CITY OF
BAINBRIDGE ISLAND

TREE & LOW IMPACT DEVELOPMENT
AD HOC COMMITTEE
REGULARLY SCHEDULED MEETING
WEDNESDAY, NOVEMBER 9, 2016
3:00 – 4:30 PM
COUNCIL CHAMBER
280 MADISON AVE N
BAINBRIDGE ISLAND, WA 98110

AGENDA

1. Review and Approve Notes from October 26, 2016 Meeting 3:00

2. Review and approve meeting agenda 3:05

3. Public comment on agenda-related items 3:05

4. Reports 3:15
   A. Low Impact Development regulations – Planning & Public Works Staff
      Update on progress

5. Ongoing Business
   A. Re-drafting vegetation management and land clearing chapters 3:20
      (BIMC 16.22 & 16.18, respectively)- Commissioner Quitslund and Councilmember Peltier
      Review amended purposes and findings and policy questions (previously developed by staff)

6. Public comment on agenda-related items 4:15

7. For the Good of the Order 4:25

8. Business saved for future meetings
   A. Tree Management- Planning Commissioner Mack Pearl
      Issues include: ROW trees, neighbor issues (including view blocking)

   B. Consider modifying BIMC 18.15.010.C that allows removal of buffer trees if trees
      Deemed hazardous- Councilmember Sarah Blossom

   C. Tree Committee page on City website- Councilmember Ron Peltier

   D. Code enforcement questions – Mack Pearl

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

New **BIMC Chapter 16.22:**
Community Forest Stewardship, Management, Clearing, and Conversion

16.22.010 Findings

A. Forested areas are an integral part of the Island character, and enhance the City's appearance and livability, as well as providing significant environmental benefits and natural resource values: see the *Comprehensive Plan* (references to be added) and the *Community Forest Management Plan* (2006 etc.).

B. Protecting and managing the Island's forests and vegetation is a central goal of the Bainbridge Island Comprehensive Plan.

~~A.~~C. Protecting and managing the Island's forests and vegetation is intricately related to, and can not be separated from, protecting and managing the Island's soils, surface water, groundwater, air quality, and other environmental functions and qualities.

D. Reckless, poorly timed, poorly managed, and unnecessary removal of trees and understory vegetation, combined with extensive disturbance of soils, causes loss of habitat and wildlife, runoff and soil erosion, degradation of surface water and aquifer recharge, and adverse impacts on air quality, as well as loss of aesthetic appeal.

~~B.~~

~~C.~~E. On Bainbridge Island and elsewhere, examples exist to demonstrate that (1) development for residential and other uses can be compatible with careful conservation of forest conditions and other natural features; and that (2) such development can be cost-effective, attractive, energy-efficient, and well adapted to our climate.

F. Since the potential for preservation and enhancement of open space and forested areas varies widely throughout the City, the applicability of certain regulations will be affected by zoning classification, lot size, preexisting uses and structures, conditions on neighboring properties, and established infrastructure (i. e., trails, roads, utilities).

G. Trees are valued by homeowners and increase the value of homes. A 2016 nationwide scientific study commissioned by the Arbor Day Foundation and conducted by Wakefield Research found the following (there is a 95% certainty that these results are accurate within +/- 3.1%):

1. 88 percent of people would pay more for a house with trees in the yard compared to a house without trees;
2. On average, Americans pay 18 percent more for a house with trees in the yard;
3. 90 percent of parents believe their child is more likely to play or exercise when an area has trees as compared to when it doesn't;
4. 63 percent of Americans say they would never buy a house that didn't have trees in the yard;
5. 79 percent of Americans feel trees define their neighborhood's character;
6. 74 percent of Americans say they would never move to a neighborhood without trees.; and

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7. 59 percent of Americans have favorite trees in their neighborhoods.

