INFORMATIONAL MEMORANDUM

TO: Planning Commission

FROM: Minnie Dhaliwal, Planning Supervisor and Andrea Cummins, Urban Environmentalist

DATE: October 29, 2018

SUBJECT: Update of TMC 18.45, Environmentally Sensitive Areas

ISSUE

Periodic update of the sensitive area regulations to reflect current best available science (BAS) as required by the Growth Management Act.

BACKGROUND

All cities in Washington are required to adopt critical areas regulations by the Growth Management Act (GMA) (RCW 36.70A.060). Critical areas, as identified in the GMA include wetlands, frequently flooded areas, streams, geologically hazardous areas (steep slopes), and fish and wildlife habitat conservation areas. In addition, cities are to give special consideration to conservation or protection measures necessary to preserve or enhance anadromous fisheries.

Cities are required to include the best available science in developing policies and development regulations to protect the functions and values of critical areas (RCW 36.70A.172). All jurisdictions are required to review, evaluate, and, if necessary, revise their critical areas ordinances according to an update schedule provided per RCW 36.70A.130. Tukwila's current sensitive area regulations were adopted eight years ago in 2010. Per GMA the City must periodically consider best available science (BAS) and update its sensitive areas ordinance. Any deviations from BAS recommendations should be identified, assessed, and explained (WAC 365-195-915). Washington State Department of Ecology oversees sensitive area updates and provides direction on BAS.

DISCUSSION

Elements of this update that have been completed:

- Comparison of existing code to BAS and development of a gap analysis to identify inconsistences. The Gap Analysis report has been prepared by The Watershed Company and is attached to this staff report.
- Outreach to affected property owners throughout the City included mailings, webpage updates, stormwater bill insert, eHazelnut and an open house. A public information open house was held on October 9, 2018 at the Tukwila Community Center. The notice of the open house was mailed to all property owners, residents and businesses in the City. Approximately 17 individuals attended the open house. A summary of comments received at the open house or via email is included later in the staff report. Additionally, a website page has been created where general members of the public can get a copy of the Gap Analysis report and know about the status of the update. www.tukwilawa.gov/criticalareas. An email group of interested parties is also being maintained. Any individual can get on the interested parties list by emailing to criticalareas@tukwilawa.gov

- Field work to categorize wetlands per the latest guidance from the Department of Ecology has been done for known wetlands that exist north of I-405. Staff is continuing to work to categorize the remaining wetlands.

Anticipated key revisions include:

I. Wetlands

1. **Designation**:
   - Remove reference to State delineation manual and replace with language from WAC 173-22-035, that states identification of wetlands and delineation of their boundaries shall be done in accordance with the approved federal wetland delineation manual and applicable regional supplements.
   - Establish a period of validity for wetland delineations. Staff recommends five year time limit on wetland reports/delineations. Generally, any delineation done more than five years ago needs to be revisited as wetlands can change significantly in a five-year period due to changes in hydrology, land uses, and plant species composition. Additionally, approved jurisdictional determinations by the Corps expire after five years. Revisiting a wetland delineation that is five or more years old does not necessarily mean a new wetland delineation needs to be done. It means it may be necessary to revisit the site to determine whether the delineation is still accurate or needs to be redone based on current conditions.

2. **Rating**:

   Reference latest version of State rating system which is the *Washington State Wetland Rating System for Western Washington* (Hruby 2014, Ecology publication No. 14-06-029). To avoid the need for future updates related to rating system versions add language, “or as revised and approved by Ecology”.

3. **Buffer Widths**:

   The Watershed Company conducted an updated evaluation of the City’s mapped wetlands (north of I-405) under the new recommended rating system. The updated analysis confirmed that the majority of wetlands within the City do have low habitat scores, and the remaining wetlands appear to have moderate habitat scores of six or seven. The 2014 rating system is based heavily on the habitat score of a particular wetland.

The Department of Ecology recommends the following buffers:

It should be noted that the buffer widths shown in the table below assume that the buffer is vegetated with a native plant community and minimization measures listed in the second table are implemented. If the buffer is unvegetated, sparsely vegetated, or vegetated with invasive species, the buffer would need to be re-planted or the buffer width increased to provide adequate buffer functions.

