

22. Why would the city geologist say she has not seen or heard, or have data for wells with Seawater Intrusion, (except for hearing about one or two in the Seabold area), when it is documented in 2006 city reporting by the same consultant

The key distinction here is *confirmed seawater intrusion versus speculated seawater intrusion*. A single data point is not a confirmation of seawater intrusion, it is only speculation.

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The purpose of the [Baseline Groundwater Technical Information Summary](#) (Aspect, 2006) was to use available aquifer system construct and groundwater chloride concentration data to establish a groundwater monitoring well network to inform and advise water managers, both public and private, regarding issues of saltwater intrusion and safe aquifer yield and support future development of the Bainbridge Island groundwater model.

To do so, the City and consultant choose to set a value of 40 mg/L chloride concentration (purposefully below Ecology’s suggested EWL of 100 mg/L) as a *screening tool* to identify particular geographical areas on the Island in which a monitoring network of wells should be established. This value was NOT selected as a confirmation of seawater intrusion.

Section 7.2, page 9, of the baseline summary discusses observed chloride concentrations within that context. In addition to ruling out one-time sampling data and data outliers which are usually discarded as their representativeness is questionable, the author specifically uses the terminology “may be” and “could be” in reference to potential upconing and seawater intrusion as it is simply speculation without further monitoring and investigation. Specifically, the report states, “Chloride levels may be elevated above background for other reasons, such as surface sources of contamination, relic seawater within an aquifer or sea spray” (page 8).

It would be misleading to state that a chloride concentration elevated above the screening level used in this case or the EWL used as part of the subsequently established monitoring network is *confirmation* of seawater intrusion without additional monitoring and investigation.

23. How well can the model predict Seawater Intrusion if documented wells with Seawater Intrusion on the Island are not part of the database or the model? Like any valid scientific study, Seawater Intrusion will only be adequately computed if an honest inventory of known wells on the Island impacted by seawater are part of the data base, and the consultant includes the appropriate data in the model run. There are several wells that are documented in reporting impacted by seawater on Bainbridge Island.

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The City of Bainbridge Island, Kitsap Public Health District, and Kitsap Public Utilities District maintain their own groundwater databases. Aspect compiled information from these sources as part of Task 1 of the current contract with the City. The updated groundwater model is designed to simulate regional-scale groundwater conditions (for example, extensive aquifer zones that support public water supplies). The updated groundwater model simulates the recently observed chloride conditions, including those data shown in Figure 4 of the memorandum [Task 1 – Hydrogeological Assessment of Groundwater Quantity, Quality, and Production](#) (Aspect, 2014). The updated groundwater model may not be able to simulate saltwater intrusion at an individual well completed near the shoreline. The model is not currently designed to simulate chloride from sources other than saltwater intrusion.

24. What typically happens to wells that have seawater intrusion, are they not typically decommissioned and no longer functioning? If this is the case, would it not be hard to include decommissioned well data for further testing, making it easy to omit critical data used to run the model, making it difficult to predict seawater intrusion accurately?
- Owners of wells that exhibit chronic poor water quality or limited production typically have the well decommissioned by a licensed driller. Alternatively, these wells could be pump-tested to determine the safe pumping rate that avoids saltwater intrusion, or monitored for changes in water quality over time. The updated groundwater model is designed to simulate regional-scale groundwater conditions (for example, extensive aquifer zones that support public water supplies). The updated groundwater model may not be able to simulate saltwater intrusion at an individual well completed near the shoreline.
25. Does the city or the county have reporting or data collecting requirements for wells impacted with seawater intrusion to help protect the Sole Source Aquifer water supply on Bainbridge Island?
- No
26. Besides extrapolating well stratigraphy and well testing across the Puget Sound, have there been any wells drilled in the Puget Sound between Bainbridge Island and the Kitsap Peninsula that proves a continuous

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uninterrupted flow of groundwater in the Fletcher Bay Aquifer from the Kitsap Peninsula to the Island?

We are not aware of any wells drilled in Puget Sound to confirm the continuity of deep aquifers between Bainbridge Island and the Kitsap Peninsula. Interpretation of geologic logs from wells on both sides of the water suggests the Fletcher Bay Aquifer is regionally extensive. The USGS presents this interpretation in their [2014 Kitsap Peninsula report](#). In addition, pumping the deep aquifers on one side of Port Orchard Bay results in pressure responses on the other side, indicating continuity.

27. Has the groundwater in the Deep Fletcher Bay Aquifer ever been age dated with scientific testing?

We are not aware of efforts to characterize the age of groundwater from the Fletcher Bay Aquifer.

28. There have been unsubstantiated comments that Island water is coming from the Olympics. Is there any testing or peer-reviewed technical journal references to verifying such claims? Hydrogeologists and water engineers familiar with BI/Kitsap County groundwater/drinking water resources know that such a reference does not exist, because this claim has never been proven.