H. Trees provide a tremendous amount of public health benefit, including the following (citations to sources can be found at http://www.actrees.org/files/Research/benefits_of_trees.pdf):
   1. Studies show that children with ADD function better after activities in green settings, and the "greener" a child's play area, the less severe his or her attention deficit symptoms.
   2. College students with more natural views from their dorm windows scored higher on attention tests.
   3. Trees help girls succeed. On average, the greener a girl's view from home, the better she concentrates and the better her self-discipline, enabling her to make more thoughtful choices and do better in school.
   4. Trees filter airborne pollutants and reduce the conditions that cause asthma and other respiratory problems.
   5. Researchers from Columbia University found childhood asthma rates were highest in parts of the city where tree density was lowest. The rate of asthma fell by 25% for every extra 340 trees per square kilometer, a pattern that held true even after taking account of differing sources of pollution, levels of, affluence and population density.
   6. In a study, residents of areas with the highest levels of greenery were three times as likely to be physically active and 40% less likely to be overweight or obese than residents living in the least green settings.
   7. Children and youth living in greener neighborhoods have lower body mass index.
   8. Green environment impacts worker productivity: in one study workers without nature views from their desks claimed 23% more sick days than workers with views of nature.
   9. Visual exposure to settings with trees helps recovery from stress within five minutes, as indicated by changes in blood pressure and muscle tension.
   10. Trees reduce noise pollution by absorbing sounds. A belt of trees 98 feet wide and 49 feet tall can reduce highway noise by 6 to 10 decibels.
   11. Trees absorb high frequency noise which are most distressing to people.

I. Trees provide powerful economic benefits, including the following (citations to sources can be found at http://www.actrees.org/files/Research/benefits_of_trees.pdf):
   1. Urban forests in the United States contain about 3.8 billion trees, with an estimated structural asset value of $2.4 trillion.
      i. Trees in New York City provide $5.60 in benefits for every dollar spent on tree planting and care.
      ii. For every dollar spent on tree planting and maintenance, the city of Providence, RI reaps $3.33 in benefits.
      iii. Street trees in Washington, DC, produce annual benefits of $10.7 million.
   2. The average annual net benefit of a mature large tree is $85 in a yard and $113 on public land.
   3. Reducing Road Maintenance Costs.

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i. Tree shade has been proven to reduce pavement fatigue, cracking rutting, shoving and other distress, saving on repair costs.
ii. Shaded roadways require significantly less maintenance and can save up to 60% of repaving costs over 30 years.

4. Business Benefits.
   i. Shoppers will travel further and longer to visit a district with high quality trees, and spend more time there once they arrive.
   ii. People have more favorable perceptions of communities with green roads.
   iii. Visitors to well-treed central business districts will spend 9 to 12 percent more for products.
   iv. People will pay higher prices for goods in green communities.
   v. A study found 7% higher rental rates for commercial offices having high quality landscapes.
5. Stormwater Economic Benefits.
   i. Urban forest can reduce annual stormwater runoff by 2–7 percent, and a mature tree can store 50 to 100 gallons of water during large storms.
   ii. Green streets, rain barrels, and tree planting are estimated to be 3-6 times more effective in managing stormwater per $1,000 invested than conventional methods.
   iii. Street trees in Minneapolis save $9.1 million in stormwater treatments annually.
   iv. The stormwater management value of Philadelphia's parkland and trees is $5.9million annually.
   v. Urban greening in Washington, DC, prevents over 1.2 billion gallons of stormwater from entering the sewer system, 10% of the total volume. This represents a savings of $4.74 billion in gray infrastructure costs per 30-year construction cycle.
6. Air Quality Economic Benefits.
   i. Trees clean the air by absorbing carbon dioxide, sulphur dioxide, nitrous oxides and other pollutants, and also shade cars and parking lots, reducing ozone emissions from vehicles.
   ii. Urban trees in the U.S. store 700 million tons of carbon valued at $14 billion with an annual carbon sequestration rate of 22.8 million tons per year valued at $460 million annually.
   iii. Urban trees in the U.S. remove 711,000 tons of air pollution annually, at a value of $3.8 billion.
   iv. The tree canopy of Houston, TX, removes 60,575 tons of air pollutants annually with a value of $300 million.
   v. Mature trees absorb 120-240 lbs of particulate pollution each year.
   vi. Urban trees in the US remove 711,000 metric tons of air pollution (O3, PM10, NO2, SO2, CO) annually, at a value of $3.8 billion.
   ~~D.~~vii. A big tree removes 60 to 70 times more pollution than a small tree.