Category	Wetland buffer width (ft), current TMC	Wetland buffer width (ft), Ecology 2014, high-intensity land use impact					
		Habitat score <6	Habitat score <6	Habitat score 6-7	Habitat score 6-7	Habitat score 8-9	Habitat score 8-9
		Standard Buffer	Alternate Buffer if impact minimization measures taken	Standard Buffer	Alternate Buffer if impact minimization measures taken, plus 100 feet vegetated corridor between wetland and priority habitats	Standard Buffer	Alternate Buffer if impact minimization measures taken, plus 100 feet vegetated corridor between wetland and priority habitats
I	**100**	100	**75**	150	**110**	300	**225**
II	**100**	100	**75**	150	**110**	300	**225**
III	**80**	80	**60**	150	**110**	300	**225**
IV	**60**	50	**40**	50	**40**	50	**40**

Listed below are the impact minimization measures that may allow 25 percent reduction from the upper range of recommended buffers:

Disturbance	Required Measures to Minimize Impacts
Lights	• Direct lights away from wetland
Noise	• Locate activity that generates noise away from wetland • If warranted, enhance existing buffer with native vegetation plantings adjacent to noise source • For activities that generate relatively continuous, potentially disruptive noise, such as certain heavy industry or mining, establish an additional 10' heavily vegetated buffer strip immediately adjacent to the outer wetland buffer
Toxic runoff	• Route all new, untreated runoff away from wetland while ensuring wetland is not dewatered • Establish covenants limiting use of pesticides within 150 feet of wetland • Apply integrated pest management
Stormwater runoff	• Retrofit stormwater detention and treatment for roads and existing adjacent development • Prevent channelized flow from lawns that directly enters the buffer • Use Low Intensity Development (LID) techniques where appropriate (for more information refer to the drainage ordinance and manual)
Change in water regime	• Infiltrate or treat, detain, and disperse into buffer new runoff from impervious surfaces and new lawns
Pets and human disturbance	• Use privacy fencing OR plant dense vegetation to delineate buffer edge and to discourage disturbance using vegetation appropriate for the ecoregion • Place wetland and its buffer in a separate tract or protect with a conservation easement
Dust	• Use best management practices to control dust

Based on the field work done to categorize the wetlands north of I-405, majority of the wetlands are Category III wetlands, with a low habitat score of 3-5. Buffer quality at the vast majority of wetlands is unhealthy (too narrow, dominated by invasive species, or sparsely vegetated.) Initial comparison of buffers required under the existing code and buffers recommended by the Department of Ecology indicates that buffers will increase for some wetlands while a few wetlands may see reduction in the required buffer width. See Attachment B for two sample buffer change examples; one where the recommended buffer will increase and the second where the buffer will decrease.

Policy Options for buffer widths:

		Pros	Cons
Option 1	Adopt the standard buffer widths recommended by the Department of Ecology	The larger buffers will provide better buffer function given majority of the buffers are sparsely vegetated; easier for the developer as no replanting or monitoring required	Buffer widths will significantly increase which could limit development potential; quality of buffers will not improve as no replanting required.
Option 2	Adopt the standard buffer widths recommended by the Department of Ecology; but allow alternate buffer if impact minimization measures are taken	Provides options for the developer	Quality of buffers will not improve as no replanting required
Option 3	Adopt the standard buffer widths recommended by the Department of Ecology; but allow alternate buffer if impact minimization measures are taken AND buffer is replanted	Provides options for the developer with incentives for buffer enhancement	Requires monitoring of the replanted buffer for at least five years

Staff recommends Option 3

4. **Interrupted Buffer**: The existing code does not address situations where the buffer is interrupted by a road or other development. Staff is seeking direction from the Planning Commission if administrative waiver process should be established for an interrupted buffer. There are two policy questions to consider for addressing the interrupted buffer situations:

    a) Define what qualifies as interrupting the buffer. This could include a public or private road; buildings; or parking lots. The criteria for waiver could include:
    i) The existing legal improvement creates a substantial barrier to the buffer function;
    ii) The interrupted buffer does not provide additional protection of the critical area from the proposed development; and
    iii) The interrupted buffer does not provide significant hydrological, water quality and wildlife buffer functions relating to the portion of the buffer adjacent to the critical area.
    b) Should additional water quality or other improvements be required to get the waiver?