We are not aware of documents supporting the theory that aquifers below Bainbridge Island are directly recharged in the Olympic Mountains.

29. What can the city do to more adequately report on issues concerning the entire aquifer system if the contracted consultant declares that most of the studies to date involves the deeper aquifers, and does not have equal data for shallow wells that involve over 50% of the water supply for private homeowner wells on the Island?

In terms of the understanding of the geological “makeup” of the Island’s aquifer system, there have been several quality studies that describe the individual layers and physical properties such as how well each layer transmits water and in what direction. In this respect, there are significantly more wells (data) in the shallow aquifers and, therefore, our understanding of the shallow aquifers is actually better.

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The consultant’s statement about having more data for the deeper aquifers (predominantly production wells) specifically addresses what we call empirical or actual “measured” data for water level, production, and water quality as private/residential well owners whose wells are predominantly in the shallow aquifers typically do not monitor their wells on a regular basis as public purveyors are required to do.

In order to account for this when assessing data or running a model, to assure representativeness for the entire aquifer system, a scientist has two options:

1. Use scientifically and statistically-sound estimates based upon well-studied and understood patterns such as was done with production or water use for the shallow, residential wells. Nationwide tracking of production and water use by thousands of public purveyors gives scientifically and statistically-sound estimates of a person’s average water use (including throughout drought and rainy years), or
2. Conduct additional monitoring in those areas/aquifers where more data are needed. That is the basis of the City’s monitoring well network which includes wells Island wide in all aquifers and was determined to be a sound network of monitoring wells to give good representation of the system as a whole.

The consultant recommended that if the City should want to explore other concerns such as nitrate accumulation in groundwater, we should consider establishing a representative network of monitoring wells and collect that data, as well as encourage private/residential well owners to self monitor and report to the health district in order to enhance the usable data record.

30. Many private homeowners with wells have reported problems with wells going dry, undrinkable water due to poor water quality (discoloration, bad taste, bad smell). Many homeowners are faced with the high cost involved to drill new deeper wells to maintain an adequate water supply for their homes. Is this any indication that there are problems with the water supply that are not adequately studied?

Not necessarily. Let’s take these concerns one by one.

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Wells going dry: Wells can, and do, go dry for a number of reasons some of which are known to be the case for some Island wells.

1. Most homeowners who have very shallow wells (surface wells) and have lived on the Island for several years know that they have measurably less water available during the summer than they do during the winter. This is because the water table is the water level in unconfined (surface) aquifers. Therefore, when it is not raining, the water level (water table) will drop. Depending upon how dry it is (i.e., during drought conditions) these wells may run dry. This is specifically due to lack of rainfall, not a problem developing in the aquifer or well. Most homeowners deal with this by reducing their water use during dry periods.
2. As we’ve discussed in the past two workshops, our aquifer system is made up of sandy layers that hold and yield a lot of water, making good aquifers, sandwiched between layers of clay that do not yield a lot of water and act to “confine” the sandy layers below. In very localized areas, especially in glacially-deposited materials, it is not unusual to have small pockets or “lens” of sand within, and completely surrounded by, a confining layer of clay. In these cases, the water stored in the sandy lens is limited. It will not recharge or refill very efficiently, because of the surrounding confining clay. Therefore, if a well or wells in that local area tap that lens for water, it will eventually run dry. The homeowner is then, unfortunately, required to drill deeper to get to an aquifer. Again, this is a result of the geological makeup of the subsurface, not a problem developing in one of the aquifers.
3. All wells eventually lose production due to the mechanics of the well itself. Pumps lose their efficiency-reducing their ability to pull water from the ground or well screens become clogged-not allowing water to flow into the well. This is something that even public purveyors grapple with, eventually having to replace pumps and rehabilitate the well or drill a new well. However, this is a matter of mechanical things wearing out and, again, not a problem developing in an aquifer.
4. Lastly, yes, sometimes wells run dry due to over-production and problems developing in the aquifer (declining water levels). In this case, other wells in the same aquifer and locations often show similar declines. Therefore,

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we monitor multiple wells in each of the aquifers Island wide to specifically look for these types of trends.

Discoloration, bad taste, and bad smell: There are localized areas around the Island where groundwater tends to have naturally high mineral content, specifically iron and manganese. These can result in discoloration, bad taste, and bad smell. Although in nearly all cases the mineral concentrations are well below EPA’s drinking water contaminant levels and are not a health concern, it is understandable that it is unpleasant for the homeowner. Some well owners install filtering devices to reduce or remove these minerals as opposed to drilling a new well, as the water is still of good quality and a filtering device (though not inexpensive) is a more affordable alternative to drilling a new well.

That being said, any homeowner on a residential well that is concerned about the quality of their water should seek assistance and guidance from the Kitsap Public Health District Drinking Water Section (360-337-5235) to ensure that there are no contaminants in the well water.