16.22.015 Purpose This chapter is adopted for the following purposes:

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A. To promote and protect the current and future public health, safety, and general welfare of Bainbridge Island citizens.
B. To preserve and enhance the City's physical and aesthetic character~~, and~~ to promote the healthy functioning of our Island's natural systems, and to provide substantial current and future economic savings through the protection of the Island's ecological functions, for the benefit of present and future generations.
C. To implement several interrelated Goals and Policies in the *Comprehensive Plan* (references).
D. To promote forest stewardship practices and carefully planned development that results in minimal disturbance to the given conditions of a property, breeding wild animals, and neighboring properties (e. g., existing residential or other uses, open fields, farms, trees and other vegetation, slopes, soils, streams and wildlife corridors).
E. To allow clearing ~~as needed~~ to provide a balance between vegetation protection, ~~for~~ solar access, agriculture, ~~and~~ gardens, and utility maintenance.
F. To create rules and a permit process that are as streamlined and easy to understand and apply as possible while still meeting the tree and vegetation management goals and protections in this Chapter.
G. To create an enforcement system that is largely reliant on holding hired contractors responsible for violations of provisions of this Chapter that relate to tree and vegetation trimming and ~~cutting~~clearing.
~~E.~~H. To avoid, and provide methods for resolving, impacts to a person's property caused by a neighbor's actions, such as view blocking, tree damage, creation of wind tunnels, and increased stormwater runoff.
~~F.~~I. To promote infiltration of stormwater and aquifer recharge; to minimize erosion and prevent pollution; to prevent landslides; to protect the waters of Puget Sound and water quality in wells.
~~G.~~J. To maintain in a healthy state significant trees, clusters of trees, and forested areas while~~,~~ allowing for thinning, limbing, removal of invasive and undesirable vegetation, selective harvest and replanting, developing and maintaining pathways, and removal of diseased, dead, or dangerous trees.

16.22.020 Applicability.

Certain provisions will apply to all (?) properties, developed and undeveloped. Other provisions will apply to lots already developed for residential or mixed use; yet others, to undeveloped lots and lots capable of subdivision.

Question: How to handle easements, acres in conservancy, open space, agricultural land, acres receiving tax benefits through agreements with the state or county?

16.22.030 Activities not requiring a clearing permit.

The Land Clearing chapter already has acceptable language for several items in this section. (However, some of what's now allowed without a permit may be problematic in some

circumstances.) We probably need some policies that are specific to different zoning classifications (R-2 to R-0.4 distinct from higher-density zones): for example, the property owner should be able to take down x y z trees without a permit on a large undeveloped lot in R-0.4, but on a lot in R-2, in a fully developed residential neighborhood, those trees would be more 'significant.'

Also, the Critical Areas regs, and presumably also the LID standards, impose restrictions on clearing where they apply: taking trees out within a stream or wetland buffer may be prohibited, or require a permit.

If a Forest Stewardship Plan has been submitted and approved, I suppose that what's done in connection with that plan wouldn't require a permit, except for clearing on a large scale.

Looking now at the BIMC Land Clearing chapter, specifically 16.18.040: This used to be titled "Exceptions," and it is now "Clearing activities not requiring a permit." The list of actions, A through I, is not in good order. It should start with the most common and innocuous activities.

In the revision, based on advice from Greg Vause, this sentence precedes the list: "A permit must be issued by the planning director or designee for all work in environmentally sensitive areas or their buffer[s]." This is good advice, but sometimes hazards develop within wetland and steep slope conditions.

Here's a new list, including some from the current 16.18.040, omitting some, and adding some:

A. Routine gardening and landscape maintenance of existing landscaped areas on developed lots, including pruning, weeding, planting, and other activities associated with maintaining an already existing landscape; removal of invasive species and undesirable brush and immature trees.

B. Removal of diseased, dead or fallen trees.

C. Removal of trees and ground cover in emergency situations involving immediate danger to life or property or substantial fire hazards. {This sentence is added: "A permit shall be obtained as soon as possible after the emergency situation is stabilized." Is this needed?}

D. Routine maintenance activities, including tree removal, removal of invasive vegetation, and thinning required to control vegetation on road and utility rights-of-way. {Is it clear enough that this applies specifically to rights-of-way and roadside buffers?}

E. [Clearing required for] the installation and maintenance of water meters, fire hydrants, and [other utility lines and infrastructure] by the city or utility companies, [provided that the property owner shall agree to the manner in which such work is done, and the clearing that may be involved.]

F. Agricultural management of existing farmed areas.

G. [Limbing of mature trees to remove dead and hazardous branches or improve views and access to sunlight; actions such as cabling that improve a tree's stability.]

H. [Selective removal of trees where necessary to provide for the efficient functioning of solar panels, provided that . . .]

I. [In forested areas on developed and undeveloped properties in the Open Space Residential zones (R-0.4 to R-2), selective small-scale clearing and logging for personal use, and to improve the health of the remaining trees and underbrush.]

16.22.040 Activities requiring a permit.

Jennifer proposed distinguishing between **minor** and **major** permits. Will two kinds of permits suffice?

Here is where distinctions between lower- and higher-density zones will be useful.