5. **Buffer averaging instead of buffer reduction:**

    The existing code allows for reduction of the standard buffer width up to 50 percent where existing conditions are degraded and where the applicant proposes to enhance the degraded buffer. Rather than buffer reduction, Ecology guidance recommends buffer averaging to provide flexibility to applicants and accommodate site constraints. To align with BAS and per Ecology guidance averaging should be limited to require maintaining

at least 75 percent of the standard buffer width and should not reduce the total buffer area.

6. Alterations:

The existing code provides an exemption for certain wetlands that are under 1,000 square feet. The exemption is from sequencing (showing that the impact cannot be avoided or minimized). Mitigation of the impacts is still required per Ecology. Exempt wetlands have to meet the following criteria:

a) habitat score under five;
b) are not associated with a riparian habitat or Shorelines of the State;
c) are not part of a wetland mosaic, and
d) do not contain priority habitat.

Per Ecology guidance, this exemption may be extended to isolated Category IV wetlands under 4,000 square feet. Here are policy options for the Planning Commission to consider:

		Pros	Cons
Option 1	Keep the existing code and exempt wetlands up to 1000 sq. ft with mitigation for wetland impacts	These are exempt under the existing code. Code language could be clarified that wetland impacts still need to be mitigated.	Some larger wetlands that could qualify for exemption would not qualify.
Option 2	Exempt wetlands up to 4000 sq. ft. with mitigation for wetland impacts	Increase the exemption to the highest allowed under BAS. Wetland impacts are mitigated	Mitigation is off site or by fee in lieu. Loss of wetlands in Tukwila. Buffer impacts are not mitigated.
Option 3	Exempt wetlands up to 1000 sq. ft. with mitigation for wetland impacts; exempt wetlands up to 4000 sq. ft. with mitigation for wetland and buffer impacts	Increase the exemption to the highest allowed under BAS. Two tiers of mitigation: wetland and buffer impacts are mitigated for wetlands larger than 1000; and only wetland impacts mitigated for wetlands smaller than 1000 sq. ft.	Mitigation is off site or by fee in lieu. Loss of wetlands in Tukwila.

Staff recommends Option 1 as there are approximately 22 known Category IV wetlands north of I-405 that could be filled under Option 2 or 3.

7. **Mitigation Standards**: Clarify that mitigation ratio for buffer impacts should be 1:1

8. **Wetland and buffer mitigation location**:

   The current code prefers off-site mitigation be located within city of Tukwila's boundaries. However State and federal agencies advocate use of alternative mitigation methods such as mitigation banks or in-lieu-fee programs. In order to be consistent with regulations of these agencies city should consider allowing for purchase of mitigation credit from an in-lieu fee program or bank, if that is the best choice ecologically for a project.

II. Watercourses

1. **Rating:**
   Update ratings nomenclature to reflect Washington Department of Fish and Wildlife ratings for simplicity. Type 1, 2, 3, 4 changed to S (Shoreline), F (Fish bearing), N_P (Non-fish bearing perennial), N_S (Non-fish bearing seasonal)

Stream Type	Watercourse Buffer (ft), TMC	Sample Buffer Ranges (ft)
S	Regulated under SMP	115-165
F	100	100-165
Np	80	50-65
Ns	50	50-65

No change is required in the buffers of S, F, Ns. The buffers of Np could be lowered from 80 feet to 50-65 range.