31. The consultant addressed a question regarding the responsibilities of sharing and safeguarding the deep Fletcher Bay Aquifer utilized by both the Kitsap Peninsula and Bainbridge Island for water supply. Knowing the groundwater flow direction is from west to east, and the Kitsap Peninsula is experiencing growth at a rate equal to or greater than Bainbridge, and has an extensive well network that withdraws groundwater from the Fletcher Bay Aquifer: Is it safe to say the Kitsap Peninsula actually has first dibs on the water and water rights, and as such can impact the water supply on Bainbridge Island significantly when sharing this deep aquifer with the Kitsap Peninsula which is also a Sole Source Aquifer heavily dependent on the deep Fletcher Bay Aquifer like Bainbridge?

The water rights on Bainbridge Island and elsewhere in Washington are defined by law, and enforced by the Washington State Department of Ecology. Proper use of groundwater models can inform water system managers of how the common groundwater resource can be shared with neighboring water systems without impairing water rights.

32. Do COBI licensed consultants have ethical obligations per contractual agreements with the city, and licensing laws in the State of Washington to

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report the facts as opposed to mischaracterizing Water Reporting for Bainbridge Island?

Each COBI consultant is subject to licensing requirements and ethical code of conduct applicable to her or his profession. Honest and accurate reporting of facts is a common component of most professional codes of ethics.

33. Do city employees, the city manager, and the council have ethical obligations to accurately and honestly report water data as a result of employment, and the oath of office, per the laws in the State of Washington?

This appears to be a rhetorical question. The answer is “of course.”

34. Can the city manager please post the ethical standards for city employees, committees, board members, and consultants, and the oath of office for council members on the city website during the Comprehensive Plan Update Process?

Your request has been referred.

35. Can the city and the Consultant provide the results of recommendations from the Last Aspect GW Monitoring program 2008 (updated March 2009) P 19. Recommendations:

- a. An updated review of water level trends and chloride data has been performed in this study. At this time, the following items are recommended for immediate implementation.
  - i. Implement Management Responses for safe yield in the Fletcher Bay Aquifer near Eagledale. As an initial step, this should include obtaining and evaluation production and chloride data for the Island Utilities Wells;  
(see response to question #19 above)
  - ii. Closely monitor production and water levels for several Fletcher Bay Aquifer wells (North Bainbridge Well 7, Sands Road 1, Sands Road 2, North Bainbridge Wells 9 and 10) and for one Sea Level Aquifer well (north Bainbridge 7), particularly during changes in production;  
These production wells have been, and continue to be, closely monitored by the City and KPUD. These data

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were utilized in the recent assesment of aquifer water level trends.

- iii. Survey chloride levels in wells completed within ¼ mile of the shoreline to investigate the areal extent of elevated chlorides. This survey should include investigation of elevated chloride concentrations in the Seabold area and confirmation of historic, single---time elevated chloride measurements;

The City established a chloride monitoring well network and began annual monitoring of chloride and specific conductivity for wells within ¼ mile of the shoreline and in aquifers vulnerable to seawater intrusion. Further, the City has begun an effort working with KPUD and the Kitsap Public Health District to scope a joint project to investigate chloride concentrations in the Seabold area.

- iv. Evaluate chloride levels by aquifer. Determine correlation curves between chloride concentration and specific conductance by aquifer. Identify data gaps and test additional wells as necessary;

The City established a chloride monitoring well network and began annual monitoring of chloride and specific conductivity. Once sufficient data has been collected, correlation curves will be evaluated for utility. As part of the recent assesment, the consultant determined that the monitoring well network provided good coverage Island-wide.

- v. Identify any significant tidal influence on water levels in near---shore wells. Where necessary, characterize the tidal effect and adjust water level data accordingly;  
Possible future work for nearshore wells if resources become available.
- vi. Monitor chloride levels in the deeper Head of the Bay Wells 4 and 6 whose location and depth, respectively, will provide early warning of seawater intrusion; and  
The City’s Operations and Maintenance group within the Public Works Department conducts chloride and specific

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conductivity monitoring in these wells on an on-going basis.

- vii. Acquire production data for additional private well systems to build as complete a record as possible of total groundwater withdrawals.

When conducting assessments, the City makes it a point to direct consultants to survey all available data including any private well data from the Kitsap Public Health District in order to have as complete a record as possible. Further, scientifically and statistically-sound estimates for residential water use (where not metered or tracked) was incorporated into the Bainbridge Island groundwater model both by the USGS during initial development and by Aspect Consulting in their current work for the City.

36. Did the data collection and reporting include the period of record drought this last summer? If not, the city should endeavor to include this information, and not miss an excellent opportunity to evaluate a dryer than normal season and the impacts on well pumping statistics.

The Bainbridge Island data assessment and groundwater model update was through December 2014, so did not include the dry conditions observed during 2015. However, the assessment looked at all historical data which included several very dry periods, specifically 2000 – 2004, which captures increased production and water use and lower water levels in response. 2015 conditions will be captured in future data assessment and modeling efforts.