Policy options:

		Pros	Cons
Option 1	Keep the existing buffer of 80 feet for Np streams	Given the existing buffers are degraded, larger buffers are better for ecological functions	May limit development potential in a developed urban area.
Option 2	Lower the buffer to 50-65 range for Np streams	Better development potential	No buffer enhancement and small buffers not good for maintaining ecological functions
Option 3	Keep the standard buffer to 80 feet, but allow an alternate buffer in the range of 50-65 with buffer enhancement	Provides options to the developer; buffer enhancement of degraded buffer is achieved	Additional monitoring requirements to achieve successful buffer enhancement

Staff recommends Option 3

2. **Buffer averaging vs reduction**:
The existing code allows buffer reduction up to 50 percent with buffer enhancement. However, as with wetland buffers, BAS-based buffers for watercourses are the minimum widths necessary to protect watercourse functions when fully vegetated with native vegetation. In addition, buffers narrower than 33 feet (i.e. a reduced buffer on a Type Ns watercourse) are generally not considered functionally effective (The Watershed Company 2011).

The City could continue to allow flexibility through buffer reduction with enhancement. However, no more than a 25% reduction of the standard buffer widths should allowed to ensure that reduced buffers are consistent with BAS and provide adequate protection. Similar flexibility could be offered through buffer averaging.

Policy options:

		Pros	Cons
Option 1	Allow up to 25 percent reduction in the buffer, except in Shoreline jurisdiction. Require buffer enhancement in exchange.	Similar to current approach. Opportunity for buffer enhancement.	
Option 2	Buffer averaging and allow up to 25 percent reduction in the buffer in some areas so that the total area of the buffer remains the same.	The total area of the buffer is preserved, and flexibility provided to reduce it in some areas in exchange for larger buffer in other areas.	Limited potential for buffer averaging as most areas are developed.

Staff recommends Option 2 as it is consistent with the approach for wetland buffer deviations.

3. **Interrupted buffer:**
Similar to the discussion above under the wetlands section the regulations pertaining to watercourses do not address situations where the buffer is interrupted by a road or other development. Staff is seeking direction from the Planning Commission whether an administrative waiver process should be established for an interrupted buffer for watercourses. There are two policy questions to consider for addressing the interrupted buffer situations:

a) Define what qualifies as interrupting the buffer. This could include a public or private road; buildings; or parking lots. The criteria for waiver could include:
   i) The existing legal improvement creates a substantial barrier to the buffer function;
   ii) The interrupted buffer does not provide additional protection of the critical area from the proposed development; and

iii) The interrupted buffer does not provide significant hydrological, water quality and wildlife buffer functions relating to the portion of the buffer adjacent to the critical area.

b) Should additional water quality or other improvements be required to get the waiver?

III. Geologically Hazardous Areas

This section of the code is administered by the City's Public Works Department. Some of the amendments that are being considered are:

- Adding criteria that requires when peer-review of a geotechnical report for a development near steep slopes is required, particularly where a geological hazard or significant slide potential has been identified.
- Creation of a default setback or buffer width on areas of steep slopes. A peer-reviewed geotechnical report may be used to justify the reduction or elimination of this buffer.
- Slope vegetation removal and guidelines on erosion control and best management practices.
- Any other life safety issues that should be addressed under this section.

IV. Fish and Wildlife Habitat Conservation Areas

1. The city's list of fish and wildlife habitat conservation areas should be consistent with GMA definition.
2. Define the process of designation of habitats of local importance.
3. The existing regulations establish a default buffer of 100 feet, it does not identify how an applicant should determine whether a site-specific buffer width is necessary and what that buffer width may be. Consistent with the City's approach for geologically hazardous areas, buffers could be based on site-specific conditions; management recommendations provided by the WDFW Priority Habitats and Species Program, if applicable; and the recommendation of a qualified professional in a sensitive area special study.
4. The uses and standards section should include a requirement for a habitat assessment prepared by a qualified professional to better reflect BAS.

V. Frequently Flooded Areas

Frequently flooded areas in the City of Tukwila are regulated under TMC Chapter 16.52, Flood Plain Management and no changes are proposed at this time.

VI. Housekeeping Code Amendments

1. **Vesting:**
   Add language to clarify that only submittal of a complete building permit vests a project to critical areas code. For instance, if a short plat is approved but homes are not constructed and the code is updated any future development is subject to the new updated code.

2. **Expiration of decisions related to critical areas:**
   Establish a term limit of five years for any approvals to be consistent with time limits for permits obtained from the state and federal agencies.

3. **Permitted uses section:**
   See TMC 18.45.070 in Attachment C for the current list of uses permitted outright and for uses permitted with administrative approval. This section needs to updated so that standards such as dredging are not mixed in with uses.

4. **Inclusion of tree retention, removal and replacement requirements:**
   Currently the tree retention, removal and replacement requirements are part of TMC 18.54, the Tree Code. Propose to place a section in the SAO that covers these subjects so that Tree removal, retention and protection in sensitive areas is all in one place and no cross-code reference is required.

   Tree protection section will be very similar to that which exists in 18.54.070 as is applicable to sensitive areas.

   Non-invasive vegetation retention (except in cases of defective trees) in sensitive areas is in current code. Only change that will be made is clarification that tree retention on steep slopes is also required.

   Tree Replacement section will be similar to that which is required in current shoreline code (TMC 18.44.080).

5. **Reorganization:**
   In order to improve the organization and make it easy to implement the code needs to sequentially address 1. Mitigation sequencing; 2. What is allowed outright/what requires Special Permission approval; 3. Criteria for approving deviations; 4. Mitigation requirements; 5. Monitoring

6. **Penalties for unauthorized alterations**:
   Establish penalties for illegal clearing in the wetland or buffer.

7. **Non-conforming provisions:**
   TMC 18.70 Non-conforming Chapter governs what is allowed for any non-conforming structures or uses. The regulations are more permissive for any residential non-conforming structure in a sensitive area. However, there are no restrictions on intensification of the use, which could be missed opportunity to get storm water quality improvements or other buffer enhancements.

The policy options for the Planning Commission to consider are:

		Pro	Con
Option 1	No changes to the existing non-conforming provisions	Easy to administer	Missed opportunities to get some improvements for the environment
Option 2	Establish new non-conforming thresholds for development in the critical area buffers	Provide some incentives for improving the buffer and/or water quality	

8. **Sensitive Areas Master Plan provisions:**
   The existing provisions for sensitive areas master plan (TMC18.45) allow creation of higher quality wetlands in exchange for filling some small wetlands provided there is a net environmental gain. However, there will be no incentive to creating wetlands with better habitat value if it will result in larger buffers. Staff is seeking direction from the Planning Commission if special exceptions should be established as incentives to improve the habitat of wetlands provided this approach meets the current guidance from Ecology.

9. **Inventory update:**
   Add requirement for the applicant to provide surveyed data for maintenance of the City's Critical Areas inventory map

PUBLIC OUTREACH: A public information open house was held on October 11, 2018 at the Tukwila Community Center. The notice of the open house was mailed to all property owners, residents and businesses in the City. Approximately 17 individuals attended the open house and here is a summary of the comments:

- Question about interrupted buffers- do buffers apply across a road? What function would they provide?
- Comment supporting adoption of state stream definitions and standards
- Comment supporting keeping the allowance for 50% buffer reduction on streams, and in general keeping the existing regulations since people are now accustomed to them.
- Comment supporting off-site mitigation options, particularly for streams or stream buffers.
- Question about whether the State's water typing system accounts for degraded water quality conditions.
- Comment expressing concern about bank stability risk from trees falling into and remaining along the river.
- Comment that the City is not maintaining/enforcing the protection of shoreline buffer functions on its own property, and yet it is putting the onus on private property owners to maintain private shoreline buffers.
- Comment that a shade study is expensive, and it will not change the outcome when the applicant is already planting to the maximum extent within the buffer.

RECOMMENDATION

Consider policy options identified above and identify any additional staff research needed. Staff will then prepare an underline strike out of the code that addresses the gaps identified by the review of best available science. A public hearing on the critical areas code update will be scheduled in January 2019. The Planning Commission will then send a recommended draft to the City Council for review and adoption.

ATTACHMENTS

A. Frequently asked questions
B. Sample wetland buffer change examples
C. Existing Tukwila Municipal Code Chapter 18.45 Environmentally Sensitive Areas
D. Gap Analysis report prepared by The Watershed Company